



'ABCD in Funnel' for management of Major Human Predicament'

- Operative System for Strategic Sustainable Development –

A review for Leaders and Universities

MSLS intro in October 2021

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Review of Operative System: pages 1-27

Going more in detail: pages 27-48

In this presentation we present an operative system towards a future that is sustainable. Where humans can feed themselves sustainably, while at the same time running a number of other sectors sustainably such as energy, traffic, forestry, fisheries, waste management, industrial production, economies, and our social care of each other. There is *one* operative system designed to make sure all sectors are modelled to be sustainable *together*, within the *same* universal sustainability constraints. Those are "boundary conditions for sustainability". Anything and any vision complying with those conditions is sustainable, anything outside of the boundary conditions is not.

Strategic sustainable development, i.e. moving systematically and with an improved economy towards compliance with such a robust universal definition of sustainability, regardless where you are in the "archipelago", may be an engaging and intellectually appealing thought. Just like "playing chess" may be an intellectually appealing thought for people who are interested in strategic thinking in theory and practice. However, without actually *playing* chess, or *planning and acting strategically* towards sustainability, real knowledge about chess and strategic sustainable development is difficult to acquire. The hands-on strategic "game" of sustainable development, i.e. learning how to use the Framework for Strategic Sustainable development (FSSD), is referred to as the "ABCD in Funnel" process; the Operative System. This presentation is about this hands-on way of making all the "app's" coming together e.g. apps for the analysing, envisioning, modelling, planning, choosing of tools, dialogue processes, co-creation across sectors and disciplines, deciding on strategic actions, development of indicators for following up on plans, monitoring and communicating of strategic sustainable development. However, using the "ABCD in Funnel" Operative System needs not be formal or clumsy; it is a completely intuitive way of formatting and learning strategic thinking in general. So it can, for instance, be the chosen format of a chairman leading a conversation at a board meeting without even mentioning any of the terms of the ABCD. Or it may help informing conversations in corridors and elevators as well as in more formal multistakeholder meetings.

Recent breakthrough in science

STRATEGIC SUSTAINABLE DEVELOPMENT

Adequate leadership unifying ethics with money, small topic with all of civilization, past and now with the future, all tools with planning, and sectors with each other.

<https://www.sciencedirect.com/journal/journal-of-cleaner-production/vol/140/part/P1>

Do you want to study this more in detail after having browsed this overview? In a special volume of Journal for Cleaner Production (JCP), the scientific journal with the largest impact-factor on the sustainability arena, the international front-line of strategic planning for sustainability has recently been published. Via the displayed web-address of this figure, you can access the *summaries* of this special volume.

The scientific breakthroughs on this arena are as sensational as they are dangerously unknown by most leaders today:

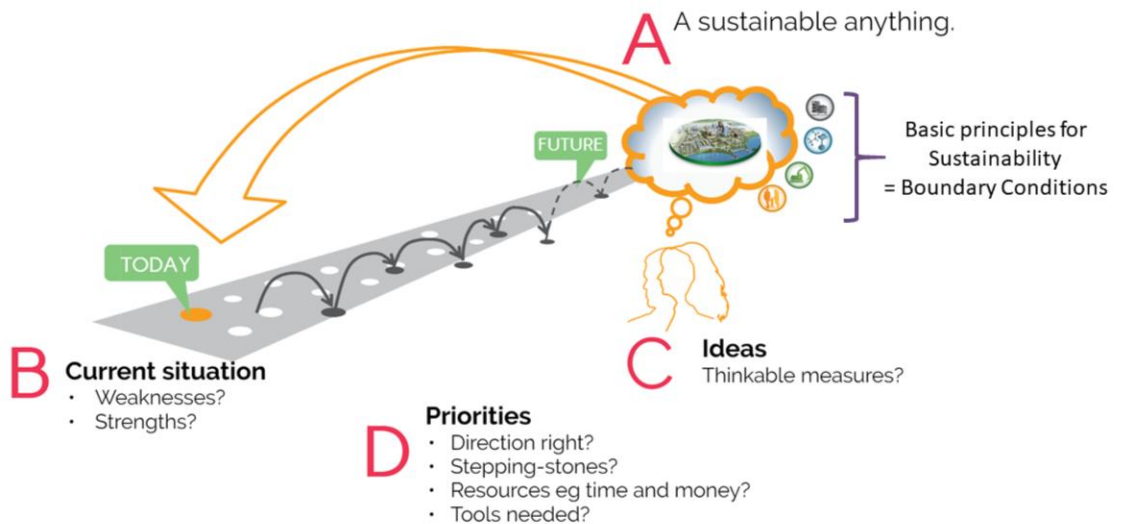
1. Sustainability is now *defined* in a robust way; you can monitor and control your transition towards it.
2. Learning this by doing it, systematically is growingly easier, more fun, and economically more rewarding than any alternative.
3. In this way you can also increase the value of, and make better use of, the UN sustainability goals, Circular economy, Planetary Boundaries, ISO26000, GRI or *any* other support for sustainability.

If you want to complete your understanding of this highly important topic, you may choose to read not only this overview presentation and the summaries of the special volume the above web-address leads to. You may also want to read some of the articles of the special volume more in detail. If you chose to do this, please return to us to receive the corresponding PDF files. There is a fast-track manual, perhaps 30 minutes or so, to get a quite good overview for how to proceed from now on:

- Browse this presentation, i.e the pictures with the little manuscript under each. And reread it each time you feel like “returning to basics”.
- Browse the summaries of...
 - (i) *The editorial*, the first article of the volume. It reviews the unique features of leadership and re-design for sustainability, and explains why this kind of knowledge is key, how to actually *doing* it comprehensively.
 - (ii) Second article, about the *Prisoner’s dilemma*, to get a deeper sense of the self-benefit, the business case, of sustainability.
 - (iii) Article 3, a review of 30 years work behind the leading unifying framework for strategic sustainable development, FSSD.
 - (iv) Article 6, about the process of cross-sector FSSD planning and cooperation.

When reading the editorial, you may also find other articles in the special volume you would like to read more in depth, they are all presented there.

ABCD, A COMPLETELY INTUITIVE AND LOGICAL ATTITUDE Based on... *Purpose!*



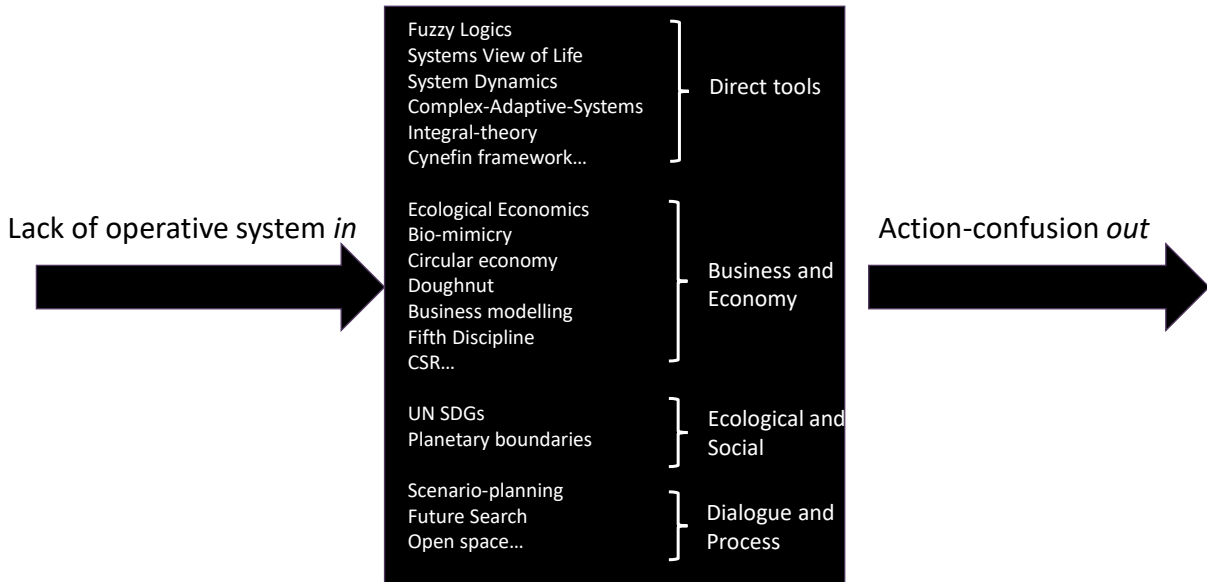
ABCD, the first element of the Operative System. It is a *Swot-like* structure, see figure. It is about *learning by doing* in line with a structure that, to be honest, is completely intuitive for any strategic thinker in any complex system. The term “strategy” implies that you are serious about *purpose*. See headline of this picture and the image to the far right in the picture. Strategic thinkers know, for example, that you cannot even begin *practicing* strategic thinking if you don’t know where you are heading (A). Furthermore, that complex goals in complex systems call for boundary conditions by which you can be innovative and co-creative “out of the box”. The main mission of this presentation is not only to present modern science that makes this possible – at last. We hope, as much, to inspire a positive *attitude* that strategic thinkers may intuitively apply to sustainable development. Fortunately, a growing number of leaders and organizations are currently learning *how* to apply this attitude, learning by *doing*, and spreading the knowledge further in their respective stakeholder groups e.g. amongst disciplines, sectors, value-chains and policy makers. It is about knowing the interplay between consensus on the one hand, and concordance on the other.

They co-create big-picture goals that *can* exist i.e. they understand the basic Sustainability-principles/Boundary-conditions (**consensus** on strict generic or universal boundary conditions for any sustainable future, see far right of the picture). And further, how to run also *value* based dialogues and modelling processes *within* such constraints i.e. more detailed contents built on values and debatable options (**concordance** to make the whole image of the future worth longing for together, see example of an image *within* the boundary conditions to the far right of the picture). These fore-runners realize that each *step* towards such goals needs to serve

technically, culturally and economically as platforms for forthcoming steps towards the longed-for sustainable goal. All to avoid disastrous and misdirected investments that will *not* lead there stepwise (though they may appear attractive from a snap-shot perspective).

An increasing number of organizations have also begun to *cooperate* systematically across disciplines, sectors and stake-holder networks towards societal goals that are checked within the boundary conditions. So, in these exciting cases, organizations are not only applying the operative system inhouse, but also sharing how to comply with the robust boundary conditions for sustainability *together*. For instance in value chains informed by the universal boundary conditions for sustainability, or in even wider stakeholder networks where also regional sectors, finance institutes and politicians are involved - *Product Service Systems*. Furthermore, an increasing number of those proactive stakeholder networks understand the *self-benefit* or *competitive advantages* of such strategies, over and above what others are doing and over and above the common good. In other words, they do not wait for systematic action until the obsolete aspects of our macro-economy and geopolitics have improved. They are forerunners, setting a standard also for changing macroeconomics and geopolitics. Difficult? Well, over and above the ethical and intellectual advantages of this intuitive way of thinking, it is in fact easier, more fun, and *economically viable* than any other alternative. The latter may not be fully understood until we soon return to the second part of the Operative System, the Funnel.

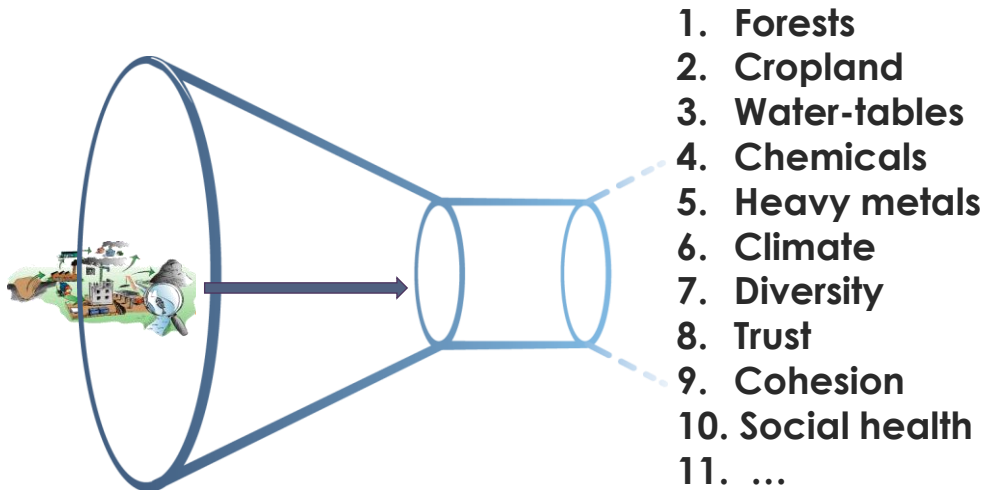
Black box filled with sophisticated concepts



Any tool/program/tool to deal with complexity 'directly', or indirectly through various means within e.g. the fields 'business and economy', 'ecological and social systems', or 'dialogue and process' may be fine in themselves. Yet they will all *fail* unless informed by a lack of the presented ABCD logic to stepwise comply with such boundary conditions. Such failure of tools is more common than not, which is such a pity. Many tools are designed as sophisticated *means* for managing various aspects that *follow* from the purpose "sustainability". *With* a robust definition of this and a logical process to make use of that definition, you can determine how the various tools relate to it and your specific transition towards it, what aspects the respective tools cover, and thereby how they can be chosen and used cohesively together. Just like 'apps' cohesively tied together by an effective operative system. And conversely, without the logical and intuitive operative system, the universe of sophisticated tools for complexity management turns to *phenomenology*. They all deserve better than that.

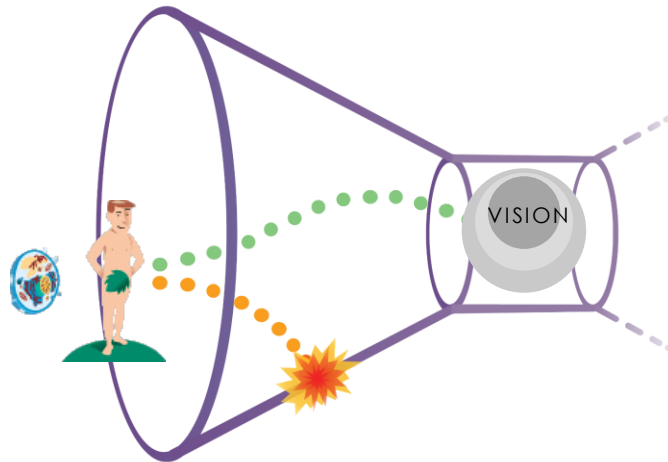
Now, why is this imperative for strategic thinking so important? Why is it key for clever managing of the huge predicament of unsustainability? The second part of the Operative System, the Funnel, explains this.

The Funnel, second component of Operative System, explains the common good *as well as* the self-benefit of applying the ABCD logics.



The "Funnel" refers to that the ABCD planning occurs in a global context, where all vital subsystems are gradually declining until civilization would not be able to support itself anymore. This partly explains the common good perspective of organizations merging forces to apply the ABCD logic for the opening up of the funnel *together*. Partly, it also explains the (typically *underestimated*) *self-benefit* of being competently proactive. Regardless what others do. What will happen to market-demands, talent-wars, resource costs, insurance costs ...*over and above* politically decided laws, further ahead in this funnel? Do you see the risks of being unresponsive and not acting on the merciless dynamics of the funnel, or waiting for politics to "change the game", until you do? We will return to more about the Funnel later on.

Cancer treatment, an analogy for ABCD planning in another 'Funnel'



How to define any complex assignment in any complex system can be understood by an analogy that most people today have the knowledge to understand.

Before we understood that cancer occurs, upstream, in a single so-called cancer stem cell that begins multiplying, we could not cure any patient even though we tried with all possible methods. The patient's life expectancy runs out as if the patient comes further and further into a funnel, where the space for health and a long life systematically shrinks because of the disease. So, we treated all kinds of symptoms along this kind of funnel wall, one by one, and without understanding how they were *interrelated upstream* – fatigue, anemia, bumps, weight loss, dysfunctional organ systems etc. But when we understood the root-cause of cancer, that a first cancer cell (cancer stem-cell) divides into two, then 4, then 8 cancer cells etc. the boundary conditions for the cure of cancer were suddenly on the table:

There, in the opening of the patient's funnel, two boundary conditions must obviously be met in order for the patient to be *cured*:

- (i) We must kill the last cancer stem cell, but ...
- (ii) ...we must not kill the patient.

With this analogy one can understand one thing: one can even accept side effects of the treatment, if only the final goal is clear and attractive (in English such decisions are called "trade-offs", one takes the evil with the good). However, clearing trade-offs in such a systematic and rational way *implies* that one can define the goal. Today, over 50% of patients are cured just because different experts - pathologists, radiologists, surgeons, radiotherapists, pharmacologists, nurses - could suddenly co-operate against the same boundary conditions at the patient's funnel opening. Or in other words – they pool the knowledge from their respective "silos" into a clear and rational joint venture.

“ABCD in Funnel”

- The mindset of Strategic Sustainable Development (SSD) materialized into an operative system -



Strategic sustainable development (SSD), i.e. moving systematically and with an improved economy towards a goal informed by a robust universal definition of sustainability, may be an engaging and intellectually appealing thought. Just like “playing chess” towards any scenario *complying with checkmate principles* may be an intellectually appealing thought for people who are interested in strategic thinking in games’ theory and practice. Or curing cancer, relying on the same mindset. However, without actually *playing* chess, clinically learning cancer cure, or planning and acting strategically towards sustainability, real knowledge is difficult to acquire. The strategic “game” of sustainable development is based on the learning of the operative system, the ‘ABCD in Funnel’ mindset, and how to inform any needed ‘app’ accordingly. ‘App’s” refer to applications regarding the analysing, envisioning, planning, choosing of tools, dialogue processes, cross-sector cooperation, indicators for following up, monitoring and communicating of strategic sustainable development. However, applying the operative system, the “ABCD in Funnel” mindset, needs not be formal or clumsy; it is a completely *intuitive* way of formatting strategic thinking in general. For as long as you cannot define a sustainable purpose in any threatened system, you are likely to mismanage it. So the Operative System can, for instance, be the chosen format of a chairman leading a conversation at a board meeting without even mentioning any of the specific terms of the operative system. Or it may inform any dialogue in corridors and elevators as well as in more formal cross-sector meetings. So that people with different talents and skills do not misunderstand the big picture, or each other.

Now, let us go a bit more in detail on certain of the elements in this context.

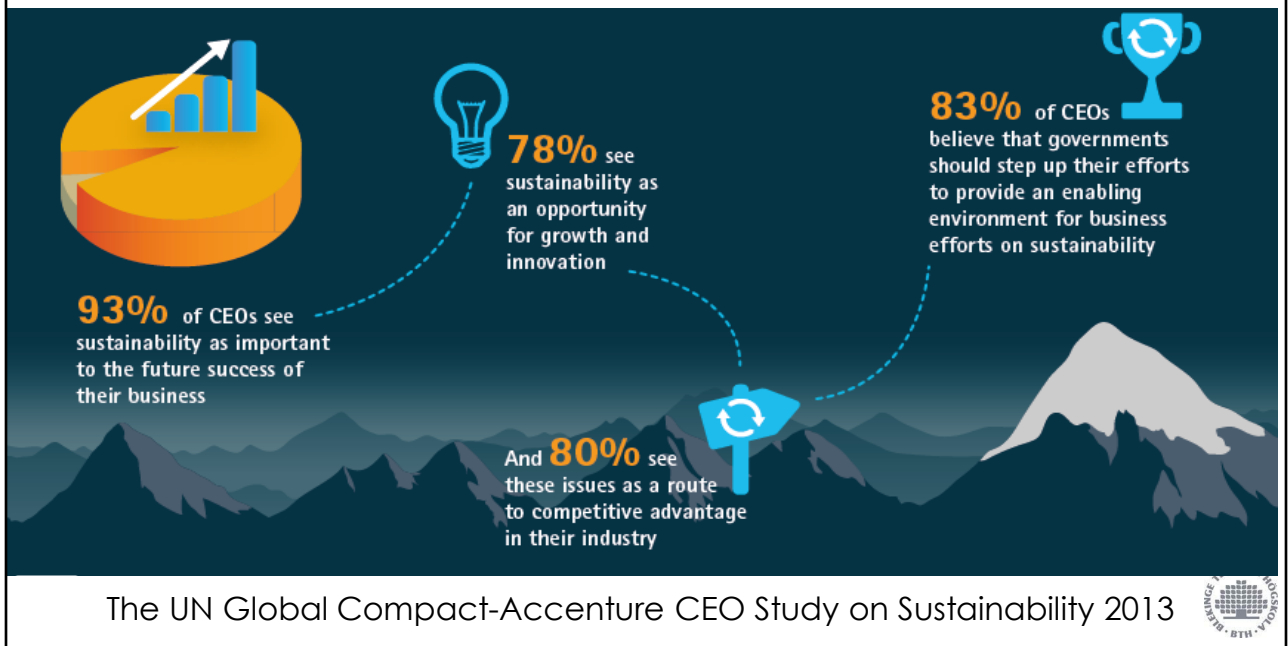


The main problem of un-sustainability is not that a general human characteristic would be greed. Most people are wonderful and helpful and sometimes even self-sacrificing. Sometimes we are greedy too. But the latter has little value as a general explanation to the dire system humanity is in, since the winning game, even from a selfish point of view, is systematic sustainable development for an individual organization or person to avoid hitting the Funnel wall.

Is the problem short-sightedness? But who has shown that you cannot be a winner in the short term *in a way* that allows you to be a winner also in the longer term? The ABCD mindset outlines this, see its C and D steps and contemplate those in the Funnel perspective.

The main problem is probably neither of those things. The main problem is that though people are generally intelligent at the individual level, very large groups have a tendency to underperform when it comes to planning in complex systems. A major driver of this is reductionism, an obsession with details. It is like we are all seeking knowledge, but together we risk drowning in information. The “silo” mentality between people in large groups.

THE WILL IS THERE, ALSO IN BUSINESS



In a large CEO study on sustainability already 2013, more than 1,000 top executives from 27 industries across 103 countries assess the past, present and future of sustainable business; discuss a new global architecture to unlock the full potential of business in contributing to global priorities; and reveal how leading companies are adopting innovative strategies to combine impact and value creation. This result was achieved already in September 2013, and most people agree that this positive *development of awareness* goes on. The problem we are now dealing with is the relative lack of *competence* to act on that same awareness. *The picture's last number in the upper right corner, 83%, serves as a natural platform to launch from.* CEOs in business feel that politicians should be better informed about sustainability so that they can "change the rules of the game". Which is at least partly right in itself. *But there is a hidden flaw of perception here:* most CEOs in business believe that *unless* politicians step up and create sustainability derived policies and legislation that are the same for all, proactive companies will loose relatively those companies who do not take on the "costs" for sustainable development. See previous slides about the funnel and the self-benefit of not awaiting laws and public policies. There is another flaw of perception here as well, namely that sustainability would not be operationally *defined, i.e. no generic operational system exists.* Both perceptions are, again, simply wrong.

OUR GREATEST CHALLENGE IS NOT...

CLIMATE CHANGE, POLLUTION,
DEFORESTATION, DECLINING FRESH-
WATER TABLES, SHRINKING PHOSPHATE
RESERVES, POVERTY, TERRORISM,
FINANCIAL CRISIS, GREED...

BUT...



So...

...OUR LEADERS OFTEN DON'T LEAD!



A leader cannot lead for as long as major challenges are dealt with one by one, without understanding how they are interconnected upstream in view of *purpose*, nor how to model visions where solutions are connected operationally to serve *community* and *self* together.

INCOMPETENCE DUE TO TWO FLAWED DOCTRINES

- Doing what is right doesn't pay off unless all are sharing costs (think of Funnel and/or all those disappointing summits).
- Sustainability cannot be defined.

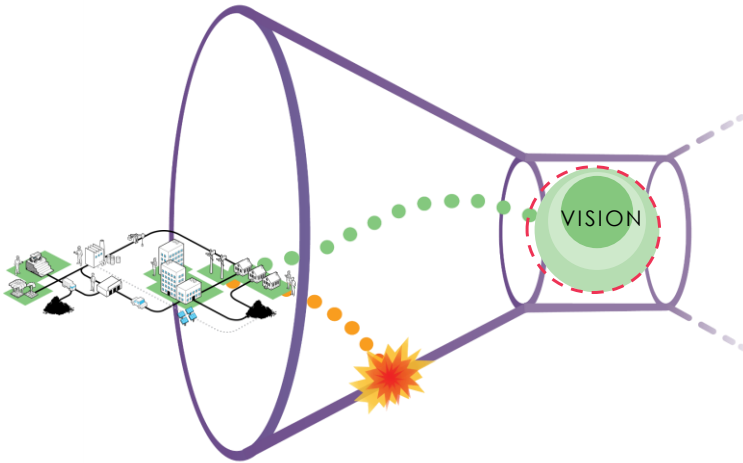
This lack of leadership is typically expressed as two typical flawed doctrines or "truths" that go deep in today's discourse on sustainability, and are dangerously misleading actions in most practices at all scales.

The first does not see the consequences of the Funnel, the second does not see the opportunity of the ABCD process in the Funnel.

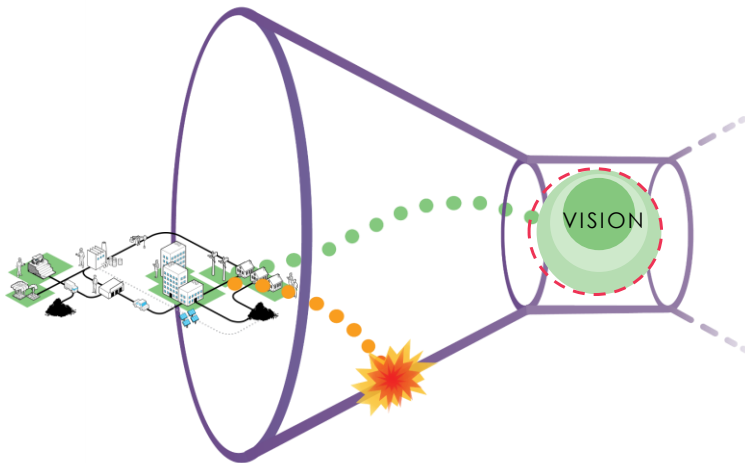
FIRST QUESTION :
"WHY OUR ORGANIZATION?"

We have already responded to this question...

WELL, YES, AVOIDING WALL OF THE FUNNEL IS GOOD FOR ALL...AND...



...YOU¹⁾ WILL GET
RELATIVELY STRONGER ECONOMY FROM ...



- Opportunities!
- Materials
- Energy
- Waste
- Insurance
- Productivity
- Innovation
- Transactions
- Social impacts
- Tax
- ...

not Image and PR

1) Interested to read more? Ask TISU dep. @ BTH
for article on Prisoner's dilemma



What will resources cost further ahead in the funnel, as we keep losing them? Insurance costs if you are relatively others a great part of the problem? Opportunity costs if you fail to foresee what people will ask for and how markets will develop further ahead in the funnel? Survival issues are very convincing in the end, so the overriding strategic guidelines are obvious:

1. While being obliged to earn money from old investments made in the previous paradigm, we *also* need to...
2. ...launch investments that are economically feasible *today, at the same time* as they lay the ground for forthcoming investments towards the opening of the funnel (i.e. not right into its wall). Look at the list of self-beneficial opportunities that follow from this. Though often perceived as being at the top of the list, image and PR are at the bottom of the list as sugar-lining of the cake.

SECOND QUESTION : "HOW?"

Also this question is already answered, though reductionism – every day challenges at the detailed level – may serve as a more or less irresistible driver to deviate away from the big-picture understanding of the ABCD in Funnel logics.

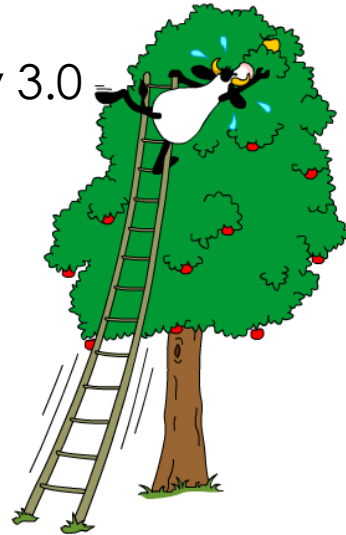


The real challenge is getting out of reductionism, i.e. seeking the knowledge about big-picture planning, instead of drowning in information. Details are extremely important, but only if they can be structured strategically and put together cohesively in this context. For which purpose you need the Operative System, i.e. how to model the details withing sustainability constraints to become an attractive goal (A), and acting accordingly (B, C and D) to avoid the Funnel-wall.

Sustainability 3.0



Sustainability 1.0

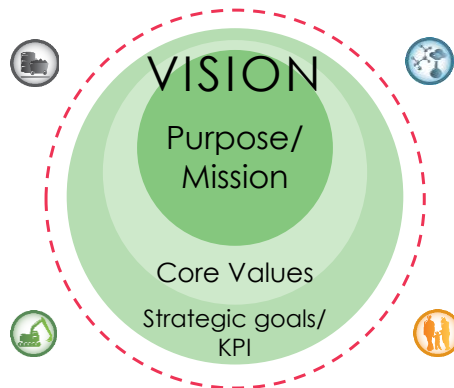


In the early days of inevitable paradigm shifts, picking low hanging fruit without accessing an operational system is OK. You can always change some obvious toxin to something less toxic, and why not turn to recycled materials when those are cheaper than virgin feedstocks? It is when the higher hanging fruit is to be picked, that strategically thinking organizations can no longer *react* on problems but need to be innovate. The higher hanging fruit, so called because they rely on relatively larger investments to tackle problems of old paradigms at deeper systems levels. At those levels we are not only going to make e.g. energy systems a bit less destructive. *To avoid the Funnel-wall, they must eventually comply with basic sustainability principles all together.* The same goes for traffic systems, forestry, agriculture, fisheries, spatial planning, and material flows in industry. Anybody can understand that society does not become sustainable unless all those key-systems get sustainable *together*. How could this happen, unless sustainability is defined at the *basic principled level of redesign*? Possible sustainable scenarios, when all essential subsystems are sustainable together, *can only be modelled if we have access to basic sustainability principles ('A' of the ABCD, applied as boundary conditions for re-design) and such models cannot be strategically approached unless we access generic guidelines for this; the Operational 'ABCD in Funnel' operative system this is all about.*

THIS IS WHAT SHOULD HAPPEN UNDER 'SUSTAINABILITY 3.0'

Sustainability principles = Boundary conditions

INTEGRATED
IMAGE OF THE
GOAL



Criteria

1. Necessary
2. Enough
3. General
4. Concrete
5. Non-overlapping



To be operational, *boundary conditions* for any type of complex goal in a complex system – principles of checkmate, or cure of the deadly disease cancer, or cure of the deadly disease un-sustainability – must comply with five necessary criteria. If the boundary conditions do this, they allow for open-ended (non-prescriptive or “out-of-the-box”) creative community building sessions. Any sustainable scenario – and there are myriad possibilities at the detailed level – would comply with the principles. And any scenario that does not comply with all the boundary conditions is non-sustainable, i.e. will eventually cease to exist by colliding with the funnel wall. The Boundary Conditions *must* be scientifically explored in **consensus** (dotted red circle around the contents of the goal), whereas the contents within the boundary conditions *must* be modelled in value-based dialogues and processes between people to get as close to **concordance** as possible. So that we can jointly long for something that is *both* desirable to *us*, and sustainable to *all*. The process of modelling such goals is an ongoing one, guided by repeated cross-sector ABCD conversations and workshops. It is learning by doing, which we will elaborate further down in this presentation.

**THE SEARCH
FOR UNIFYING OPERATIONAL
PRINCIPLES MUST OBVIOUSLY
BEGIN HERE...**

THE QUESTION OF OUR TIME:
WHICH ARE THE BASIC
MECHANISMS BEHIND THE
MYRIAD LIFE-THREATENING
IMPACTS, AND HOW CAN WE
DEVELOP OUR BUSINESS
WITHOUT CONTRIBUTING TO ANY
OF THOSE MECHANISMS?



But first, how did we elaborate the boundary conditions of sustainability? If we are to find such unifying principles for sustainability, applied as boundary conditions for the modelling of any sustainable goal or vision of any organization at any scale, we must begin at this scale. What are the basic mechanisms by which civilization destroys this system more and more – causing the funnel of systematic decline through myriad of dangerous symptoms at the global level? If we could find such basic mechanisms or root-causes, we would be close to defining our boundary conditions for sustainable re-design of any organization. By simply designing organizational goals that are not *contributing* to any of the root causes to destruction at any scale including the global scale.

BASIC MECHANISMS OF DESTRUCTION



Earth's crust

Societal production

Physical means

Scientific exploration has only come up with three such *basic* mechanisms by which ecosystems, with their biodiversity, and running the life-sustaining bio-geochemical cycles of Nature, can be destroyed. We can destroy them by...

1. ...polluting them *more and more* (the funnel) with mined materials e.g phosphates in lakes from fertilizers, or fossil CO₂ in the atmosphere from fossil fuels,
2. ...polluting them *more and more* (the funnel) with chemicals such as NO_x from cow-urine in too intense farming, pesticides from crop-land or chemicals from industry and consumer-goods,
3. ...*physically* encroaching *more and more* on them (the funnel) e.g. by soil-compaction from too heavy machinery in agriculture and forests, and too large clear-cuts of forests, destructive irrigation of cropland lowering ground-water tables, or putting more and more asphalt on fertile land in urban sprawl.

So we *know* that a sustainable civilization in the future has ceased to run all those three basic mechanisms of destruction. And the individual organization or sector wanting to be part of the solution, aiming towards the opening of the funnel, ought to develop visions where it does not *contribute* to the violation of those mechanisms at *any scale*, local, regional or global. Again, can this be done? Experience shows that it is not only possible, *it is easier and more fun than any other alternative for sustainable development*. And it will help making better use of any tool or concept we may like to assist basically more robust transitions.



ECOLOGICAL SUSTAINABILITY PRINCIPLES

In an ecologically sustainable society, *nature is not subject to systematically increasing...*

- 1** ...concentrations of substances extracted from the Earth's crust.
- 2** ...concentrations of substances produced by society.
- 3** ...degradation by physical means.



Let us now take a look at social sustainability. Is this girl living in a socially sustainable society? We don't know really. Social sustainability does not mean utopia, or a wonderful situation. Social sustainability refers to a healthy social fabric, in *particular* under severe conditions when we need a vital social system more than ever. So *if* this girl lives in a socially sustainable system, there is probably cooperation in motion to improve her situation, built on a general sense of trust and common meaning across her community. Most likely she then *trusts* her parents in general, they trust their respective bosses in general and they, in turn, trust their bosses and so on. Which science shows means, that there is *no general abuse of power in the system*. Which can occur along five basic dimensions, giving us the social sustainability principles that follow now.

MECHANISMS OF DESTRUCTION



Health

Influence

Competence

Impartiality

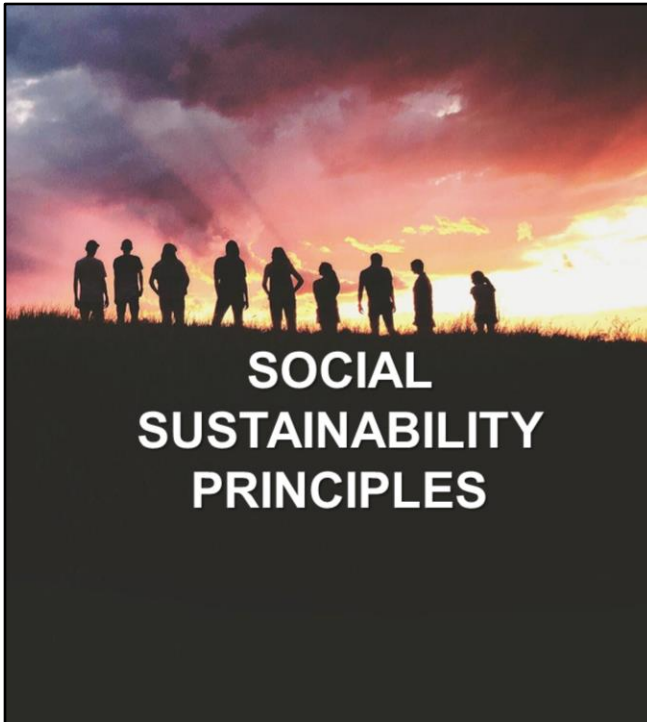
Meaning-making

Missimer, M., 2015. *Social Sustainability within the Framework for Strategic Sustainable Development*. Blekinge Institute of Technology, Karlskrona, Sweden. Doctoral Dissertation Series No. 2015:09.



Scientific exploration has shown that there are five possible structural obstacles in the way of *trust* seen as a general and functional characteristic of a functional social system (i.e. not only trust between relatives and friends), i.e. *abusive power-structures and norms upheld by those with power*. To sustain trust across the diversity of professional groups, gender, ages, talents... is key for a social species like humans to be powerful and helpful together. And vice versa. If a general sense of trust across such boundaries are lost, we cannot make ample use of the different competences in the diverse social system.

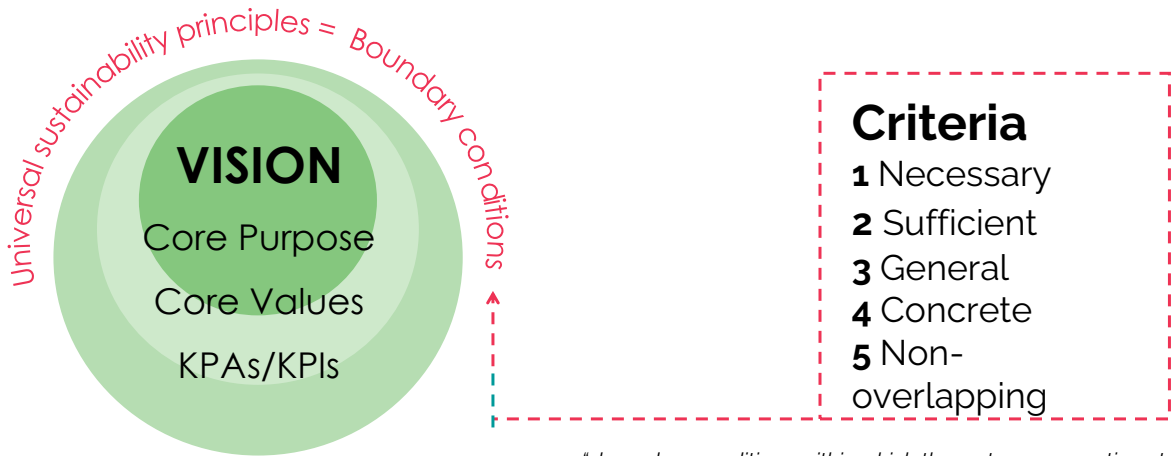
In a socially sustainable society, there are no structural obstacles to Health (think e.g. "Working-conditions"), Influence (think e.g. "voting and polls"), Competence (think e.g. "learning programs at work"), Impartiality (think e.g. "level of fairness"), and Meaning-making (think e.g. "Freedom of religion"). If you are interested to learn more, there are many ways for this, from scientific reports and articles of the special volume (see first slide) to easily-accessible manuals for how to improve organizations by heading towards compliance with those principles.



In a socially sustainable society, people are not subject to structural obstacles to...

- 4** ...health.
- 5** ...influence.
- 6** ...competence.
- 7** ...impartiality.
- 8** ...meaning-making.

UNIFYING AND OPERATIONAL PRINCIPLES



"...boundary conditions within which the system can continue to function and evolve, outside of which it cannot."

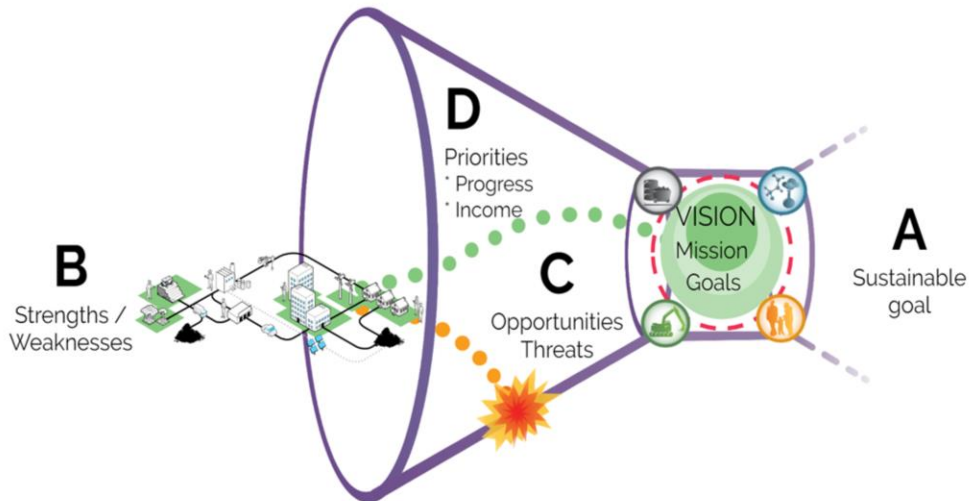
Missimer, 2015.

Again, those basic principles for ecological and social sustainability are *designed* to be robust for analysis and planning. They are simply turned to boundary conditions for "out-of-the-box" redesign of the individual organization. This happens by simply adding the term "not contributing" to violation of any of the universal principles at any scale, and putting this definition into the SWOT like planning structure of 'ABCD in the Funnel', see third slide as well as next slide. For such boundary conditions of any goal to be robust for analysis and planning, they need to comply with five criteria viewed to the right in the figure. They need to be *necessary* (but not more to allow for non-prescriptive creativity and innovations in "out-of-the-box" thinking), *sufficient* (so that essential aspects of the goal are not forgotten), *general* (to be understood across sectors and disciplines and allow for co-creation), *concrete* (to allow for concrete real-life change), and *non-overlapping* (to provide comprehension and allow for rational indicators of transitions). Robust boundary conditions for checkmate (winning in chess) or sustainability or any other complex endeavour in any complex system, meet those criteria.

Obviously, for society at large, all sectors need to comply with those constraints *together*. So growing numbers of communities and value-chains are today not only developing various subsystems individually to comply with those principles, but do so *together* – agriculture, forestry, fisheries, traffic, energy, HR aspects...

ABCD in Funnel

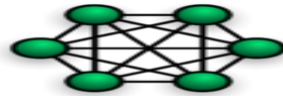
Operative system for all “Apps” around sustainable development



This slide captures the operative system in all, the materialized mindset of systematic and strategic sustainable development! By use of its universal sustainability principles, any organization or sector can make an ABCD assessment of their operations within the global “funnel”. A is a vision modelled to comply with the basic principles (*not contributing to violation of the ecological and social principles at any scale*). B is an outline of current challenges and strengths in context of that future vision. C is in outline of possible steps towards the vision, i.e. smart ways of solving the problems from the B-list. And D is about prioritizing the possibilities from the C-list into a stepwise plan towards the opening of the funnel. If you read the terms under ‘B’ and ‘C’ you get the acronym which many business people use – SWOT analysis. Well, this slide presents a sustainability-SWOT. If you are really dreaming of a vision for your organization or sector, why putting it outside the boundary conditions of sustainability, i.e. outside what can be in the future? The consequences, not the least the economic, will be dire already on the way there, sooner and sooner as civilization moves further and further into the funnel, as the pressure against the merciless funnel wall *will* increase. To determine the timing for such negative consequences is a problem remaining with the respective investors and actors themselves, *not the green movement or politicians or anybody else...*

The following slides 28-48 present some deeper insights that follow the ABCD in Funnel Operative system, and how to apply it to become a skilful ABCD facilitator of group-creativity and community building, a “sustainability chess-player”.

'ABCD IN FUNNEL' OPERATIVE SYSTEM SHOULD NOT BE MISUNDERSTOOD



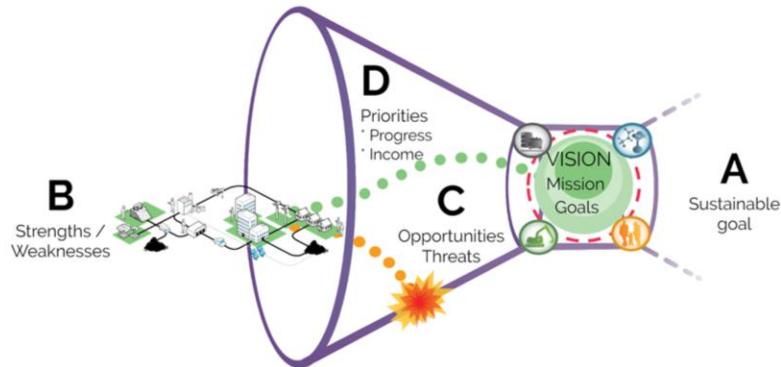
$$T(x) = \frac{d}{dx} \left(-EI \frac{d^2 w(x)}{dx^2} \right)$$



To that latter end, the basic purpose of the Operative System is commonly missed. It is, unlike any other support for sustainable development, *designed* to be a generic operative system, an enabling core, for all sustainability-supports (*apps*). That is, all supports, such as tools for envisioning, modelling, simulation, analyses, planning, monitoring, communication, etc., *can be brought into cohesion for systematic transitions*. That is what an operative system is *designed* to do. This quality does not make the operative system, 'better' or 'worse' than other sustainability-supports, just like an operative system of a smartphone is not 'better' or 'worse' than its apps. These things are, by intention and design, of different and complementary character. If the 'operative system' purpose of the FSSD is missed, *people often set out to 'improve' or 'complete' it with some support i.e. 'app'*. This is, however, a misdirected effort, just like it would be to 'complete' a smartphone's operative system in itself with more and more apps. However, when using the FSSD for its true purpose, opportunities for improving it may become clear. Then it is about amending the 'operative system' as such, i.e., to make it even more generic/functional/sharp as an 'operative system' to fit all app's (which has been done several times, e.g., when more elaborate principles for social sustainability were developed). Again, an analogy could be that an attempt to use a particular app may demonstrate a gap in the Android operative system, providing an opportunity to improve the Android operative system to be even more generic/functional/sharp for its purpose. This is indeed how the FSSD has been improved, into amended versions, in iterative learning loops between practitioners and scientists for 30+ years. A few concrete examples are provided on the following pages.

Operative system for TOOLS (see also fourth slide)

Choosing them and informing them cohesively



UN SDGs, Circular economy, Planetary boundaries, Doughnut, Biomimicry, Indicators, LCA, Modelling, Simulation, CSR, ISO14001, ISO26000, Foot printing, Labeling, Balance scorecard, Industrial Ecology, Scenario planning...

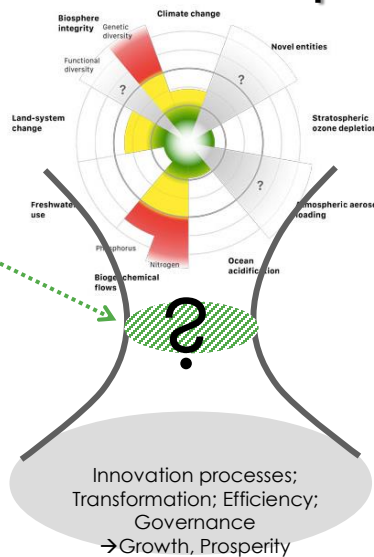
Once the ABCD in Funnel process has created a clear *overview-strategy* where details no longer blurr the big picture, we can avoid reductionism also when it comes to the “apps”, i.e. various supports of sustainable development. Once you and your colleagues/stakeholder have the (A) overall map of your vision within the boundary conditions of sustainability, (B) your overall strengths and challenges in this context mapped out, (C) a good laundry list of opportunities for future steps, and (D) a prioritization plan for how to bridge the gap; *now* you are ready to see what supports you may want or need to help you bridge the gap, and *now* you will know how to best inform those tools to help *you* bridge *your* gap to sustainability. Outside of this understanding, all tools are of substantially less value since neither of them are tailor-used to *your* specific challenges and planning. So, the Operative System we are talking about is not a competitor to any good tool or concept out there, it is there *also* to help you choose the tools you may need for your specific transition, and it helps you inform the use of those tools to serve your planning cohesively. Many tools and concepts are excellent, and they deserve a better fate than to be used with no understanding of how they relate to sustainability, to each other, let alone to *your* mission and *your* logical step-wise ABCD process to get there.

Operative system for Planetary Boundaries

A global perspective for our prioritizations? (D)

Sustainability principles

- Concentrations of substances from Earth's crust
- Concentrations of substances from societal production
- Physical degradation
- Social principles (health, influence, competence, impartiality, meaning-making)



An example of this is the Planetary Boundary concept, launched by Prof's Rockström and Steffen et al. This slide is produced by Rockström, applying the ABCD: for as long as we keep violating the boundary conditions of the Operative system (A in ABCD), we will keep passing planetary boundary after planetary boundary, and more planetary boundaries will be "invented" as we continue on this dangerous trajectory. So, for success, we cannot continue to plan ahead by backing off from the trespassing of one planetary boundary at a time, not the least since we trespass them *together* ("how large is my share"?) and since we don't know all of them yet. We must guide our organizations, innovation programs, way of governance, ways of monitoring true efficiency and growth by use of the boundary conditions. I.e. not contributing to violating them *at all at any scale*. Once that is understood, we can use the Planetary Boundary concept as a way of helping us with the *prioritizations* at the D step of ABCD analyses. Or, in other words, to avoid "red-alert" of the Planetary boundary concept when we prioritize actions in the planning of our own organizations and sectors. Do we find any evidence in our ABCD plan of currently contributing to the red-alert zones? And if so, have we taken this seriously as we developed our C- and D-lists of possible actions and prioritizations amongst those?

Operative system for UN SDG

Cross-reading 17 narratives with A,B,C, or D: “did we miss any detail in our ABCD planning”?



The UN sustainability goals (UN SDGs) are interrelated descriptive stories about sustainability, but do not inform the individual organization *how* to apply them for re-design. They are also overlapping, but still do not cover the full scope of sustainability. There are, for instance, gaps on what sustainable forestry or agriculture would entail, or how those two fundamental aspects of sustainability should influence the planning for sustainable energy and traffic systems. Yet, they represent a “global agreement” to inspire the world to become sustainable. The importance of this cannot be overrated, on one condition: That leaders on all levels everywhere learn to use them as a *complement to their own systematic FSSD planning*. The UN SDGs could, dependent on the main messages in each, be divided into three groups:

* **Social SDGs:** 1 No poverty; 3 Health and wellbeing; 4 Quality Education; 5 Gender equality; 8 Decent work and economic growth; 10 Reduced inequalities; 16 Peace, Justice and Strong Institutions

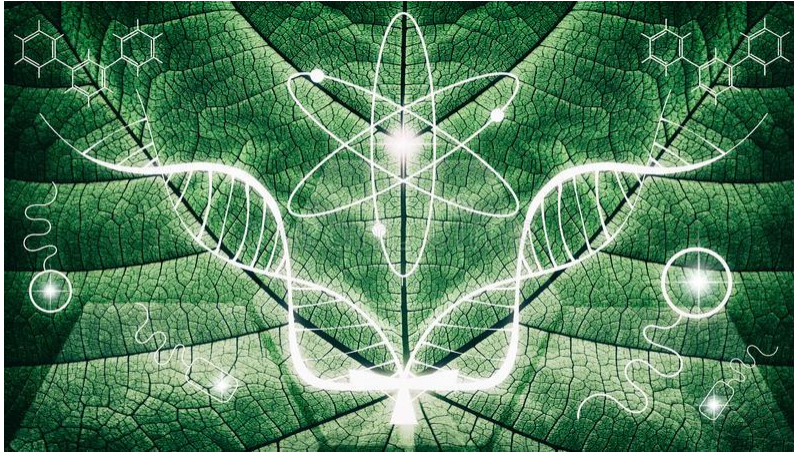
* **Ecological SDGs:** 2 Zero Hunger; 6 Clean water and Sanitation; 7 Affordable clean Energy; 12 Responsible consumption and production; 13 Climate action; 14 Life under water; 15 Life on Land.

* **Governance and administration:** 9 Industry, Innovation and Infrastructure; 11 Sustainable Cities and Communities; 17 Partnerships for the Goals.

The hands-on way to use them strategically for the individual organization or planning objective, is to cross-read the respective ABCD analyses with *all* the SDGs to see if anything is forgotten under respective A, B, C and D. Do *not* “pick a few”, which is a lost opportunity not intended by the UN! Unfortunately the typical way today, since most leaders at all levels do not have access to the operative system.

Operative system for Biomimicry

Nature as a teacher in the C step



Biomimicry is Nature as a teacher of innovation. From small things like replacing certain functions or materials , to larger societal structures like constructing a wetland as an alternative to building a new sewage plant for industrial water. Currently, this new science has offered a whole "library" of possibilities, relevant for the greening of industry and society at large. It is easy to understand where it sits in the ABCD structure, under the C-list of innovative possibilities to be evaluated for strategic planning.

Operative system for CIRCULAR ECONOMY

Missed anything under A, B, C, D for the capitalizing of reuse and recycling?

How do we strategically, stepwise, make sense of it?

But how much needs to be recycled?

What should not be recycled?

What essential economic aspects are left out?

What social/ecological aspects have got nothing to do with recycling?

Another example is Circular Economy. It means progress through re-use and recycling as much as possible, while *capitalizing* such savings. However, once you have understood the Operative System, you can again use circular economy as an yet another 'app' of helping out under each of the ABCD levels. "Where does our ABCD analysis detect opportunities for the capitalizing of material savings and recycling"? Have we missed anything in this context under A, B, C or D respectively.

You will then also detect *other* questions as well, that Circular economy will *not* help you with. *How* much needs to be recycled to arrive at compliance with the basic sustainability principles? The answer is that all materials are different in this context. Another question is, what should *not* be recycled but *phased out of use* since it will be too dangerous or costly to use recycling for managing them within the sustainability boundary conditions. An example could be CFCs, or Plutonium, they should certainly not be recycled in society. And finally, what aspects have got *nothing to do* with any kind of flows, e.g. the weight of machinery in forestry and agriculture that risk creating micro-erosion of soils, or the size of clear-cuttings, or destructive ways of fishing or putting asphalt on farm-land or.... And what economic aspects are left out of circular economy e.g. the distribution of income-differences and how those influence trust in a system? Putting Circular economy in context of *your* ABCD plan towards the full scope of sustainability may help you capitalize some of the steps there, while still avoiding the risk of missing the majority of (other) sustainability challenges you have.

OPERATIVE SYSTEM FOR DOUGHNUT



An ABCD analysis of the Doughnut concept gives a very similar result to that of the Planetary Boundary Concept, (see previous slide on this). Which is not odd, the Doughnut concept departs from the very Planetary Boundary concept. Here follows some important aspects around the Doughnut model:

1. **Symptoms and problem-areas to think about are not synonymous to operational definitions.** Exactly like Rockström arrived at for Planetary Boundaries (see his previous slide), problem areas to "think about" e.g. "ocean acidification", or "housing", is not enough. We need to know *how* to think about those areas. To that end, we need a *definition* of what sustainability implies for organizations. First, you need to know *why* we have the growing impacts within the problem areas in the first place. For complex planning in complex systems, "backing away from symptoms" is far from strategic. For rational re-design you need to know the underlying *mechanisms* behind those symptoms (see ABCD again). Compare also to the analogy of cancer-cure. *All* patients died for as long as we only chased symptoms while not understanding the basic upstream mechanisms of all the symptoms. It was only when the root-cause was on the table (cancer is a monoclonal disease), we could *define* cancer cure ((i) killing the last cancer stem-cell (ii) without killing the patient).
2. **Un-known problems not tackled.** Over and above that "thinking of problem areas and symptoms" does not provide any definition for *how* the appropriate re-design should occur, the Doughnut approach has other gaps as well. Again, in line with Rockström (see previous slide): for as long as you continue to "fixing symptoms" while allowing the underlying flaws of basic design to prevail, *more* and hitherto *un-known* problem-areas will pop-up (marked by Rockström's question-marks, see the slide on Planetary Boundaries).
3. **"Safe space" says little or nothing to the individual planner or organization.** Global numbers for specific impacts within problem areas (see Doughnut's "safe space") does not help the individual planning. Say, for instance, that we had global emission data for all kinds of emissions violating the first and second principles, including safe limits for such emissions to be integrated in the assimilation capacity of the biosphere. *Even* if we had this, which we don't, it says nothing about, for instance, what an individual organization should *do*. *If* it would work in reality, you first need to calculate the global "Safe space" for those same emissions and then, based on the global data, calculating the "allowed emission data-share" for the individual organization, and then entering global negotiations to make an agreement between all actors on Earth to accept those calculations and the "shares" that would follow. How could this possibly *ever* work? Again the FSSD has thought this through in a way rigorous for definitions *as well* as for strategic action: since there *is* an emission problem to the Oceans, say emissions of fossil CO₂ (SP 1) and NO_x (SP 2) sustainable re-design implies that *you don't contribute to those emissions at all*, i.e. at any level.
4. **No methodological advice.** The Doughnut does not provide any rigorous *methodological* advice on *how* to get to any sustainable vision – flawed or robust, let alone how to improve economically from this. Again, "thinking about a *methodological* area", e.g. a "regenerative and distributive economy" is not enough.

OPERATIVE SYSTEM FOR INDICATORS BEFORE NUMERIC INDICATORS: digital "yes" or "no" indicators on leadership

- Do you have an operational definition of ecological and social sustainability? (A)
- What are, based on this definition, your major sustainability challenges? (B)
- What does the organization do to bridge those challenges? (ABCD planning)
- Is definition intergrated in organization's business goals? (A)
- Is economical self-benefit well known in the organization? (D)
- Is integrated business goal part of R&D and all large investment decisions?
- Is integrated goal well known amongst stakeholders and value chains?
- Are all tools and concepts aligned with integrated goal?

With "yes" on those questions, ABCD will help delivering more relevant numeric indicators that come in two categories, organizational and systemic, see following slides.



From this understanding follows *directly* a possibility to develop strategic indicators for sustainable development:

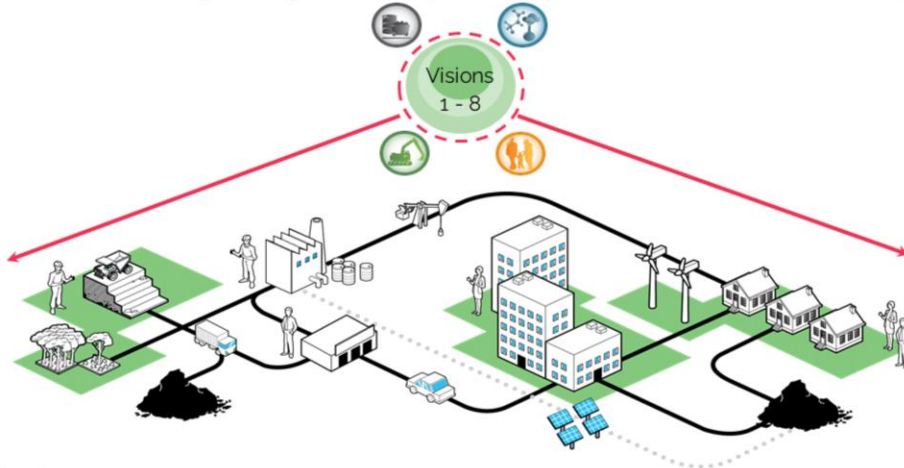
First: "yes" or "no" indicators for strategic overview leadership.

When the basic ABCD structure for strategic sustainable analyses, envisioning, planning, monitoring and communicaiton is in place, and shared within the organization and in stakeholder networks and value chains, numeric indicators will follow the structure and add real value to the monitoring of transitions. And vice versa. In the lack of clarity on sustainable goals (A), current critical challenges in relation to such goals are naturally missing (B), followed by structural gaps when possible measures in relation to such goals are to be evaluated (C), and prioritized (D). This gap *severely* reduces the value of numeric indicators. Monitoring of organizational transitions by reductionist indicators may even lead into costly suboptimizations and blind alleys. For instance indicating CO2 reductions that follow strategies towards visions that are impossible e.g. a future where fossil fuels have been replaced by biofuels. We will return to this.

Once in place, i.e. "yes" on the firm strategic overview indicators, numeric indicators follow more naturally. E.g. developing "budgets" of systematic phasing out of certain activities, e.g. use of fossil fuels, by use of numeric key-numbers. Such as "monitoring fossil shares of total energy use towards zero by this or that budget planning".

OPERATIVE SYSTEM for CROSS-SECTOR COOPERATION

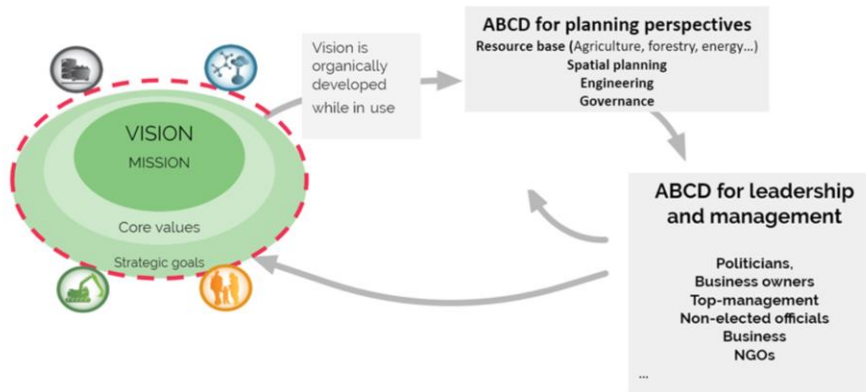
“Have we missed sharing the logics of the operative system for our stakeholder-cooperation?”



B (Today)	....	....	....	....	....	....	....	....
C (Future)	....	....	....	....	....	....	....	....
D (Prioritize to plan)	....	....	....	....	....	....	....	....

This brings us to a cross-sector planning model. If all actors in a value-chain, or region, do their respective ABCDs, they can compare notes, and find opportunities to synergies and cooperation. And vice versa, if all of them have their different “stories” about sustainability, but no valid and rigorous definition of it, how could they *possibly* move systematically into a future where they together comply with basic principles they are not aware of?

ABCD FOR LONG-TERM IMPLEMENTATION PROCESS SKETCH



Interested to read more? Ask TISU dep. @ BTH for article on cross-sector planning, the case of traffic

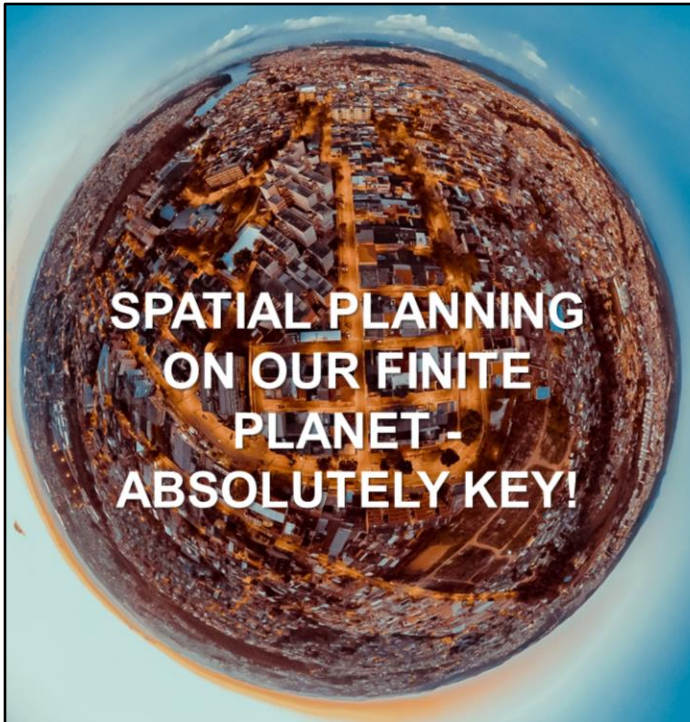
This slide shows an implementation model of cross-sector cooperation over time. A draft vision within the sustainability principles is created, it is applied for ABCD assessments by experts from different important domains. And this group compare notes, and turns jointly to people who are leaders and managers in charge of finance, and propose their steps forward. The group of leaders in charge do the same – assess the ABCD proposals from the experts, and return back with their reactions. Iteratively used over time, this model has shown to improve and flesh-out the vision to become more and more tangeable and attractive, *while in active use*. It is a mistake to work with the vision first, and only then begin using it. This model is designed after more than 20 years testing of FSSD applications in business and regions and cities, and the most successful applicants have provided input to this "ideal" model for implementation. It is now implemented anew in a number of regions and municipalities, and on Åland – the first country using FSSD as its overembracing strategic model for Sustainable Development.

HOW MUCH GENERIC DETAIL FOLLOW under “A” FROM THE SUSTAINABILITY PRINCIPLES?

**Spatial planning
absolutely key!**



Once we have stopped “cheating” with un-sustainable energy from fossil fuels and nuclear power (i.e. linear material flows from the Earth’s crust that inherently have not future), everything will be a struggle for *areas or “surfaces”* on earth. The future of civilization relies completely on our competence to plan ahead with this in mind, *spatial planning*. So think for a minute of our need for areas on Earth. What type of areas are essential for life and sustainability, and how would you order those functions by their relative importance?



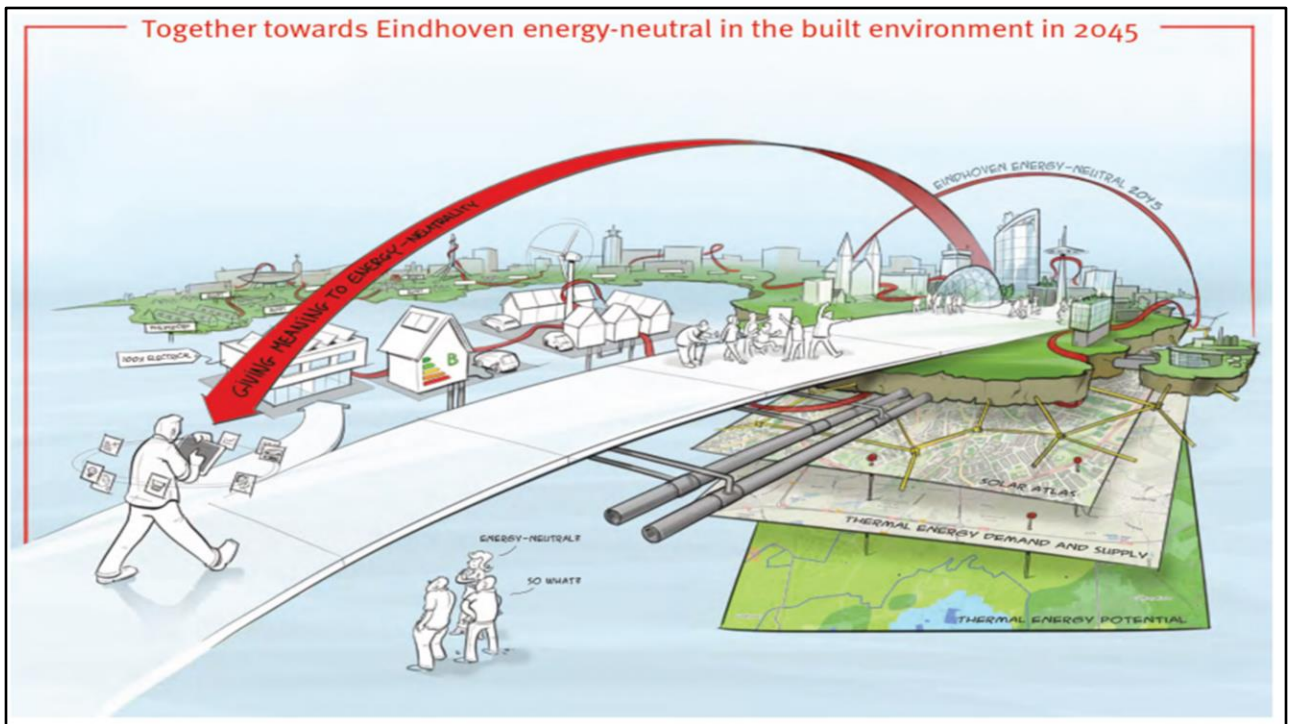
**SPATIAL PLANNING
ON OUR FINITE
PLANET -
ABSOLUTELY KEY!**

**When we have stopped
“cheating” with energy in
finite stores of matter (SP1),
all is about areas for, in order:**

- 1** Planet (*biodiversity, nutrient cycles, climate regulation...*)
- 2** Food (*cropland, fisheries, interactivity with forests...*)
- 3** Energy/materials (*forestry, damms, windparks, PhotoVotaiics...*)
- 4** Infrastructure (*streets, houses, recreation...*)

It occupies *areas*...

1. For nature and its biodiversity to run the cycles of nature on which all of society is totally dependent,
2. To produce food – we need enough food, until we can plan for anything else. This is how civilization started in the first place, i.e. farmers learning to feed the rest of us while we could specialize on other things that are also essential for civilization,
3. To create resources for anything else that civilization needs, e.g. timber or primary energy for recycling, and
4. Finally the infrastructure of civilization takes it toll from the areas that are given to us on our finite planet.

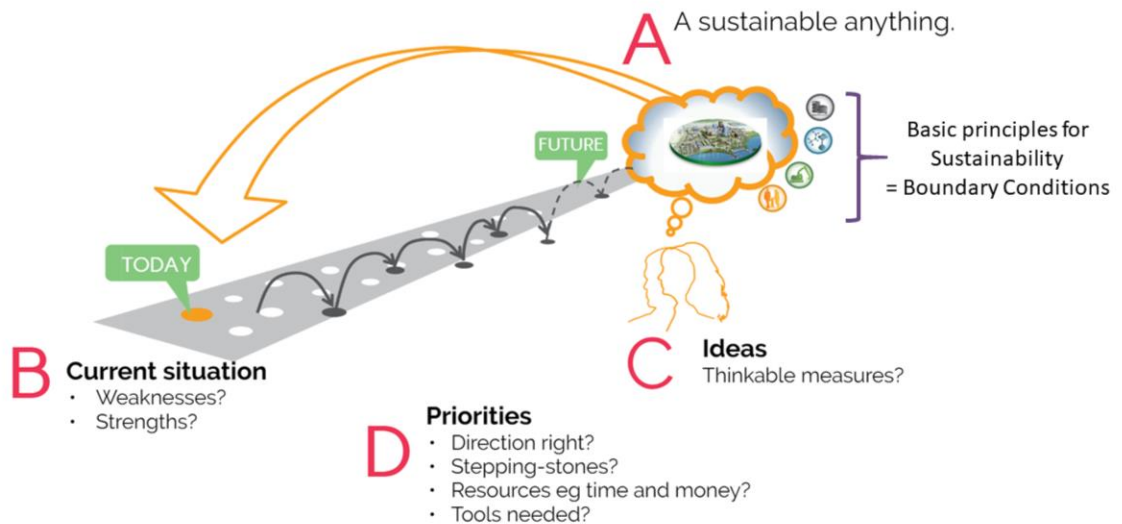


This slide displays how attractively futures can be modelled. The city of Eindhoven decided to apply the ABCD process for the city. Just like Philips, that had it's head office in Eindhoven, was applying it for their innovation- and sustainability teams: The idea of survival of Eindhoven, defined by robust boundary conditions for cross-sector modelling, and then cooperating across sectors in iterative multi-stakeholder dialogues to getting there systematically...

The today's result of this way of multi-stakeholder dialogue in Eindhoven can be seen on their homepage. The future city is electrified as regards energy and traffic. The whole fuel-sector is removed because of this – all vehicles are directly charged on the grid. No smoke-stacks or emissions anywhere. A diverse blend of sustainable energy flows are fed into smart grids and new innovations of energy-conservation and energy storages, a digital economy makes sure that house owners with photovoltaics on their roofs can reduce their electric bills by the amount of electricity they produce to the grid. The spatial (area-)planning is called "decentralized concentration", or in other words – cities are no longer characterized by urban sprawl. The planning of cities and suburbs instead respects and protects the surrounding green areas that feed them, people travel by area-effective fast trains from suburbs to cities and back, people bike and walk to purchase whatever they need that has been transported to shops by efficient electrified boats, trains, trucks with elegant logistics. And around it all, you find forestry and farmlands, all managed within the same boundary conditions as the city itself.

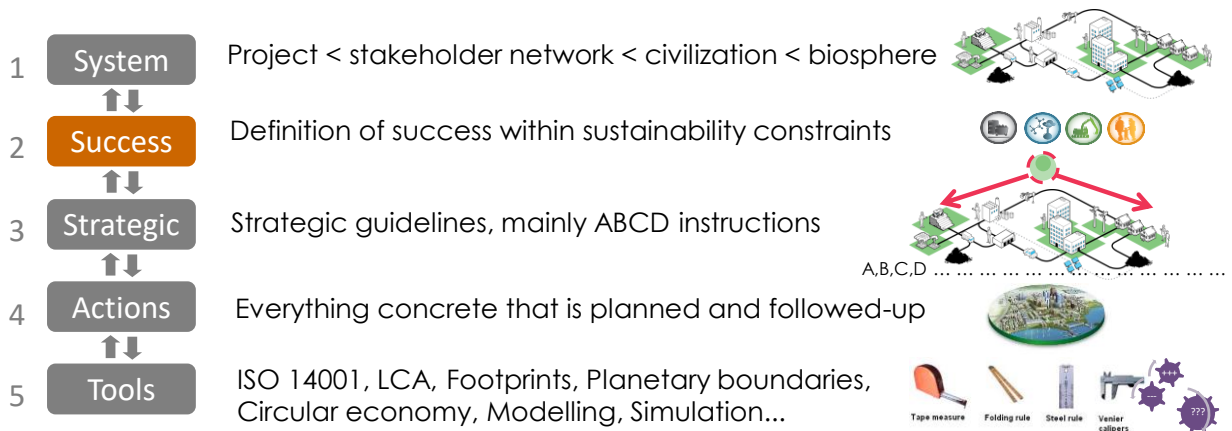
The future picture is now being materialized through incremental development along the way, for example a conference center has been built with the boundary conditions for sustainability, where cross-sectoral collaboration is ongoing. Charging poles for traffic, more and more photovoltaics on roofs, and smart grids with a sharing economy begin to develop. The ABCD thinking is used in collaboration between all the housing companies in Eindhoven in order for the 100,000 houses in the city to be managed and operated socially and ecologically sustainable. They are challenged to accelerate the development of sustainable heating and electricity and to have all construction and materials also managed within the sustainability principles, applied as boundary conditions for re-design. In “Green Deal Care”, the city and a number of large health care institutions, such as the hospital, work together to create collaboration for sustainable health care institutions. The city also collaborates with the business community to stimulate the development of sustainable cooperation there in the so-called “sustainable business parks”. But what is most exciting about all of this is that the leaderships from both the public and the private sector have begun to understand how it is possible to link sustainable goal-picture work with planning, workshops, evaluations and governance in cross-sectoral collaboration.

A COMPLETELY INTUITIVE AND LOGICAL ATTITUDE Based on... *Purpose*



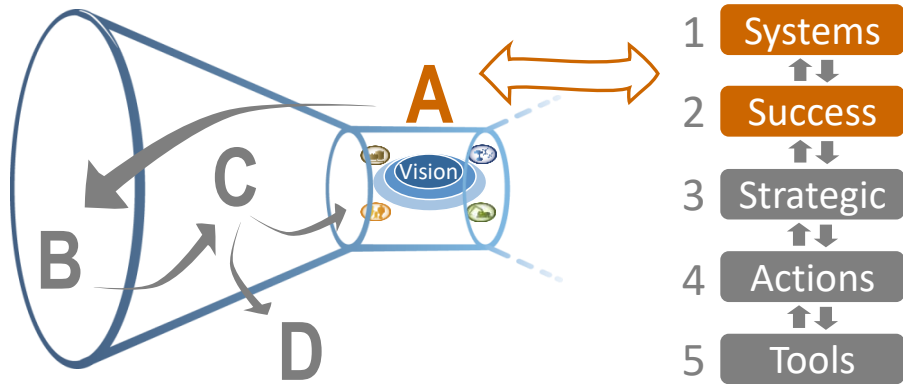
So, the third slide of this presentation again. This whole presentation is really completely intuitive for any strategic thinker. Complex goals in complex systems call for boundary conditions by which you can be innovative and co-create “out of the (current) box”. The main mission of this presentation is to present modern science that makes this possible – at last. We hope, as much, to inspire; knowing *how* to succeed, from a robust overview and accessing an operative system to make it happen, is an underestimated source of enthusiasm. Fortunately, a growing number of leaders and organizations are currently learning *how* to apply this attitude in reality, learning by *doing*. And by learning this, they can also put all kinds of tools and concepts in context, UN SDGs, Circular economy, Footprinting, i.e increasing their value.

FIVE LEVEL MODEL OF FSSD IS SUPPORT TO THE 'ABCD-IN-FUNNEL' OPERATIVE SYSTEM



Five Level Model above (5-LM) is a support to the ABCD mindset. Organizations are advised to *first* use the 'ABCD in the Funnel' to get going with the right mindset of the Operative system (see 3'd level of 5-LV). Then you can go a bit deeper by mapping the (1) System Level a bit more in which the organization is entangled e.g from value-chains to global trade or from municipal sectors through regions to geopolitical perspective. Such mapping may help to create more fleshed-out images of the goal at the (2) Success Level. After this, the next round of ABCD planning may enrich the (3) Strategic Level ABCD planning and provide even more valuable insights for (4) Actions Level and (5) Tools Level that may have been missed in first round.

FIVE LEVELS IN FSSD IS SUPPORT TOOL FOR APPLYING ABCD IN REALITY (PING-PONG)



Note: Iteration of ABCD enriches do not only the results on 1-2 levels, but also 3-4, and makes it easier to choose the right tools.

Again, effective processes occur as "ping-ponging" of ideas between the five levels of the FSSD and the A, B, C and D respectively.

LEVEL 1 OF 5-LM. At the systems level, a crude sketch of the system, relevant to the topic, is produced. It may be a company outlining its societal dependencies including its value chain within the biosphere. Or, perhaps, a product that is aimed to support human quality of life in the funnel and an analysis of its role in this respect, while comparing it with the universe of other tools, that follows subsequently in this regard.

LEVEL 2 OF 5-LM. Given the analysis at Level 1., an overall sketch of second level 'Success' is enriched further. In our case, as a response to the systems outline above, it would be "our future business leaders understand the business case of sustainability and how to define it" or "the product in question is designed in a way that is optimizing quality of life and its evolving demands in the funnel.

A. That image of success is now moved to the opening of the funnel as "A", followed by the BCD flow. After production of the B, C and D lists of the first session, 'A' may need to change a bit when people meet for the next round of ABCD:

The new B-step, producing a new laundry list of current challenges and strengths in relation to A, may call for a slight modification of the original A, which may call for a modification of – say – the first systems level of FSSD. An example could be to introduce well informed stakeholders other than those belonging to the supply chain, for instance politicians, as the new goal under 'A'. Perhaps formulated as – "political decisions and taxes/laws aligned with sustainability demands in an attractive way".

This may lead to a new C-item in the forthcoming ABCD workshop: "Helena offered to interview parliament politician Henry Smith" and to report back at next ABCD session.

At next session, Helena explains that Smith really wanted to help, and that Mr Smith asked for a more comprehensive outline of all the societal dependencies of the company. On the new C list, a decision of "a more thorough mapping of value chain and stakeholder networks/dependencies" is made (Exploring FSSD level 1 more in depth to come up with an even more rigorous definition of success with its strategic goals under A).

In this way, "ping-ponging" occurs, in a non-interrupted flow, between the 5-LM of the FSSD, enriching the contents of the goal (A), as well as the aspects under the levels B, C and D in iterative ABCD workshops.

STEPWISE:

A COOPERATIVE GROUP OF BUSINESS ORGANIZATIONS IN SWEDEN COOPERATING AROUND ABCD

Polarbread – Bakery chain

Soya Group – Shipping

Wallenius water – Water purification

Beckers – Industrial Coatings company

Gullspång Invest – Risk capital, mainly for foods

Girindus – Risk capital, mainly forestry

SPP/Storebrand – Investment company

Siaglass – Icecream

Sisyfos group – consulting for cross-sector city building

Northvolt – huge battery production, mainly electric cars.



HOW TO MODERATE THEIR ABCD SESSIONS?

This is a unique project, asking company owners and CEOs from many different business sectors advice: how can you help empowering the Operative System for your respective corporations by sharing experiences from using it. And how can you empower the impact of the operative system, and speed up its dissemination also to other leaders? I.e. helping society at large to, for instance, include also policy makers and laws?”

Some important advice to ABCD moderator

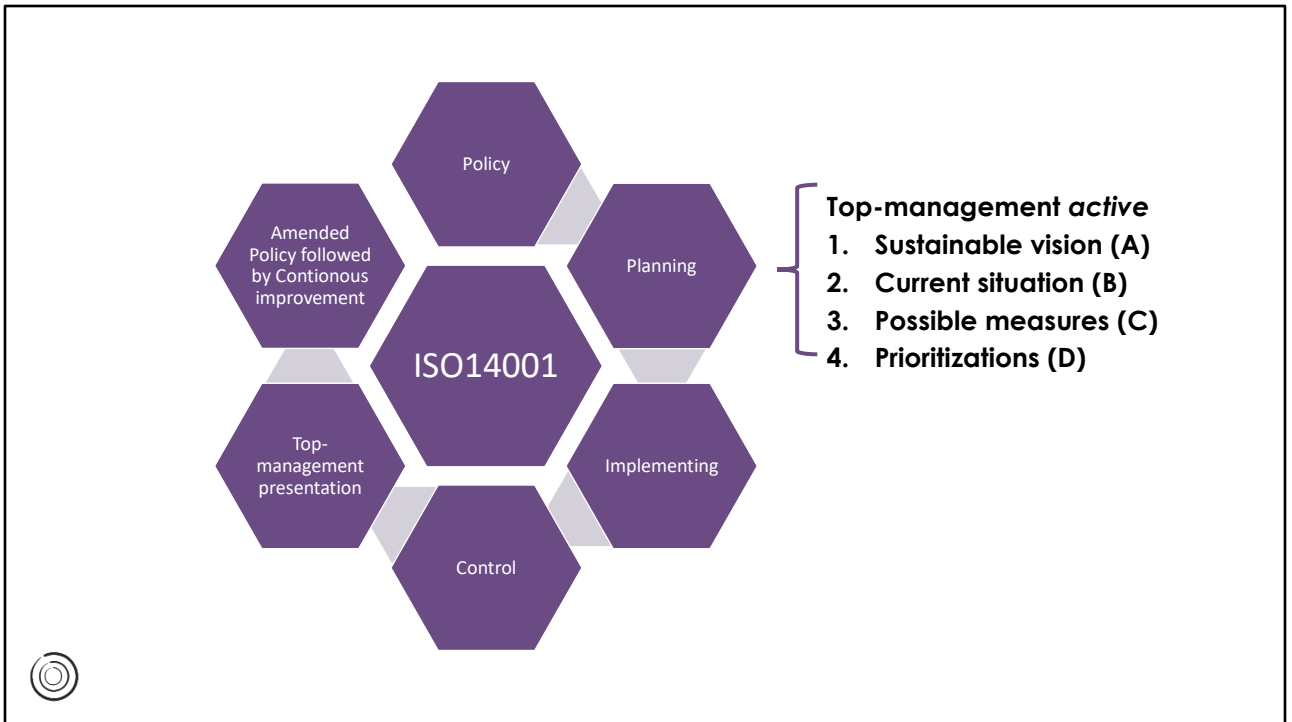
- Inspire ideas to flow between B, C and D. *Listen*, take *short notes* as “telegram text”, and *confirm* that this fits the intent.
- Focus on putting things where they belong under A,B,C,D.
- Coach discussions on B&C&D lists for *learning*: (i) more aspects (ii) trashing/changing and (iii) and capture *?-marks for further research* (e.g. “to find out” under D-list).
- Continue A, B, C, D, i.e. repeat as game unfolds over time.

- When the listing of B, C and D aspects goes on in the creative group work, let the flow go and *listen carefully* so that you list the suggestions at the right position in the B,C,D diagram. Take notes, e.g. on a white-board, and do this in “telegram-style” while asking the participants if the abridged version on the whiteboard captures their ideas. It is important that the style is short and snappy, while capturing the contents (thus serving the memory well of what was said until its time for reporting). As the ping-ponging goes on, more aspects will automatically surface if you listen carefully.
- Somebody may say “but we are already doing X small-scale” when the C-list is created; so the facilitator writes “X” on the B list, and perhaps “scaling up of X” on the C list. When somebody says “bromine anti-flammables” as the C-list under sustainability principle 1 (S.P. 1) is written, say “very good” and add it under S.P. 2 while explaining why it belongs there.
- Don’t hesitate to scrutinize suggestions by asking questions. In a way this is a sin in brain-storming, but if the attitude is right this needs not disturb the flow but add to the learning. Somebody may say that Titanium should be a problem under B, SP1, and the facilitator may know that this is not totally right. So why not ask the group if anybody knows if Titanium is scarce element or not? And why not take this opportunity and ask for other things that may be a greater problem from Ti mining, which may lead to fossil fuels for mining as well as for reduction (purification of minerals from the ore), as well as to strip-mining under S.P 3. And, very importantly, please listen also for un-certain aspects and list them as question marks for later survey. If nobody knows if the concentrations of Titanium from mining is increasing in natural systems or not, add it as a question mark on the S.P1-list under B, and under the “to-do-list” under C. This is one of the advantages by using a principled definition of success as opposed to “fixing” known impacts. Understanding the sustainability principles means that also un-known aspects for later survey can be detected by question marks under B, followed by proposing a measure to find out later under C.
- Using A,B,C,D is not a one-timer, but in fact the major way of learning strategic sustainable development – i.e. by *doing* it in the real life situation and re-evaluating the “game” (organization or project) as it unfolds.

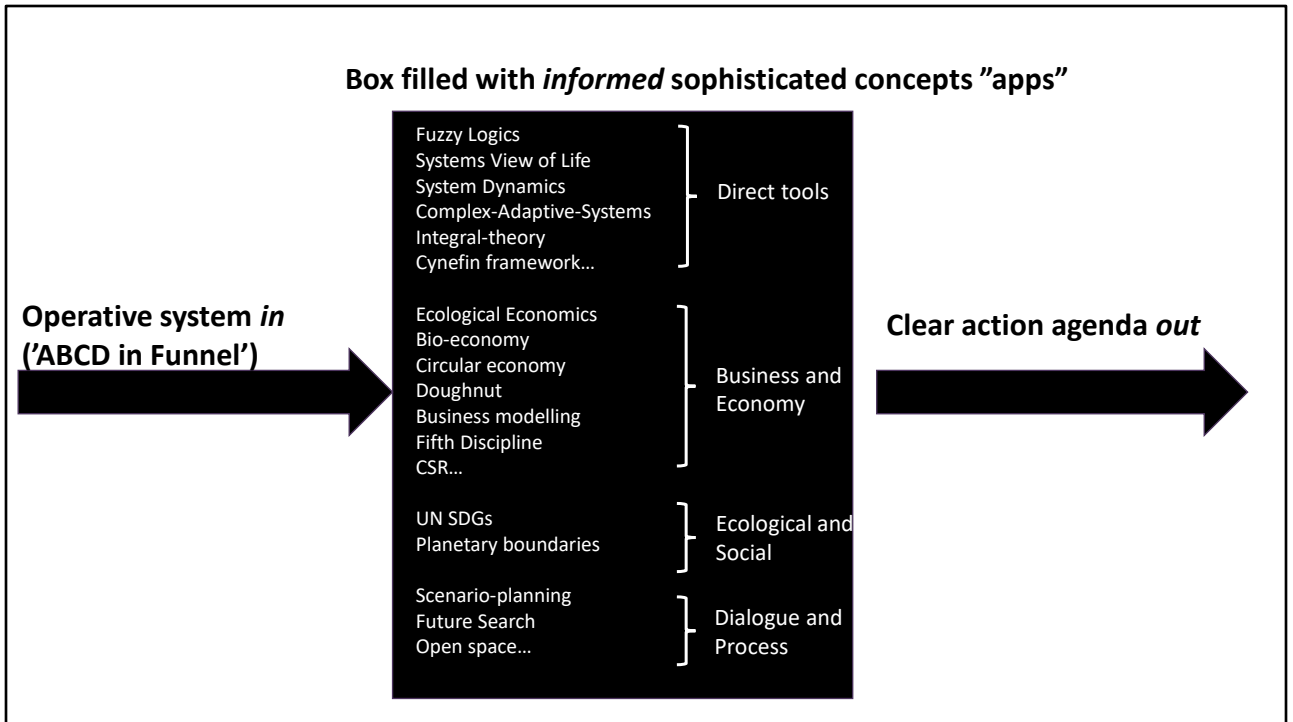
Organization of break-outs and table-conversations

- People cluster and sit where they like.
- Same questions for all.
- "Chairman" at each table keeps time and takes "telegram-"notes.
- Then: moderator runs dialogue with all in plenum.
- Notes are taken also from the plenum conversation.
- Scribbles from each table are collected.
- Concluding draft is sent out to all for final remarks and approval.
- Final report is sent to all.
- Finished!
- (Follow-ups, again; "what's done from last time to be put under new B-list", how does this trigger new C-list and "what is the new D list?" and so on...)

This format of group discussions has proven very efficient to get rich results within tight time-constraints. It allows for reaching far during only a couple of hours with large numbers of people, and with a strong feeling of active co-creation and community building.



Management Systems like ISO 14001 is about doing things right, leadership is to do the right things (from **Peter Drucker & Warren Bennis**). This slide pictures how easy it is to bring the strategic ABCD perspective into an administrative management tool, e.g. ISO14001, and thereby transfer this to a tool for administration of systematic conversations between top-managements and sustainability managements. The major aspect of turning the traditional Deming-cycle into a leadership tool, is to make leaders and owners *active* part of the planning stage. Experience and empirical data from action-research points at this as the most neglected aspect of sustainable development, with leaders continuously suffering from the two flawed doctrines of slide 11, and therefor not feeling obliged to take part in active and competent strategic planning towards attractive sustainable goals (ABCD in Funnel mindset). Patting sustainability managers on their heads for "taking care of the HR and Ecological issues", will *not* crack the huge strategic dimension of sustainable development. It leaves middle management in despair, fails to use their insights fully within the organization, and eventually jeopardizes the whole organization. Again, the "Funnel" is merciless.



In conclusion, any tool/program/tool to deal with complexity *directly*, or indirectly through various means within the fields 'business and economy', 'ecological and social systems', or 'dialogue and process' should be informed by robust boundary conditions for 'purpose' with its robust ABCD logic for backcasting from such boundary conditions. *With* a robust Operational system of this kind you can determine how the various tools relate to it, what aspects they cover, and thereby how they can be used cohesively together for *you*.