

Sustainability

Sustainable
DESIGN solution

Topics

- ✱ **Definition of sustainability**
- ✱ **History**
- ✱ **Design cases**
- ✱ **Design approaches**
- ✱ **Where do we go from here...**

- Please Designers
See this as an - obstructions

A bright sun is positioned in the upper left quadrant, casting a starburst effect across a clear blue sky. Large, fluffy white clouds are scattered throughout the scene, particularly concentrated in the lower half and along the left edge. The word "Sustainability" is centered in the middle of the image in a large, bold, white sans-serif font.

Sustainability

The image is a composite of two planetary surfaces. The left side shows a portion of Earth, with its characteristic blue oceans and white cloud cover. The right side shows a portion of Mars, characterized by its reddish-brown, rocky terrain. The two surfaces are joined along a vertical line, creating a stark contrast between the two planets. The text 'WE NOT ME' is overlaid on the bottom right, in a white, sans-serif font.

WE
NOT
ME

History



Revolution - Cradle to Grave

Cradle to GRAVE (burning)



1987 Brundtland Rapport

Environmental problems are a reality and an increasing problem globally.



1992 Rio FN konvention

Environment and Development / Agenda 21.

178 governments acknowledge their responsibility to find sustainable ways for future development globally, nationally and locally.



1997 Kyoto Protokol

37 industrialized nations have committed themselves to reducing the amount of greenhouse gas emissions.



2010 COP 16

Climate Change Conference with approx. 190 countries
The goal is to stabilize the amount of greenhouse gases in atmosfærden at a level so that it prevents dangerous anthropogenic climate change. (Reduction of CO₂)



2012 COP +20

Climate Change Conference yet another meeting with no real goals achieved.

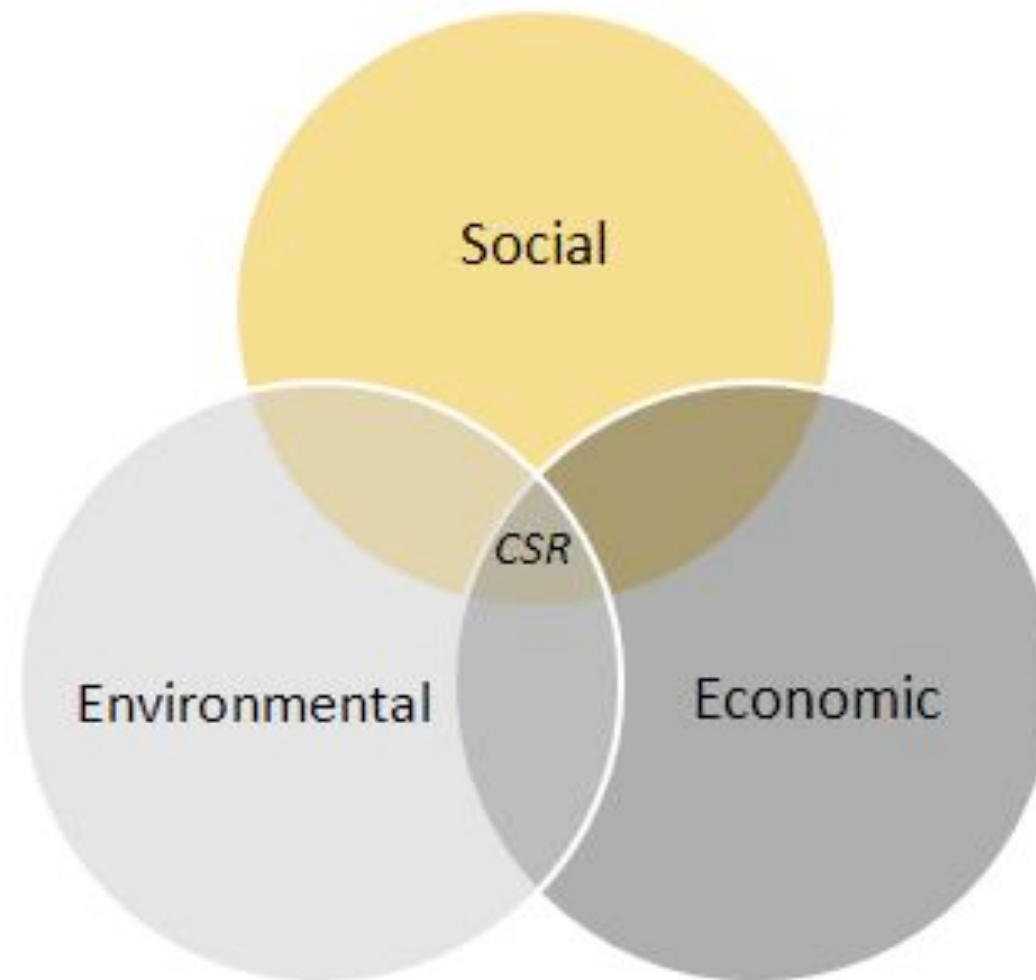


PPP

People
Profit
Planet
+
Purpose ...

Fig 1. Corporate Social Responsibility Dimensions

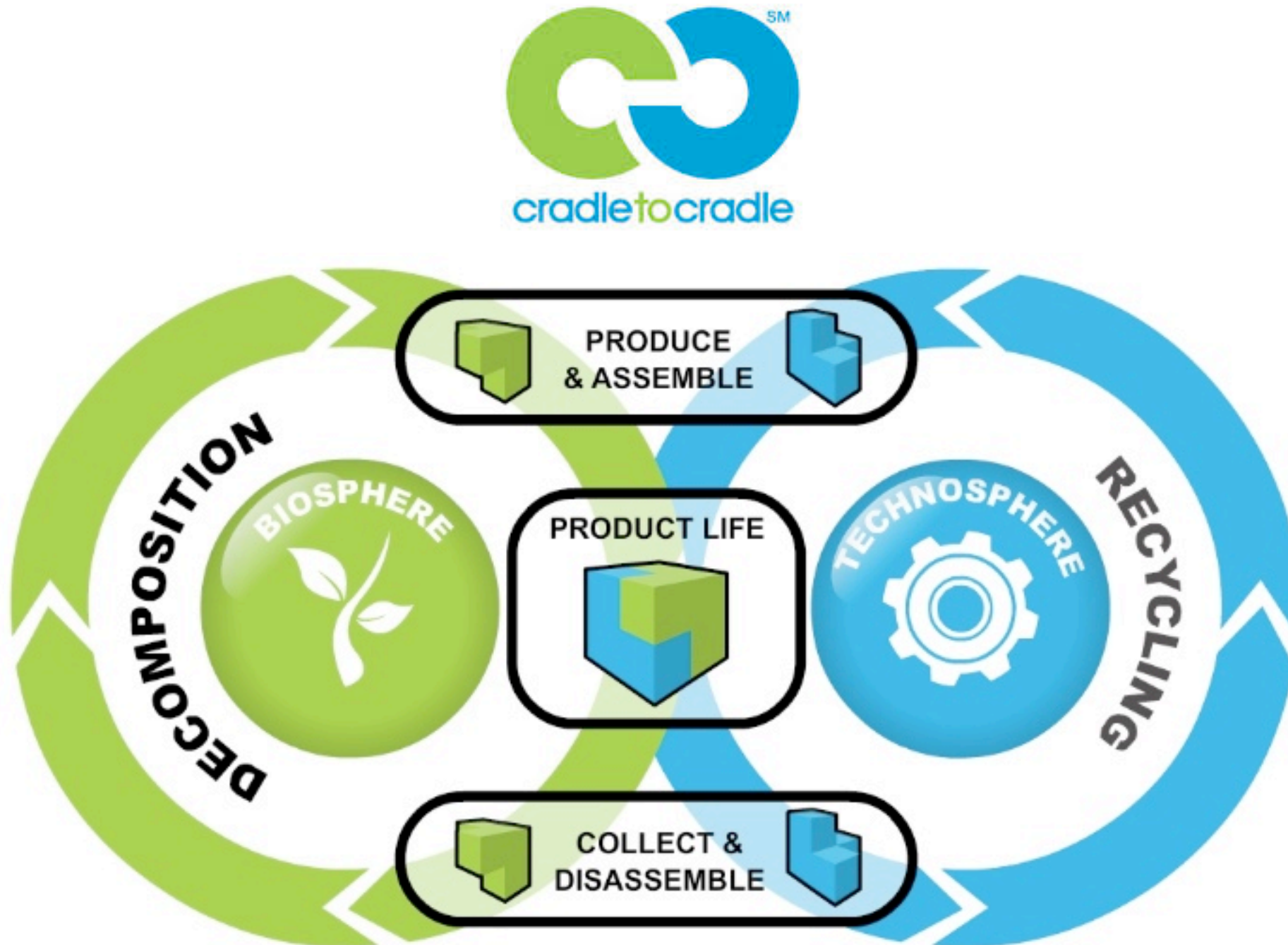
Three dimensions of sustainable business



"Triple Bottom Line" performance [economic, environmental, social]

No More Waste

Cradle to Cradle





Decentralized Uncontrolled Development





DesignCases



UP CYCLE



Mira Chair

Herman Miller

The chair can be separated in all its components in five minutes.
44 % is recycled material.
99 % can be included as 'nutrients' in the construction of new chairs or other products.





NO BODY CHAIR

Nobody Chair is made of synthetic felt, more specifically polyester. This kind of felt composed of fiber strands made of plastic granules

No wash Top

- Printed prevents dirt from attaching to.
- The color is camouflage.

Design Solution: Fletcher.





REDUCE REUSE RECYCLE



It's lay down your memory/
to Remy





Every year, 1.8 million people as a result of diarrheal diseases. 90% less than 5 years.

Peepoo is made of biodegradable plastics (PLA)



**Huge amounts of residual
yarn from cones disposed of
in industrial production. Here
the yarn is used to knit
underwear.**

MUJI



**For one material, few seams
No streaking, lightweight
Reduction of excess material**



Shoes for Disassembly



What to do ...

We have to get

- Sustainability INTO the product development

APPROCHES:

- ✱ Materials**
- ✱ Production**
- ✱ Use**
- ✱ Recycling**



BIO MIMIK



PATINA



**Comparison of subsystems.
Materials, transportation,
maintenance, cut waste, color and
finishing etc.**



What problem are we solving ... - protection from the rain.

Comparison of subsystems. Materials related, like transportation, maintenance, cut waste, color and finishing etc.



Basic properties of textile materials.

++ = very good | + = good | 0 = average | - = bad | -- = very bad | * = bleached

Comparison af multiple problem-solving

	Styrke	Vaskbarhed	Modstand mod UV	Modstand mod kemikalier	Modstand mod slid	Modstand mod ild	Modstand mod fugt	Modstand mod bakterier	Modstand mod svamp	Modstand mod insekter	Modstand mod gnawing	Resistance to moths
bomuld cotton												++
hør flax	++	0	--	+	-		+	0	-	-		++
uld wool	-	-	++	++	0		-	-	-	0		--
silke silk	+	0	+	++	0	0	0	-	-	0		-
viscose viscose	0	-	--	-	-	-	-	+	+	-		-
acetat acetate	-	-										
polyamid polyamide	++	+	+	+	+	+	+	+	+	+	+	+
polyester polyester	++	+	+	+	+	+	+	+	+	+	+	+
akryl acrylic	0	0	0	0	0	0	0	0	0	0	0	0
polypropylen polypropylene	++	+	--	--	-	-	+	--	0	++	++	++
polyvinylchlorid PVC	+	+	--	--	+	-	0	-	+	++	++	++

	produktion	brug	bortskaffelse
beklædning	+	+++	+
arbejdstøj	+	+++	+
husholdnings tekstiler	+	+++	+
møbeltekstiler	+++	+	++
gulvtæpper	+++	+	++

Method Cards

- to understand and see possibilities and to develop Sustainable Design Solutions.



☐ Økologi

☐ Dyrevelfærd

☐ Miljø


☐ Genbrug

☐ Fair Trade

☐ Andet




Help consumer to evaluative ! Please...



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5.9
Scientific Rating

Dr. Hauschka Cleansing Milk
Rank: 3,673 out of 24,424 skin care products · Company: Dr.Hauschka Skin Care, Inc.

▼ 4.0

Health
This product contains one or more ingredients that raise a medium level of health concern.

▼ 8.5

Environment

▼ 5.1

Society
This company's social policies, practices and performance are average.

Where do we go now ...

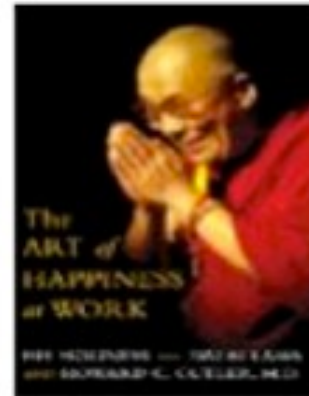
QUALITY OF LIFE



The Good Life



Mindfulness



Happiness Hunting

UNIVERSAL VALUES



Enoughism



The Big Society



Empathic Leadership

TREND ATLAS 2020+



Decoding socioeconomic and cultural drivers of society enable us to discover key challenges and opportunities

IN 2019 (EU INNOVATION CAMP) / THE NO-USE SOCIETY / A HUMAN GLOBAL

Spiritual
Emotional
Social
Scientific

LINEAR ECONOMY

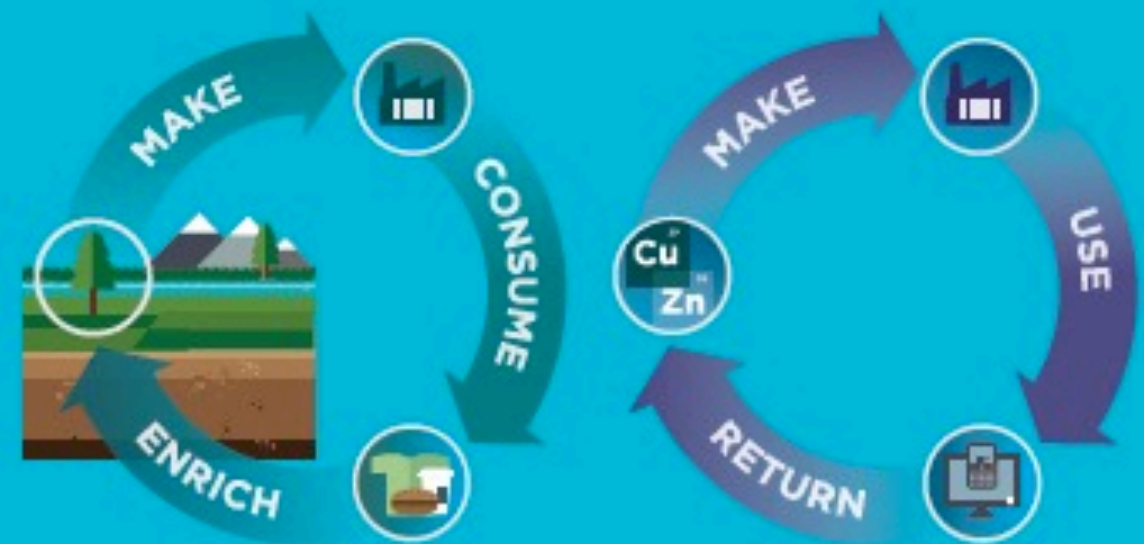


TECHNICAL & BIOLOGICAL MATERIALS MIXED UP

ENERGY FROM FINITE SOURCES

AFTER WILKINSON & PLEHN-REHME

CIRCULAR ECONOMY



BIOLOGICAL MATERIALS

TECHNICAL MATERIALS

ENERGY FROM RENEWABLE SOURCES

PRINCIPLES OF A CIRCULAR ECONOMY

WASTE = FOOD
DIVERSITY = STRENGTH
ENERGY = RENEWABLES
PRICE = REAL COST

BIOLOGICAL MATERIALS
SAFELY RE-ENTER
NATURAL SYSTEMS



TECHNICAL MATERIALS DO NOT
COMPOST. THE PRODUCTS ARE
MADE TO BE MADE AGAIN

