

Klimawandel in den Alpen

Normative Zielvorstellungen nachhaltiger Entwicklung
beim Umgang mit Klimawandel und -schutz

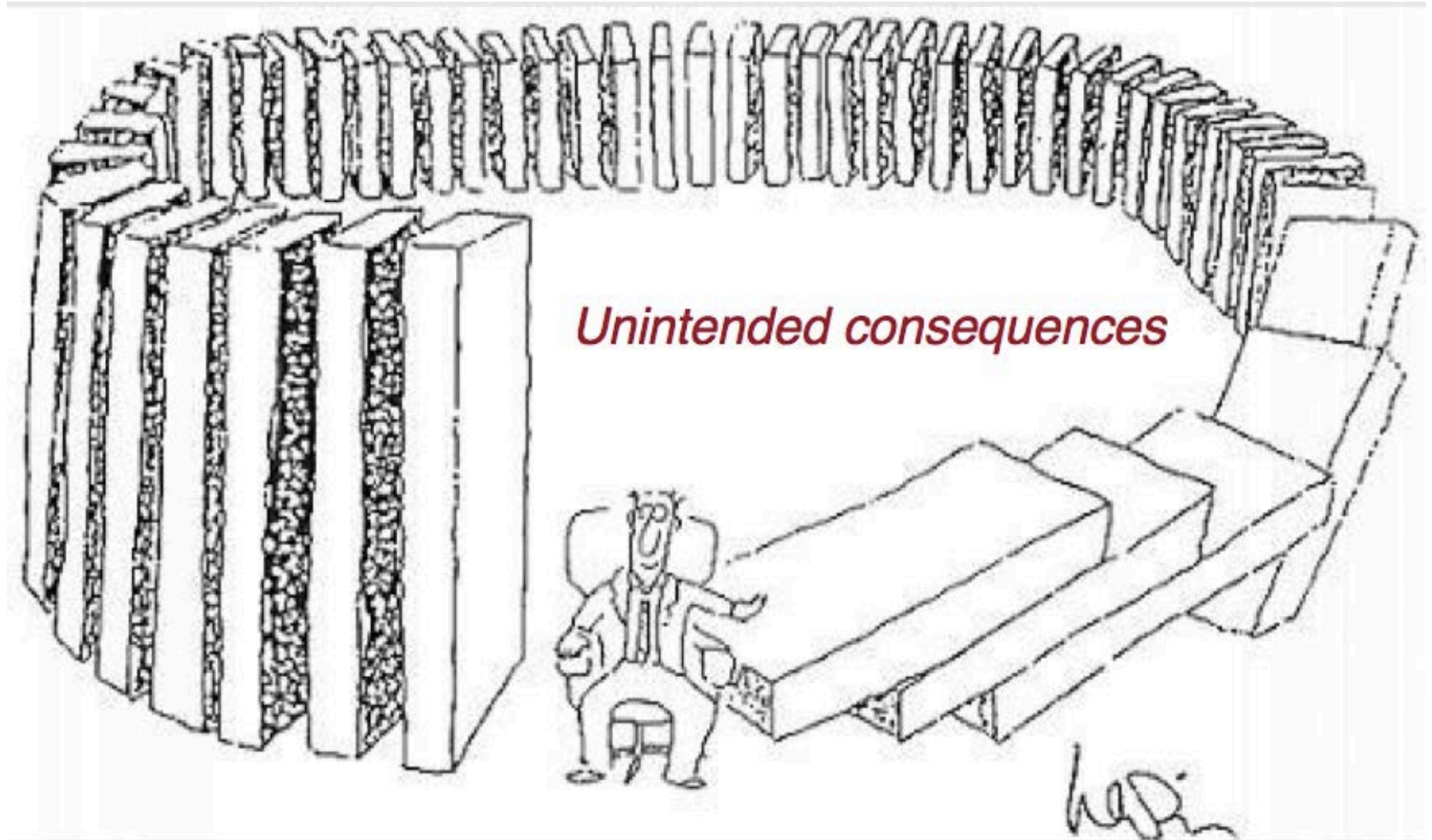
19. Österreichischer Klimatag 2018

Tobias Luthe



Klimawandel ist komplex

Limitiertes Wissen und unbeabsichtigte Konsequenzen des Handelns



Klimawandel ist komplex

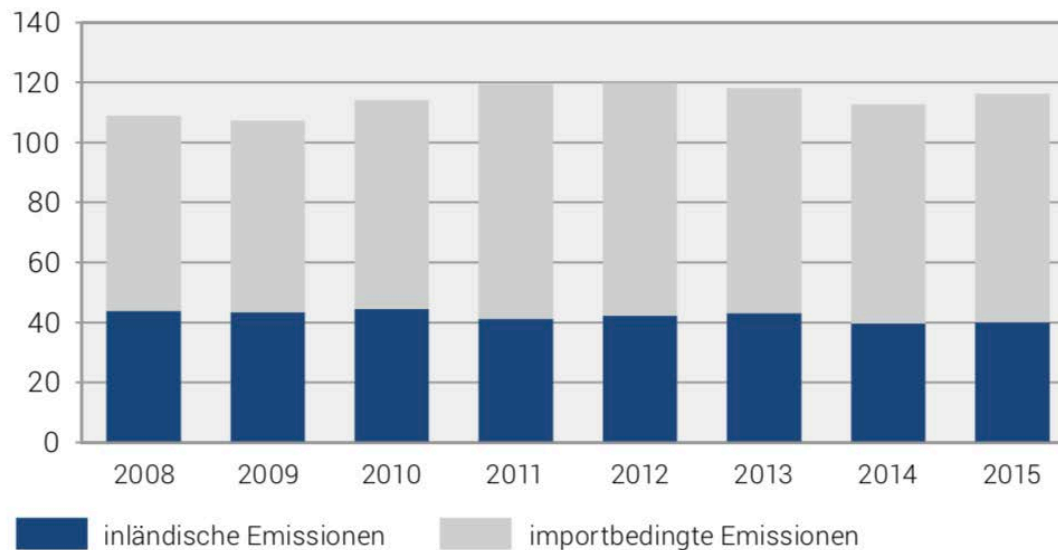
Schweiz: Mehr als 60% des Treibhausgas-Fussabdrucks entstehen im Ausland

Treibhausgas-Fussabdruck¹

Treibhausgasemissionen aufgrund der Schweizer Endnachfrage

G1

Millionen Tonnen CO₂-Äquivalente



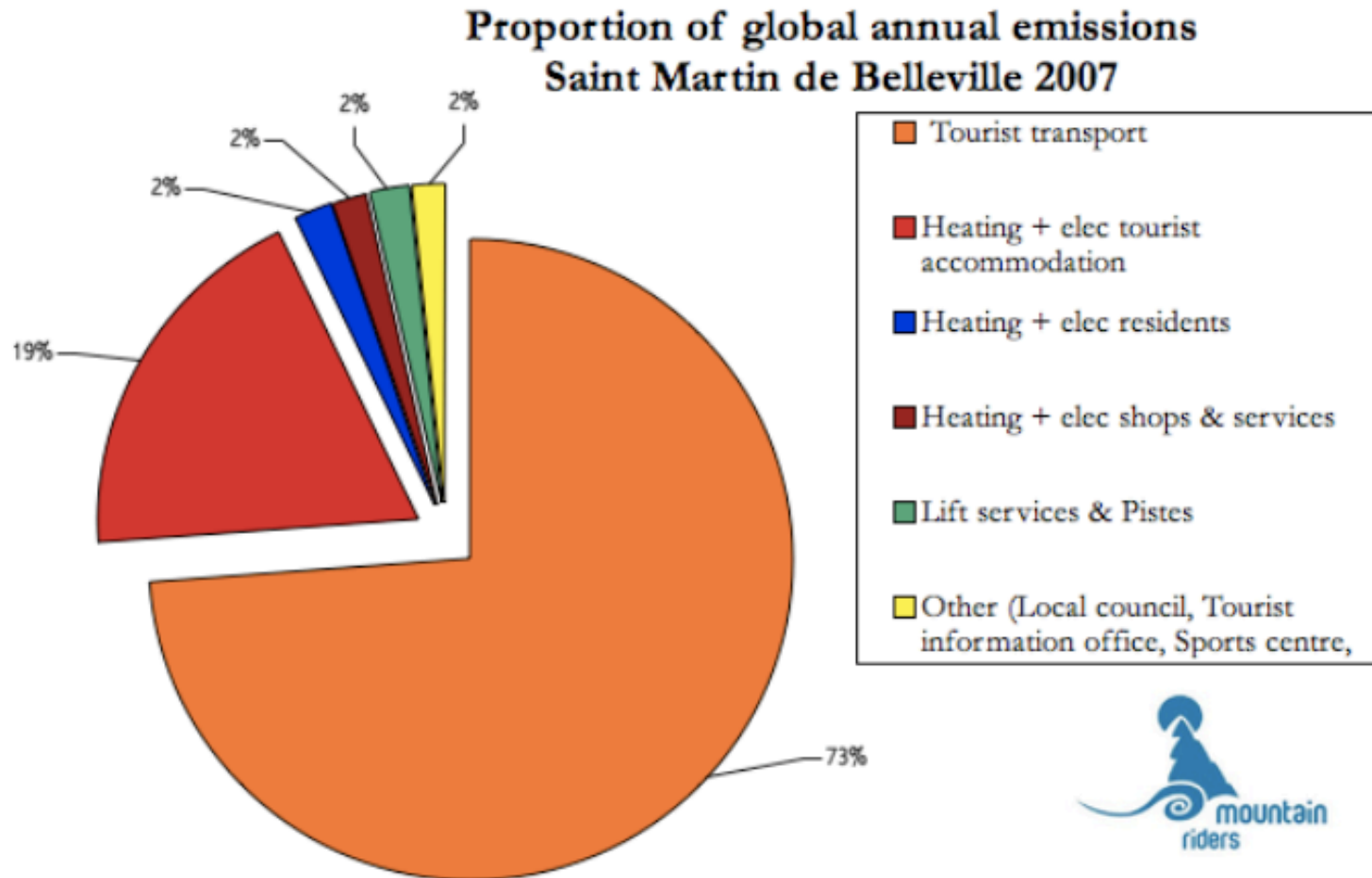
¹ Pilotrechnung. Berücksichtigte Treibhausgase: CO₂, CH₄, N₂O

Quelle: BFS – Umweltgesamtrechnung

© BFS 2018

Klimawandel ist komplex

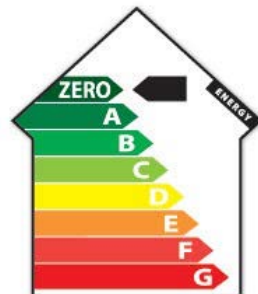
Klimaschutz eigentlich nicht – Hebel von Mobilität und Gebäuden, Bsp. Tourismus



Source: 'Calcul des émissions des gaz à effet de serre en station' by Mountain Riders/Agence De l'Environnement et de la Maîtrise de l'Energie (ADEME) - - September 2007

Klimawandel ist komplex

Klimaschutz eigentlich nicht – klimapositiv bauen z.B. mit Hanf



Klimawandel ist komplex

Klimaschutz eigentlich nicht – mit neuen Technologien

🏠 › Lifestyle › Cars › Hyundai reviews

Hyundai Nexo: the SUV that could make the market for hydrogen-powered cars really take off

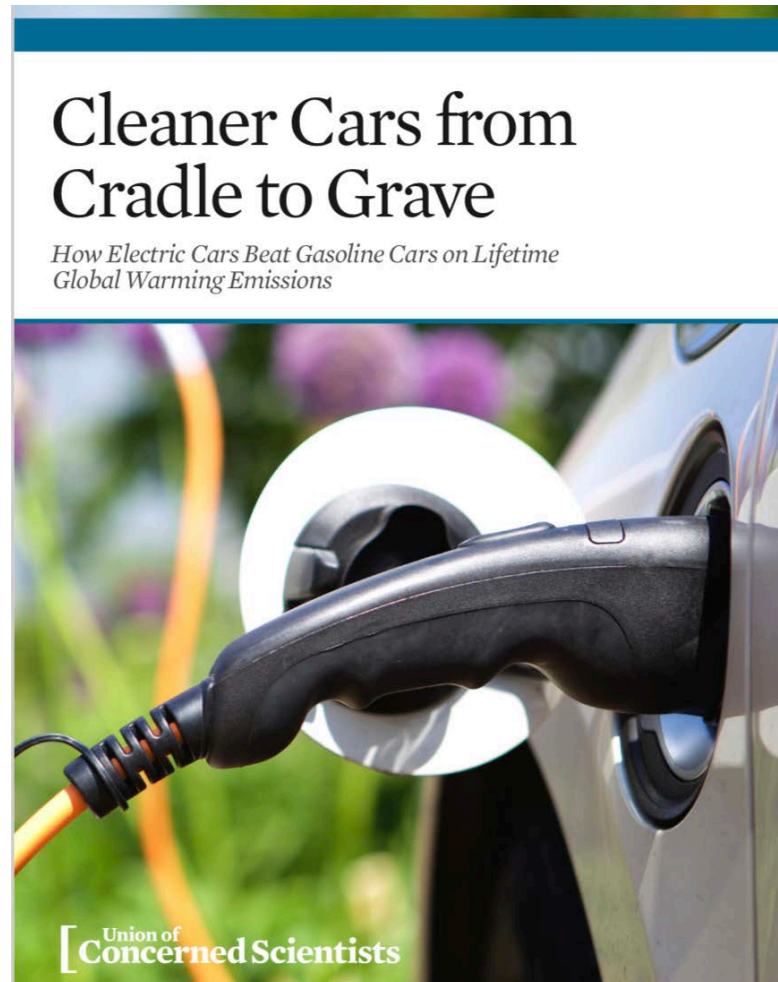


22



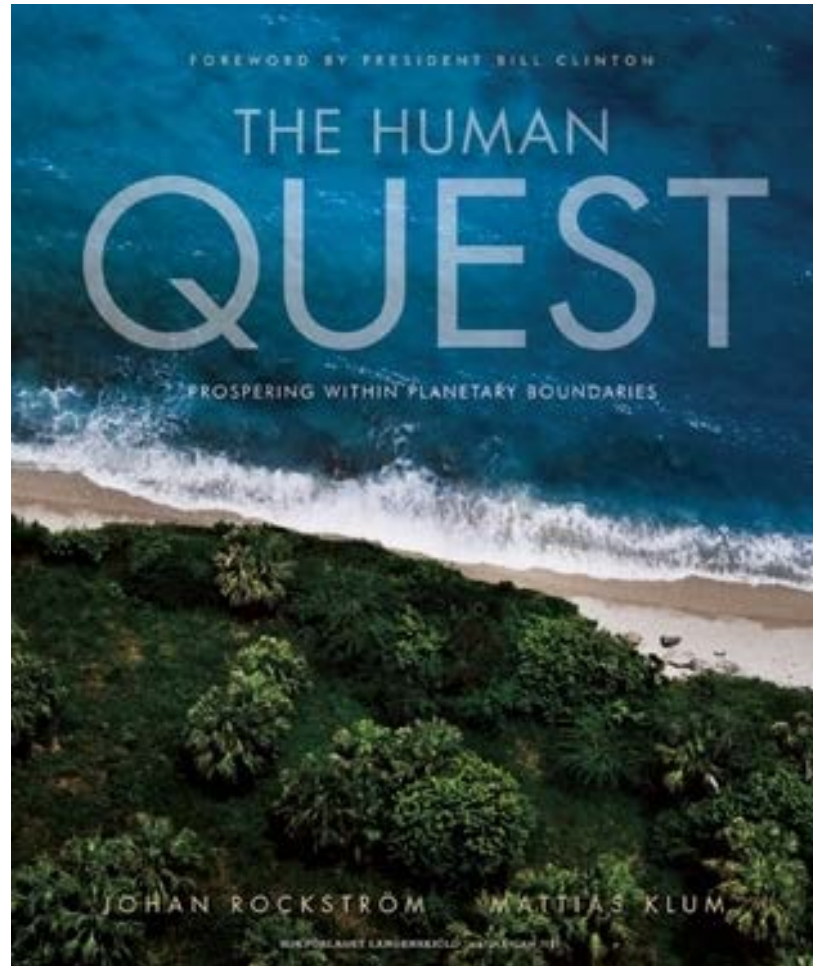
Klimaschutz braucht mehr Transparenz und aktive Aufklärung

E-car bashing. Don't leave the good for the better.



Klimaschutz braucht mehr Transparenz und aktive Aufklärung

Die Kraft von Fotografie, Film, Storytelling, Erlebnissen,...



Klimaschutz braucht mehr Transparenz und aktive Aufklärung

Revival Wissenschaftsjournalismus - Beispiel Outdoorindustrie

Suston

SUSTAINABLE OUTDOOR NEWS #1/2018

5 ECO PIONEERS
Scandinavia's minimal impact adventurers.

BRANDS TAKING ACTION
The new nature conservancy activists.

THE WAY OF WOOL
The challenges of responsible wool sourcing.

#1

PLASTICS IN THE OCEANS
New problems, new solutions.

THE OPEN STORE
Staff and customer hang out.

PARTNER PRESENTATIONS
Brands share about good things they do.

Illustration: LISA MARIN

5 WOOL SPECIALISTS

Suston Magazine is cooperating with several outdoor companies that are pioneers in sustainability. We asked five of them to share how they work with wool sourcing, animal welfare, and other important issues in the production of wool apparel.

Illustration: LISA MARIN

SPONSORED CONTENT PARTNER: SALEWA

From the mountains for the mountains

Mountaineering specialist Salewa combines wool from the Tyrolean mountain sheep with modern Celliant technology and utilizes a highly functional natural fiber harvested by local mountain farmers.

South Tyrolean mountain sheep wool can be found in many winter jackets made by the mountaineering specialist Salewa. This idea came a few years ago from the brainchild of Peter Veider, Managing Director of the Tyrolean mountain rescue organization: "We wanted to outfit the mountain rescuers with natural fibers from the region," explains Veider. However, beyond all sustainability efforts, the quality had to be right. Pulling this requirement wasn't easy at first. Despite all its advantages, the Tyrolean mountain sheep does not produce a fine wool like its cousin, the Merino sheep. "The end user has become a little spoiled in this regard. Primarily when the textiles are worn directly on the body," says Christine Ladstätter, Head of Product Innovation at Salewa's apparel division. According to Christine Ladstätter, the mountain sheep's wool is excellent for one thing – as an insulation material in the form of highly functional wool packing. This is why Salewa ultimately agreed when Peter Veider came to them with his idea of promoting the Tyrolean mountain sheep and supporting their owners as a local supplier of raw materials. A raw material that until recently – it should be mentioned – was rarely put to use and was often discarded after shearing. The sustainability concept not only includes the short transportation routes, but also the cleaning and refining process that takes place in Bergamo and Cittadella. Once the wool is washed, it is refined.

Ecological insulation aid
This refining process includes the initial step of oxygen treatment called Oxy. Wash, a patented wash that differs from conventional processes in that it forgoes the use of chlorine, which is harmful from an environmental standpoint. This ensures its washability and makes the wool soft, odorless, and more breathable.

Functionality and sustainability
Technically speaking, Celliant is a patented mix of thermochromic minerals in a fine powder form. The material is embedded in recycled polyester fibers and absorbs the body's long-wave infrared rays and radiates them back over a longer period of time. Similar to a small infrared oven, the rays stimulate local circulation. Put simply: The body stays at operating temperature longer. Once the multifunctional Tyrolean mountain sheep fleece is finally etched and packed in a dense fiber weave, a successful symbiosis of functionality and sustainability emerges.

Salewa at HPO, H&A, CSF, H&A, salewa.com

NEWS - 15

Nachhaltigkeit – von der Beliebigkeit zum Bewusstsein

Anthropozän



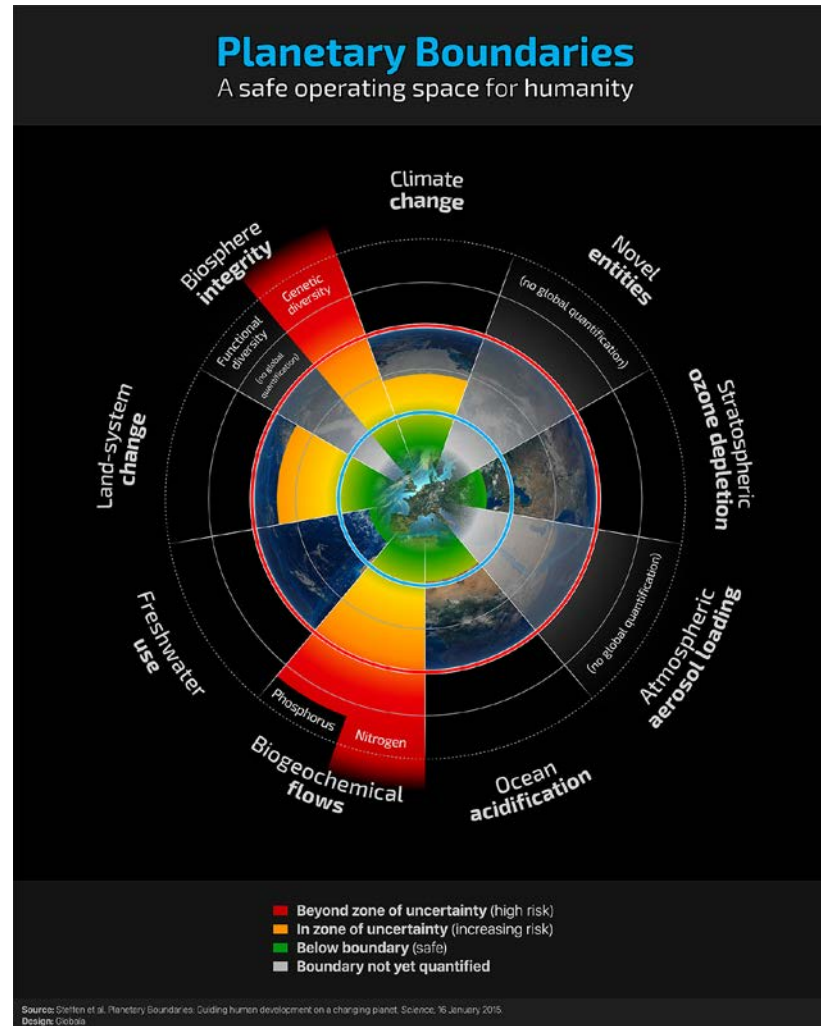
The **Anthropocene** defines Earth's most recent geologic time period as being human-influenced, or anthropogenic, based on overwhelming global evidence that atmospheric, geologic, hydrologic, biospheric and other earth system processes are now altered by humans.

The word combines the root "anthropo", meaning "human" with the root "-cene", the standard suffix for "epoch" in geologic time.

The Anthropocene is distinguished as a new period either after or within the Holocene, the current epoch, which began approximately 10,000 years ago (about 8000 BC) with the end of the last glacial period.

Nachhaltigkeit – von der Beliebigkeit zum Bewusstsein

Planetary Boundaries



Nachhaltigkeit – von der Beliebigkeit zum Bewusstsein

Sustainable Development Goals



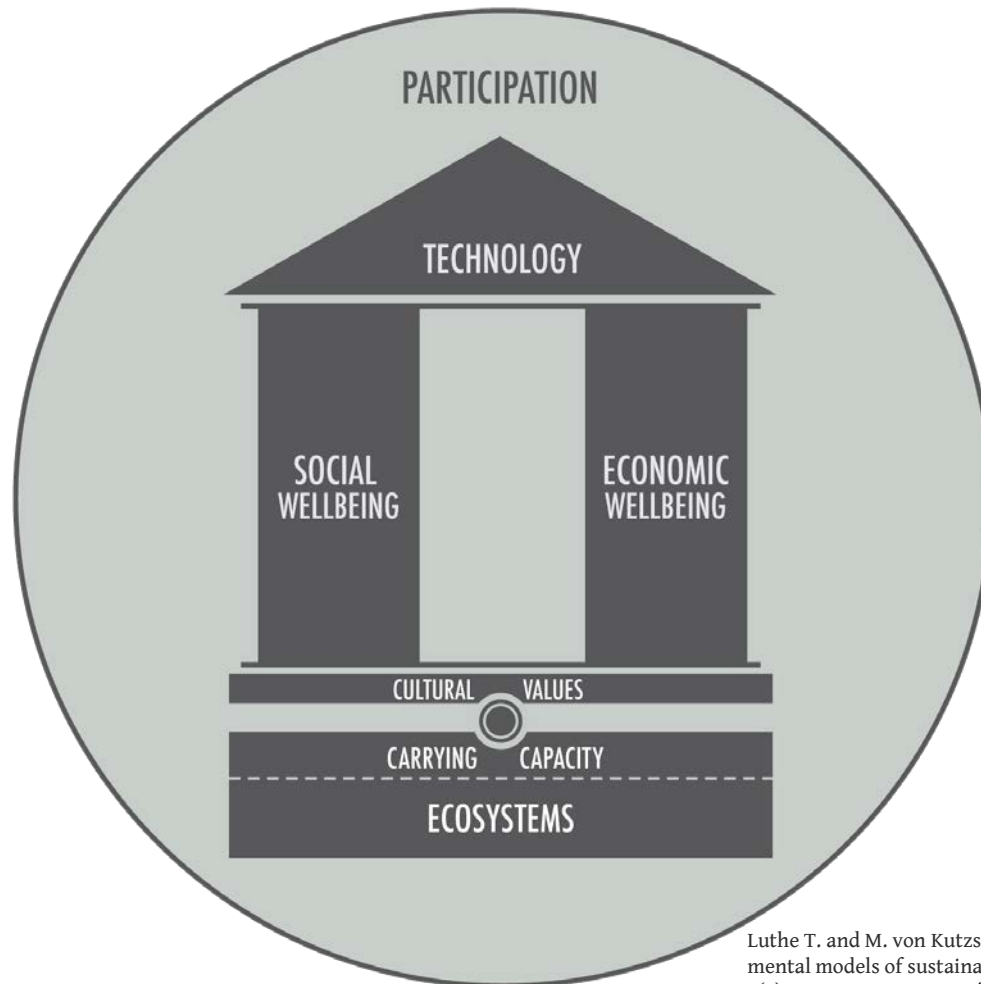
SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



Nachhaltigkeit – von der Beliebigkeit zum Bewusstsein

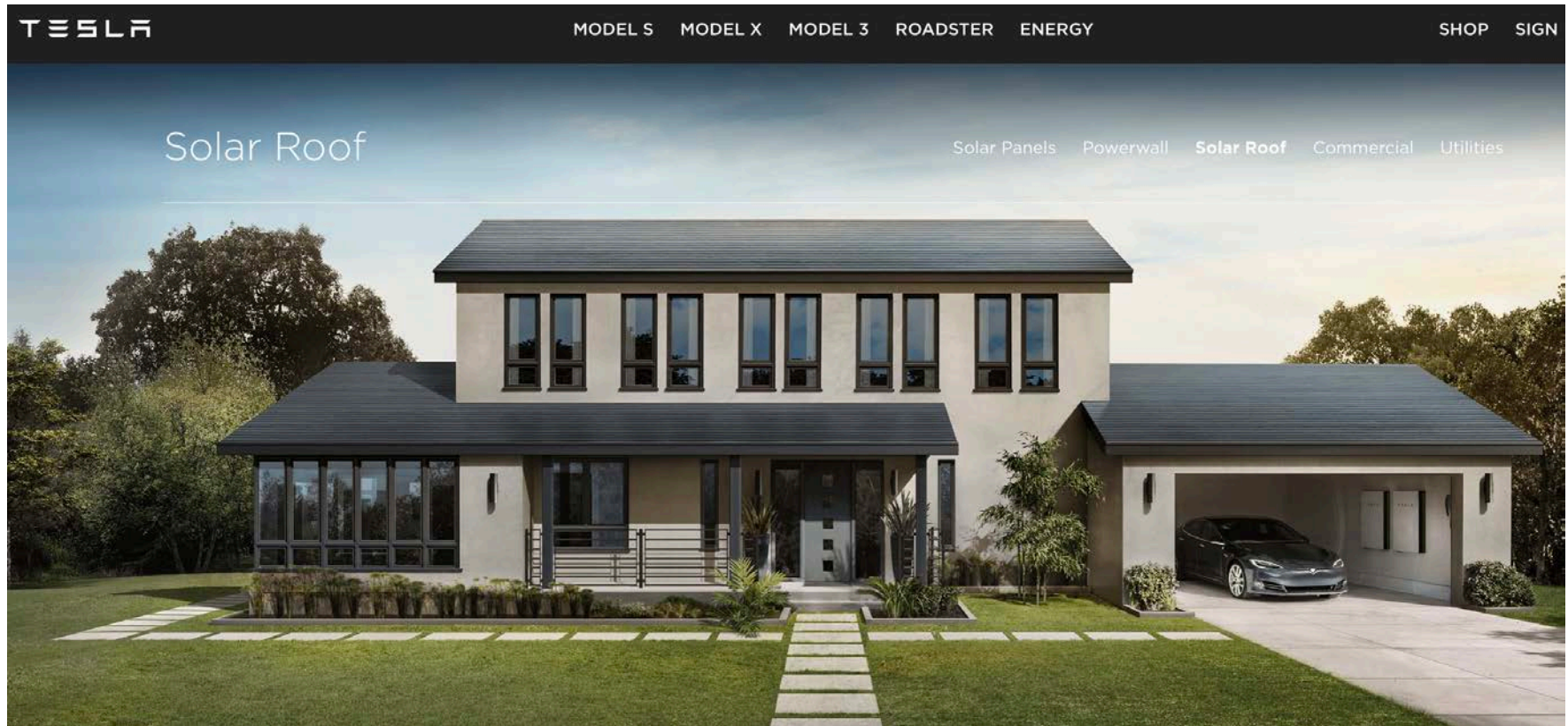
Mentale Modelle für einen integrierten Klimaschutz



Luthe T. and M. von Kutzschenbach. 2016. Building common ground in mental models of sustainability. Sustainability: The Journal of Record 9(5):247-254. DOI 10.1089/sus.2016.29068.tl.

Lifestyle und Klimaschutz

Don't leave the good for the better



Lifestyle und Klimaschutz

Verzicht wird zum gesellschaftlichen Gewinn



Lifestyle und Klimaschutz

Wertewandel und Verhaltensänderung

DON'T BUY THIS JACKET



COMMON THREADS INITIATIVE

REDUCE

WE make useful gear that lasts a long time
YOU don't buy what you don't need

REPAIR

WE help you repair your Patagonia gear
YOU pledge to fix what's broken

REUSE

WE help find a home for Patagonia gear
you no longer need
YOU sell or pass it on*

RECYCLE

WE will take back your Patagonia gear
that is worn out
YOU pledge to keep your stuff out of
the landfill and incinerator



REIMAGINE

TOGETHER we reimagine a world where we take
only what nature can replace

patagonia[®]
patagonia.com

Lifestyle und Klimaschutz

Überdenken (neuer) Werte



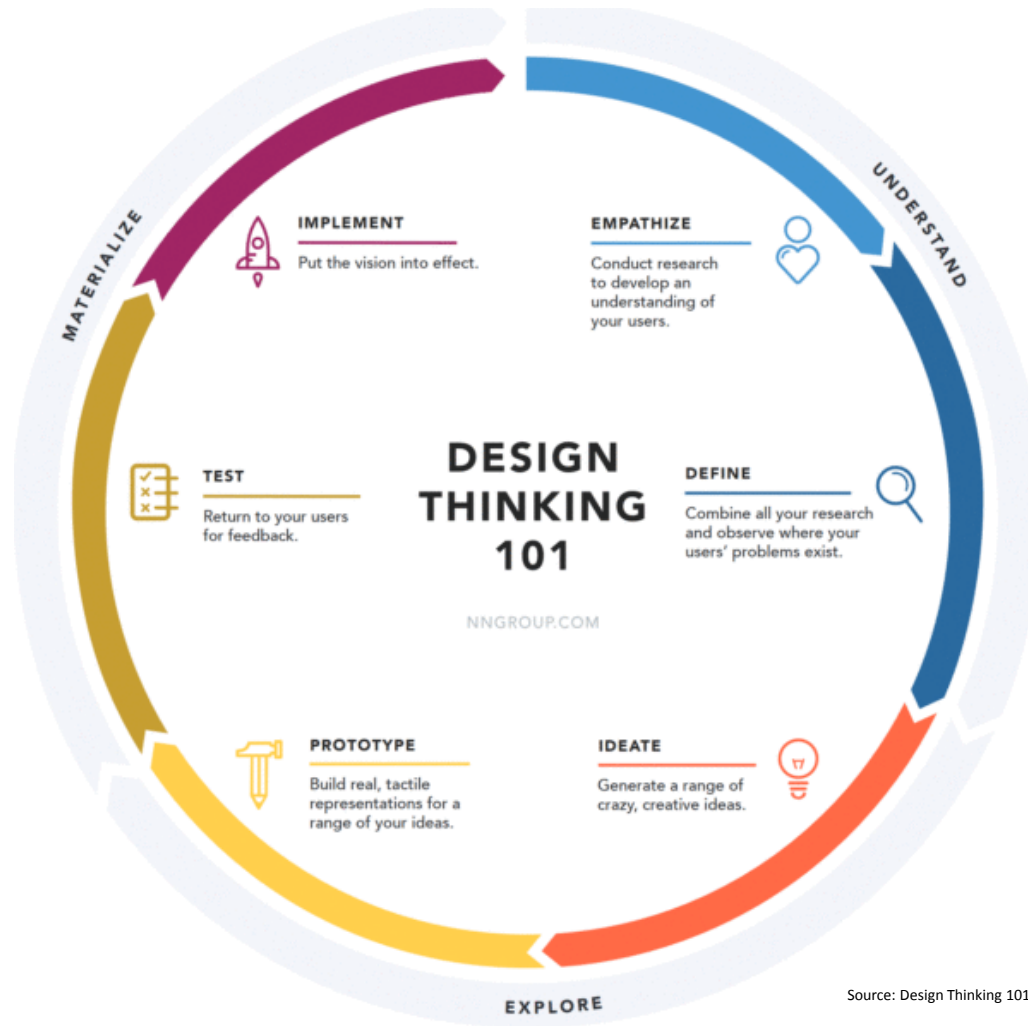
Lifestyle und Klimaschutz

Weniger ist Mehr - Kontraste zum Alltag



Lifestyle und Klimaschutz - Zuerst die Vision...

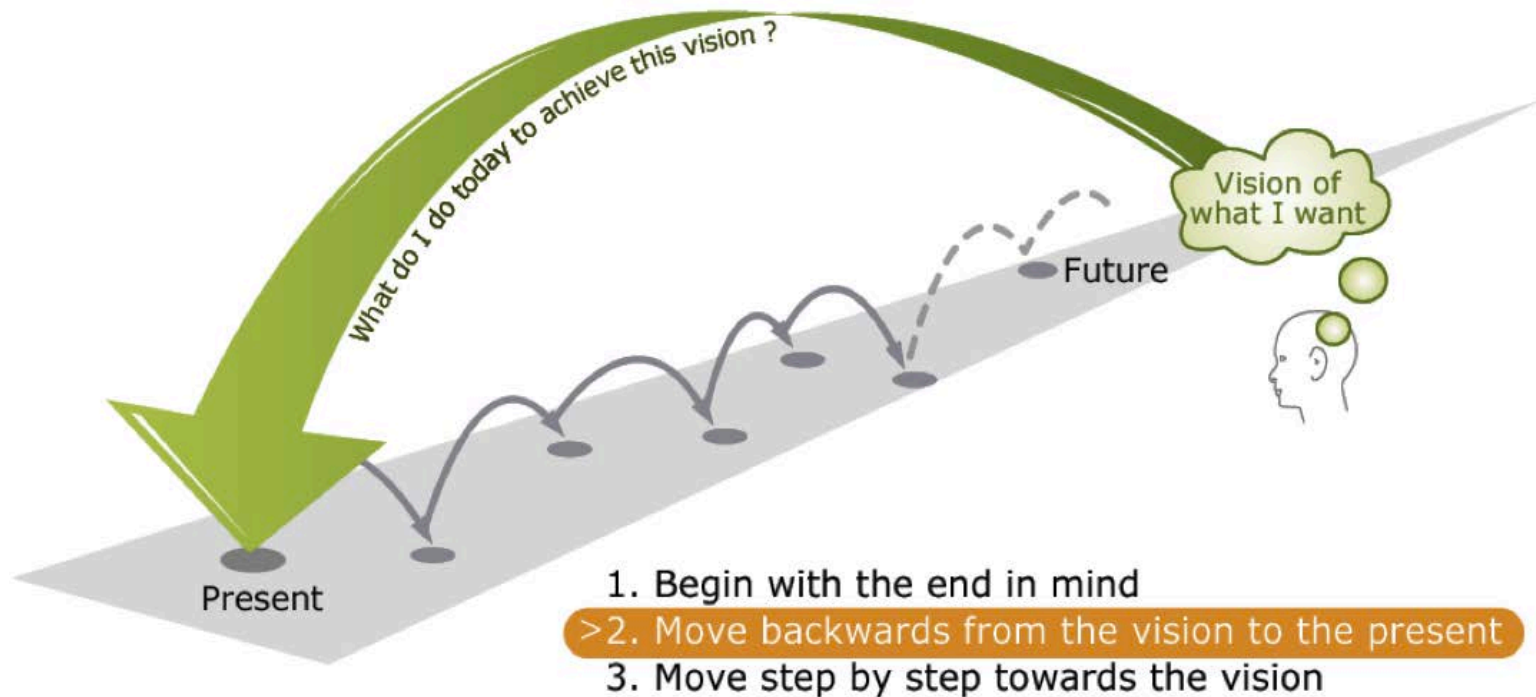
Design Thinking auf einem blanken Blatt



Source: Design Thinking 101, Nielsen Norman Group

Lifestyle und Klimaschutz - ...dann die Umsetzung

Rückschau statt Vorschau



Source: TNS, CA

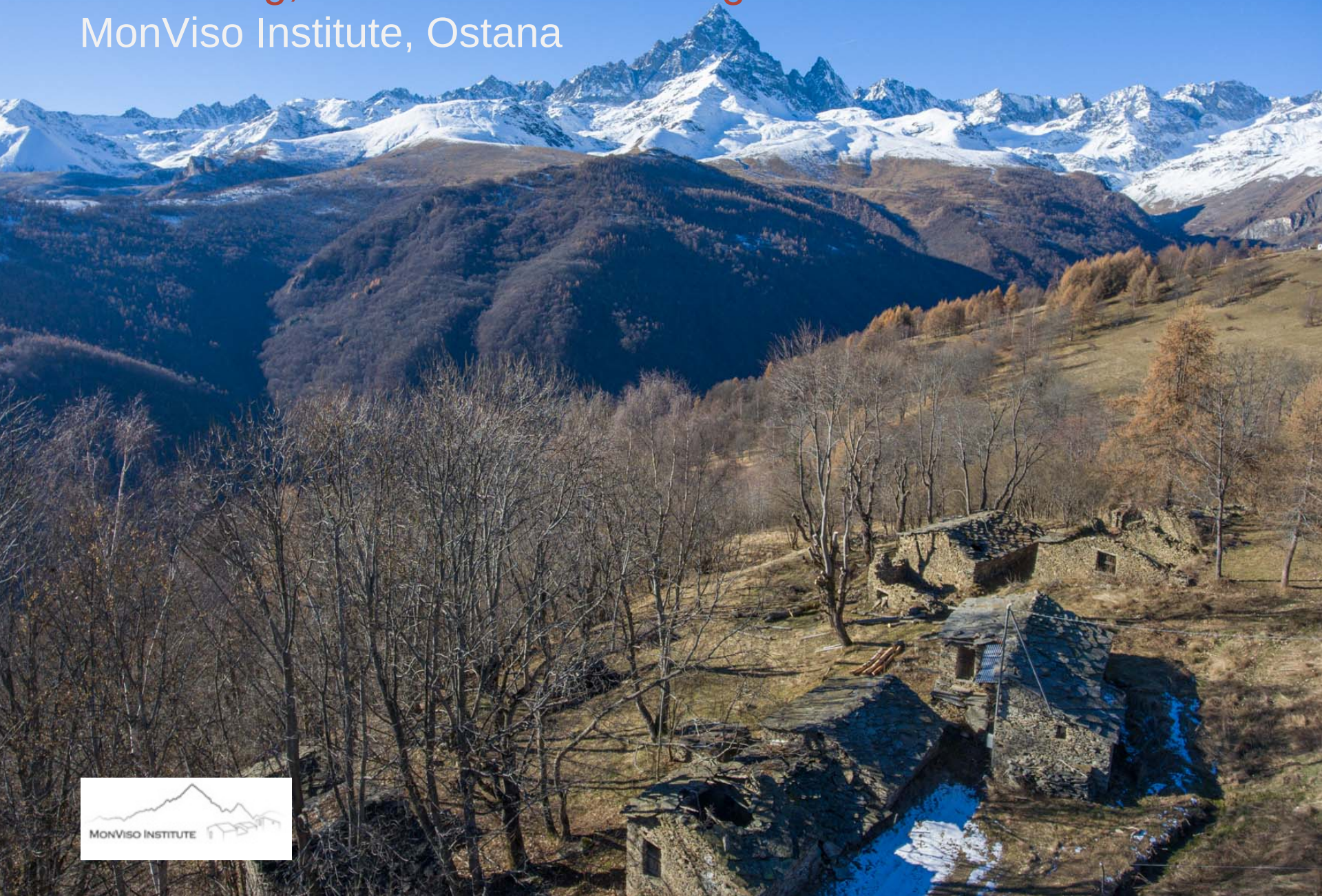
Von der Vision zur Transformation

Systemverständnis – Kreislaufdesign – Partizipation – Weniger ist Mehr



Forschung, Lehre und Umsetzung in Real – Welt Laboren

MonViso Institute, Ostana



Systemisches Design – Technische und Soziale Innovation



Wissensvermittlung für integrierten Klimaschutz

Bsp. Touristenkarte mit Information auf/zu Steinpapier als beiläufiger Klimaschutz



	SP-StonePaper	Recycling-Papier	Frischfaser-Papier	
Bäume	0	4	23	
Abfall	0	200	0	kg
Trinkwasser	0	39700	70500	l
Bleichmittel	nein	ja	ja	
Laugen	nein	ja	ja	
Säuren	nein	ja	ja	
CO ₂	676	986	1344	kg
Energie	5270	6450	10550	kWh



Systemisches Design und nachhaltiges Engineering

Industriehauf als Inkubator einer (alpinen) Kreislaufwirtschaft



Unser Konsumverhalten macht den Unterschied

Bis zu 50% Reduktion des GWP & positiver Beitrag zu einer Kreislaufwirtschaft

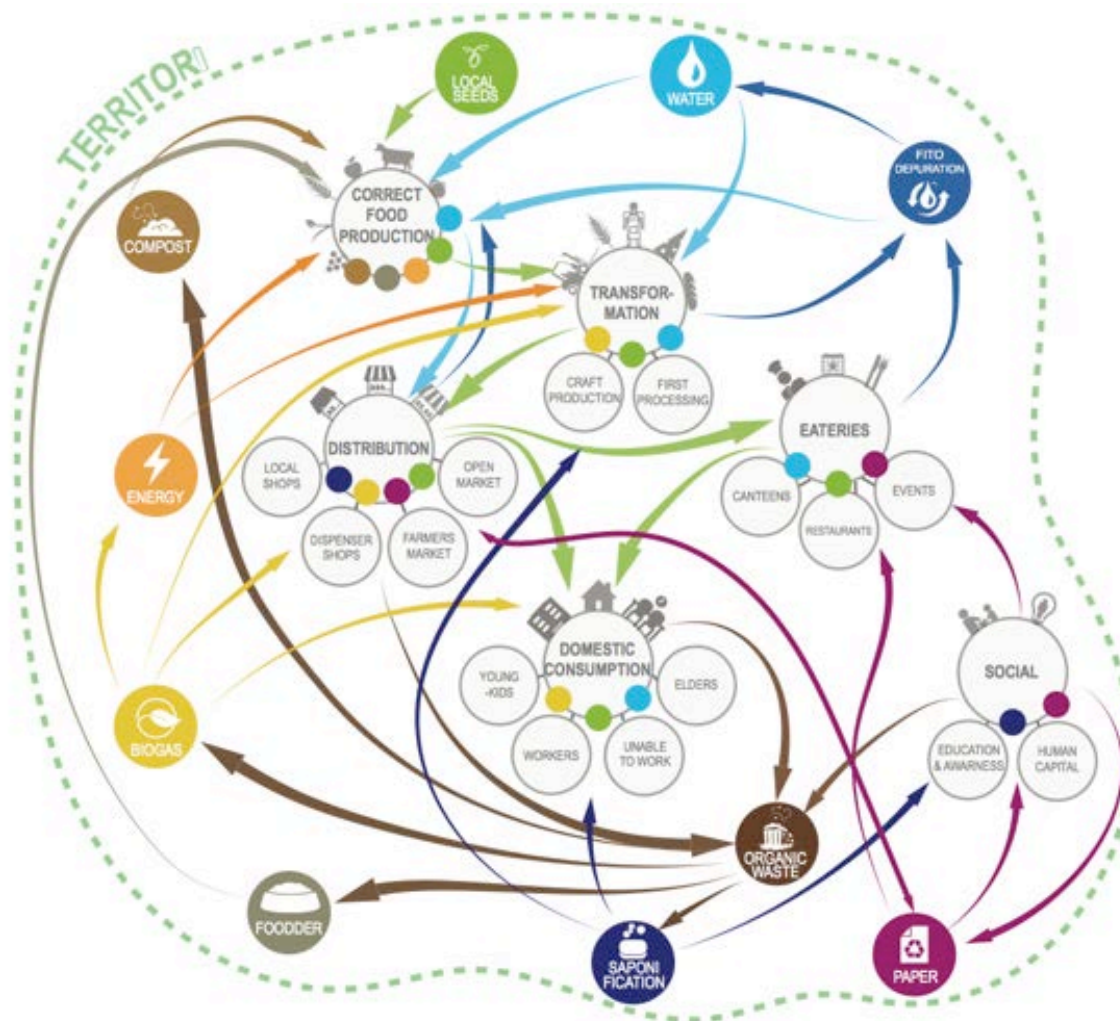
The Grown Hemp Ski "MonViso edition"

Regenerative design - 100% hemp fiber-Paulownia wood composite
Minimal ecological footprint - renewable materials with 0km potential
Positive contribution - restoring circular mountain economies



Die benötigte (Klimaschutz-) Transformation ist zirkulär

Die Skalierung von dem, was wir designen, entwickelt sich vom Produkt über Industrieprozesse zu Landschaften und zurück zum Material



Quelle: Politecnico Torino

Es braucht nicht weniger, sondern mehr

Eine super-App beinhaltet die gesamte Verkehrspalette, real-time

Trafic I>>>

Try Web App

Own your city

Trafi connects and compares all of your favorite city mobility options and always shows them in real-time.



Trafic I>>>

Web App

iPhone

Android



Everything combined

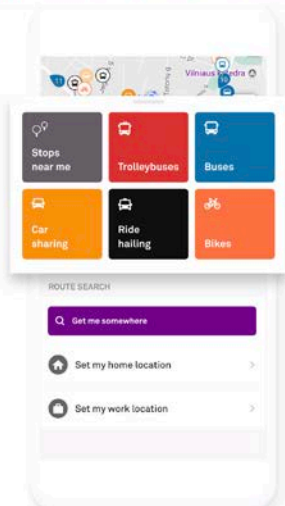
We want to enable free movement within the city. Access car sharing, ride hailing, bikes and public transport with ease! Trafi never leaves you without an option.

Public transport

Bikes

Car sharing

Ride hailing



Klimaschutz braucht eine (normative) Nachhaltigkeits-Vision

Voraussetzung sind Partizipation und Integration zirkulär involvierter Akteure



BUNDESMINISTERIUM
FÜR NACHHALTIGKEIT
UND TOURISMUS

BMBWF
BUNDESMINISTERIUM
FÜR BILDUNG, WISSENSCHAFT
UND FORSCHUNG



Klimawandel ist komplex

Klimaschutz eigentlich nicht

Fakten! Fakten?

Für mehr Transparenz und attraktive Wissenschaftskommunikation

Nachhaltigkeit – von der Beliebigkeit zum Bewusstsein

Was wir glauben zu wissen: Faktor Mensch

Erstrebenswerte Alternativen

Klimaschutz bedarf einer Zielvision

Es braucht nicht weniger, sondern mehr

Für eine Kultur des integrierten Klimaschutzes

Erfolgreicher Klimaschutz:

Partizipative Entwicklung

normativer Nachhaltigkeits-Visionen

für einen sozialen Klimawandel