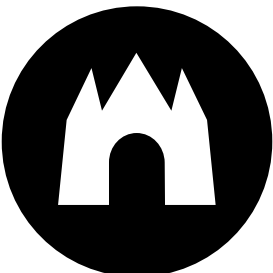

REgeneratieve Technologie

Nationale Conferentie Duurzame Digitalisering

29 September 2025

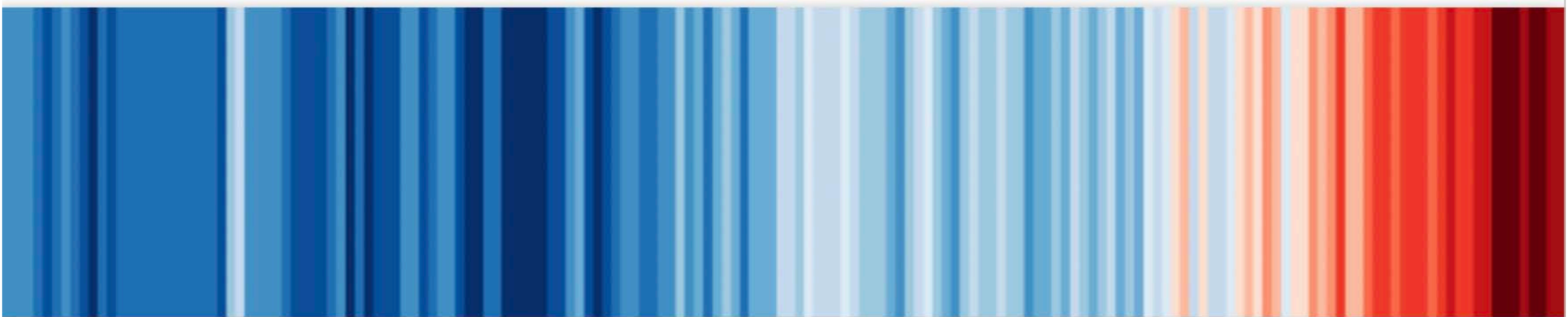
Judith Veenkamp

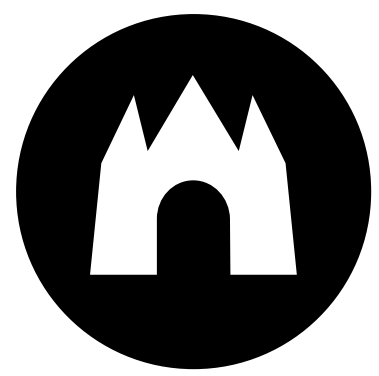
waag**futurelab**



waag  futurelab

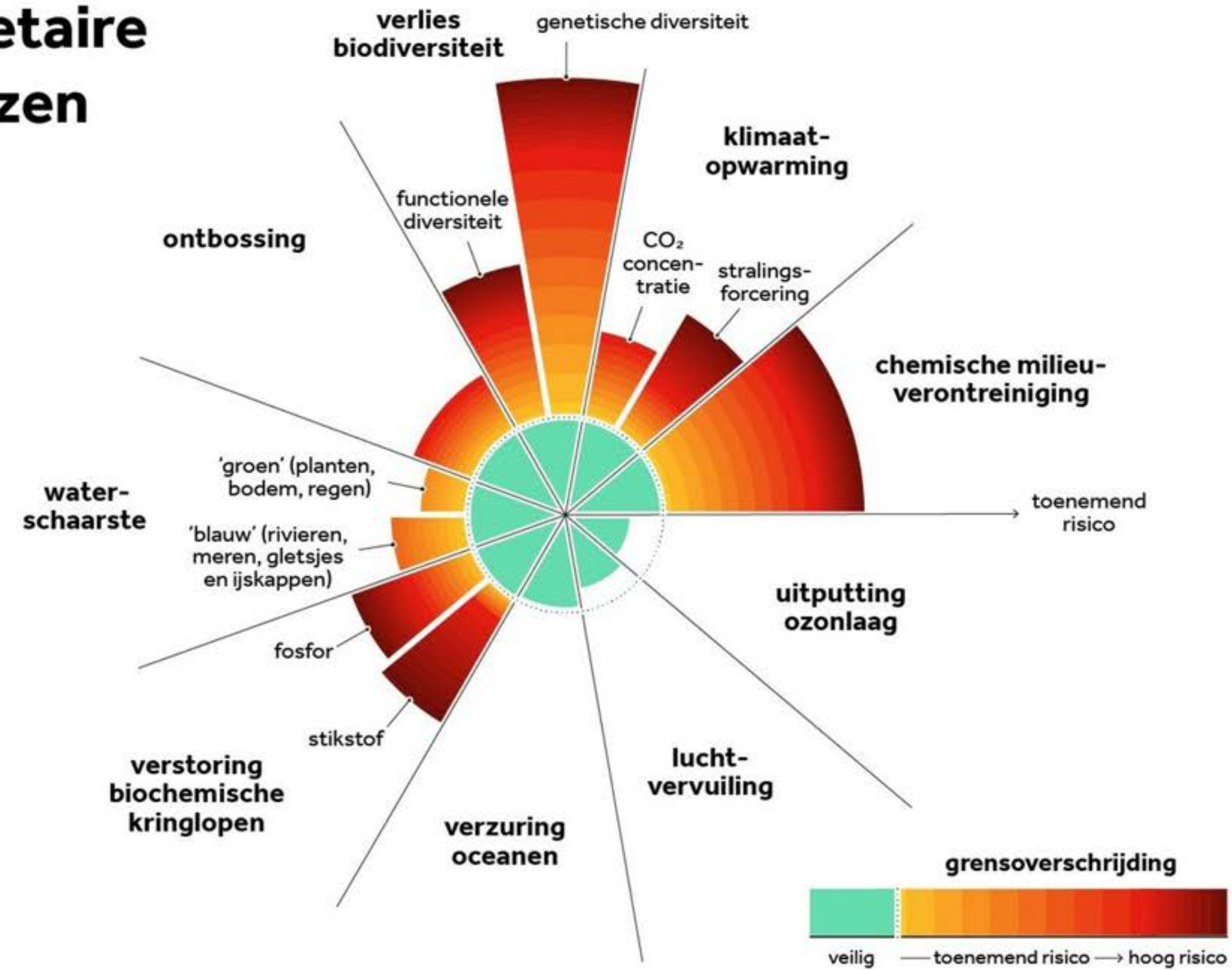
Sustainability vs. Regeneration



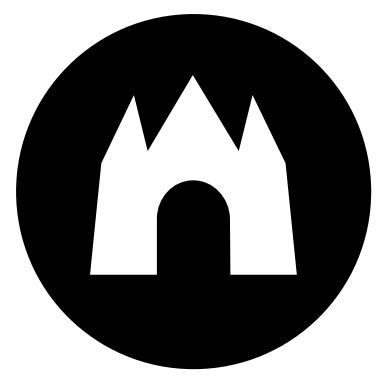


Planetaire grenzen

Planetaire grenzen



bron: Science Advances



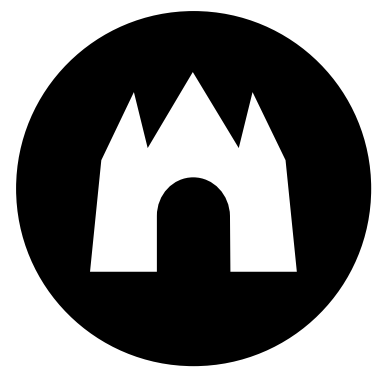
EU in AI Paniek





The future — — of European competitiveness

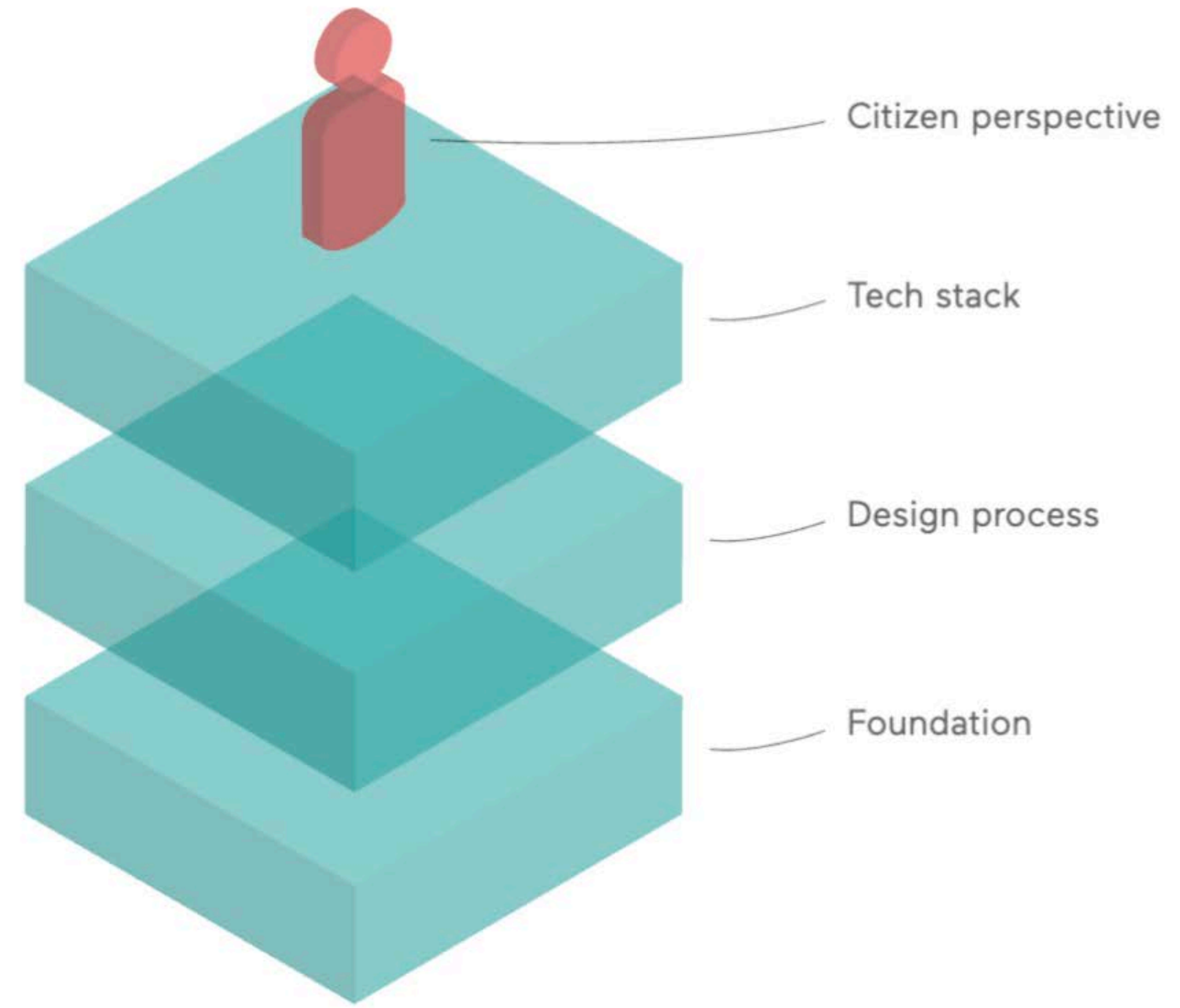


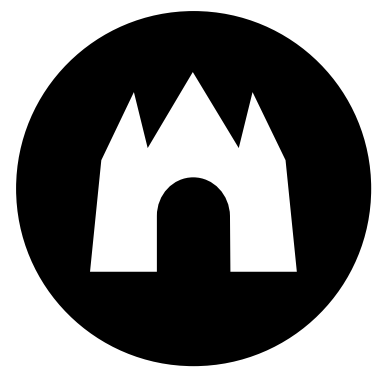


Public stack

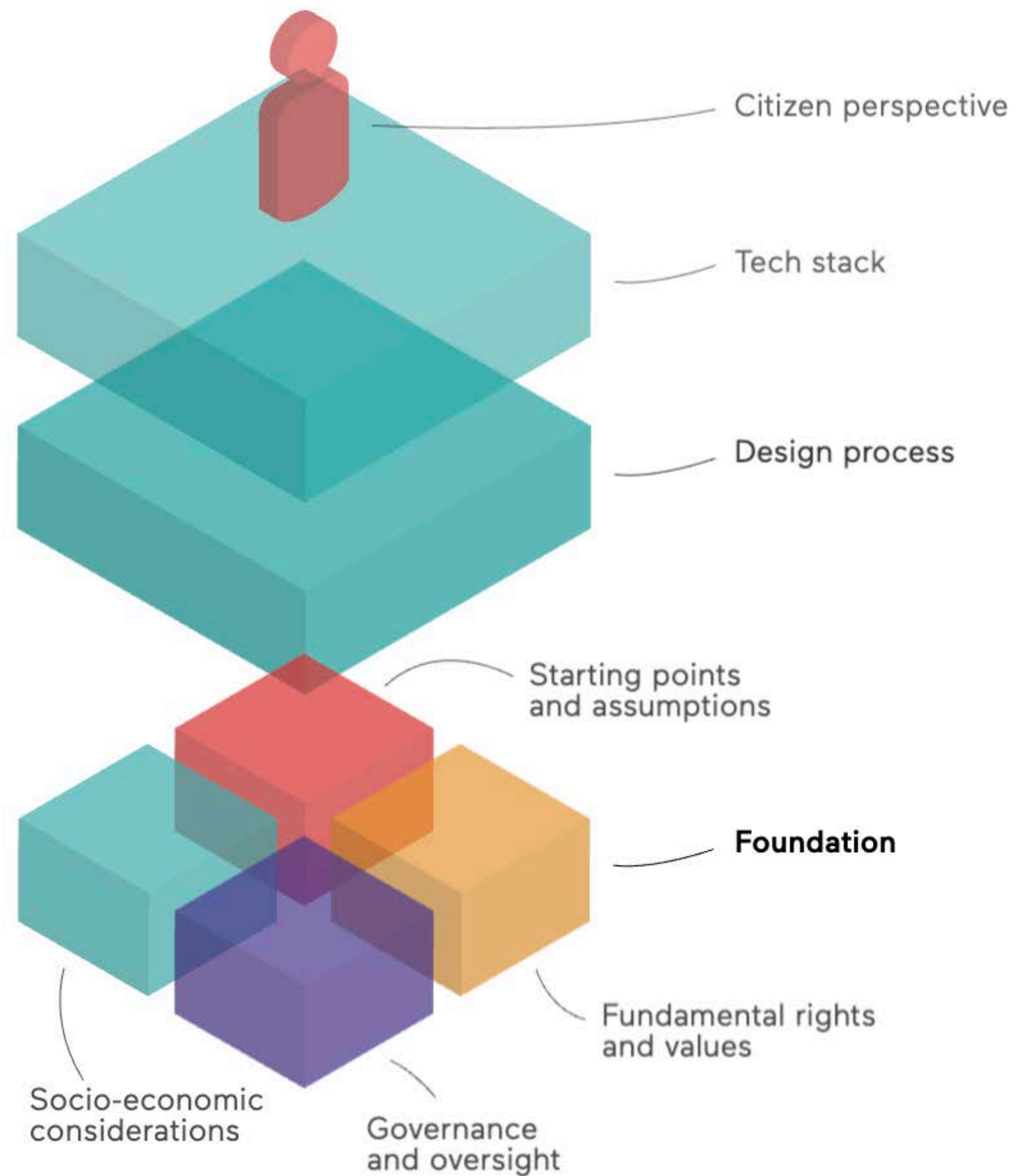
**Waar
optimaliseren
we voor?**

**Welk
toekomstbeeld
hoort daarbij?**



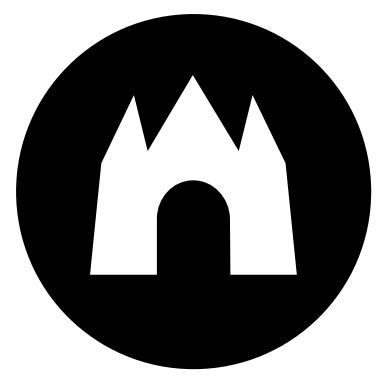


Start met het fundament!



Dimensies fundament

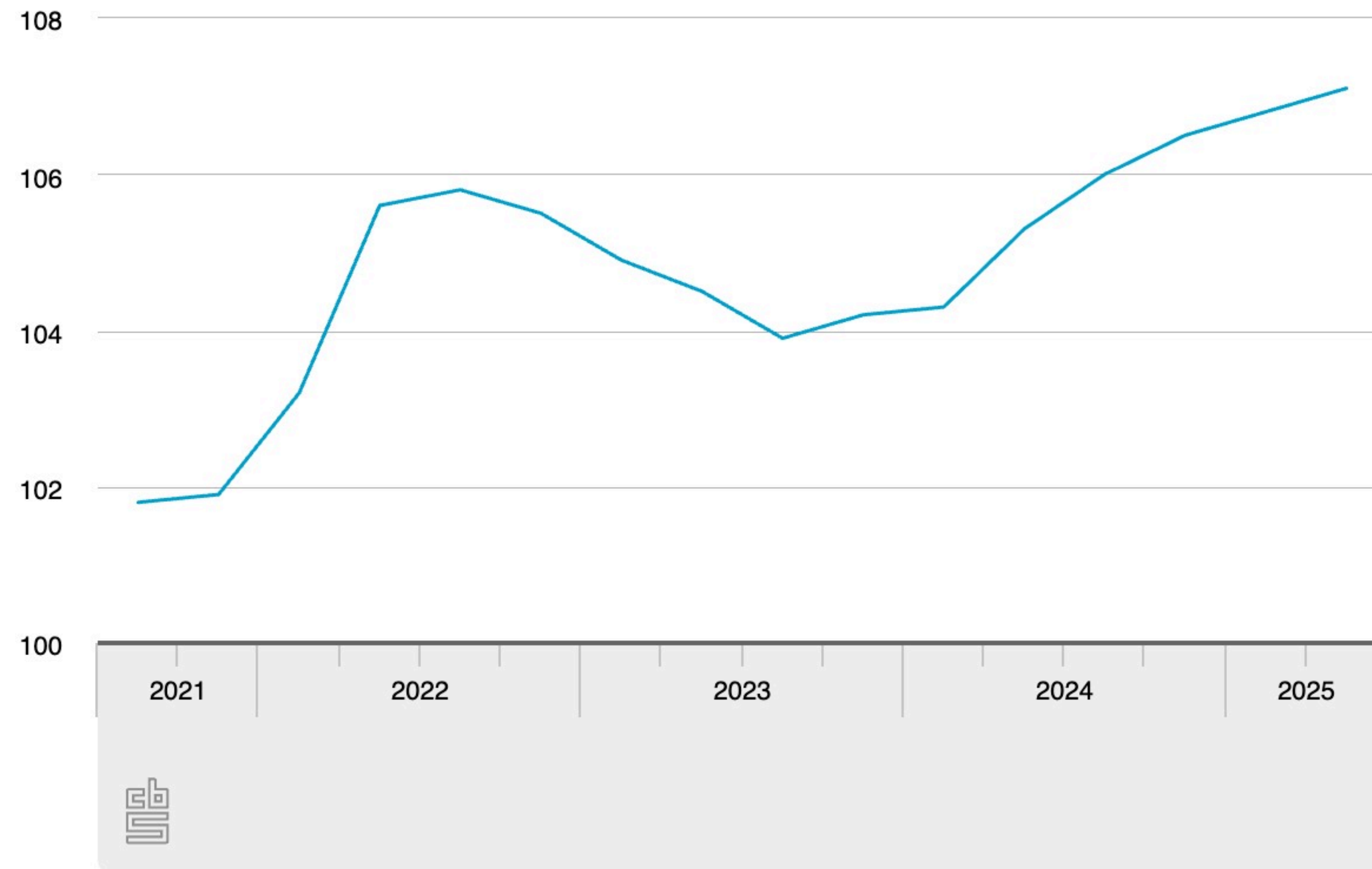
1. Macht en representatie
2. Aannames
3. Eigendom
4. Governance
5. Wet- & regelgeving
6. Natuur / Ecologie

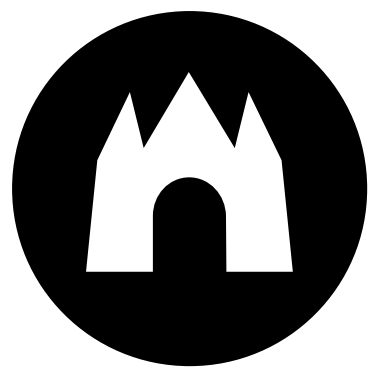


Optimaliseren voor economische groei

Bruto binnenlandse product (volume), seizoengecorrigeerd

2021=100





Future with AI



future with ai



Images

Videos

News

Maps

Shopping

Duck.ai



Finland

Safe search: moderate

AI images: show

Any time

All sizes

All colors

All types

All layouts

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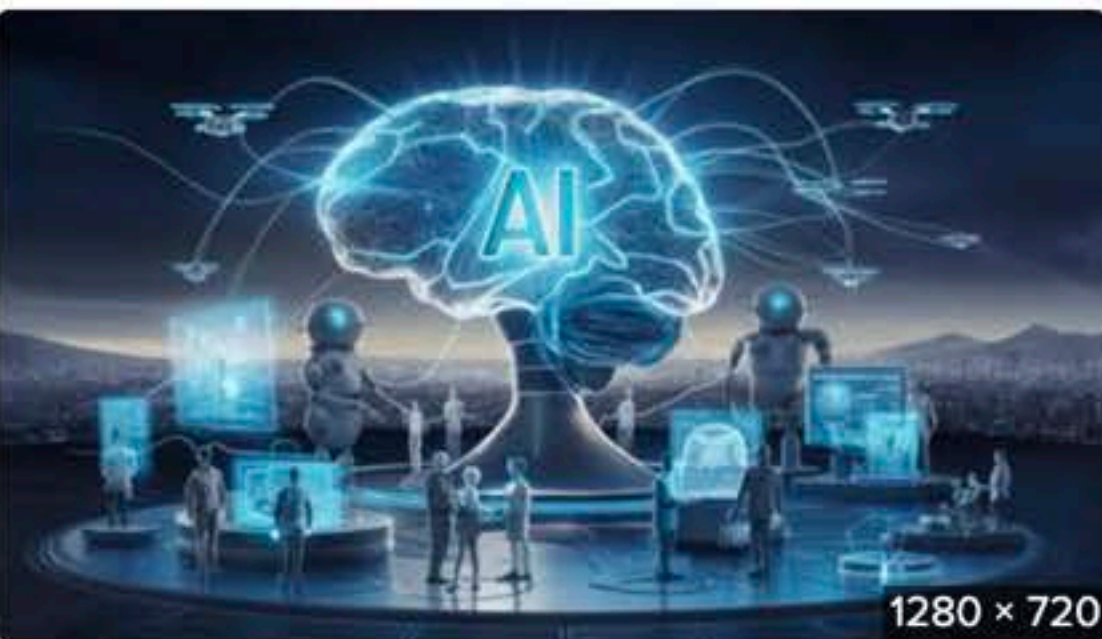
Hurtling Toward Our AI Future - Ha...
harborresearch.com



The Future of Business: Navigating the Wo...
sintex-ai.com



AI Technology Trends 2025 - Unveili...
penbrief.com



The Future of AI and Its Impact on Humanity
f5.pm



20 Quotes on the Future of AI That Will ...
calibertrend.com



Future Of AI: How ...
nowadais.com



AI futuristic female robot, Artificial...
vecteezy.com

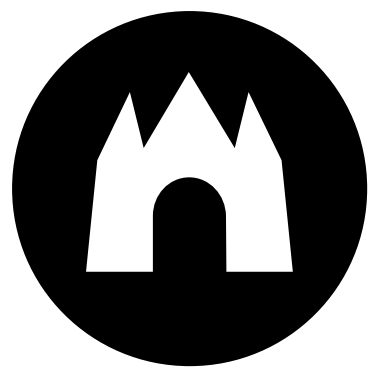


The Future of AI: 4 Potential Scenarios of ...
shelf.io



The Future of AI: 4 Po
shelf.io





Future of humanity

future of humanity

Q All

Images

Videos

News

More

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Future of Human Evolution: The Ne...
geneswellness.com

AI and the future of humanity | Yuval No...
youtube.com

The Future of Hu...
channelmcgil...

Concept image d...
craiyon.com

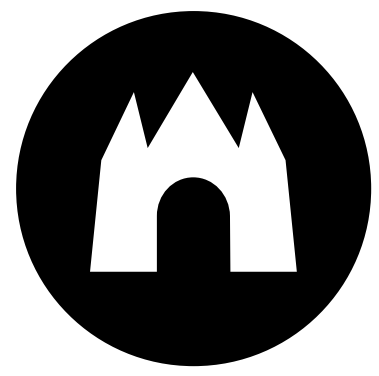
Future of Humanity Institute
1002 x 1202
ipers — F...
futureof...

What will humans look like in a million years? | BBC Earth
bbcearth.com

Lifeboat Earth: The Future Of Humanity
newmessage.org

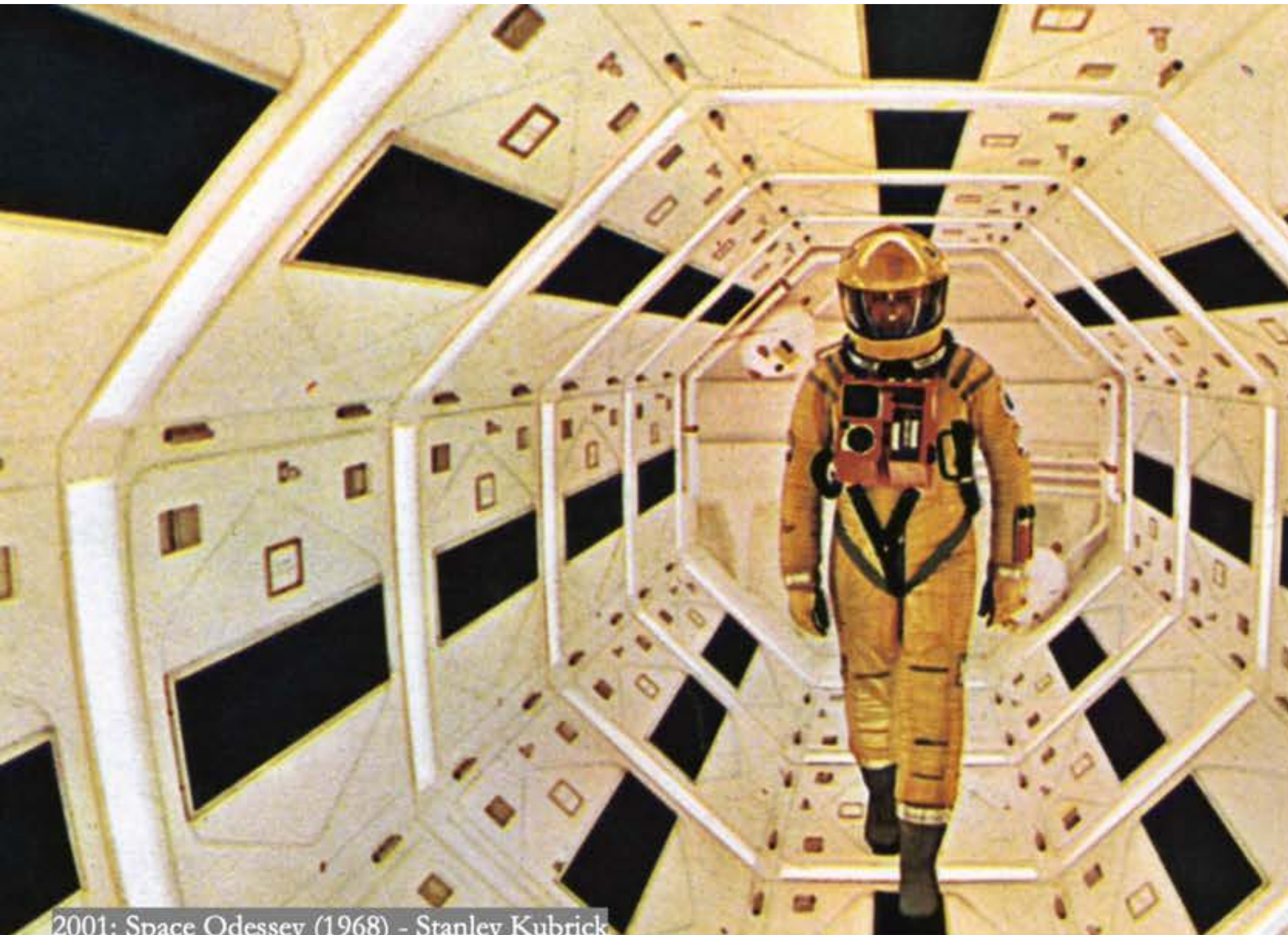
future of humanit...
openart.ai

The Future of Humanity
zakruti.com



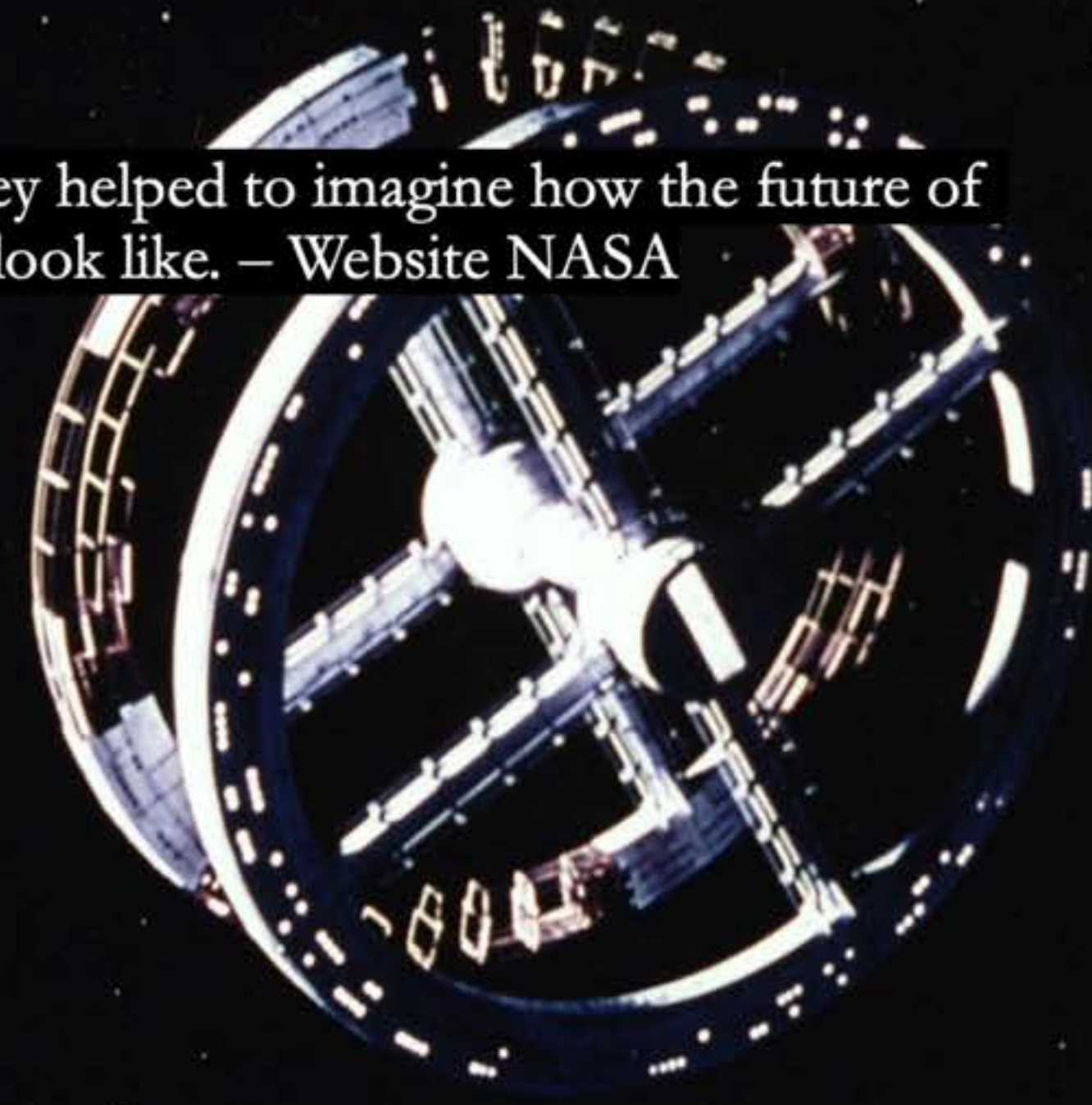
Belang van verbeelding

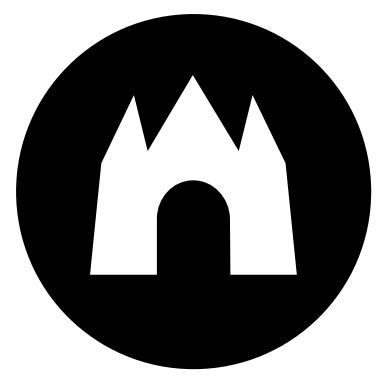
Sabine Winters, Ruimtefilosoof UU



2001: Space Odyssey (1968) - Stanley Kubrick

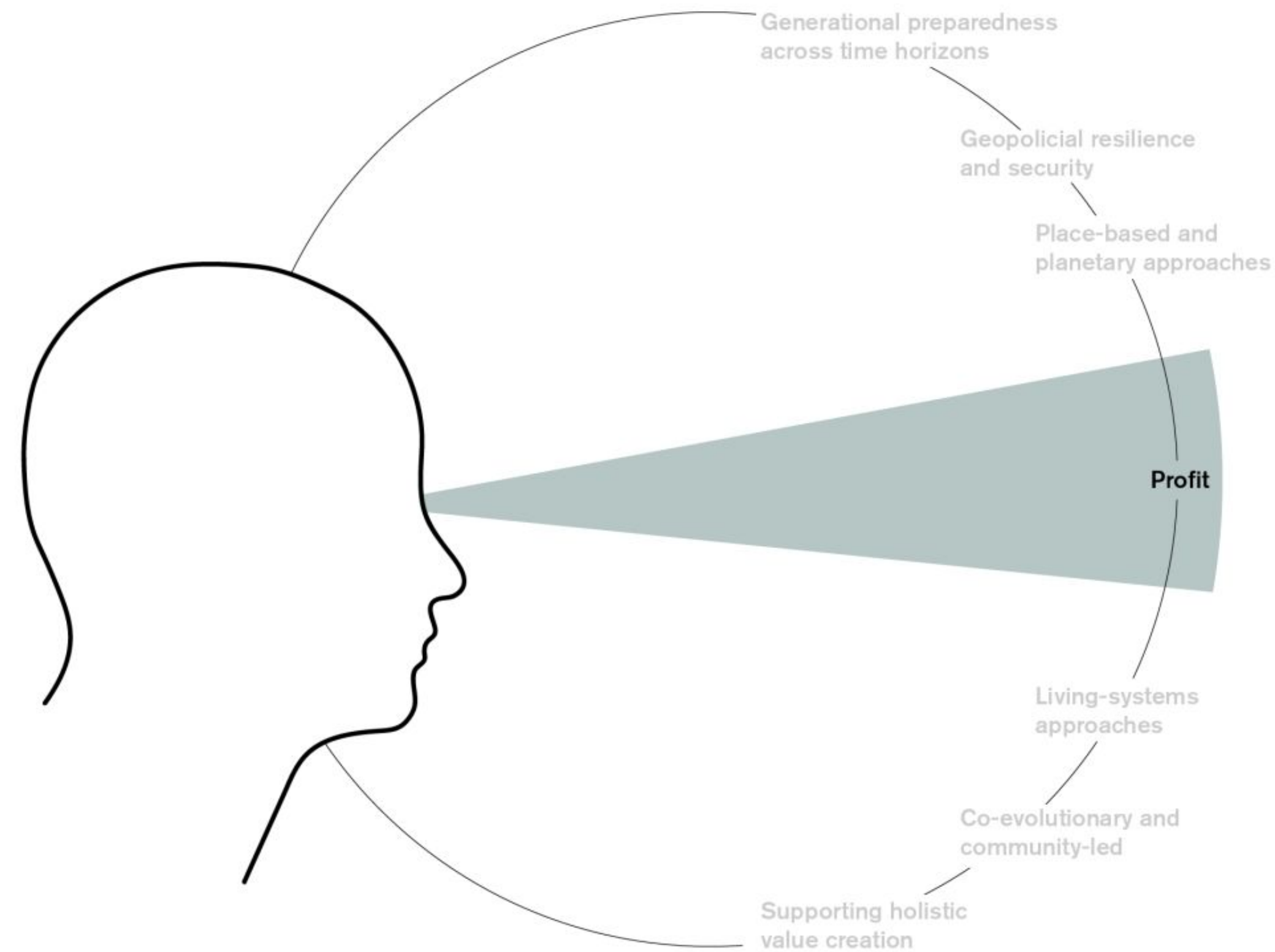
2001: Space Odyssey helped to imagine how the future of space travel would look like. – Website NASA





Smalle blik op wat waardevol is

From profit tunnel-vision



To a broadened view of guiding principles

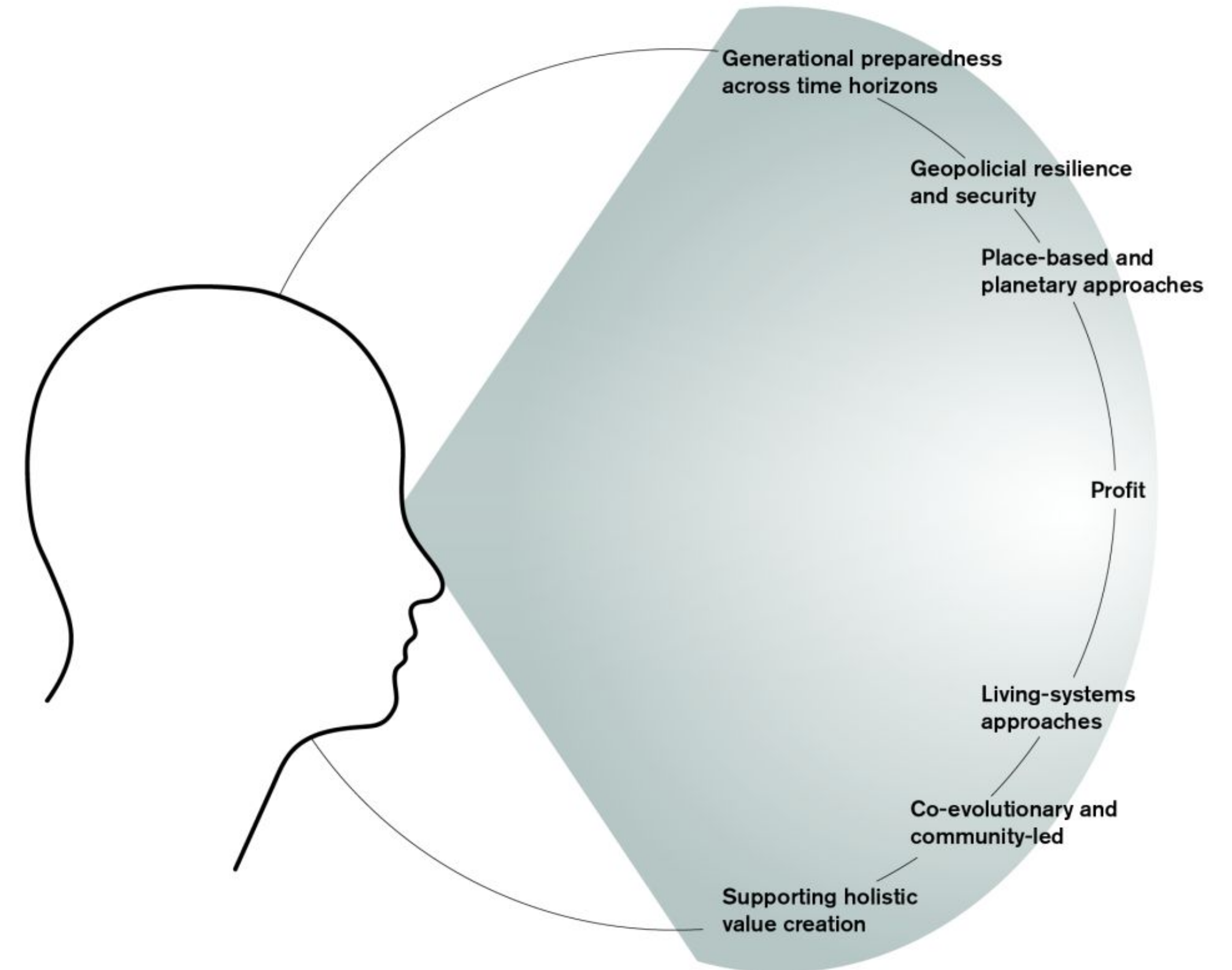
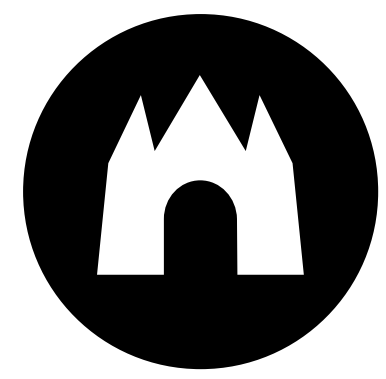


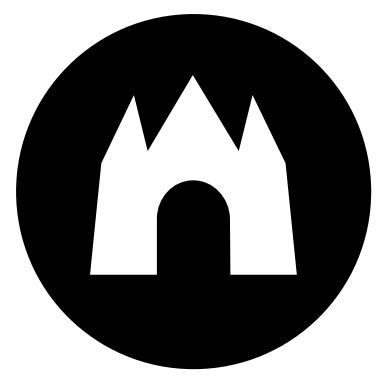
Image: Dark Matter Labs. Adapted from [Jan Konietzko](#), 'Carbon Tunnel Vision'

Rechtvaardige weerbare samenleving



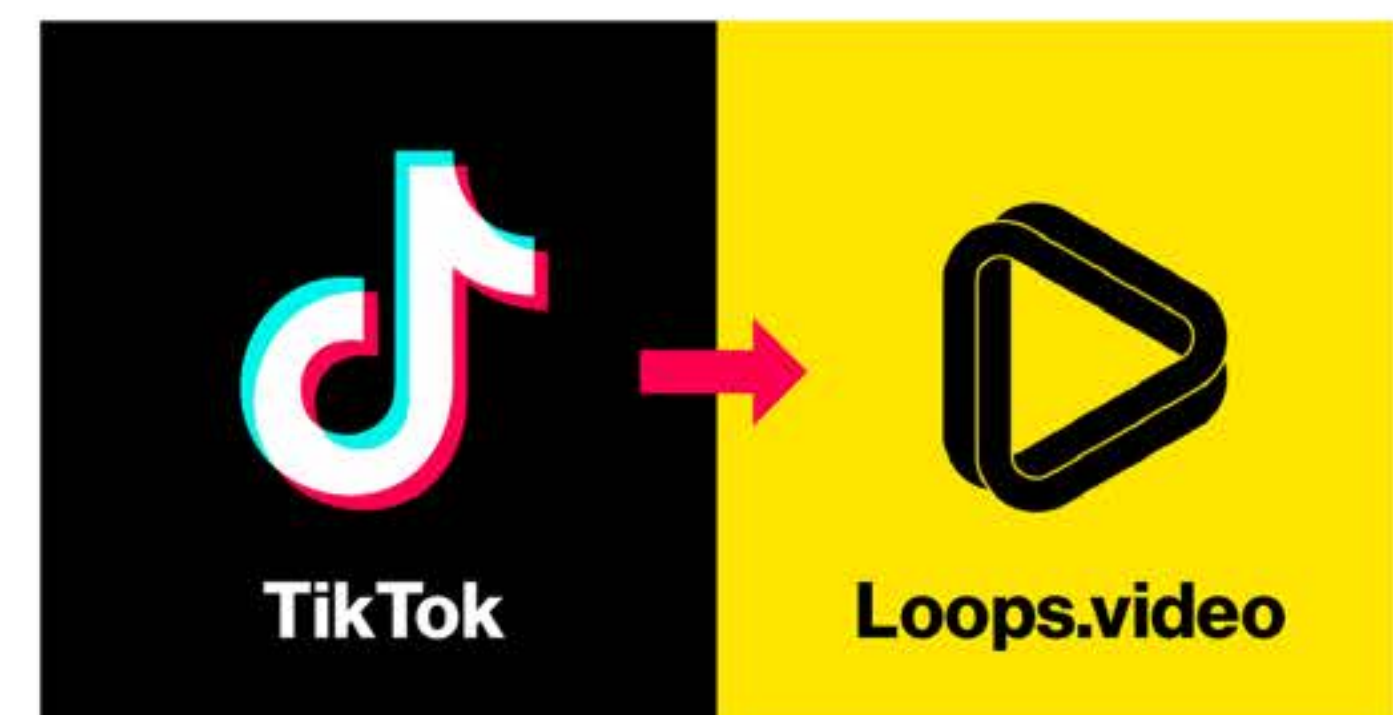
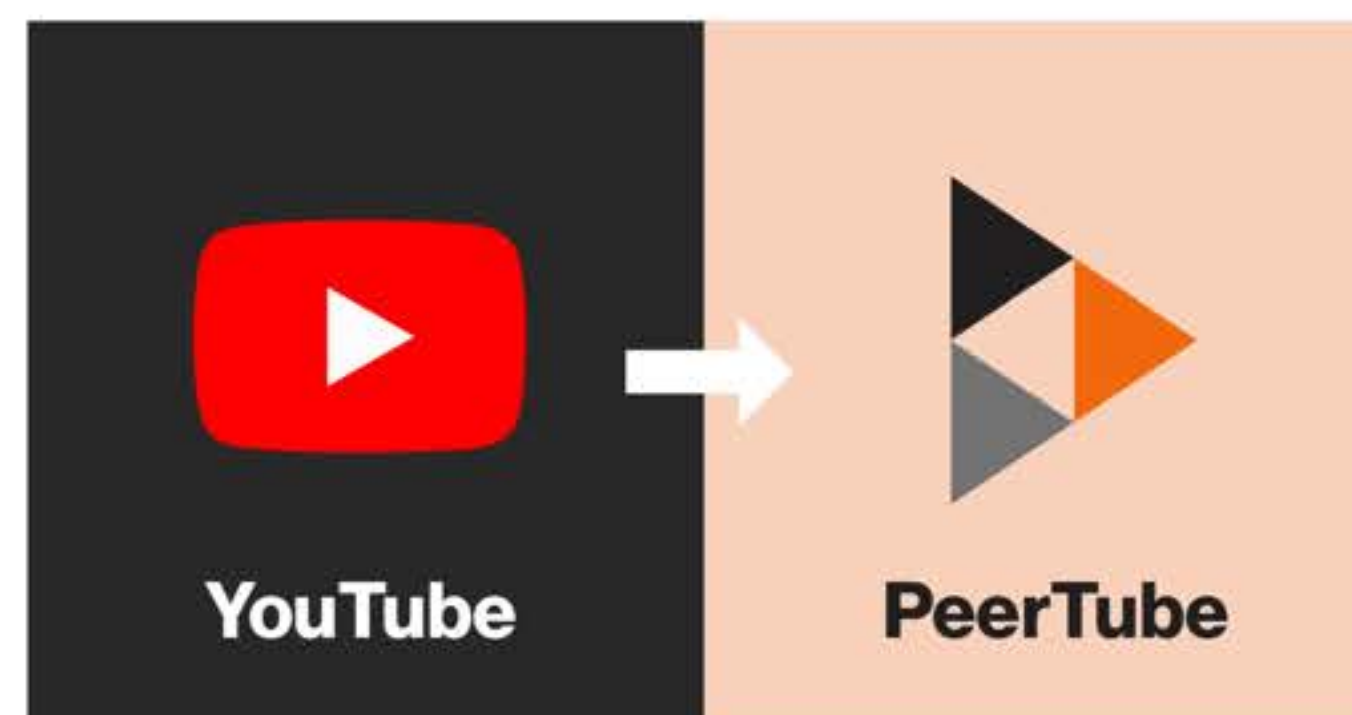
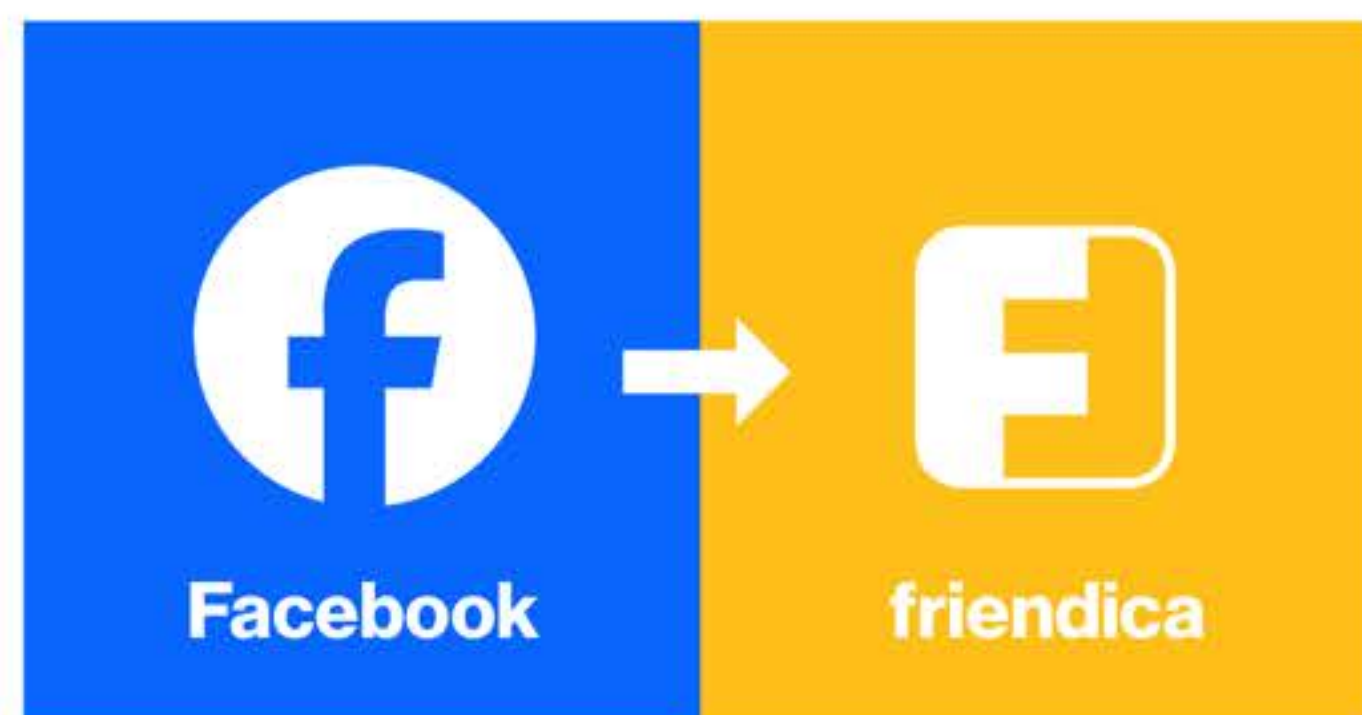
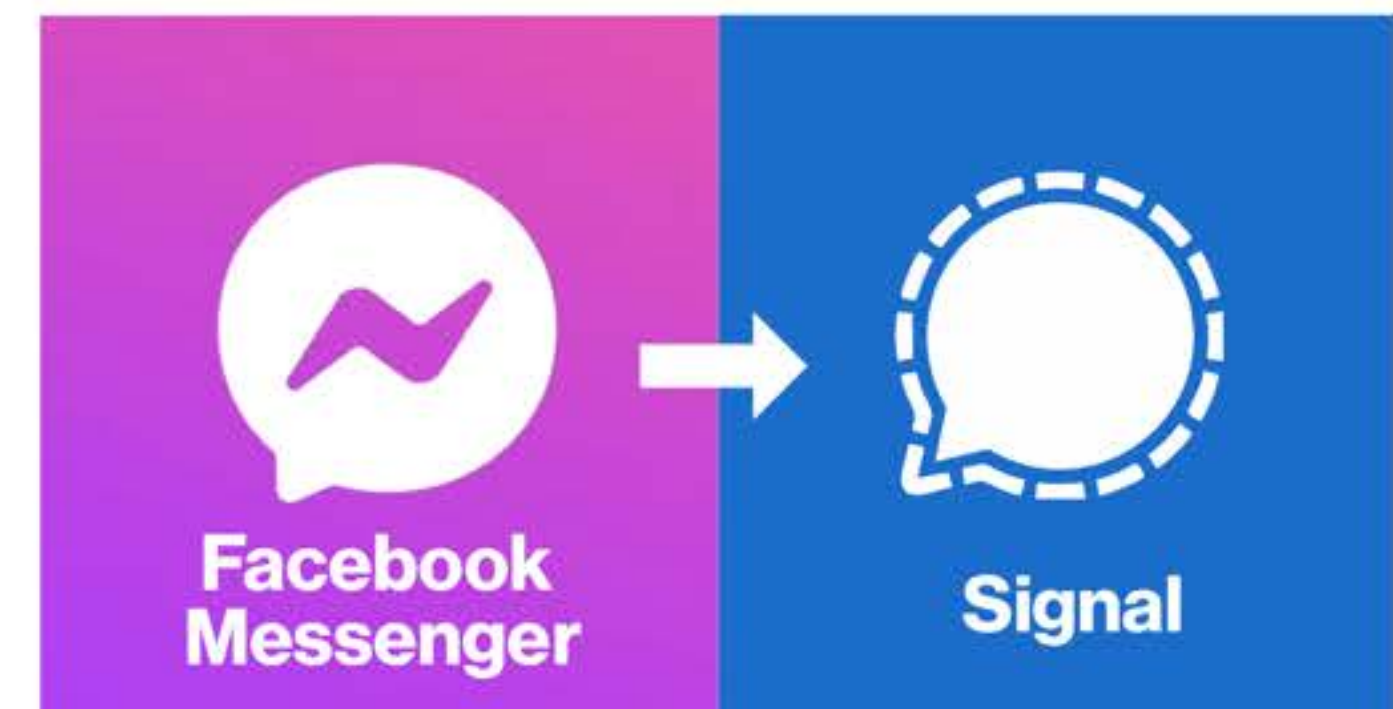
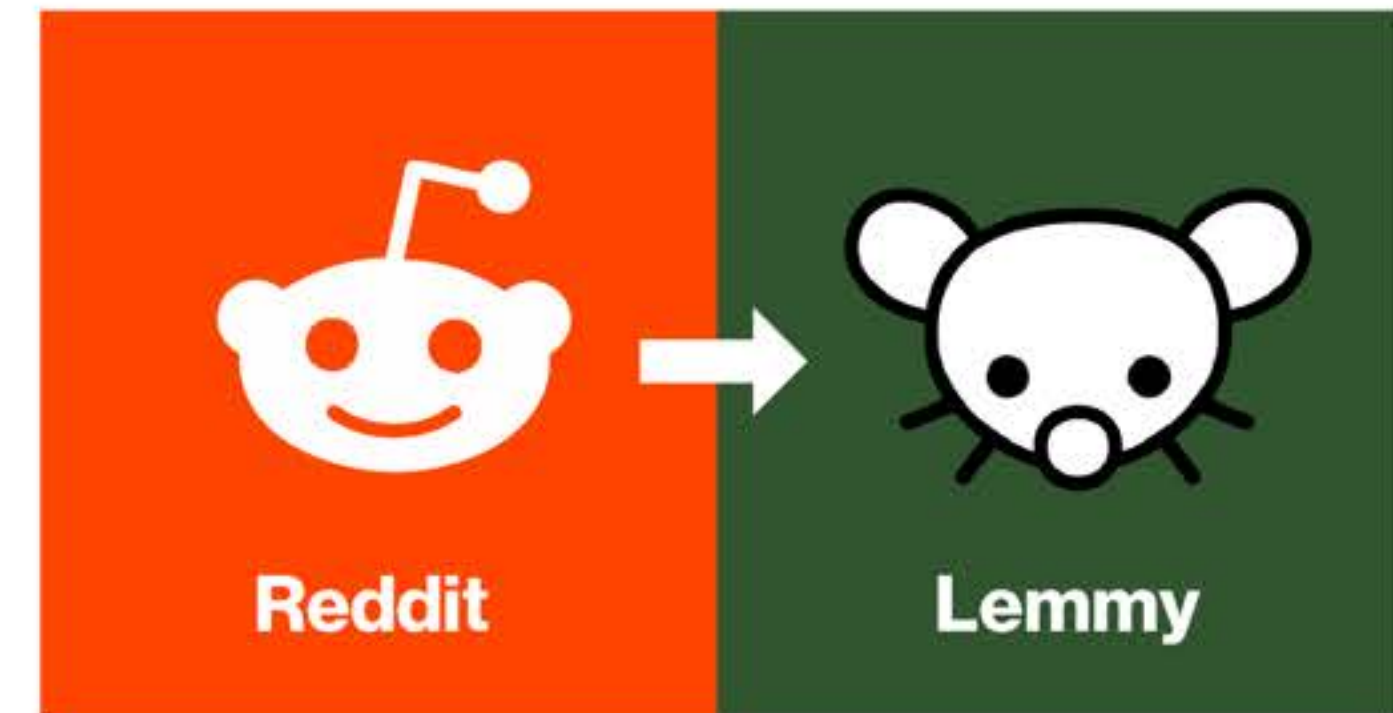
Maatschappelijk weerbaar

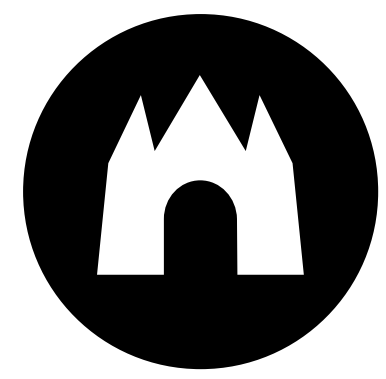




Technologisch weerbaar

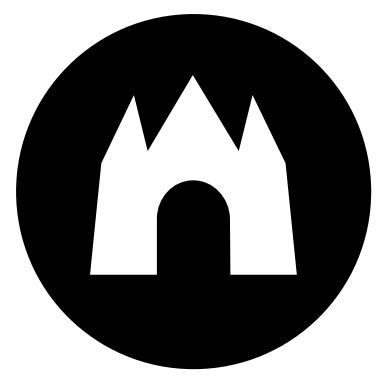
 **JOIN THE
FEDIVERSE**
#GLOBALSWITCHDAY





Planetair weerbaar





We moeten in systemen denken!



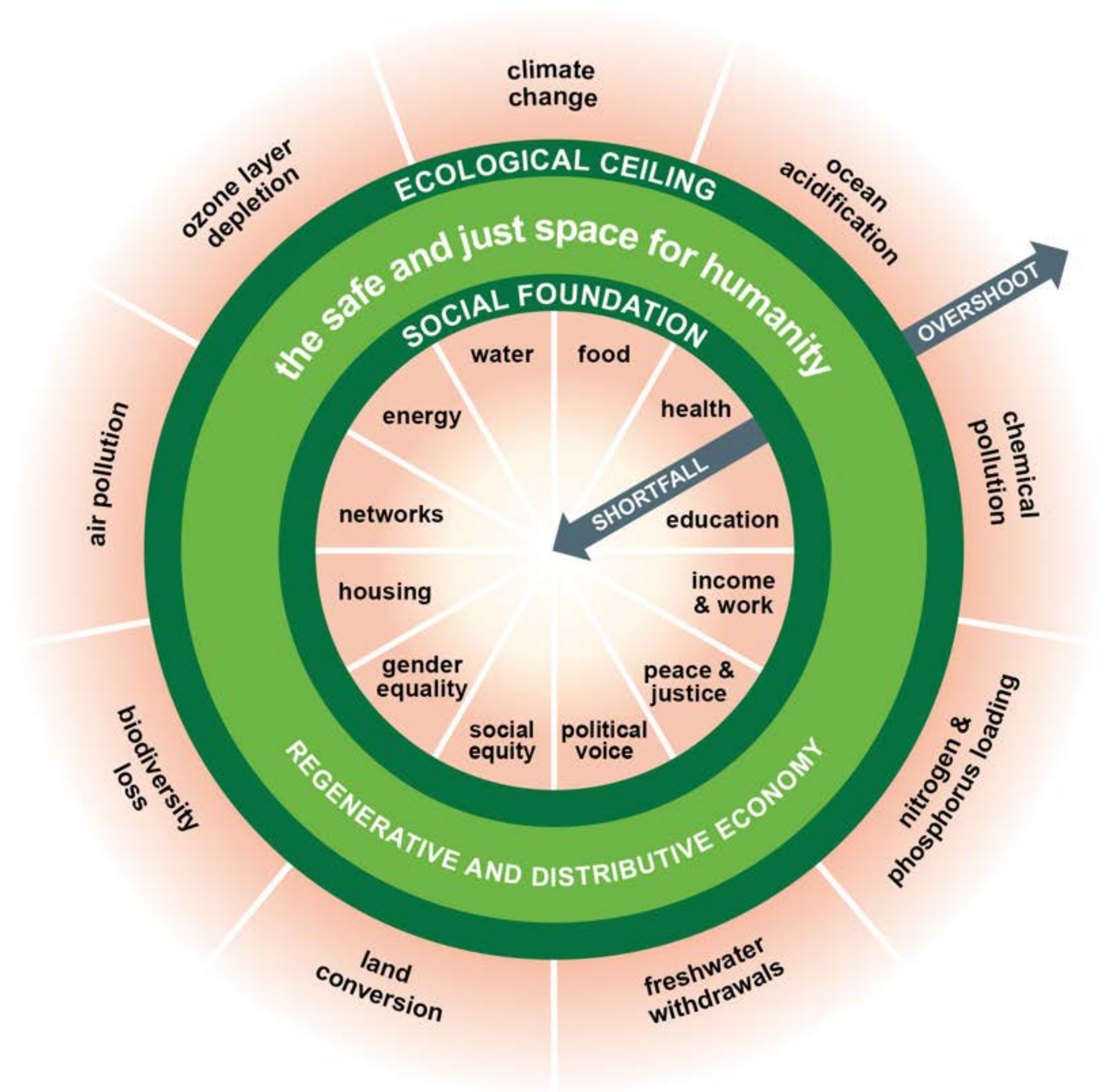
zuck 20h

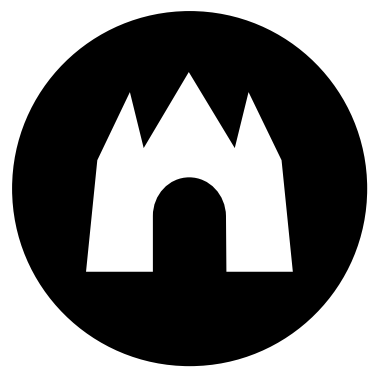
We're actually building several multi-GW clusters. We're calling the first one Prometheus and it's coming online in '26. We're also building Hyperion, which will be able to scale up to 5GW over several years. We're building multiple more titan clusters as well. Just one of these covers a significant part of the footprint of Manhattan.



Hyperion Data Center over Manhattan

432 55 38 147





**Er bestaat
geen 100%
groene
digitale
tech**





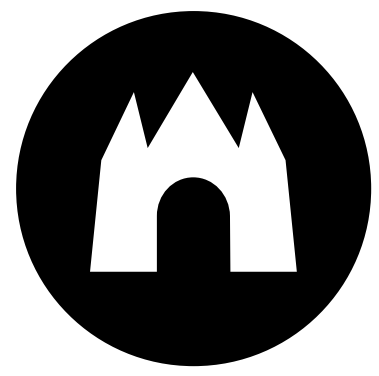
WATER

ENERGIE

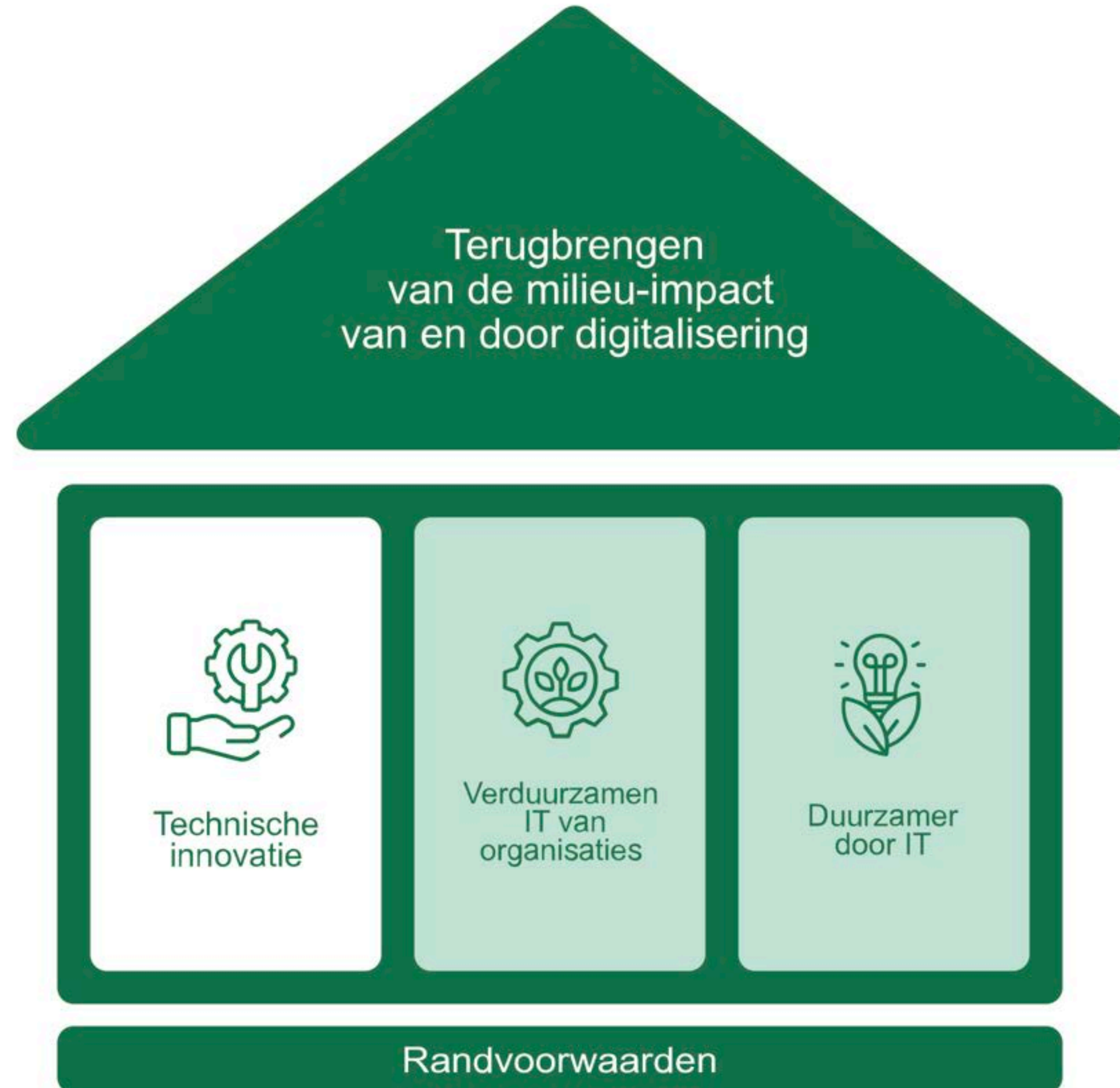
**RUWE
MINERALEN**

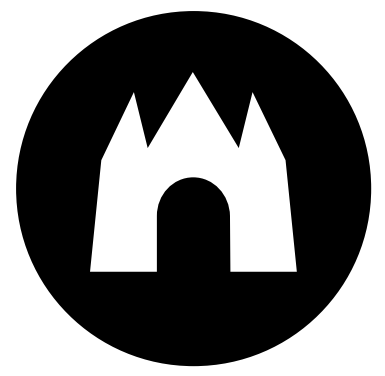
E-WASTE

GROND

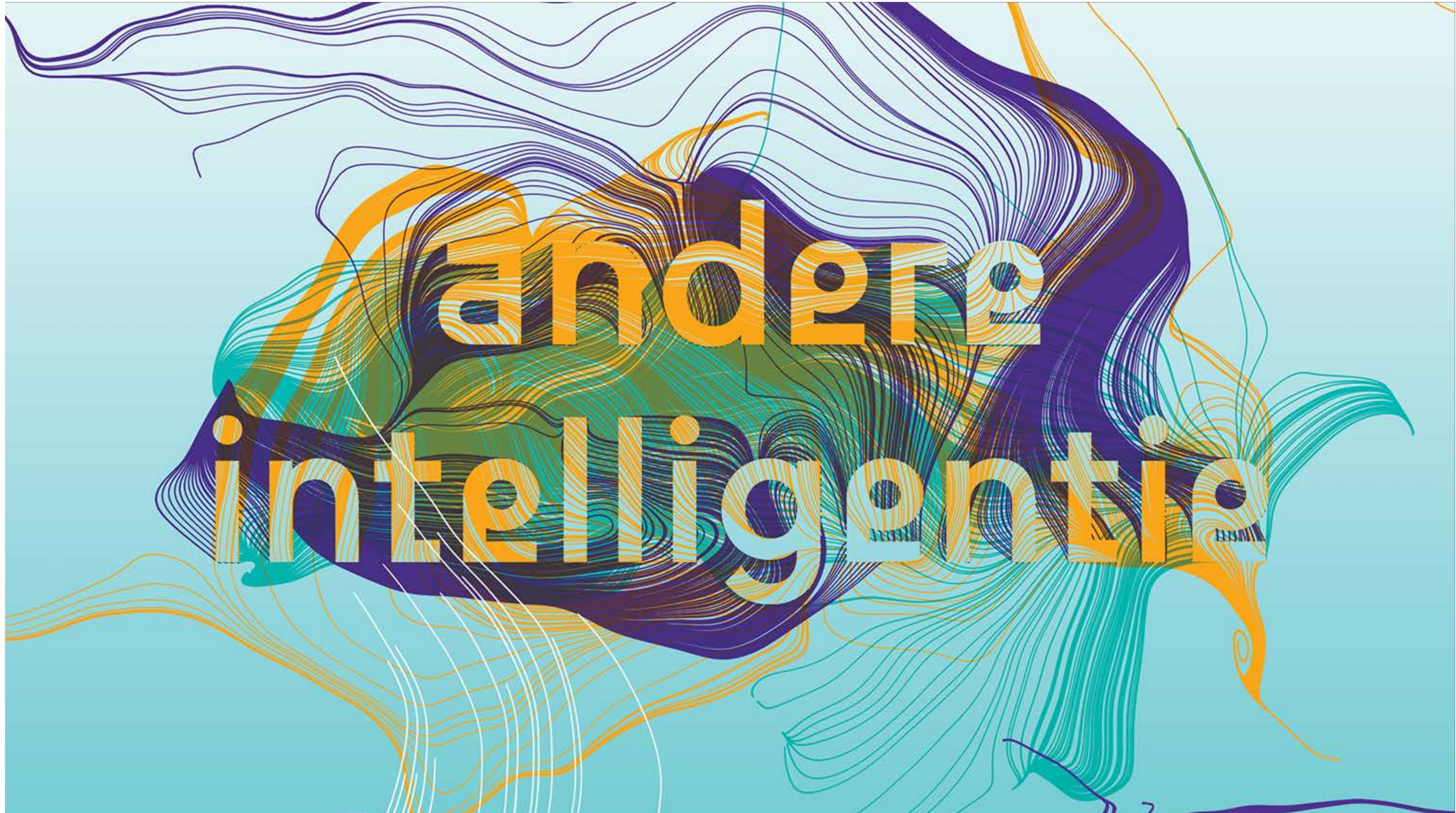


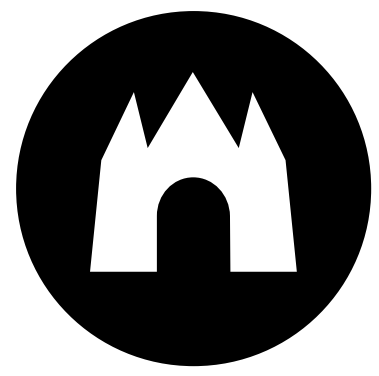
Vraag der vragen: Is digitalisering altijd het antwoord?



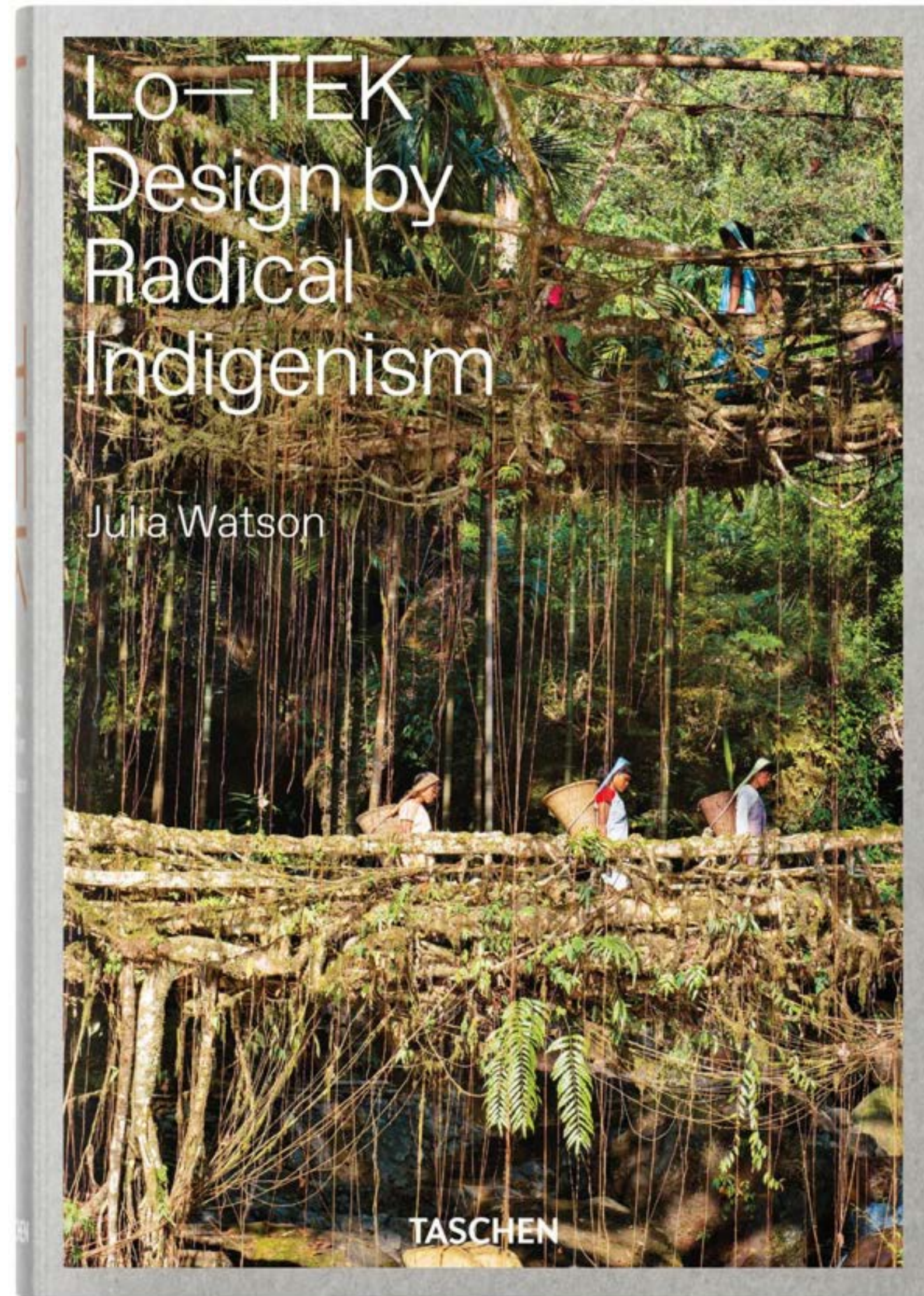


Kunstmatige & Natuurlijke intelligentie





Natuurlijke intelligentie & Low-Tech



Milieueffectrapportage

De wetgever heeft de procedures voor de milieueffectrapportage (mer) en mer-beoordeling ingepast in de besluitvormingsprocedure. Een uitleg over wanneer een milieueffectrapportage bij plannen en projecten nodig is en wat daarbij komt kijken.

Introductie

Op deze introductiepagina vindt u informatie over het doel, de voordelen en de wettelijke basis van de mer en de relatie met participatie.

Projecten

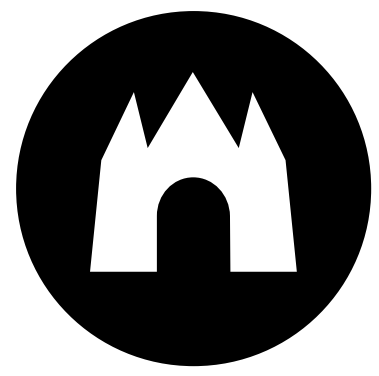
- De mer-procedure
- Het milieueffectrapport
- Project-mer-beoordeling
- Vergunningplichtige activiteiten en milieueffectrapportage
- Wettelijk advies minister van Infrastructuur en Waterstaat

Plannen en programma's

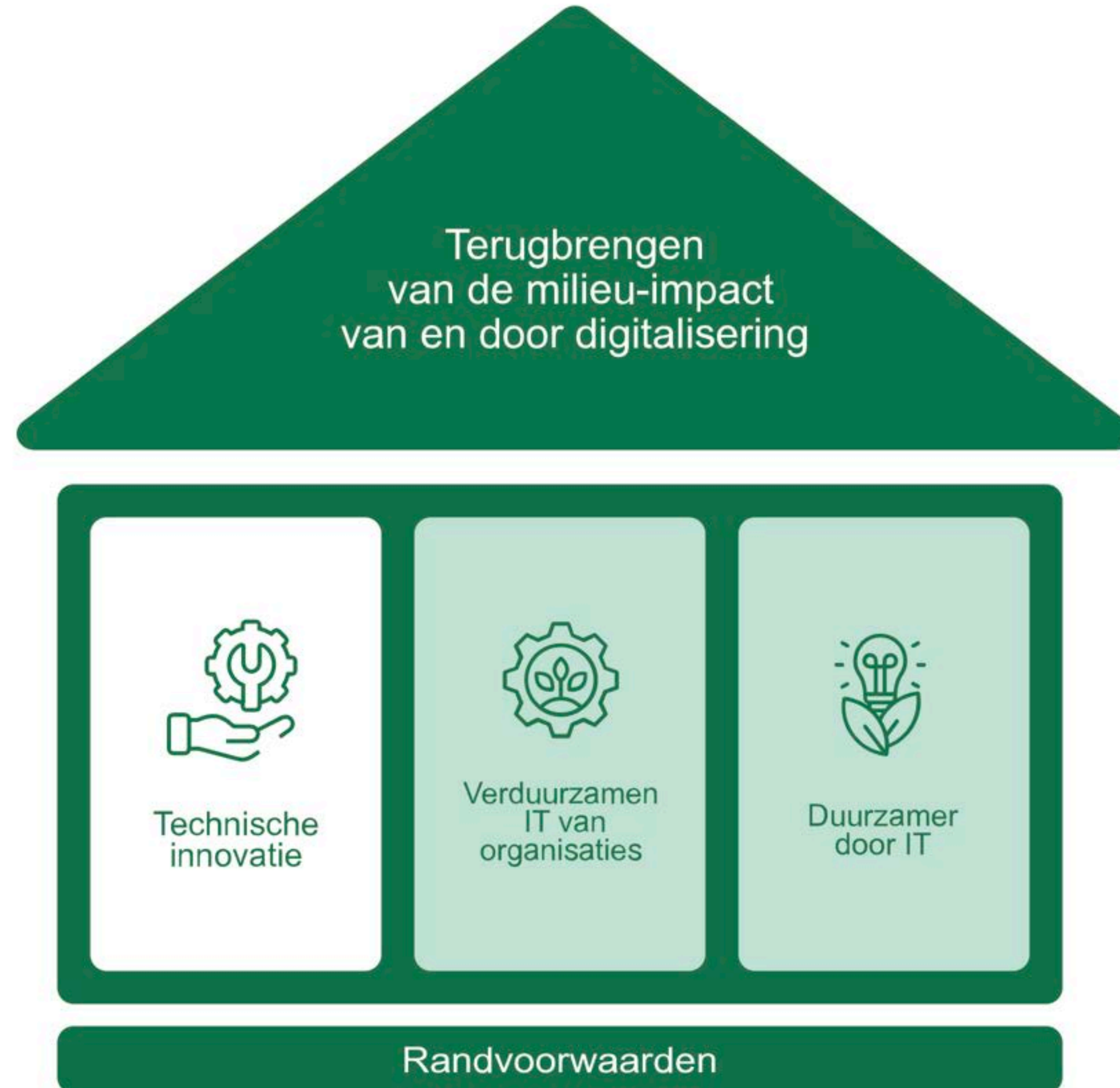
- De mer-procedure
- Beslisschema plan-milieueffectrapportage
- Het milieueffectrapport
- Plan-mer-beoordeling
- Wettelijk advies minister van Infrastructuur en Waterstaat

In de praktijk

- Kwaliteit van het milieueffectrapport
- Reikwijdte en detailniveau
- Mer-beoordeling
- Mer en de moederprocedure
- MER met meerwaarde
- Monitoring en evaluatie in mer



Maar als we dan inzetten op digitalisering..





Werken binnen creatieve grenzen

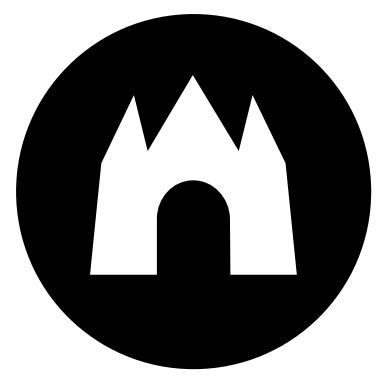




permacomputing

as a guiding principle

Energie



Grid Aware Computing

Default

Low

Moderate

High

GRID-AWARE MODE



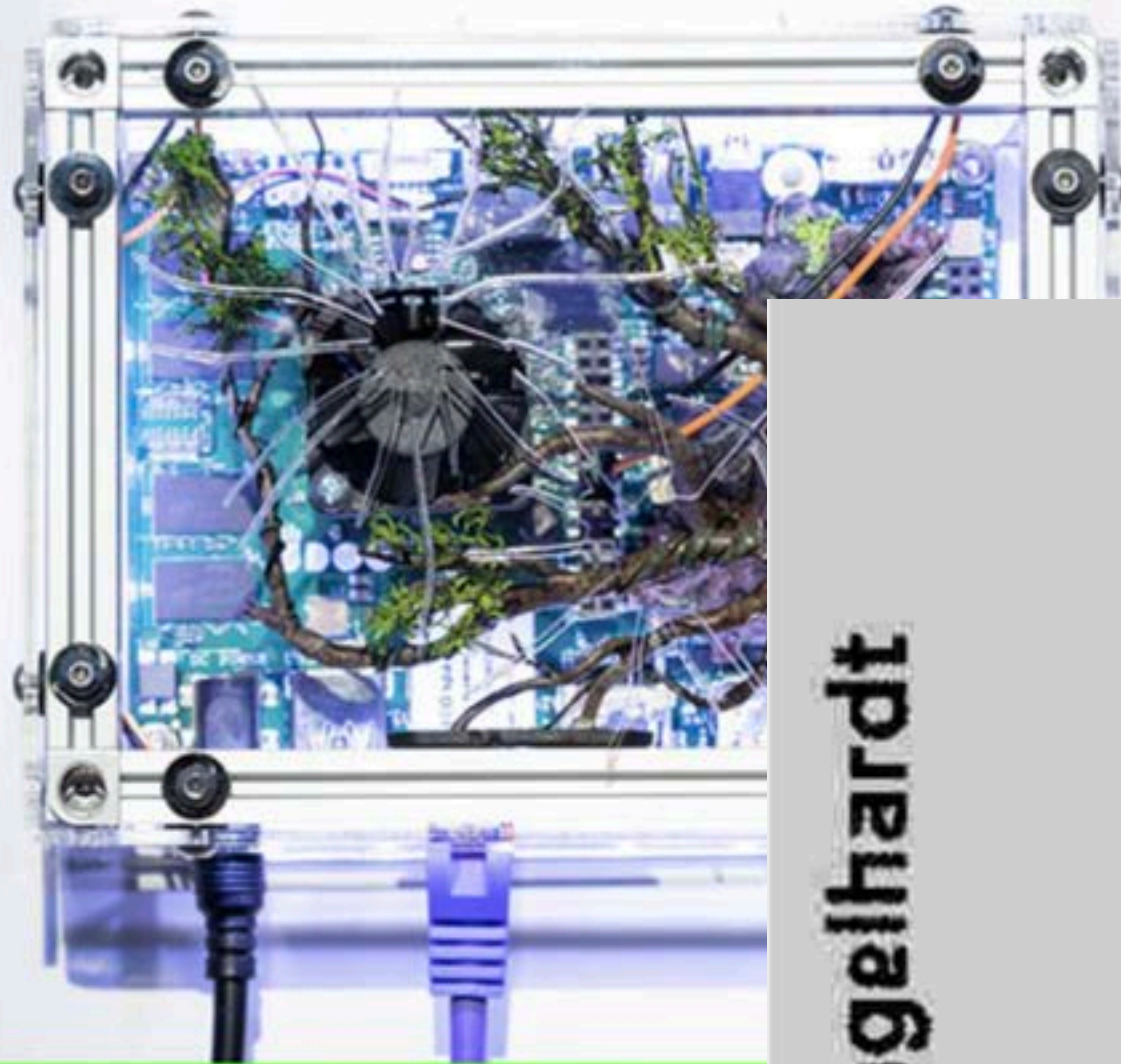
AUTO



GREEN WEB
FOUNDATION

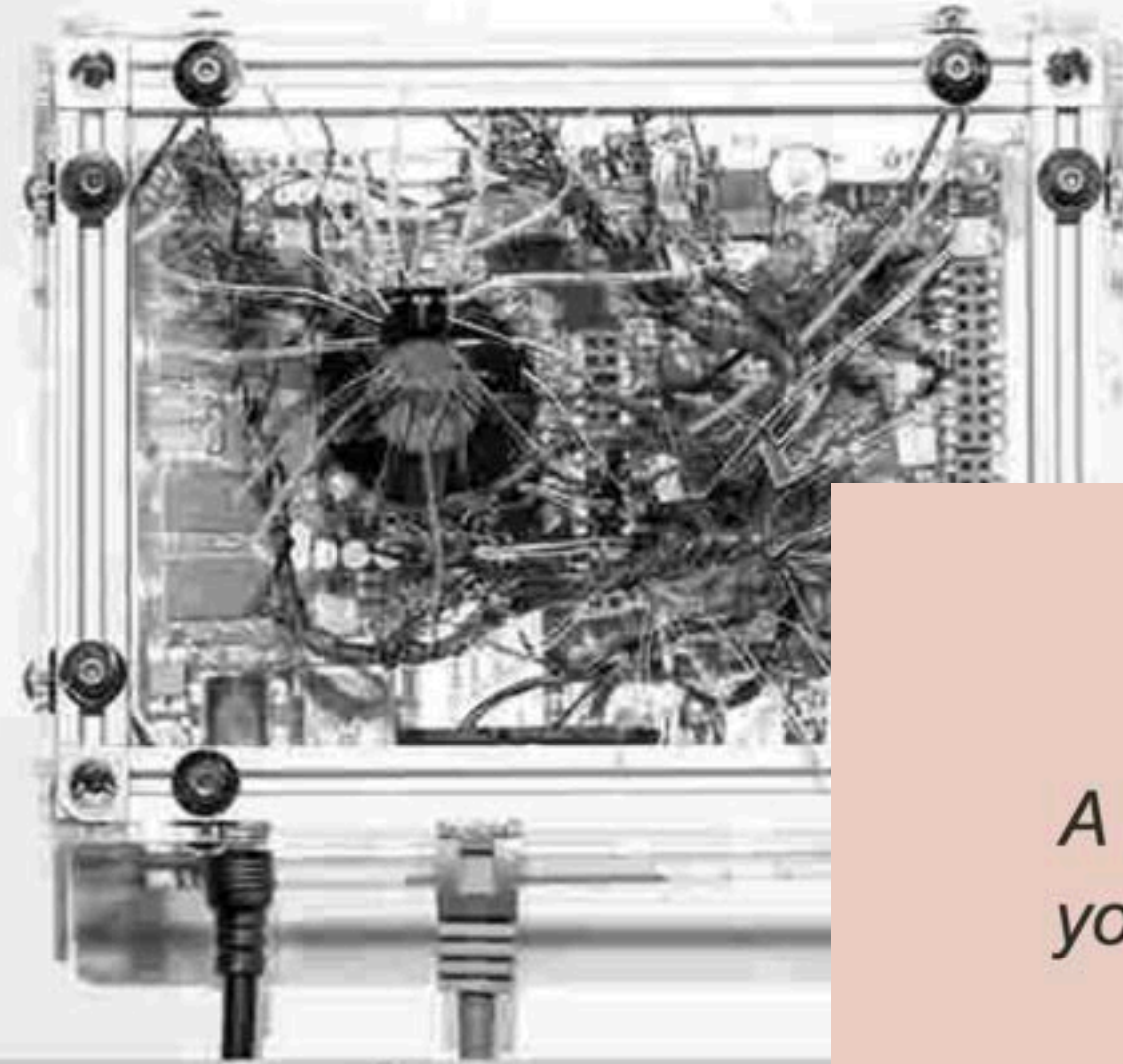
Lukas Engelhardt

Designing Regenerative Technologies | The Demonstrator



Lukas Engelhardt

Designing Regenerative Technologies | The Demonstrator



A small server that is transparent so that you can see purple and blue cables. The image is on a green surface

[SHOW IMAGE](#)

Solar Protocol

A naturally intelligent network.

This website is hosted across a network of solar powered servers and is sent to you from whichever server is in the most sunshine.

Presently you are on a server called Solar Power for Artists that is located in Crown Heights, Brooklyn, USA.

Server Battery:

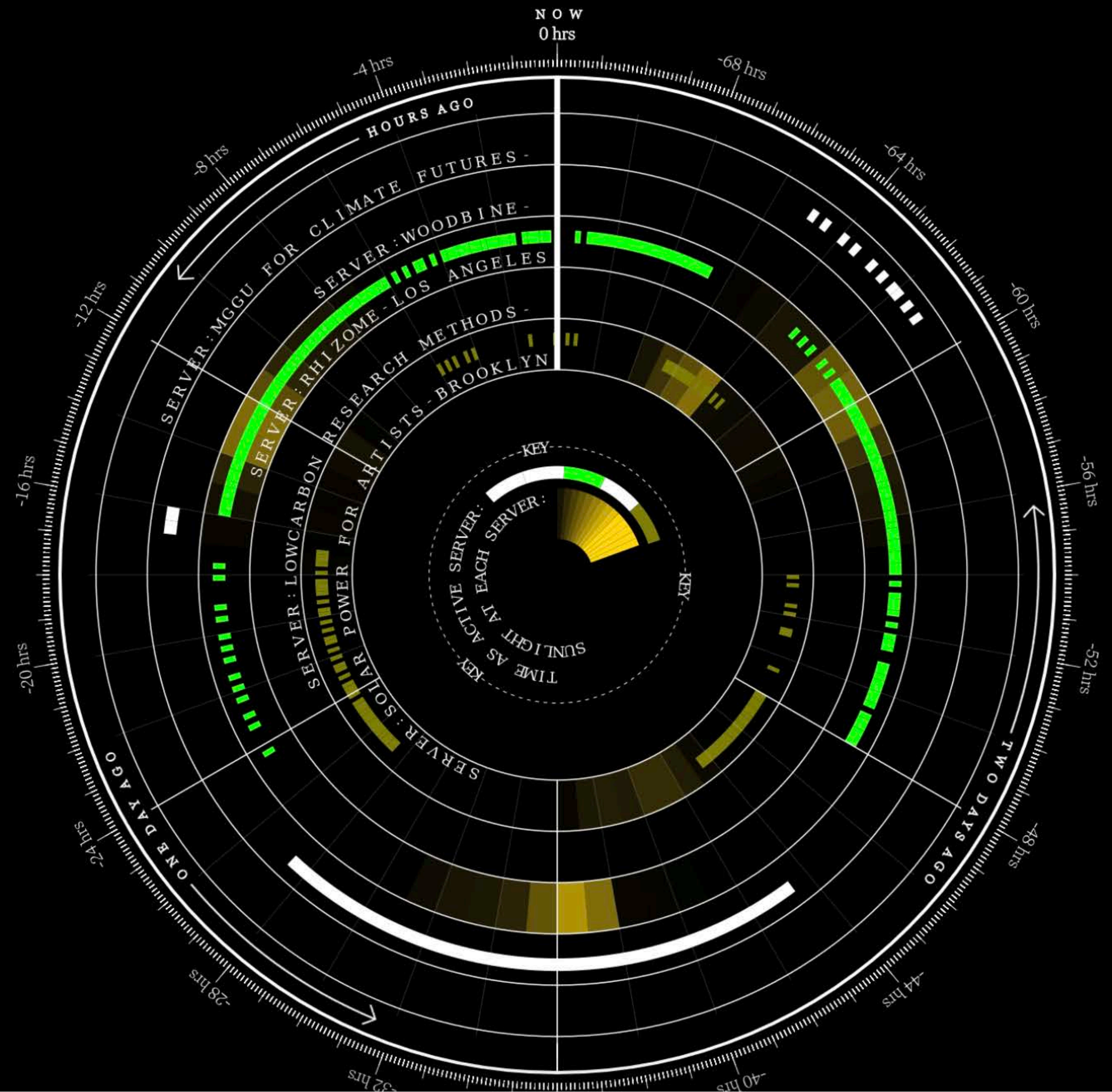
71.0%

SERVER INFORMATION

Name: Solar Power for Artists

Location: Crown Heights, USA.

Steward: Solar power art, design, and education studio.



The background image is a close-up, high-contrast photograph of a dark, wet, and textured surface, possibly soil or a rock. A white cable runs diagonally from the bottom left towards the center. In the center, there is a small, dark, rectangular object, possibly a piece of paper or a small electronic component, with a small, metallic, spherical object attached to it by a thin wire. The overall mood is mysterious and artistic.

SJ

Electric Garden

Sunjoo Lee

Electric Garden:

A research building an electricity producing garden. The project creatively explores the collaborative possibilities between natural ecosystems and digital systems. (2024)

[Read more](#) 🔍

Works:

- ↳ **Electric Garden**
- ↳ Attunement
- ↳ The Flight
- ↳ The Wild Trace
- ↳ Getbol Lab
- ↳ The Mud Walker
- ↳ Aeolian Eggs
- ↳ Nested Realities
- ↳ Tree-001
- ↳ Machine in Flux
- ↳ Stream of Trials
- ↳ Wavy Tales
- ↳ Workshops & Po

Ruwe Mineralen



Mineralen in kaart brengen met sensoren

Mineralen zijn van groot belang in onze moderne levens. Van smartphone tot laptop, deze grondstoffen zitten overal in. Daarvoor moeten ze wel eerst uit de grond worden gehaald, een vaak milieubelastend, traag en complex proces. Maar niet voor lang meer, als het aan PhD'er Feven Desta ligt. Desta doet onderzoek naar sensortechnologieën om milieubewust naar mineralen te kunnen zoeken.

Onderzoek naar geleiders

Cartography of AI

Cartography of generative AI

2024

Research and high design
— Academic

Discourses on AI

AI ecology

Criticism through arts

Critical expertise

AI ethics

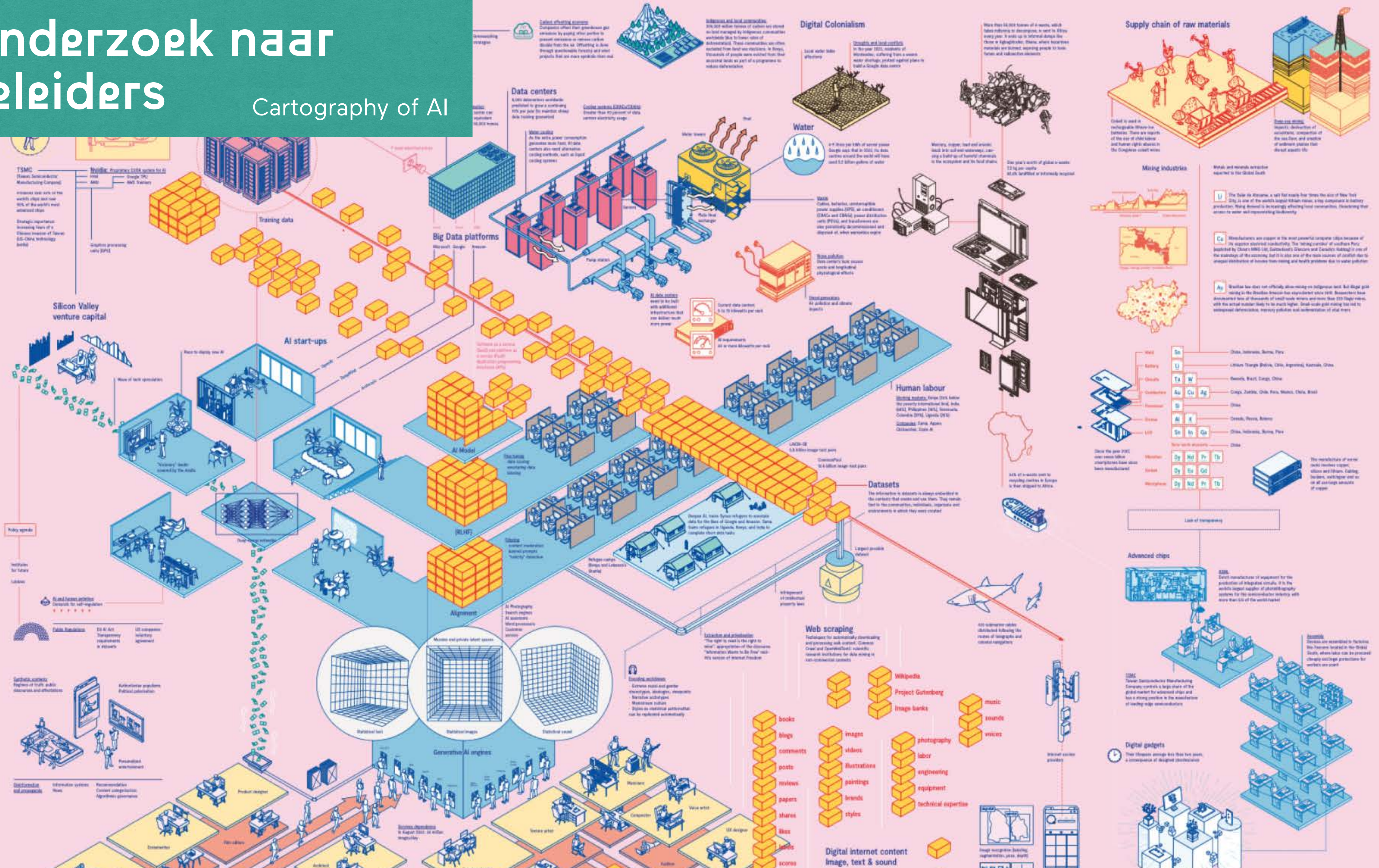
Academic research

Data sciences

Big Tech innovation

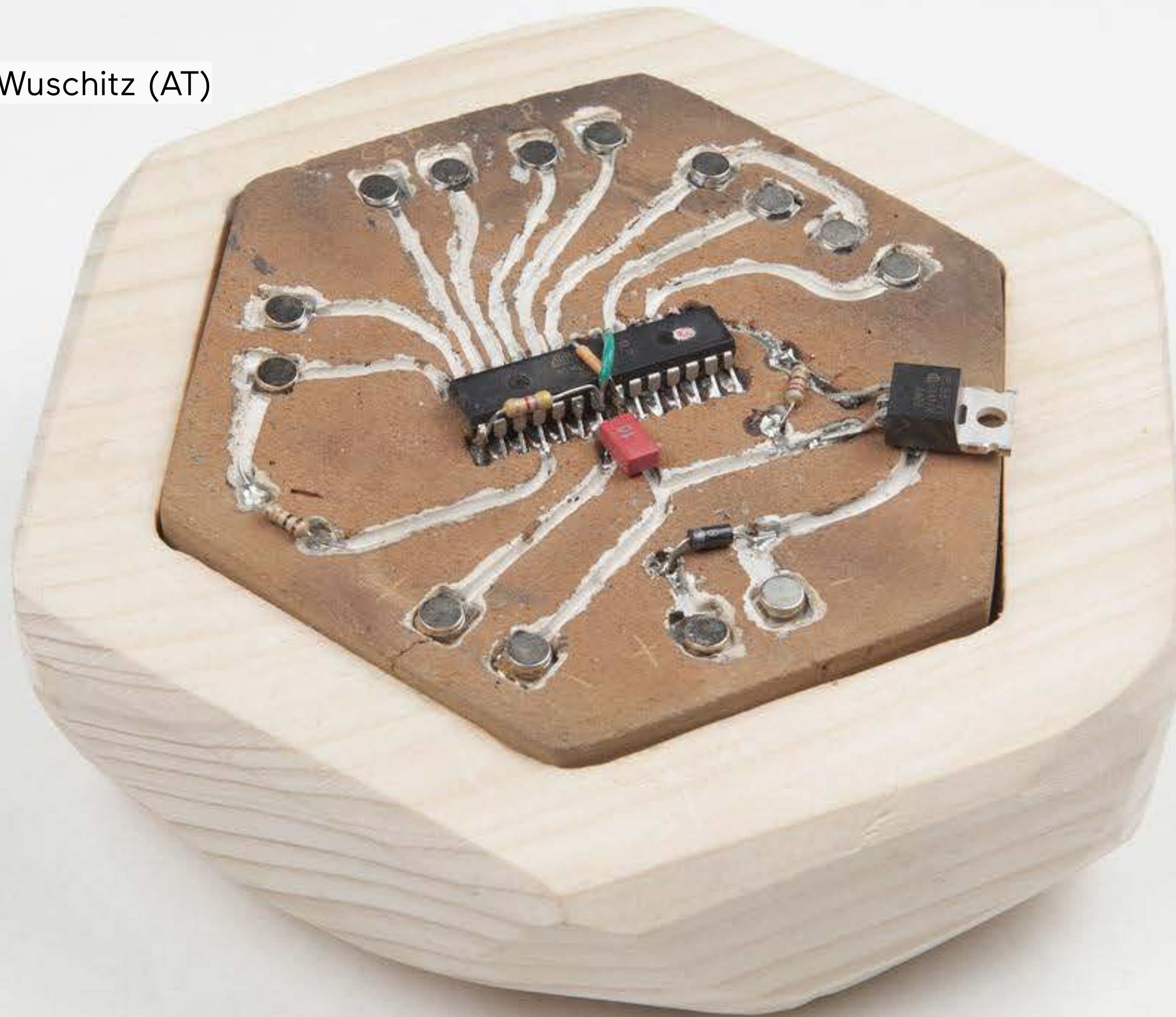
Mystification

Technological



Clay PCB

Patrícia J. Reis (PT), Stefanie Wuschitz (AT)



E-waste



Sloppy Servers
Rein van der Woerd



Recomposting e-Waste
Waag & WdKA

waag  **futurelab**