

# The SDG's and the whole school approach

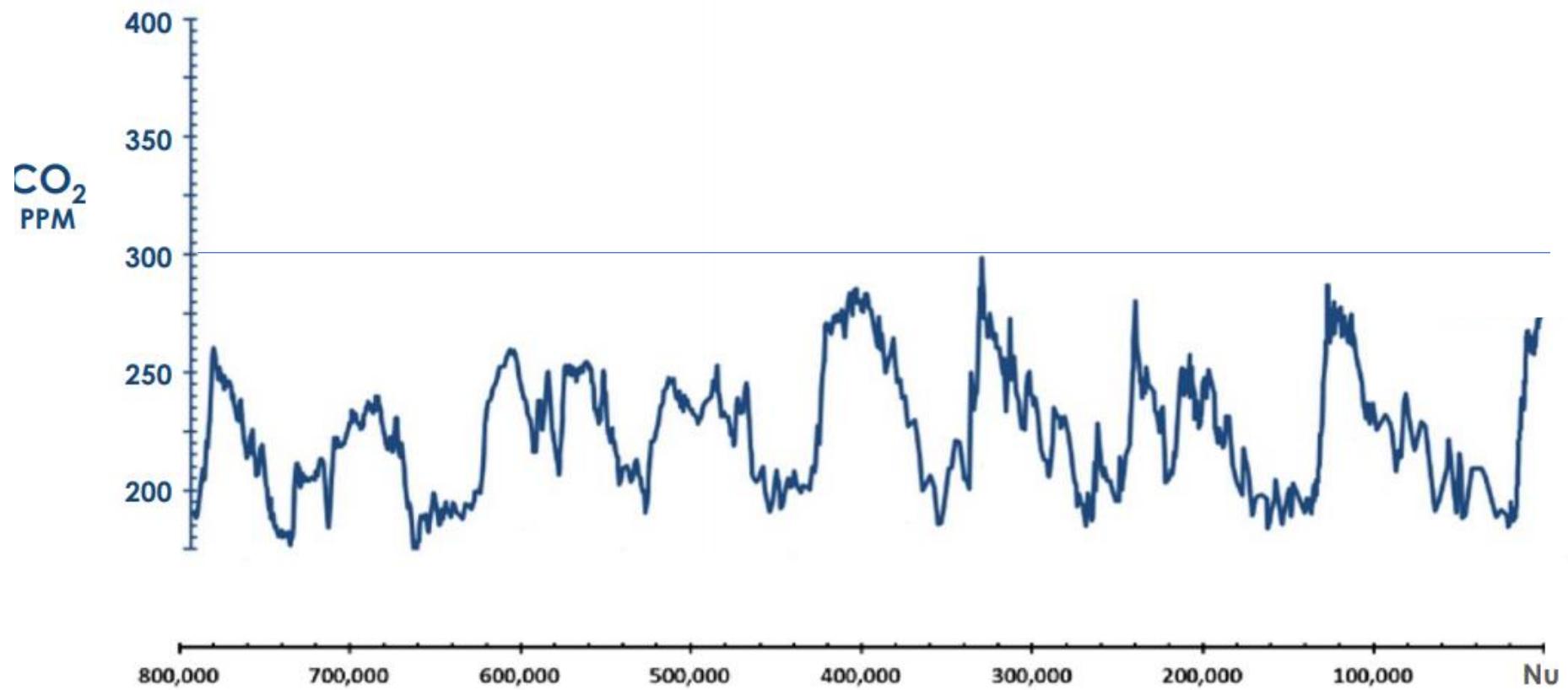


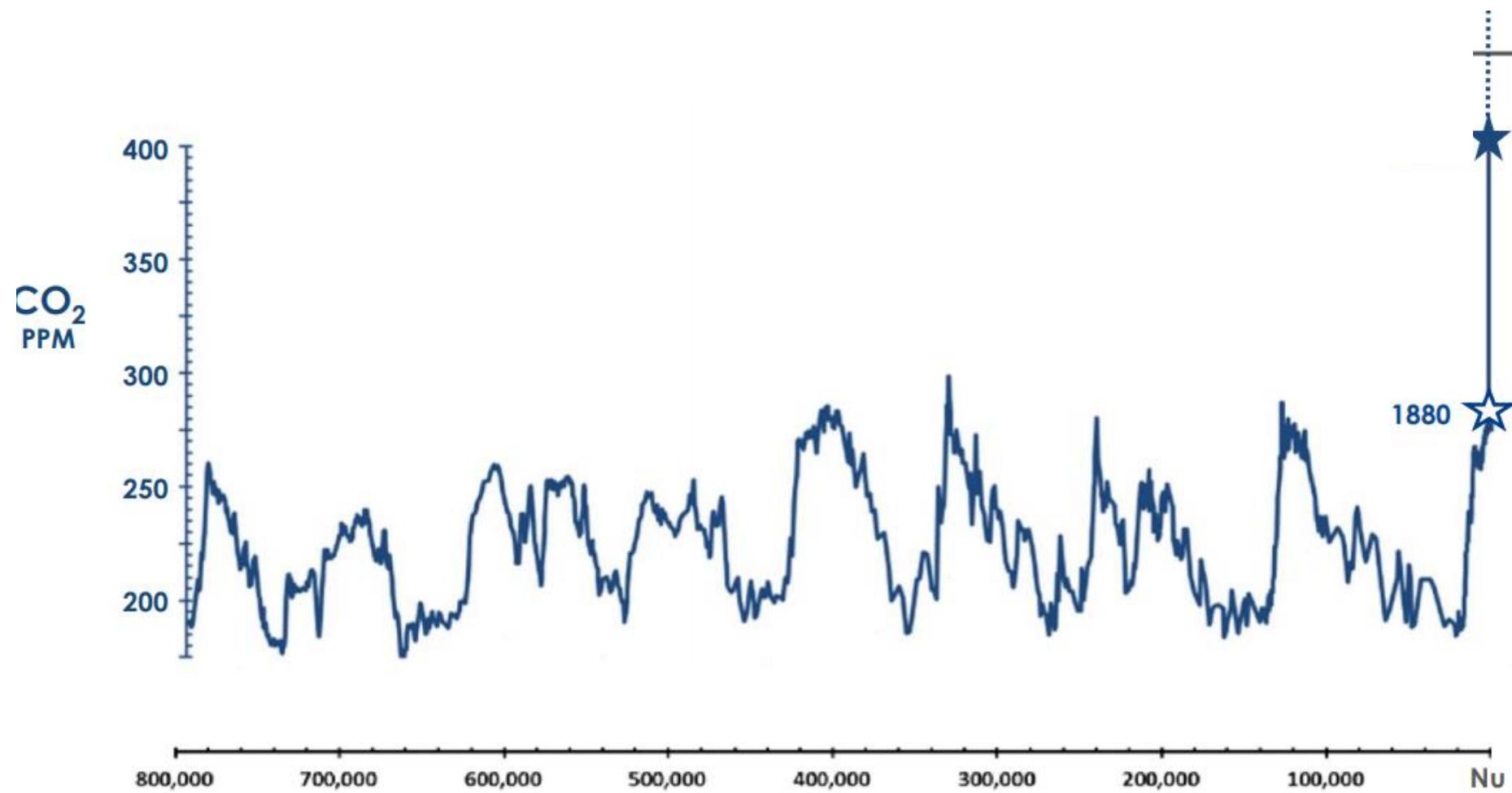


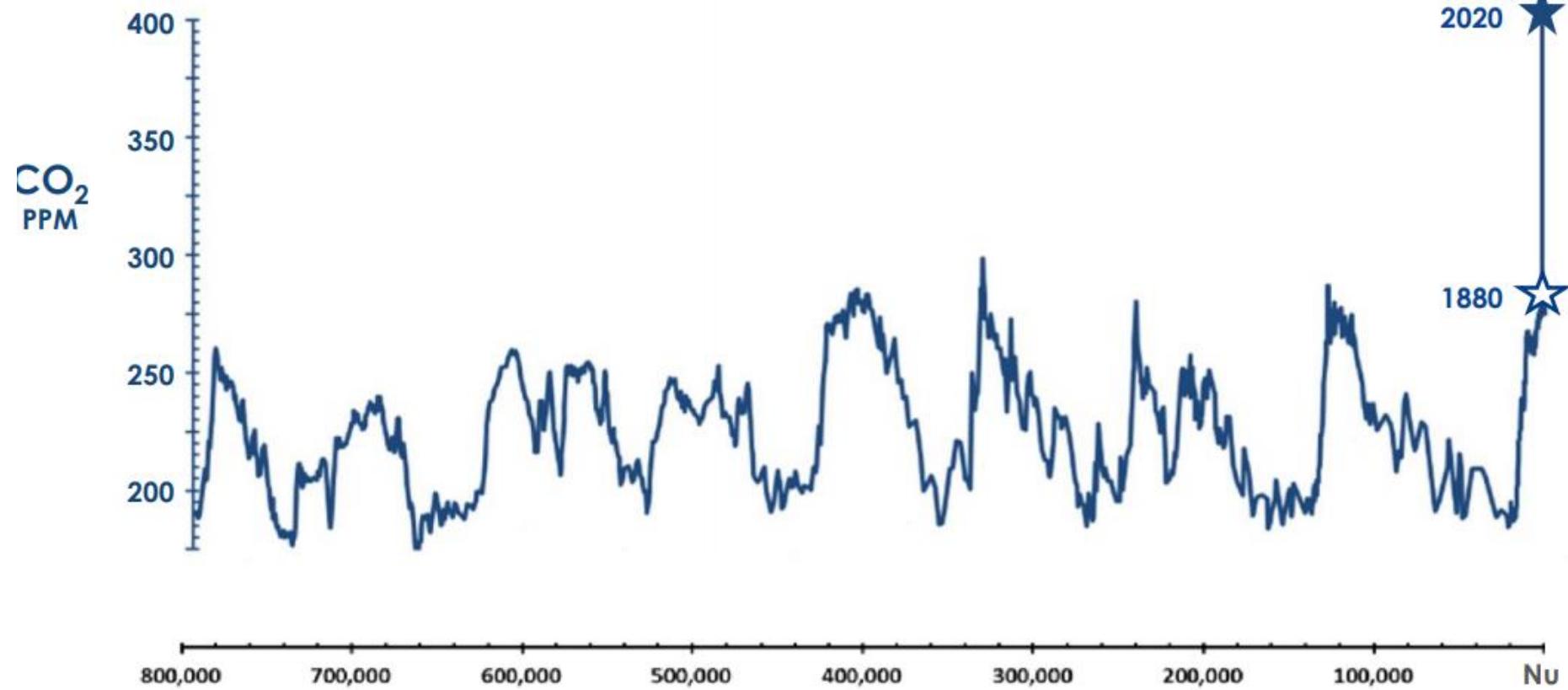
Hapiness for ever

Hapiness 4 all 4 ever

Hapiness for all





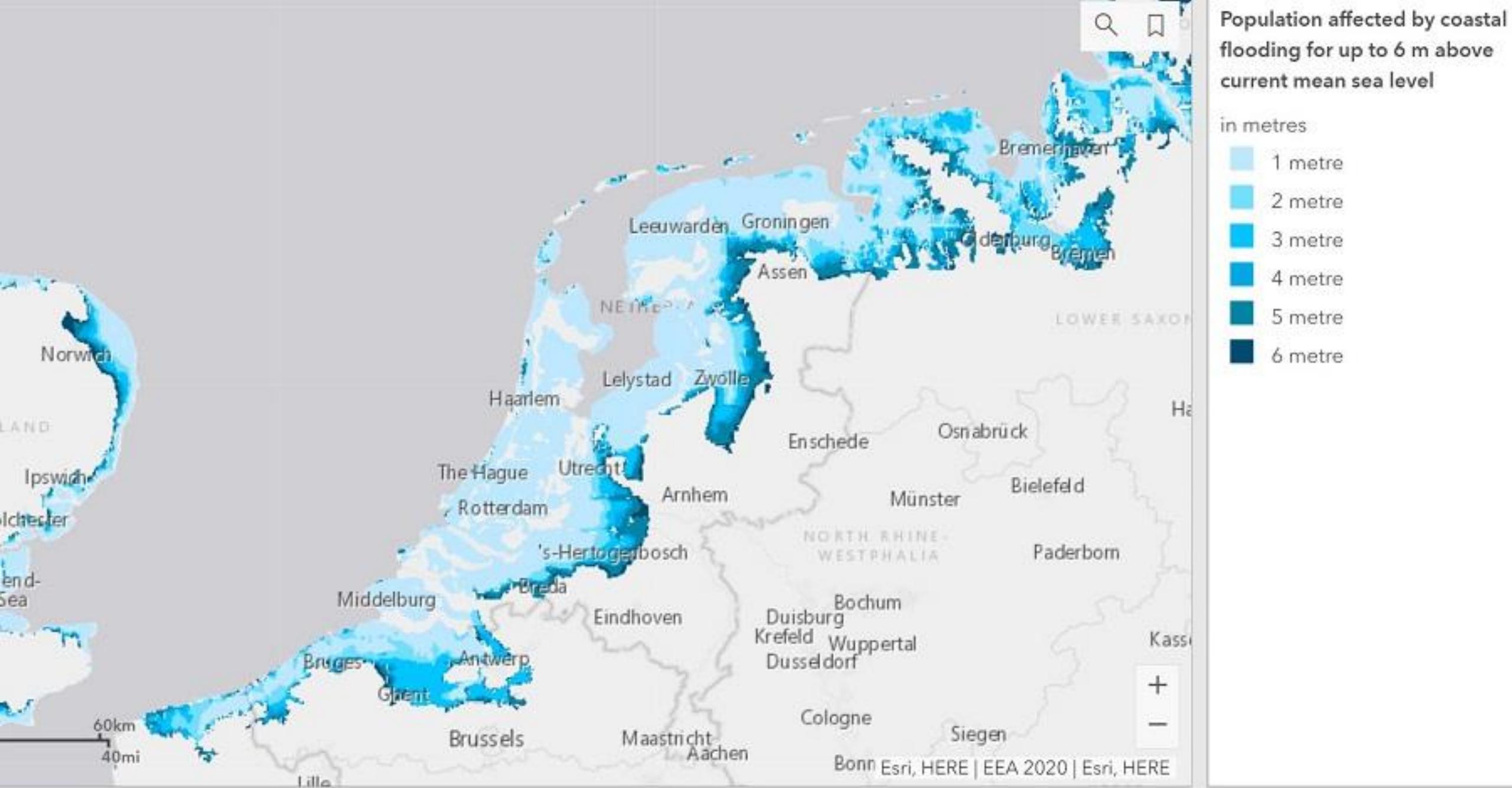




Irma







Population living within the respective height above mean sea level (in metres):









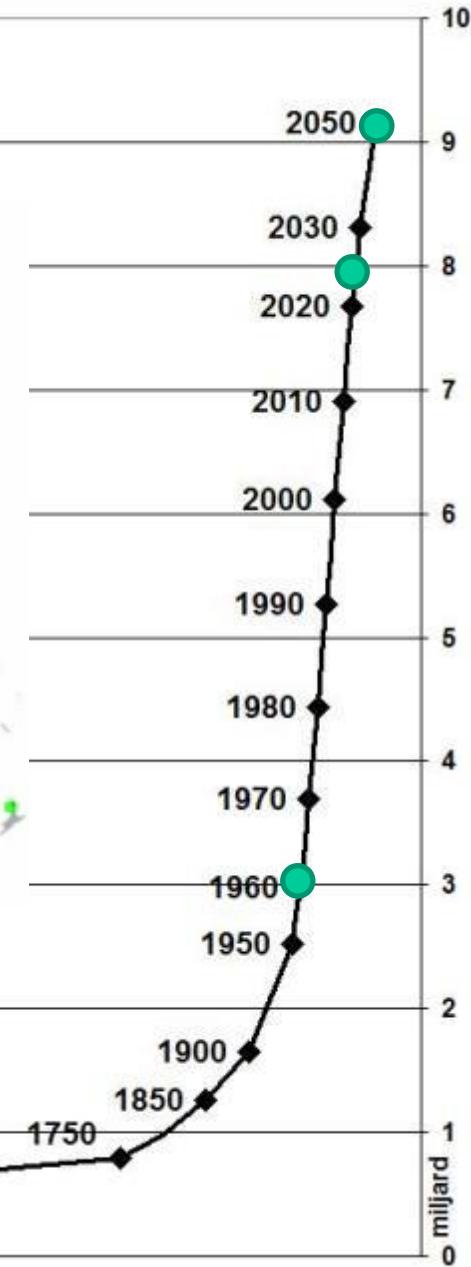
## groei wereldbevolking, AD 0 - 2050

Bron: UN The 2008 Revision Population Database



Megacities 2050

1000

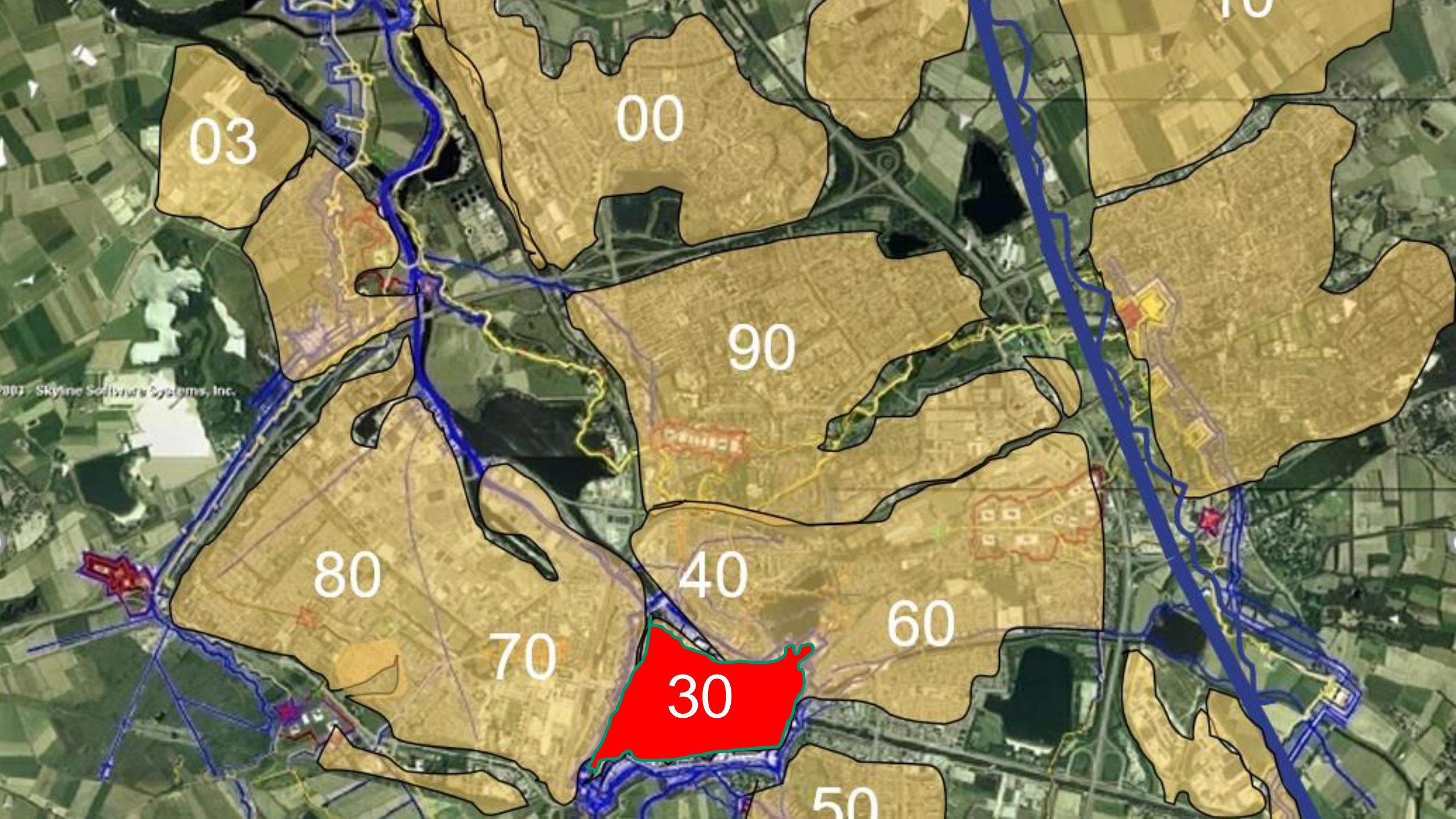








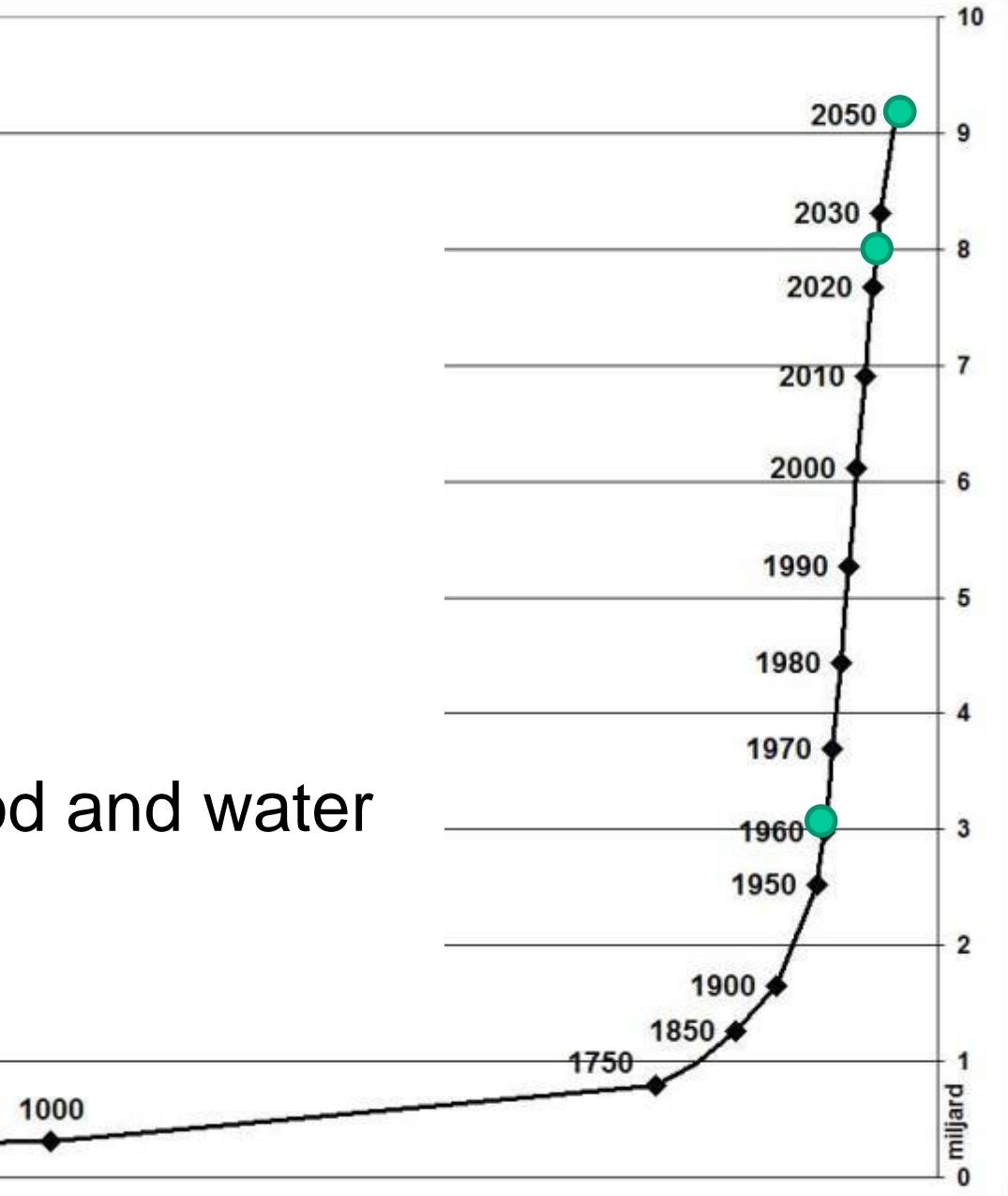




## groei wereldbevolking, AD 0 - 2050

Bron: UN The 2008 Revision Population Database

- Energy use
- Material use
- Tourism
- Aviation
- Car traffic
- Residential areas
- Ports, industry
- The demand for food and water  
and...
- We're getting older





1 NO POVERTY  


2 ZERO HUNGER  


3 GOOD HEALTH  
and WELL-BEING  


4 QUALITY EDUCATION  


5 GENDER EQUALITY  


6 CLEAN WATER  
AND SANITATION  


7 AFFORDABLE AND  
RELIABLE ENERGY  


8 DECENT WORK AND  
GROWTH  


9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE  


10 REDUCED INEQUALITY  


11 SUSTAINABLE CITIES  
AND COMMUNITIES  


12 RESPONSIBLE CONSUMPTION  
AND PRODUCTION  


13 CLIMATE ACTION  


14 LIFE BELOW WATER  


15 LIFE ON LAND  


16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS  


17 PARTNERSHIPS  
FOR THE GOALS  






'We The People' for The Global Goals | Globa...



Watch later



# WE THE PEOPLE FOR THE GLOBAL GOALS

Watch on  YouTube

Stay within the boundaries of the planet

Planet

Energy transition

Circular economy

R1

No or less

R2

Renewable

R3

As long as possible

Stay within the boundaries of the planet

Planet

Energy transition

Circular economy

R1.1

Refuse

R1.2

Reduce

R1.3

Rethink

R1.4

Redesign

R2.1

Renewables

R3.1

Repair

R3.2

Re-use

R3.3

Refurbish

R3.4

Remanufacture

R3.5

Repurpose

R4.1

Recycle

R4.2

Recover

Stay within the boundaries of the earth

Planet

Energy transition

fossil -> renewable energy



Circular economy

bio- techno cycle





Every year we consume what nature has recorded in 1 million years.



Duurzame energie



Stay within the boundaries of the earth

Planet

Energy transition

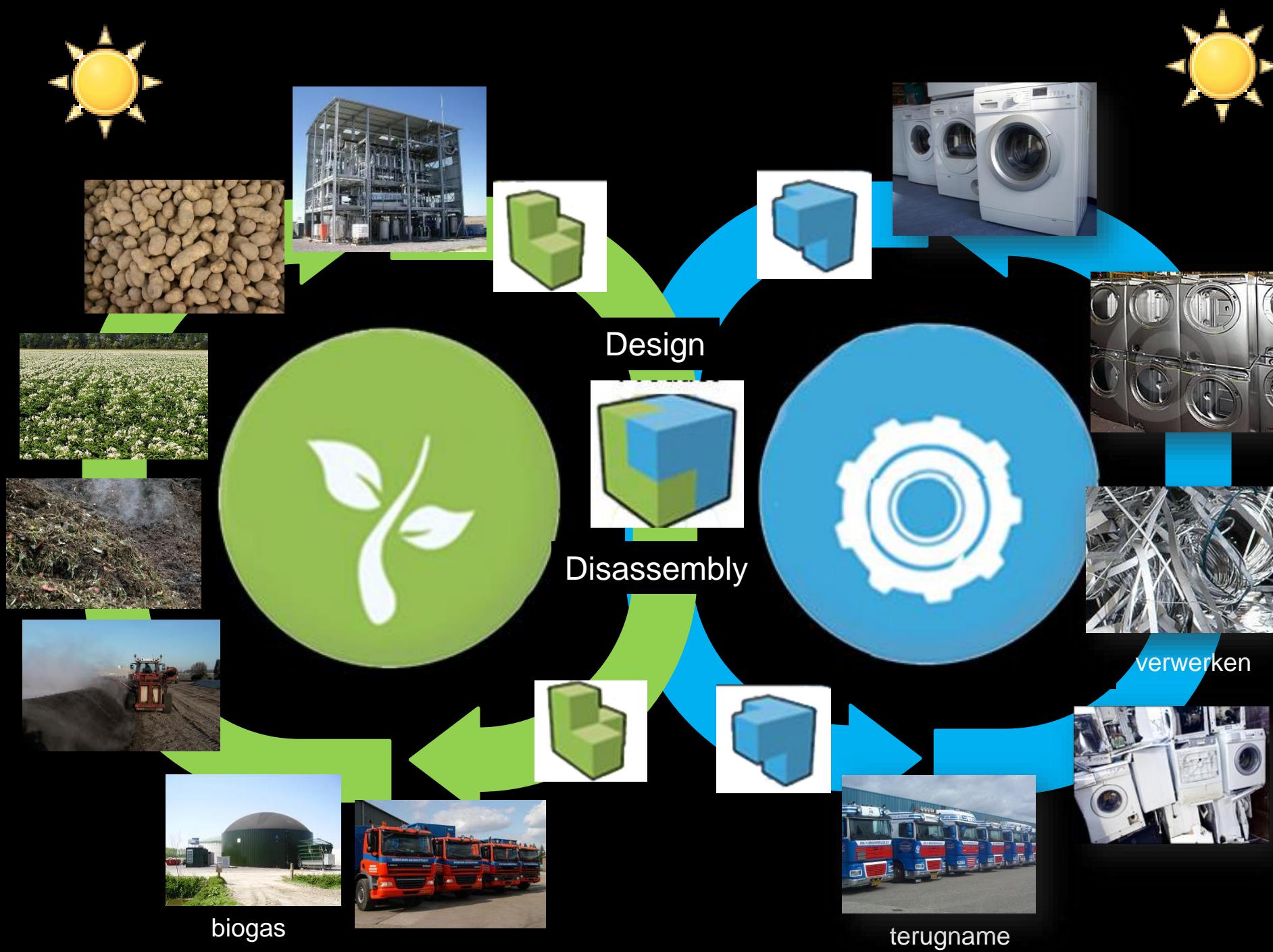
fossil -> renewable energy

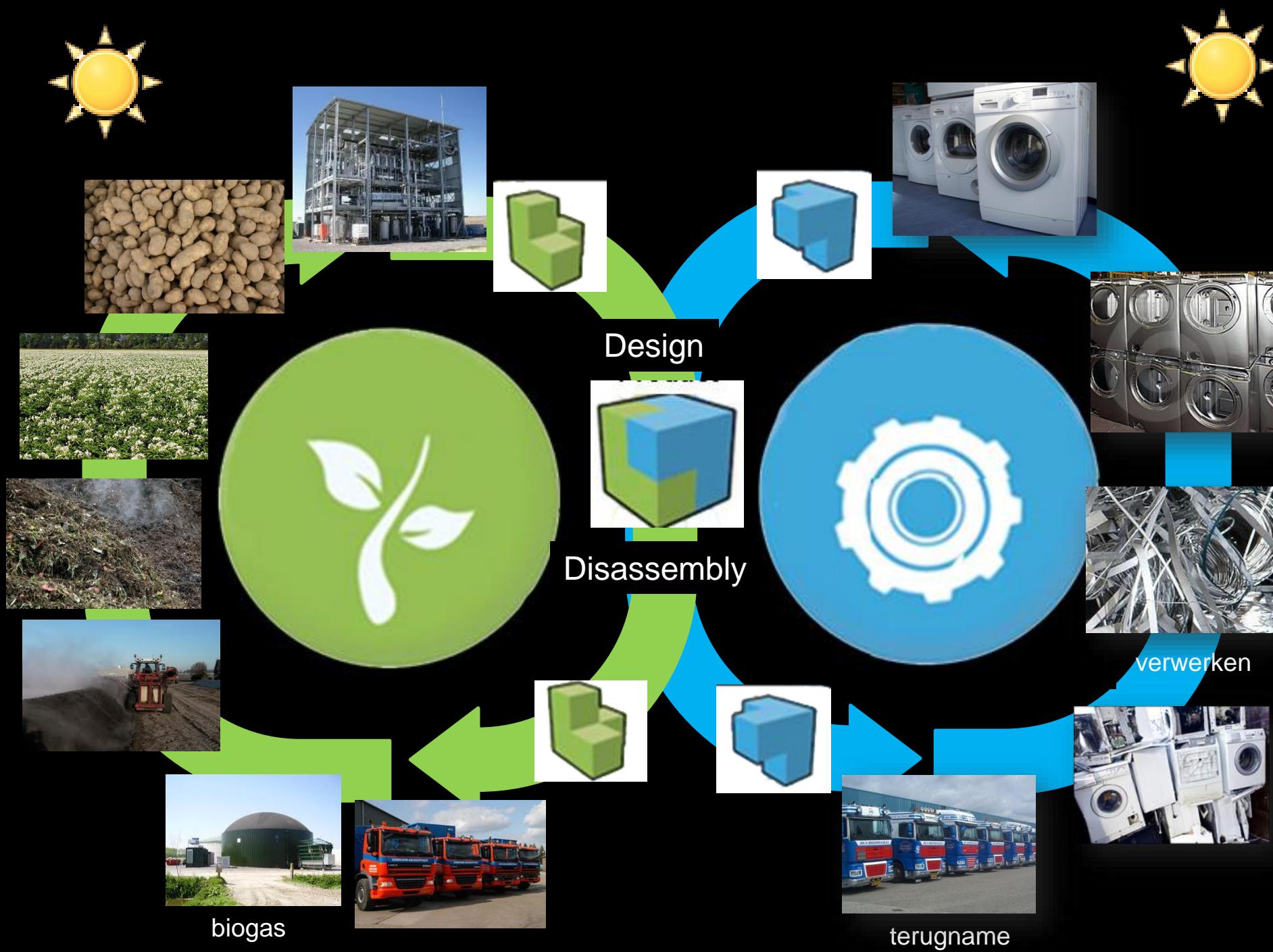


Circular economy

bio- techno cycle

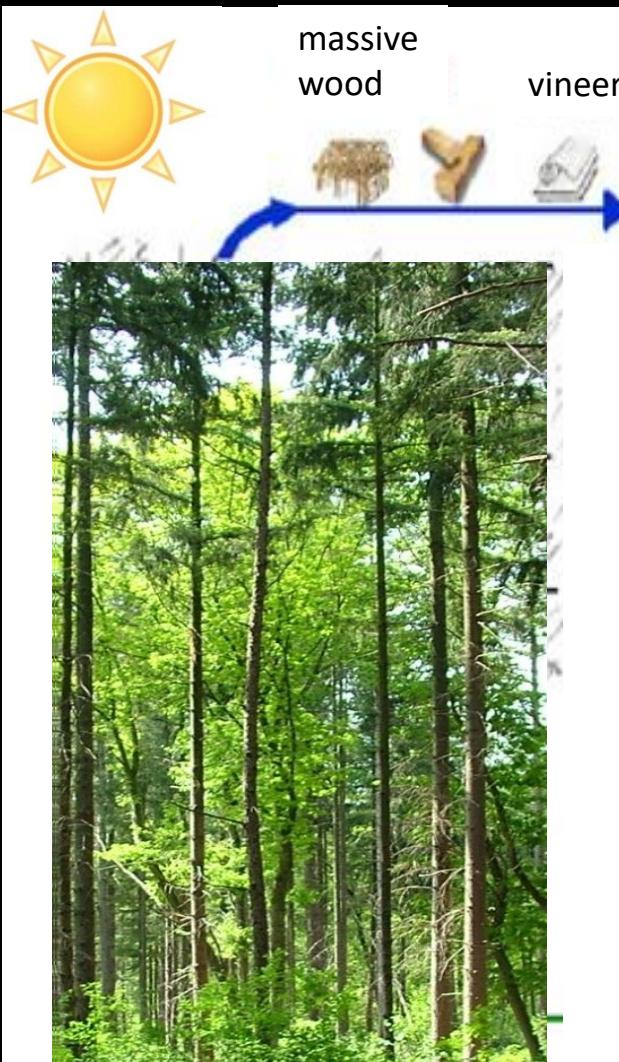






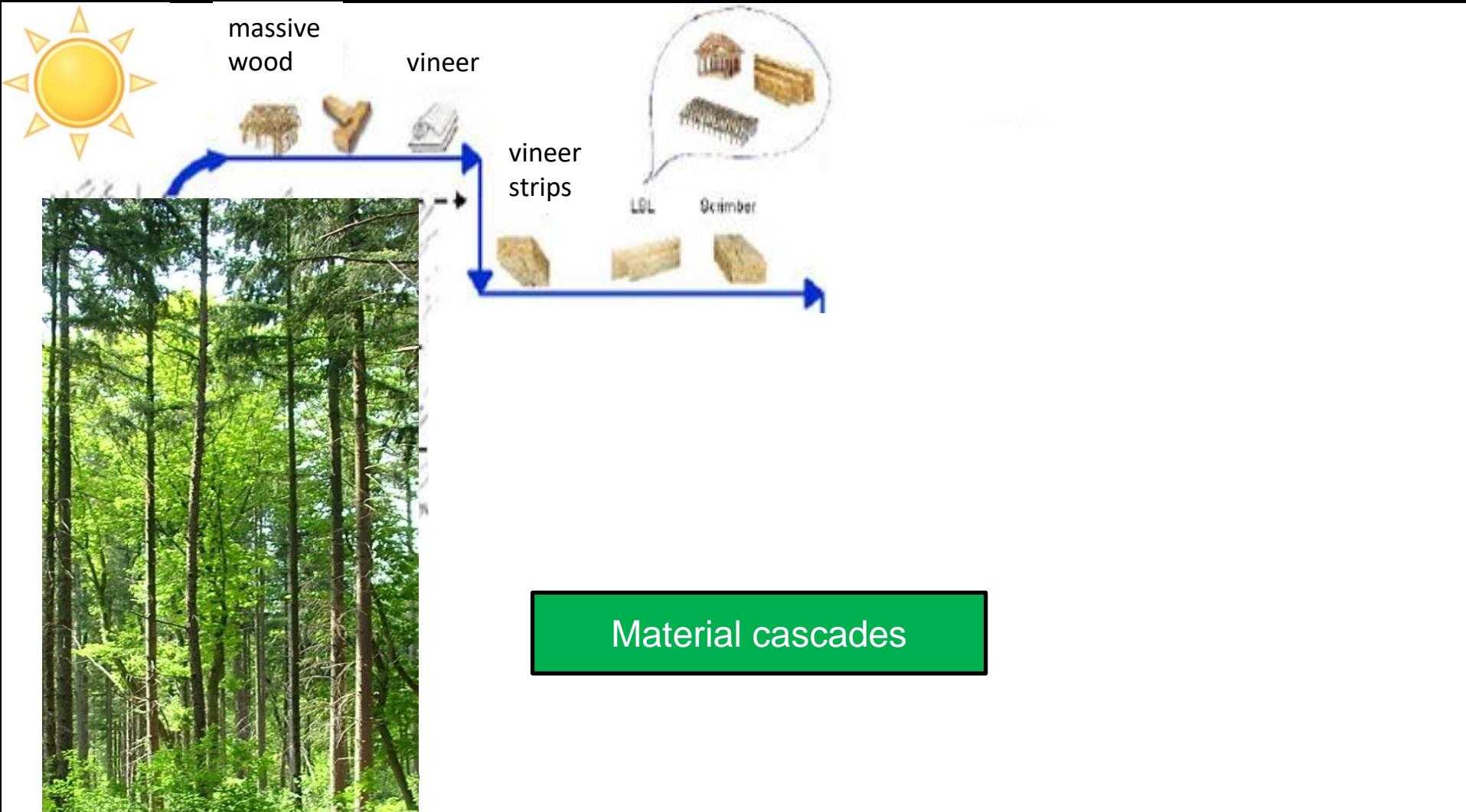


# As long as possible

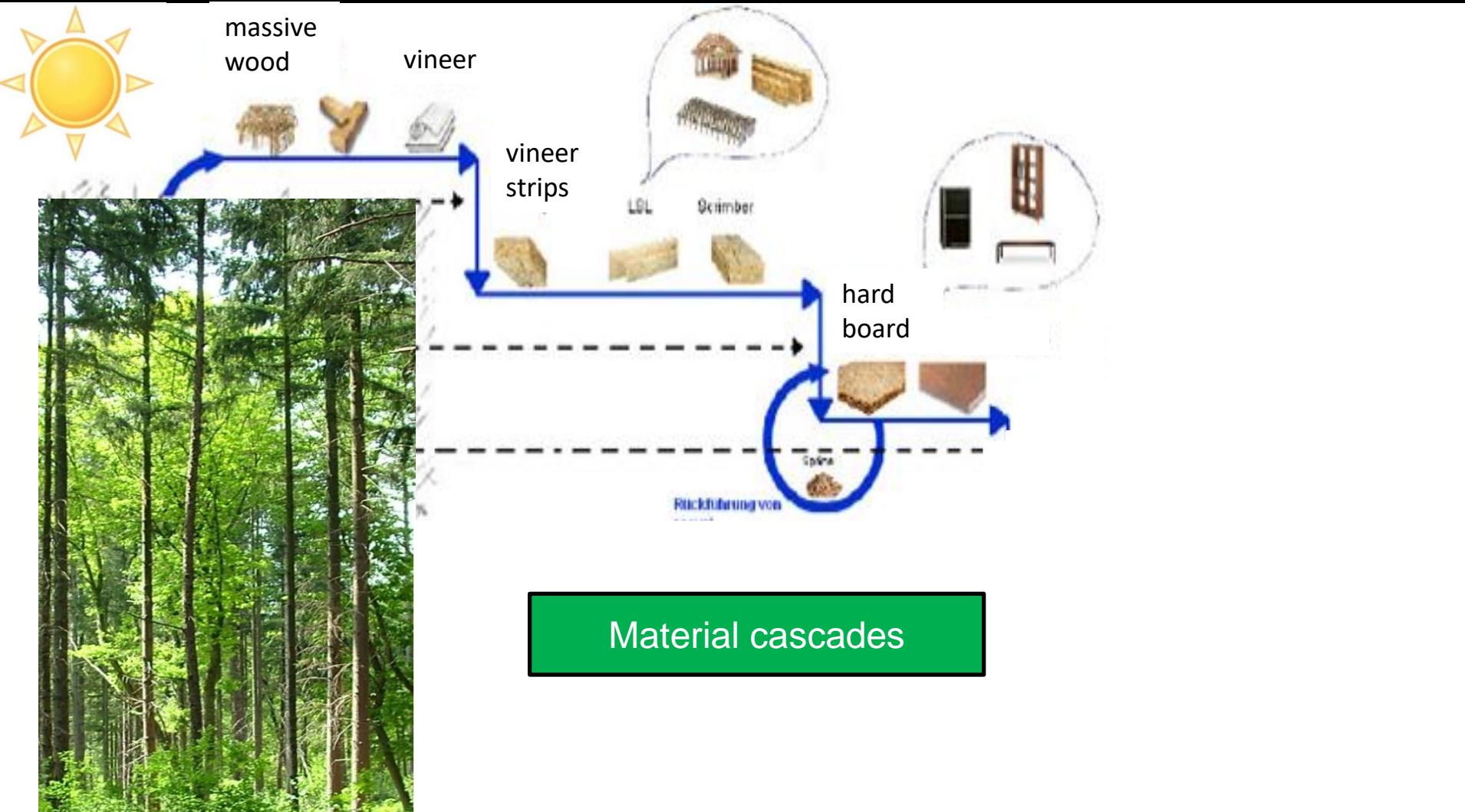


Material cascades

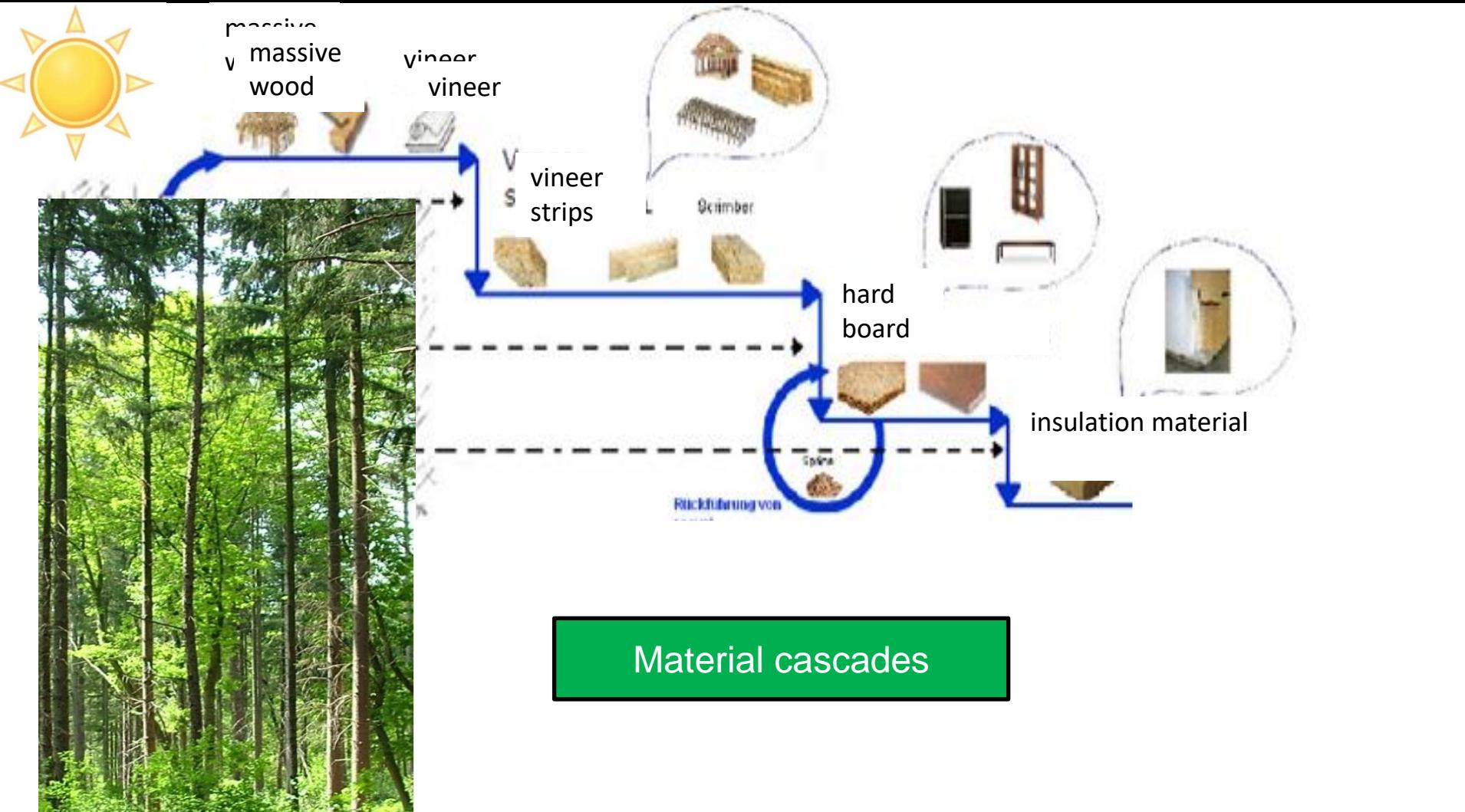
# As long as possible



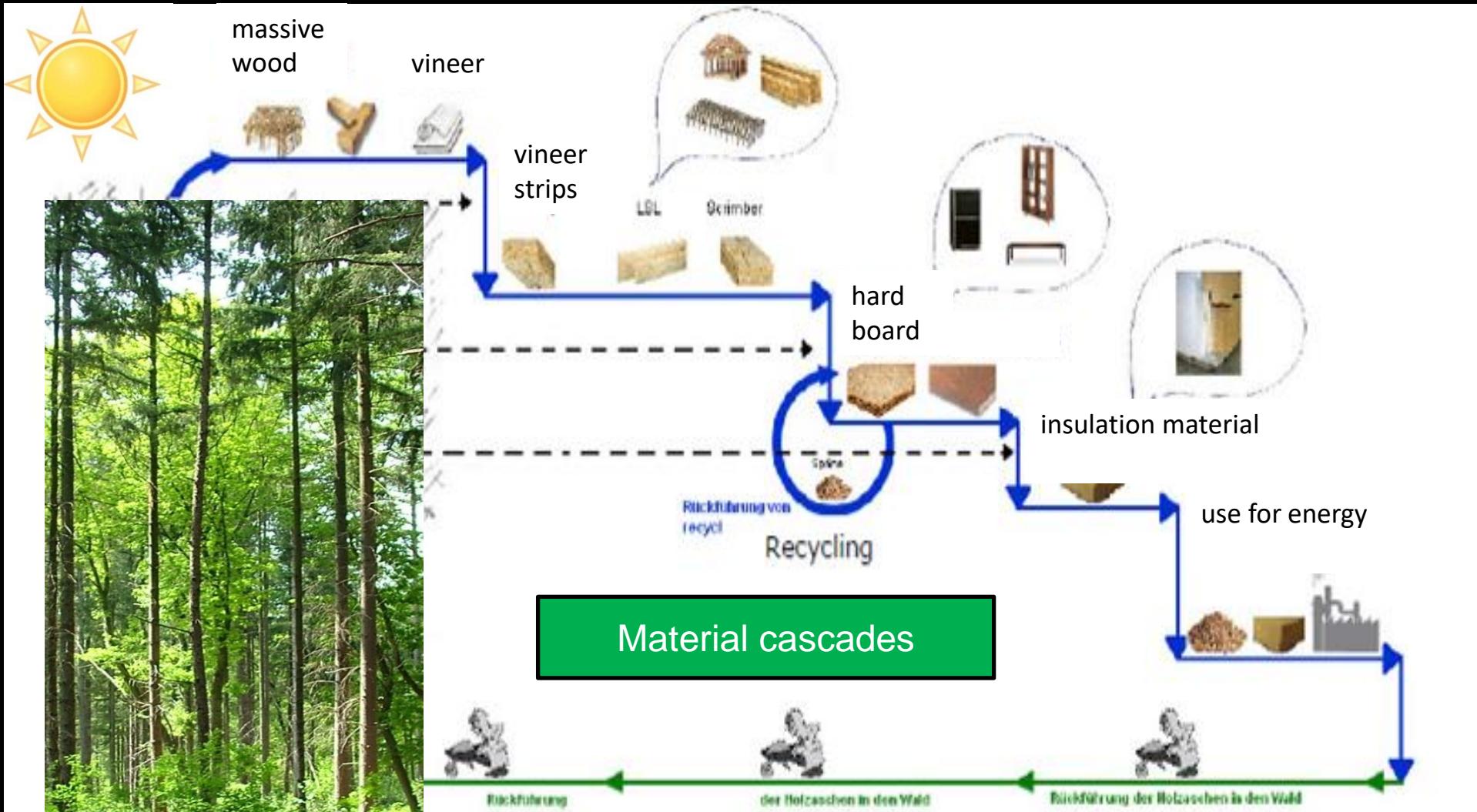
# As long as possible



# As long as possible

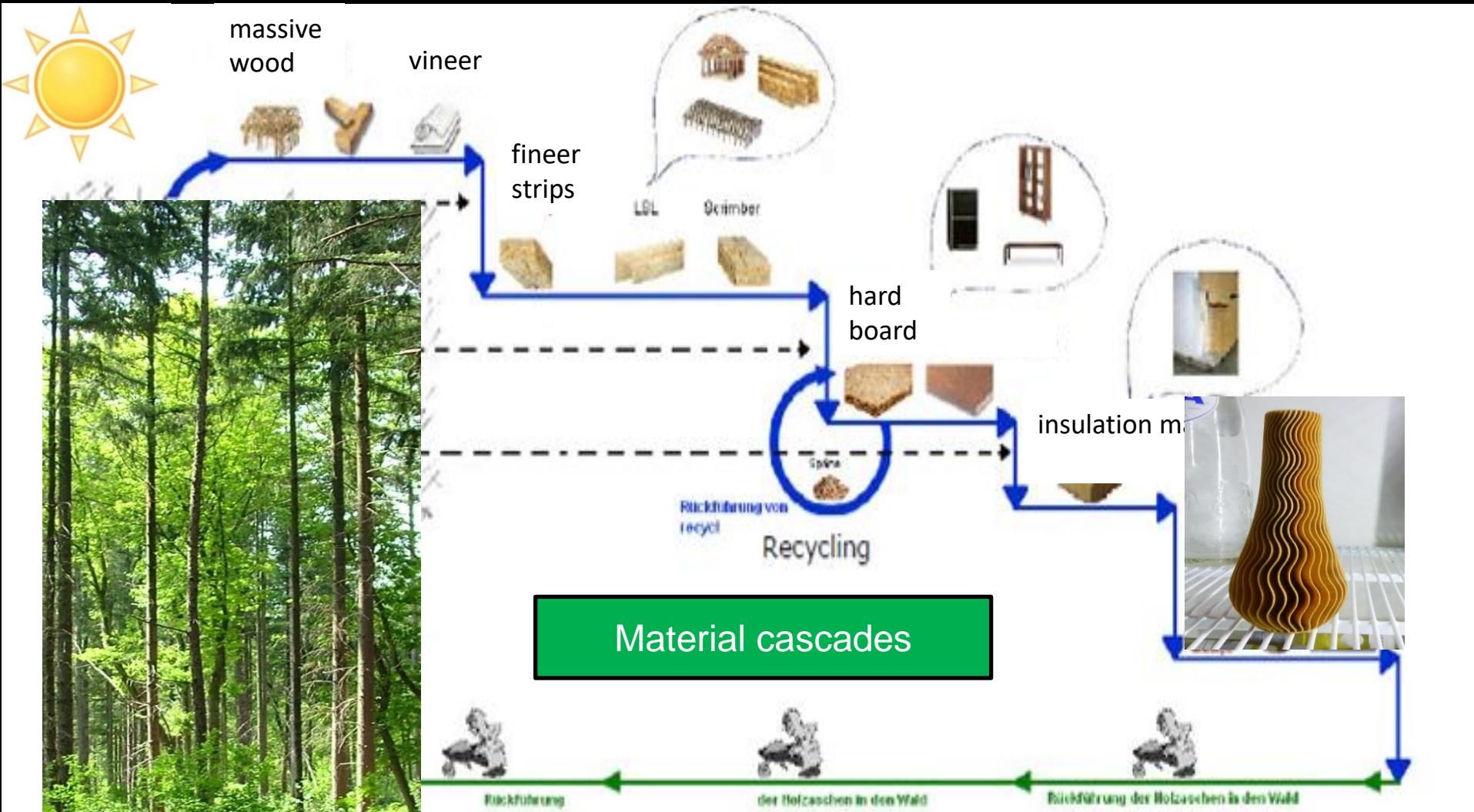


# As long as possible



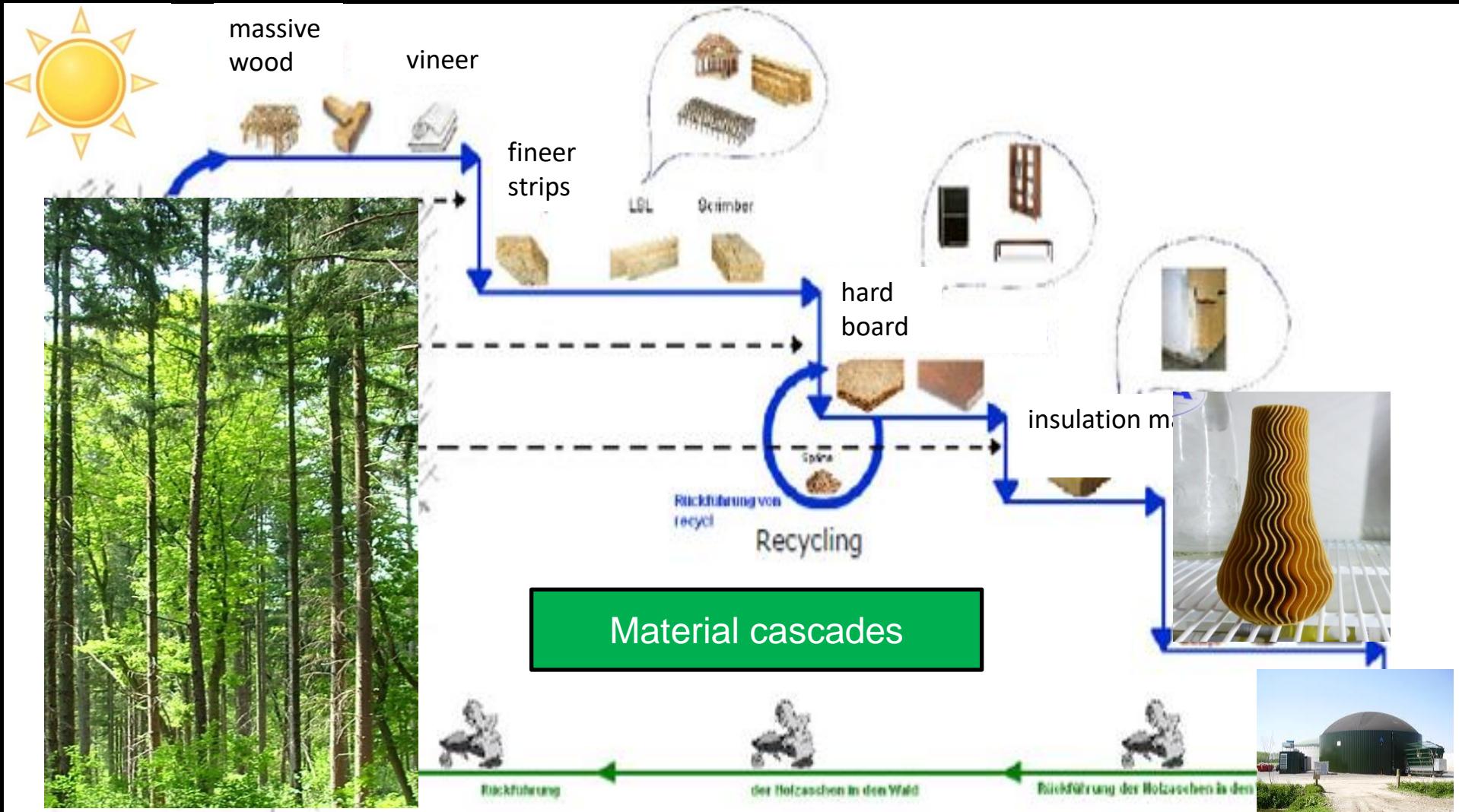
Breng de as weer in de bossen

# As long as possible



Breng de as weer in de bossen

# As long as possible



Breng de as weer in de bossen

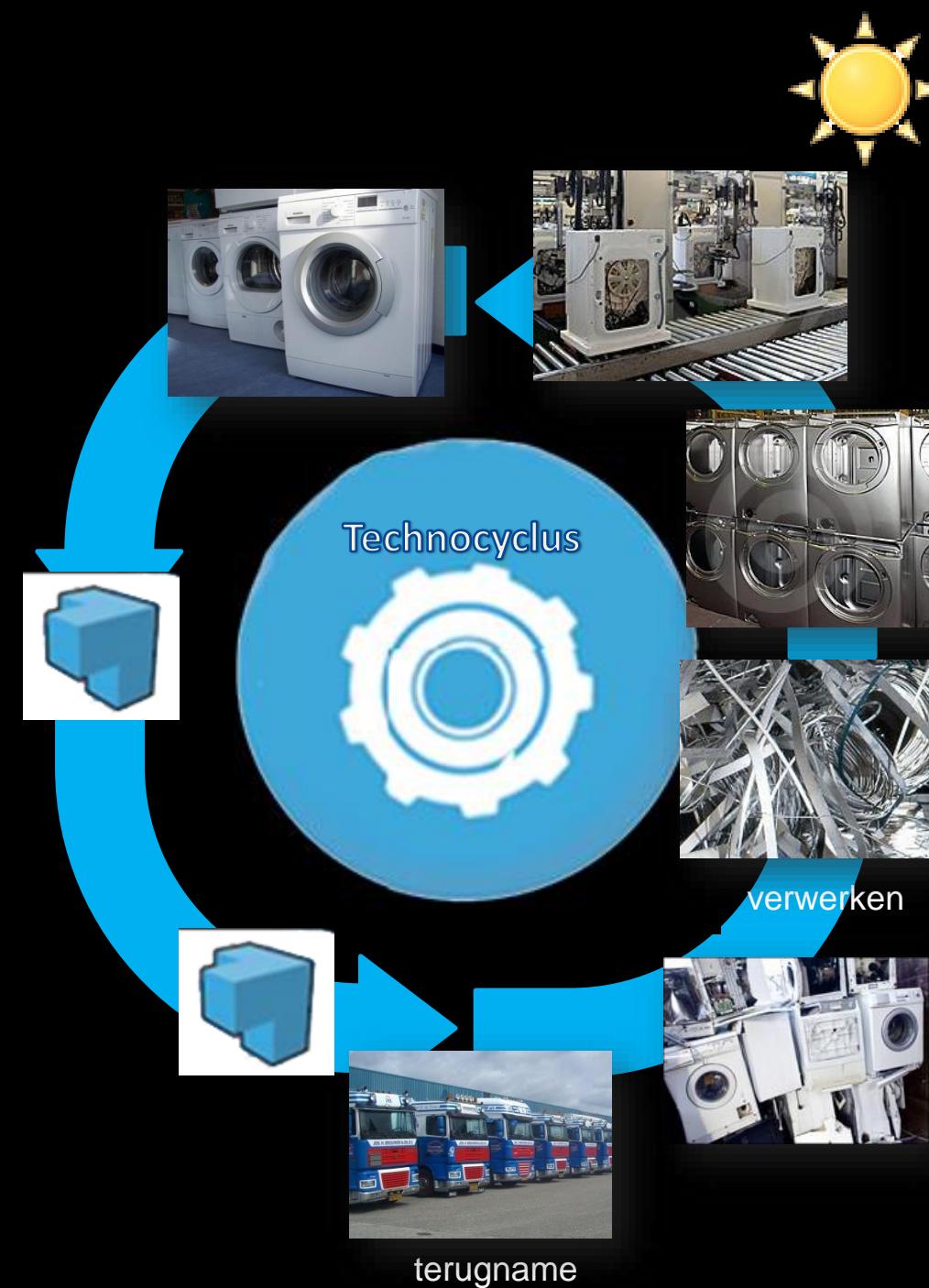


Technocyclus

Performance based economy de-ownership  
buy use and not the product.

Product as a service

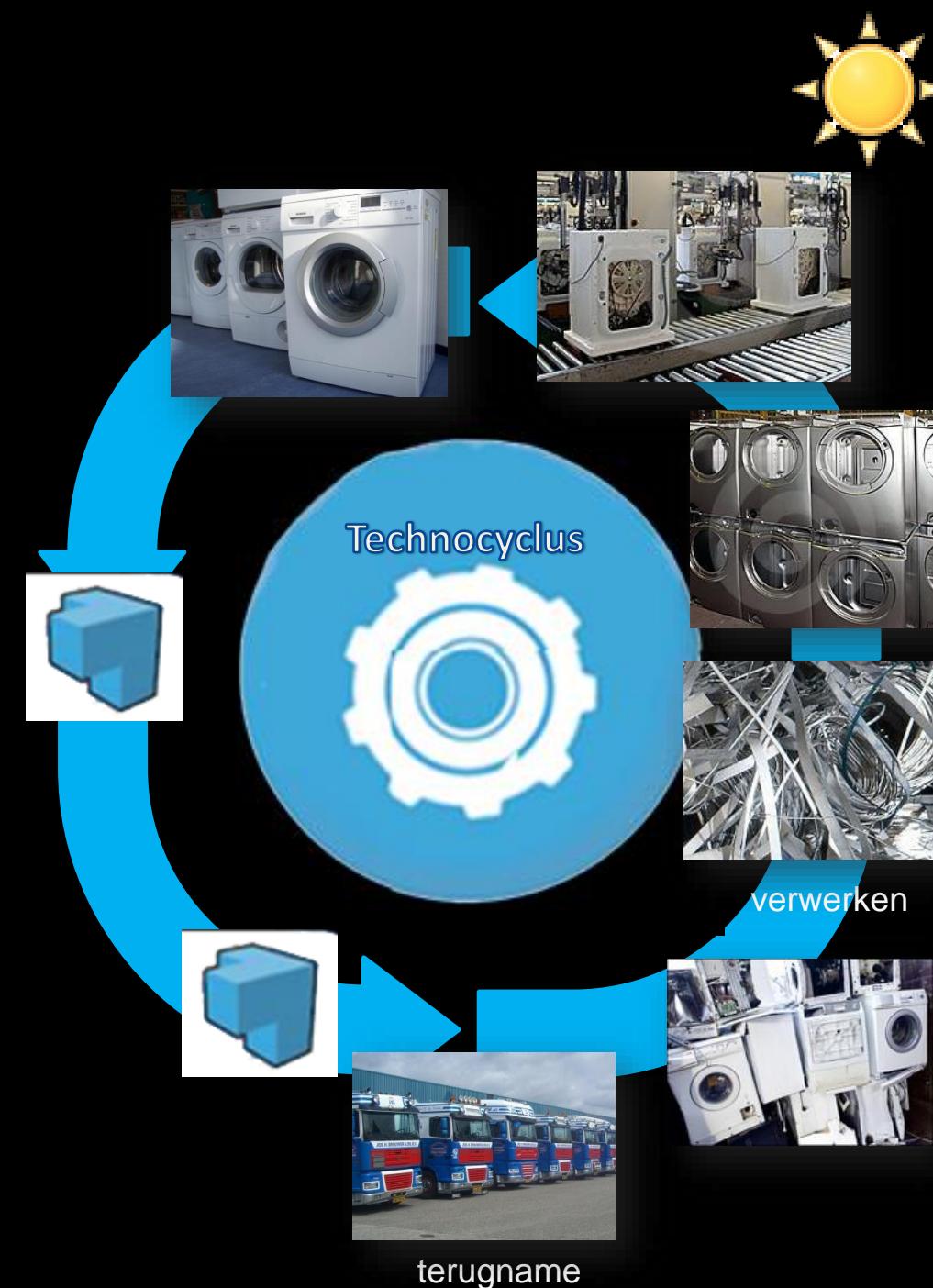
- do not buy lamps but .....
  - do not buy a car but .....
  - do not buy an HR boiler but .....
  - do not buy a fridge but .....
  - don't buy a TV but .....
  - do not buy carpet but .....
  - do not buy furniture but .....
  - do not buy a washing machine but .....
  - do not buy CDs but music .....
  - do not buy a mobile phone but .....
- (KPN repair within four hours)



Performance based economy de-ownership  
buy use and not the product.

Product as a service

- do not buy lamps but light
- do not buy a car but mobility
- do not buy an HR boiler but heat
- do not buy a refrigerator but cooling hours
- do not buy TV but viewing hours
- do not buy carpet but walking hours
- do not buy furniture but hours of use
- do not buy a washing machine but washes
- do not buy CDs but music Spotify
- do not buy a mobile phone but connectedness (KPN repair within four hours)



# Swap bike







Stay in between the boundaries of this planet

Planet

Energy transition

Circular economy

Economy

Profit

Social

People

Biodiversity

17 PARTNERSHIPS  
FOR THE GOALS



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



12 RESPONSIBLE CONSUMPTION  
AND PRODUCTION



7 AFFORDABLE AND  
CLEAN ENERGY



8 DECENT WORK AND  
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



10 REDUCED  
INEQUALITIES



11 SUSTAINABLE CITIES  
AND COMMUNITIES



1 NO  
POVERTY



2 ZERO  
HUNGER



3 GOOD HEALTH  
AND WELL-BEING



4 QUALITY  
EDUCATION



5 GENDER  
EQUALITY



6 CLEAN WATER  
AND SANITATION



16 PEACE, JUSTICE  
AND STRONG  
INSTITUTIONS



people

planet

profit



Hapiness for ever

Hapiness 4 all 4 ever

Hapiness for all

# Whole School Approach



- Why
  - What
  - How
  - Where
  - Who
  - With



**What**  
Technics / Building  
Trade / Fincance  
Care / Lifestyle  
Green / Food  
Gap analysis and bridging

**With**  
Companies  
NGO's  
Municipalities  
Local  
Regional  
National  
European  
International  
Mondial



**How**  
Good examples  
Challenges  
Hackatons  
Climatons  
Attractive Relevant  
Circular learning  
E-twinning

**Where**  
Housing  
Energy  
Water  
Waste  
Catering  
Mobility  
Biodiversity  
Purchase  
Communication

- Why



### Vision, mission, objectives (KPIs)

- Why is sustainability necessary?
- Which Sustainable Development Goals (SDG) are especially important?
- What is your vision and mission?
- What are the goals you want to achieve in 2030?
- How do you continuously improve?
- How do you communicate about the vision and the SDG's?

At your school it is about education but also about the building; the facilities, professionalization and the environment.

Write something about that in your vision.

## De visie



1 GEEN  
ARMOEDE



2 GEEN  
HONGER



3 GOEDE GEZOND-  
HEID EN WELZIJN



Move to Archive X  
UNDERWIJS

5 EENDER  
GELIJKHEID



17 PARTNERSCHAP  
OM DOEL-  
STELLINGEN  
TE BEREIKEN



16 VREDE, VEILIGHEID  
EN STERKE  
PUBLIEKE  
DIENSTEN



15 LEVEN OP  
HET LAND



14 LEVEN IN  
HET WATER



## 17 GLOBAL GOALS VOOR EEN DUURZAME EN EERLIJKE WERELD IN 2030

Met ingang van 9 oktober 2020 is het Koning Willem I College officieel  
ondertekenaar van het Sustainable Development Goals Charter

Jos van Kessel  
Voorzitter College van Bestuur

Dominique Majoor  
Lid College van Bestuur

Cor van Gerven  
Lid College van Bestuur

[www.SDGNederland.nl](http://www.SDGNederland.nl) | [www.kw1c.nl](http://www.kw1c.nl)

13 KLIMAATACTIE



12 VERANTWOORDE  
CONSUMPTIE  
EN PRODUCTIE



11 DUURZAME STEDEN  
EN  
GEMEENSCHAPPEN



10 ONGELIJKHEID  
VERMINDEREN



9 INDUSTRIE,  
INNOVATIE EN  
INFRASTRUCTUUR



WORKFORUM

FORUM FUTURE



## SUSTAINABLE DEVELOPMENT GOALS

KONING  
WILLEMI  
COLLEGE

1 GEEN  
ARMOERDE



2 GEEN  
HONGER



3 GOODE GEZOND-  
HEID EN WELZIJN



4 KVALITEITS-  
ONDERWIJS



5 GENDER-  
GELIJKHEID



6 SCHON WATER  
EN SANITAIR



7 BEKALBARE  
EN DUURZAME  
ENERGIE



8 FEILIJN WERK  
EN ECONOMISCHE  
GROE



9 INDUSTRIE,  
INNOVATIE  
EN INFRASTRUCTUUR



10 ONGELIJKHEID  
VERMINDERN



11 DUURZAME STEDEN  
EN  
GEMEENSCHAPPEN



12 VERANTWOORDE  
CONSUMPTIE  
EN PRODUCTIE



13 KLIMAATACTIE



14 LEVEN IN  
HET WATER



15 LEVEN OP  
HET LAND



16 VRIEDE, VEILIGHEID  
EN STERKE  
PUBLIEKE  
Diensten



17 PARTNERSCHAP  
OM DOEL-  
STELLINGEN  
TE BEERKENEN



Global Goals voor een duurzame  
en eerlijke wereld in 2030

Desinfectie  
punt



### SUSTAINABLE DEVELOPMENT GOALS

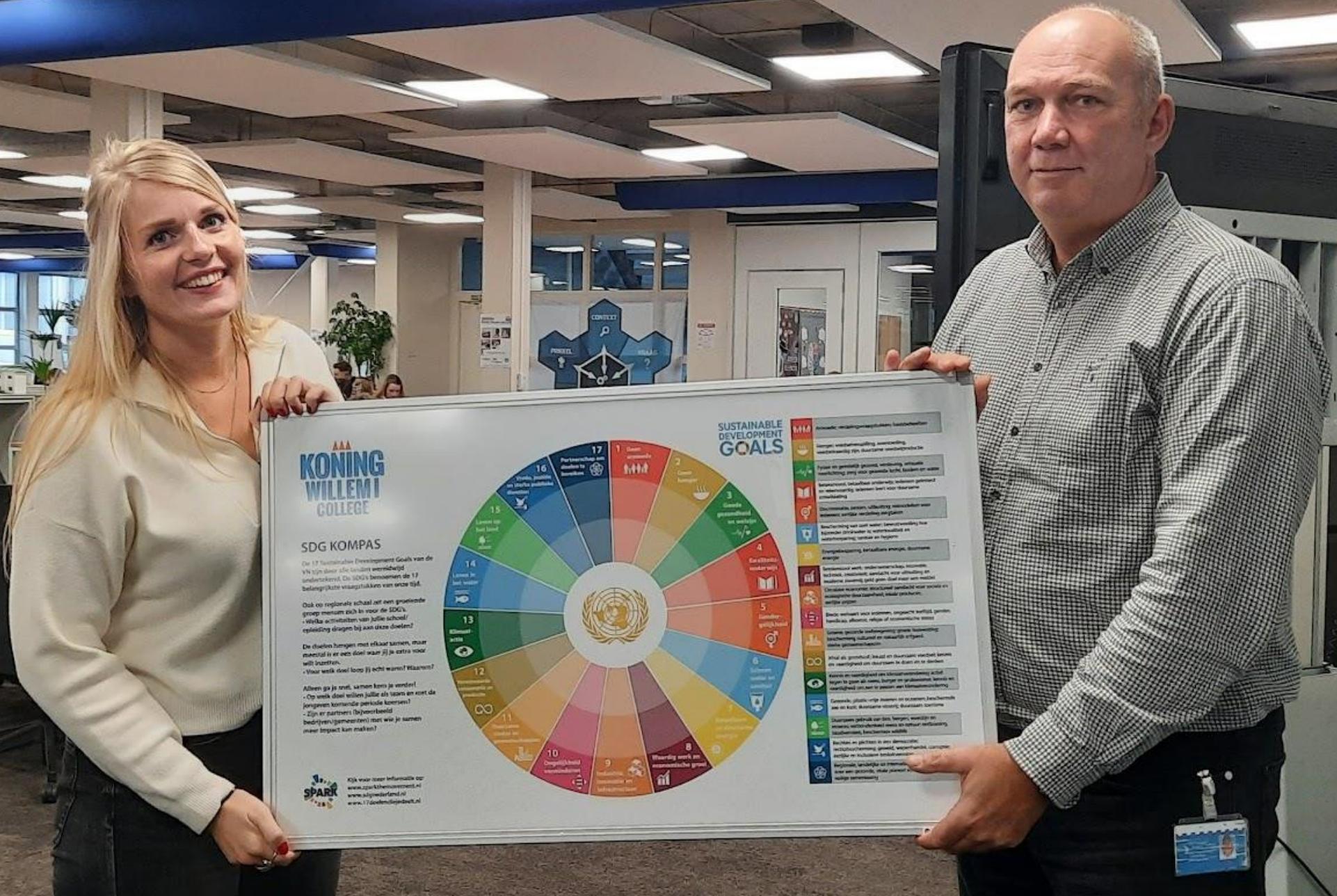


Global Goals voor een duurzame  
en eerlijke wereld in 2030

[www.SDGNederland.nl](http://www.SDGNederland.nl) | [www.kwlc.nl](http://www.kwlc.nl)







# POWERED BY HTA



# SDG inspiration bubble

## SUSTAINABLE DEVELOPMENT GOALS



Global Goals voor een duurzame en eerlijke wereld in 2030  
[www.SDGNederland.nl](http://www.SDGNederland.nl) | [www.kw1c.nl](http://www.kw1c.nl)



# The chair of VET Netherlands



Adnan Tekin



## The Commissar og the King

## How do we contribute to the SDG's

WIST JE DAT...

WIJ EEN KERSTOINER  
VERZORGEN VOOR  
DAK- EN THUISLOZEN

WIST JE DAT...

WIJ 150 LAPTOPS  
HEBBEN GEGEVEN  
AAN STUDENTEN DIE  
DAT NIET KONDEN  
BETALEN

WIST JE DAT...

HET KWIC GAAT  
VOOR EEN  
DUURZAME EN  
GEZONDE KANTINE

WIST JE DAT...

WIJ BRIEVEN  
SCHRIJVEN AAN  
MENSEN DIE  
ONTERECHT  
VASTZITTEN









### SDG 1: Geen armoede:

Doel: Beëindig armoede overal en in al haar vormen.

#### Wat kan een mbo-school hieraan bijdragen of draagt al bij?

- A. Vanuit Passend Onderwijs studenten helpen die het moeilijker hebben
- B. Stichting leergeld
- C. We regelen een buitenlandervaring voor sommigen van ze.
- D. Met kerst bereidt de horeca-afdeling een kerstdiner voor ze.
- E. We hebben relatie met de voedselbank en kringloopwinkels,
- F. We doen mee met goede doelen acties.
- G. We regelen laptops.
- H. We doen projecten in het buitenland om andere landen te helpen.

## How we contribute to the SDG's



**SDG 2: Geen honger:** Beëindig honger, bereik voedselzekerheid en verbeterde voeding en promoot duurzame landbouw.

#### Wat kan een mbo-school hieraan bijdragen of draagt al bij?

- A. De horeca gebruikt waar kan seizoensgebonden, streekgebonden biologische producten, werkt via de Dutch cuisine en gaat voedselverspilling tegen.
- B. Met kerst bereidt de horeca-afdeling een kerstdiner.
- C. We hebben relatie met de voedselbank en kringloopwinkels
- D. We doen mee met goede doelen acties.

**12**  
VERANTWOORDE  
CONSUMPTIE  
EN PRODUCTIE



## **SDG 12: Verantwoorde consumptie en productie:** Verzekер duurzame consumptie- en productiepatronen.

### **Wat kan een mbo-school hieraan bijdragen of draagt al bij?**

- A. Opzetten programma Returnity; optimaliseren afvalscheiding
- B. 95% recyclebare koffieautomaten/Maas + hergebruik waterflessen
- C. Campagne tegen voedselverspilling in bedrijfsrestaurant
- D. Via inkoopbeleid sturen op duurzame producten en lokale en seizoensgebonden producten
- E. Hergebruik bestaand meubilair herinrichten onderwijsboulevard
- F. Schoonmaakmiddelen biologisch afbreekbaar
- G. Duurzaam schoolgebouw met houtskeletbouw, vloerverwarming, groen dak, zonnepanelen, warmteterugwinning
- H. Studenten dragen verbeterpunten op het gebied van duurzaamheid aan in het keuzedeel duurzaamheid. .
- I. Studenten krijgen opdrachten m.b.t. de circulaire economie



United Nations  
Educational, Scientific and  
Cultural Organization



UNESCO  
SCHOOL

SAMENVATTING  
UNESCO JAARVERSLAG  
2021 - 2022



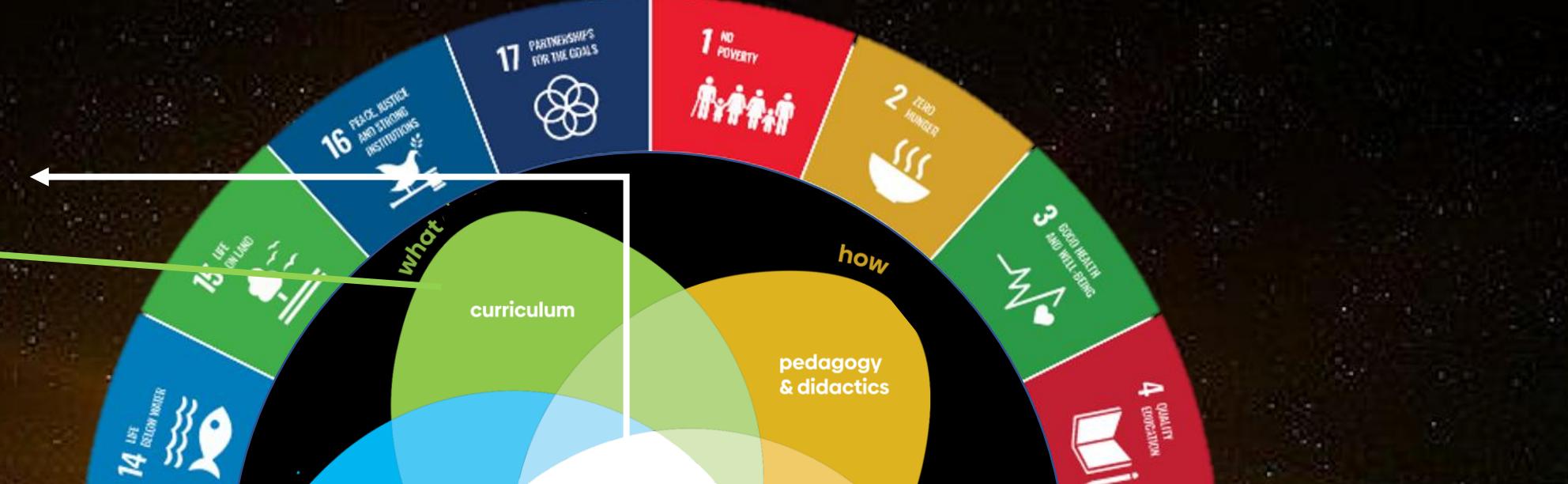


	INHOUDSOPGAVE <b>Visie Missie Doelstellingen</b>	KWIC.DZH.ORG.02 DATUM:30-09-21 REVISIE: 1
---	---	---

O1	<u><a href="#">Vision and policy with regard to sustainability</a></u>	B1	<u><a href="#">Vision and policy sustainable business operations</a></u>
O2	<u><a href="#">Sustainability training 1 2 3 4 5 *</a></u>	B2	<u><a href="#">Gas</a></u>
O3	<u><a href="#">The SDGs in the training</a></u>	B3	<u><a href="#">Electricity</a></u>
O4	<u><a href="#">Societal assignments</a></u>	B4	<u><a href="#">Water</a></u>
O5	<u><a href="#">Social sustainability</a></u>	B5	<u><a href="#">Waste</a></u>
P1	<u><a href="#">Sustainable internships</a></u>	B6	<u><a href="#">Mobility</a></u>
P2	<u><a href="#">Sustainable assignments at the internships</a></u>	B7	<u><a href="#">catering</a></u>
P3	<u><a href="#">Networking</a></u>	B8	<u><a href="#">Biodiversity</a></u>
P4	<u><a href="#">Communication + clarification</a></u>	B9	<u><a href="#">Purchase</a></u>
P5	<u><a href="#">Education and training</a></u>		

1. Architecture 2. Human technology 3. Fashion and clothing 4. Hospitality 5. International business

- Why
- What



- Did you carry out gap analysis and did you bridge it?
- Did you implement the trias transition competences? Refuse, Renewables, Reuse
- Which SDGs are most important with regard to education in your profession?
- Which SDG's can be payed more attention to?
- Did you integrate ESD in your teaching and is it ad hoc, now and then, project based or systematically.
- Do you preferably put your students in internships at sustainable companies?
- Do students have to look at sustainability at their internships and do they have to come up wit implrovements?

Home   About DMBO   Knowledge base   Teaching material   Optional part   Business management   Newsletters   SDGs

C2C   HBO / WO



Planet   in construction

People

Profit

Concepts

New economies

Smart & intelligent

Games

Matches

Recommended books

Movies

Sustainable ideas

Durable products

Check lists

Ideas of young people

| Hits: 1370434

Go

English

- ✓ [Home](#)
- ✓ [Lessons elective sustainability in the profession B/C/D](#)
- ✓ [Deepening elective sustainability in the profession C/D](#)
- ✓ [Are you engaged in sustainable checks](#)
- ✓ [Editors Login](#)

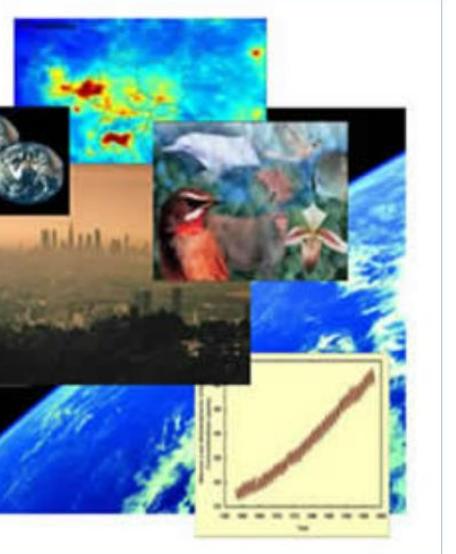
[Sign up for the newsletter](#)

- ✓ [Guest lessons](#)
- ✓ [Good initiatives in the Netherlands](#)
- ✓ [Good examples Europe](#)
- ✓ [Statements for debate](#)
- ✓ [Cooperate!](#)
- ✓ [Contact](#)
- ✓ [Manifesto](#)

This site provides information about sustainability in vocational education and in general. More than 1300 items.

Everything together as compact as possible. Check out the menu at the top or use the search function because there is almost no topic or it is on it. The site already has more than one million visitors.



Planet	Issues	Solutions
	<ul style="list-style-type: none"> <li>↳ The beautiful planet earth</li> <li>↳ Nine borders the Earth</li> <li>↳ The population growth</li> <li>↳ World food problem</li> <li>↳ Increase in energy consumption</li> <li>↳ Oil</li> <li>↳ Coal and lignite</li> <li>↳ Gas and shale gas</li> <li>↳ Rise of the CO<sub>2</sub> concentration</li> <li>↳ Increase in temperature on Earth</li> <li>↳ The greenhouse effect</li> <li>↳ Melting of polar caps and ice</li> <li>↳ More drought</li> <li>↳ More wildfires</li> <li>↳ More flooding</li> <li>↳ More powerful hurricanes</li> <li>↳ Decrease in biodiversity</li> <li>↳ Deforestation and clearing (rain) forests</li> <li>↳ Water and everything around it</li> <li>↳ Poor air quality and nitrogen</li> <li>↳ Fine dust</li> <li>↳ Energy in the Netherlands</li> <li>↳ The car use</li> <li>↳ Air pollution and nitrogen</li> </ul>	<ul style="list-style-type: none"> <li>↳ Sustainability and policy</li> <li>↳ Good news</li> <li>↳ What to do and how?</li> <li>↳ Consultation tables for CO<sub>2</sub> reduction</li> <li>↳ The energy transition</li> <li>↳ Our gas and electricity grid</li> <li>↳ Heat networks and residual heat</li> <li>↳ Our use of space (under pressure)</li> <li>↳ Sustainable energy techniques</li> <li>↳ Solar panels</li> <li>↳ Solar boilers and energy roofs</li> <li>↳ Concentrating solar power</li> <li>↳ Hydropower</li> <li>↳ Tidal energy</li> <li>↳ Wave energy and blue energy</li> <li>↳ Wind energy</li> <li>↳ Geothermal and aquathermal</li> <li>↳ Heat and cold storage</li> <li>↳ Residual water</li> <li>↳ Heat pumps</li> <li>↳ Home exchanges</li> <li>↳ Climate action</li> <li>↳ Biobased economy biomass, biofuel</li> </ul>

- [Home](#)
- [About DMBO](#)
- [Knowledge base](#)
- [Teaching material](#)
- [Optional part](#)
- [Business management](#)
- [Newsletters](#)
- [SDGs](#)

C2C      HBO / WO



**Duurzaam MBO**

Planet	in construction
People	
Profit	
Concepts	Corona and sustainability
New economies	circular economy
Smart & intelligent	Cradle-to-cradle
Games	The energy transition
Matches	Bio-based economy
Recommended books	Biomimicry
Movies	Lessons from nature
Sustainable ideas	Creativity
Durable products	entrepreneurial spirit
Check lists	Ethics, values and norms
Ideas of young people	Fab city concept
	crowdfunding
	Ecological footprint
	Biotechnology
	Values Biographies
	Emotional intelligence
	Ecological intelligence
	care in education
	The ten Commandments

Go

Select Language

- ✓ [Home](#)
- ✓ [Lessons elective sustainability in the profession B/C/D](#)
- ✓ [Deepening elective sustainability in the profession C/D](#)
- ✓ [Are you engaged in sustainable checks](#)
- ✓ [Editors Login](#)





Issues	Solutions
<a href="#">← The beautiful planet earth</a> <a href="#">← Nine borders the Earth</a> <a href="#">← The population growth</a> <a href="#">← World food problem</a> <a href="#">← Increase in energy consumption</a> <a href="#">← Oil</a> <a href="#">← Coal and lignite</a> <a href="#">← Gas and shale gas</a> <a href="#">← Rise of the CO<sub>2</sub> concentration</a>	<a href="#">← Sustainability and policy</a> <a href="#">← Good news</a> <a href="#">← What to do and how?</a> <a href="#">← Consultation tables for CO2 reduction</a> <a href="#">← The energy transition</a> <a href="#">← Our gas and electricity grid</a> <a href="#">← Heat networks and residual heat</a> <a href="#">← Our use of space (under pressure)</a>



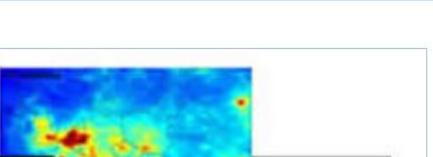


Duurzaam MBO

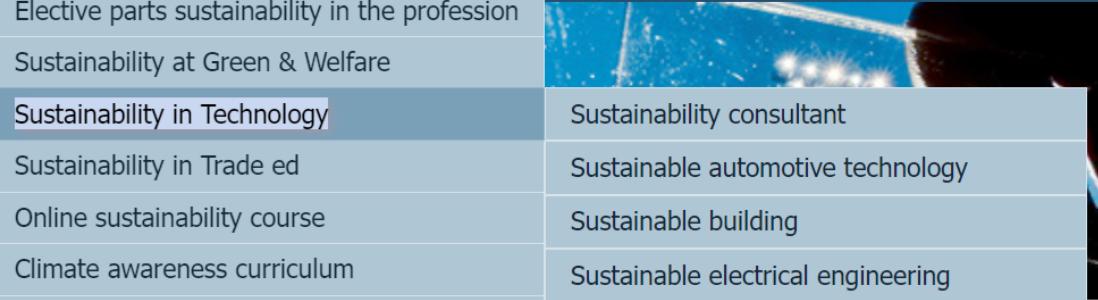
## Select Language

- ✓ Home
  - ✓ Lessons elective sustainability in the profession B/C/D
  - ✓ Deepening elective sustainability in the profession C/D
  - ✓ Are you engaged in sustainable checks
  - ✓ Editors Login

[Print](#) | [Email](#) |  [Edit](#) | Hits: 61008

Planet	Issues	Solutions
	<ul style="list-style-type: none"> <li>↳ The beautiful planet earth</li> <li>↳ Nine borders the Earth</li> <li>↳ The population growth</li> <li>↳ World food problem</li> <li>↳ Increase in energy consumption</li> <li>↳ Oil</li> <li>↳ Coal and lignite</li> <li>↳ Gas and shale gas</li> <li>↳ Rise of the CO<sub>2</sub> concentration</li> <li>↳ Increase in temperature on Earth</li> </ul>	<ul style="list-style-type: none"> <li>↳ Sustainability</li> <li>↳ Good news</li> <li>↳ What to do about it</li> <li>↳ Consultation and reduction</li> <li>↳ The energy transition</li> <li>↳ Our gas and oil</li> <li>↳ Heat networks and residual heat</li> <li>↳ Our use of space (under pressure)</li> <li>↳ Sustainable energy techniques</li> <li>↳ Circular economy</li> </ul>

Home	About DMBO	Knowledge base	Teaching material	Optional part	Business management	Newsletters	SDGs
C2C	HBO / WO	Green and circular skills	Sustainability in training				
 <b>Duurzaam MBO</b>			Elective parts sustainability in the profession				
			Sustainability at Green & Welfare	Pharmacy assistants			
			Sustainability in Technology	Doctor's assistants			
			Sustainability in Trade ed	healthcare			
			Online sustainability course	Green engineering			
			Climate awareness curriculum	Green management			
			Lessons in citizenship	Day nurseries			
			Sustainable food lessons	Agriculture			
			Sustainability at the internship	Teaching assistant			
			Sustainable career guidance	Sport and movement			
			Certificate A and B	Dental assistants			
				Livestock farming			
				Nutrition			
				Grooming			
				Nursing and caring			
				Welfare social work			
				<a href="#">← The bea</a>			
				<a href="#">← Nine bor</a>			
				<a href="#">← The pop</a>			
				<a href="#">← World fo</a>			
				<a href="#">← Increase in energy consumption</a>			
				<a href="#">← Oil</a>			
				<a href="#">← Coal and lignite</a>			
				<a href="#">← Gas and shale gas</a>			
				<a href="#">← Rise of the CO<sub>2</sub> concentration</a>			
						<b>Solutions</b>	
							<a href="#">← Sustainability and policy</a>
							<a href="#">← Good news</a>
							<a href="#">← What to do and how?</a>
							<a href="#">← Consultation tables for CO<sub>2</sub> reduction</a>
							<a href="#">← The energy transition</a>
							<a href="#">← Our gas and electricity grid</a>
							<a href="#">← Heat networks and residual heat</a>
							<a href="#">← Our use of space (under pressure)</a>
							<a href="#">← Sustainable energy techniques</a>

Home	About DMOB	Knowledge base	Teaching material	Optional part	Business management	Newsletters	SDGs
C2C	HBO / WO	Green and circular skills	Sustainability in training				
			Sustainability in training				
			Elective parts sustainability in the profession				
			Sustainability at Green & Welfare				
			<b>Sustainability in Technology</b>		Sustainability consultant		
			Sustainability in Trade ed		Sustainable automotive technology		
			Online sustainability course		Sustainable building		
			Climate awareness curriculum		Sustainable electrical engineering		
			Lessons in citizenship		Sustainable energy technology		
			Sustainable food lessons		Sustainable woodworking / furniture		
			Sustainability at the internship		Sustainable IT		
			Sustainable career guidance		Sustainability in the military		
			Certificate A and B		Sustainable furnishing		
					Sustainable installation technology		<b>Solutions</b>
					Sustainable cooling technology		
					← The bear		
					← Sustainable metalworking		
					← Nine bon		
					← Sustainable bricklaying		
					← The pop		
					← Sustainable process technology		
					← World fo		
					← Increase		
					← Sustainable painting		
					← Oil		
					← Coal and		
					← Gas and		
					← Rise of the CO <sub>2</sub> concentration		
					2		
							← Sustainable energy techniques

Home	About DMBO	Knowledge base	Teaching material	Optional part	Business management	Newsletters	SDGs
C2C	HBO / WO	Green and circular skills	Sustainability in training				
			Elective parts sustainability in the profession				
			Sustainability at Green & Welfare				
			Sustainability in Technology				
			Sustainability in Trade ed		Sustainable business		
			Online sustainability course		Sustainable finance & law		
			Climate awareness curriculum		Sustainable retail		
			Lessons in citizenship		Sustainable graphic design		
			Sustainable food lessons		Sustainable hospitality		
			Sustainability at the internship		Sustainable (international) business		
			Sustainable career guidance		Sustainable hairdressing profession		
			Certificate A and B		Sustainable marketing and events		
				Planet	Sustainable fashion and fashion	Solutions	
					Sustainable secretarial work		
				← The beau	Sustainable tourism	← Sustainability and policy	
				← Nine bor	Sustainable transport and logistics	← Good news	
				← The population grow		← What to do and how?	
				← World food problem		← Consultation tables for CO2 reduction	
				← Increase in energy consumption		← The energy transition	
				← Oil		← Our gas and electricity grid	
				← Coal and lignite		← Heat networks and residual heat	
				← Gas and shale gas		← Our use of space (under pressure)	
				← Rise of the CO <sub>2</sub> concentration		← Sustainable energy techniques	



Select Language

Go

- ✓ [Home](#)
- ✓ [Lessons elective sustainability in the profession B/C/D](#)
- ✓ [Deepening elective sustainability in the profession C/D](#)
- ✓ [Are you engaged in sustainable checks](#)
- ✓ [Editors Login](#)

[Print](#) | [Email](#) | [Edit](#) | Hits: 139809

## [1.0. Introduction](#)

The video



- ✓ [B0.0. Preface](#)
- ✓ [B1.0. Introduction](#)
- ✓ [B1.1. Your profession is already working on it](#)
- ✓ [B1.2. In balance](#)
- ✓ [B1.3. Water and nutrition](#)
- ✓ [B1.4. The world population](#)
- ✓ [B1.5. The greenhouse effect](#)
- ✓ [B1.6. Mobility and logistics](#)
- ✓ [B1.7. Concepts](#)

Home   About DMBO   Knowledge base   Teaching material   Optional part   Business management   Newsletters   SDGs

C2C   HBO / WO   Green and circular skills in construction



Select Language

Print | Email |  Edit | Hits: 1370436

Latest newsletter

Without good education, the seventeen global goals cannot be achieved.  
"Education is the most powerful weapon which you can use to change the world."

This site provides information about sustainability in vocational education items.

Everything together as compact as possible. Check out the menu at the top because there is almost no topic or it is on it. The site already has many topics.



The 17 goals for education  
Whole school approach  
The sustainable development goals  
Sustainable purchasing  
Energy at school  
Waste and litter at school  
Water  
Catering and canteens at school  
Mobility at school  
Biodiversity at school  
The school organization  
How sustainable is the school (checklist)  
Saving energy at school (checklist)  
How sustainable is your department (checklist)  
Behavior change  
Sustainable MBO quality mark  
Roadmap  
ISO 26000  
Eco Schools  
Energy management  
Waste management  
Transport management

Guest lessons  
Good initiatives in the Netherlands  
Good examples Europe  
Statements for debate  
Cooperate!  
Contact  
Manifesto

Go

- ✓ Home
- ✓ Lessons elective sustainability in the profession B/C/D
- ✓ Deepening elective sustainability in the profession C/D
- ✓ Are you engaged in sustainable checks
- ✓ Editors Login



[Circular and sustainable construction](#)

- ✓ [Deepening elective sustainability in the profession C/D](#)
- ✓ [Are you engaged in sustainable checks](#)
- ✓ [Editors Login](#)

## Circular building

- ✓ [CS Overview](#)
- ✓ [CS Introduction](#)
- ✓ [CS Vision Mission](#)
- ✓ [CS What What is it about.](#)
  - ✓ [CS What skills](#)
  - ✓ [CS How circular is a building](#)
  - ✓ [CS Where is what?](#)
    - ✓ [CS The materials](#)
    - ✓ [CS Material flows](#)
    - ✓ [CS Material Passports](#)
  - ✓ [CS Example The demolition of a flat](#)
  - ✓ [CS Good examples](#)
- ✓ [CS How The design](#)
  - ✓ [CS Detachable](#)
  - ✓ [CS Demountable and modular](#)
    - ✓ [CS Collection processing](#)
  - ✓ [CS Extend the service life](#)
    - ✓ [CS Upcycling in centers](#)
  - ✓ [CS Think in second lives](#)
  - ✓ [CS Indicate value](#)
  - ✓ [CS Trading](#)
- ✓ [CS How The didactics](#)
  - ✓ [CS Clip course](#)
  - ✓ [CS One Assignment](#)

[Circular and sustainable energy, extraction construction](#)

On this part of the site, there is a menu on circular construction on the left and sustainable and energy-efficient construction on the right.



- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>↳ <a href="#">Overview</a></li> <li>↳ <a href="#">Introduction</a></li> <li>↳ <a href="#">Why Vision Mission</a></li> <li>↳ <a href="#">What What is it about.</a> <ul style="list-style-type: none"> <li>↳ <a href="#">Which skills</a></li> <li>↳ <a href="#">How circular is a building</a></li> <li>↳ <a href="#">Where is what?</a> <ul style="list-style-type: none"> <li>↳ <a href="#">The materials</a></li> <li>↳ <a href="#">Material flows</a></li> <li>↳ <a href="#">Material Passports</a></li> </ul> </li> <li>↳ <a href="#">Example The demolition of a flat</a></li> <li>↳ <a href="#">Good examples</a></li> </ul> </li> <li>↳ <a href="#">How The design</a> <ul style="list-style-type: none"> <li>↳ <a href="#">detachable</a></li> <li>↳ <a href="#">Demountable and modular</a> <ul style="list-style-type: none"> <li>↳ <a href="#">Collection processing</a></li> </ul> </li> <li>↳ <a href="#">Extend the service life</a> <ul style="list-style-type: none"> <li>↳ <a href="#">Upcycling in centers</a></li> </ul> </li> <li>↳ <a href="#">Think in second lives</a></li> <li>↳ <a href="#">Indicate value</a></li> <li>↳ <a href="#">trade</a></li> </ul> </li> <li>↳ <a href="#">How The didactics</a> <ul style="list-style-type: none"> <li>↳ <a href="#">clip course</a></li> <li>↳ <a href="#">An exercise</a></li> <li>↳ <a href="#">The result</a></li> <li>↳ <a href="#">Elective parts</a></li> </ul> </li> <li>↳ <a href="#">For whom ?</a> <ul style="list-style-type: none"> <li>↳ <a href="#">CS and the wrecker</a></li> <li>↳ <a href="#">CS and the carpenter</a></li> <li>↳ <a href="#">CS and the bricklayer</a></li> <li>↳ <a href="#">CS and the architecture student</a></li> <li>↳ <a href="#">CS and the ceiling and wall fitter</a></li> <li>↳ <a href="#">CS and the glazier</a></li> </ul> </li> <li>↳ <a href="#">Where On the construction site</a></li> <li>↳ <a href="#">With whom ?</a></li> </ul> | <ul style="list-style-type: none"> <li>↳ <a href="#">Toolbox for teachers</a></li> </ul> |
|---|--|

[Teaching modules buildupskills](#)

- ✓ [Introduction](#)
  - ✓ [Introduction](#)
- ✓ [Why ?](#)
- ✓ [Who ?](#)
- ✓ [To collaborate](#)
- ✓ [Strategy](#)
  - ✓ [Policy](#)
  - ✓ [Construction changes](#)
  - ✓ [SDGs in construction](#)
- ✓ [How ?](#)
  - ✓ [Building physics](#)
    - ✓ [Insulation](#)
    - ✓ [Insulation values](#)
    - ✓ [Thermography](#)
    - ✓ [Heat \(loss\)](#)
    - ✓ [Condensation](#)
    - ✓ [Moisture in the house](#)
    - ✓ [Sound\(insulation\)](#)
    - ✓ [Cold and thermal bridges](#)
    - ✓ [Build airtight](#)
    - ✓ [The tax](#)
  - ✓ [Ventilation](#)
  - ✓ [Ventilation utility construction](#)
  - ✓ [Heating](#)
    - ✓ [Infrared panels](#)
    - ✓ [Heat pump systems](#)
    - ✓ [Lighting\\_\(2\)](#)
    - ✓ [Cooling](#)
    - ✓ [Hot tap water](#)
    - ✓ [Water saving](#)
    - ✓ [Sun protection](#)
    - ✓ [Orientation](#)



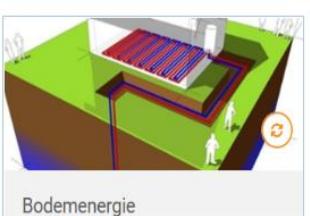
Zonnestroom



Zonnewarmte



Montage kleine windturbines



Bodemenergie

## Building energy-neutral

Energieneutraal bouwen voor  
installateursEnergieneutraal bouwen  
gebouwschil

Luchtdicht bouwen

## Heating

Lage temperatuur verwarming en  
hoge temperatuur koeling

Warmtepompen



Natuurlijke koudemiddelen

## Ventilation



- ✓ Windows
  - ✓ [Window film](#)
  - ✓ [Heat transfer through windows](#)
- ✓ Floor (insulation)
  - ✓ [Post-insulation of floors](#)
  - ✓ [Assembly\\_prefab floors](#)
  - ✓ [Renovation of floors](#)
  - ✓ [Carpeting](#)
  - ✓ [Soil insulation](#)
- ✓ Safety
  - ✓ [Customer-friendliness construction](#)
  - ✓ [Communication in construction](#)
  - ✓ [Smart working](#)
  - ✓ [Construction and demolition waste](#)
  - ✓ [Off the gas](#)
  - ✓ [Mind map checklists](#)
- ✓ Energy
  - ✓ [Step 1](#)
  - ✓ [Step 2](#)
  - ✓ [Step 3](#)
  - ✓ [Bang](#)
  - ✓ [EPG and EPC](#)
  - ✓ [The zero energy home](#)
  - ✓ [Passive houses](#)
  - ✓ [Build hot](#)
  - ✓ [Energy monitoring](#)
  - ✓ [Direct and alternating current](#)
  - ✓ [Construction principles](#)
  - ✓ [Circular building](#)



## Education in the SDG's









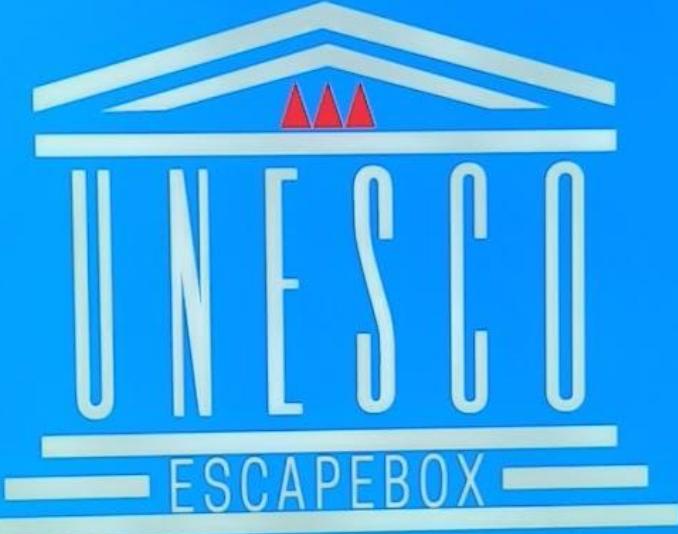
# Duurzaamheid binnen IT-bedrijven

Door Timon van der Sluis





KONING  
WILLEMI  
COLLEGE



EEN INTRODUCTIE





## Design an SDG escape box



## Global Goal Inspiration Bubble Sam van Beek

Human Technology

SDG-blikvanger



10

Global goals inspiration bubble  
(zie filmpje verderop)

## Arsen Zograbjan

Human Technology

SDG-blikvanger

## Design an SDG eyecatcher



1

Global goals earth balance.  
Een zwevende aarde als blikvanger  
voor de SDG's

## SDG Globe

Stijn Pijl

SDG-blikvanger



Onderdeel	bedrijf	Prijs	Link/telefoon nummer
RVS ondersteuning	Van Wanrooij	€849,- ex	073 503 4666
Inprint matter	Inprint matter	€529,-	<a href="https://www.inprintmatter.nl/">https://www.inprintmatter.nl/</a>
Parakoord	Bol.com	+/- €1,- per M	<a href="https://www.bol.com/nl/">https://www.bol.com/nl/</a>
Totaal		€1.379,-	

6

Global goals Globe  
Mooi voor op het plein. Drijvend in water

## Drone photography and renewable energy



Circular table which can be disassembled.



## Fashion of the white jackets from cooks



# An exchange and repair app



Vintage  
School  
Store

A vintage store





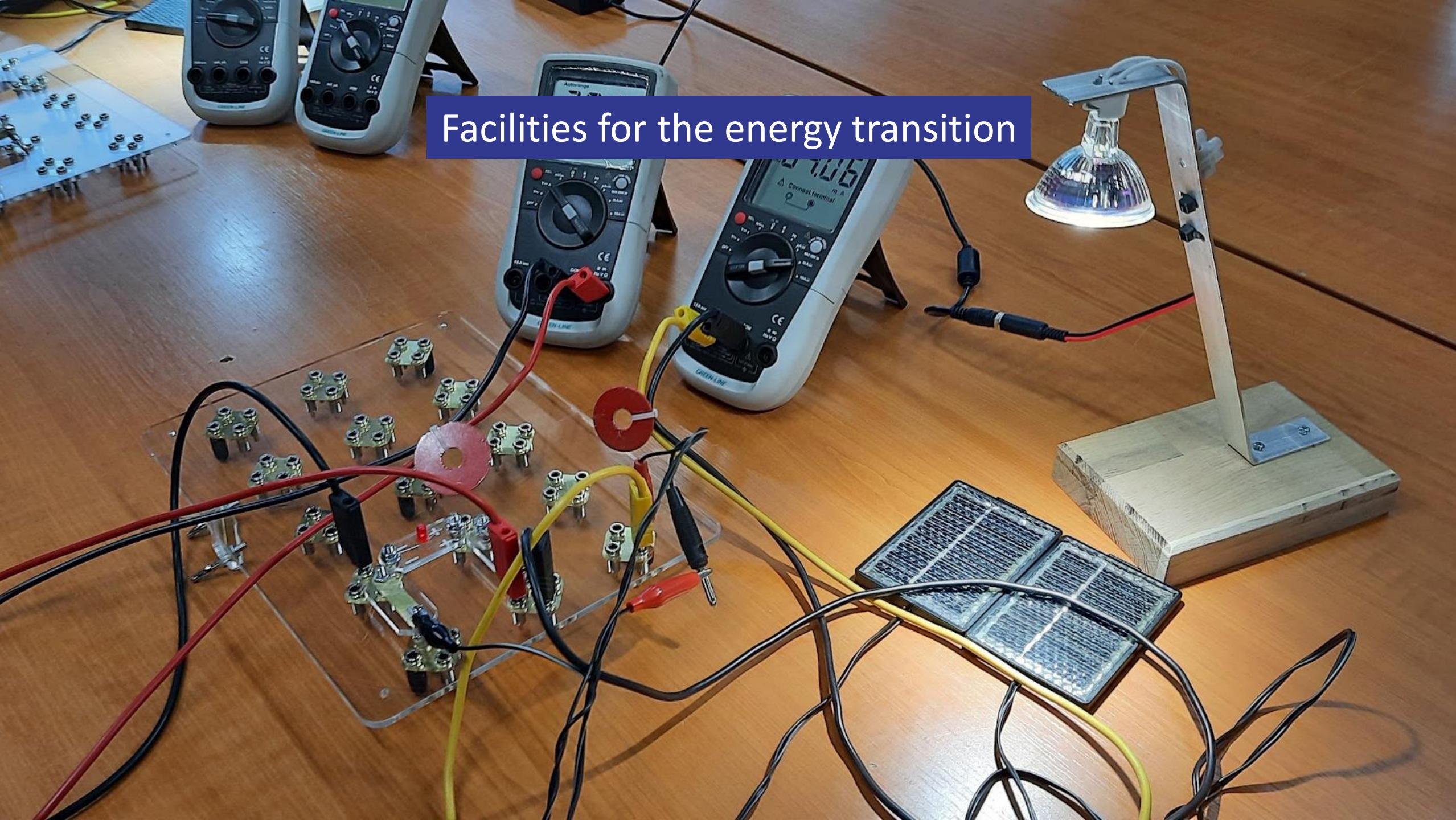
An art cabinet



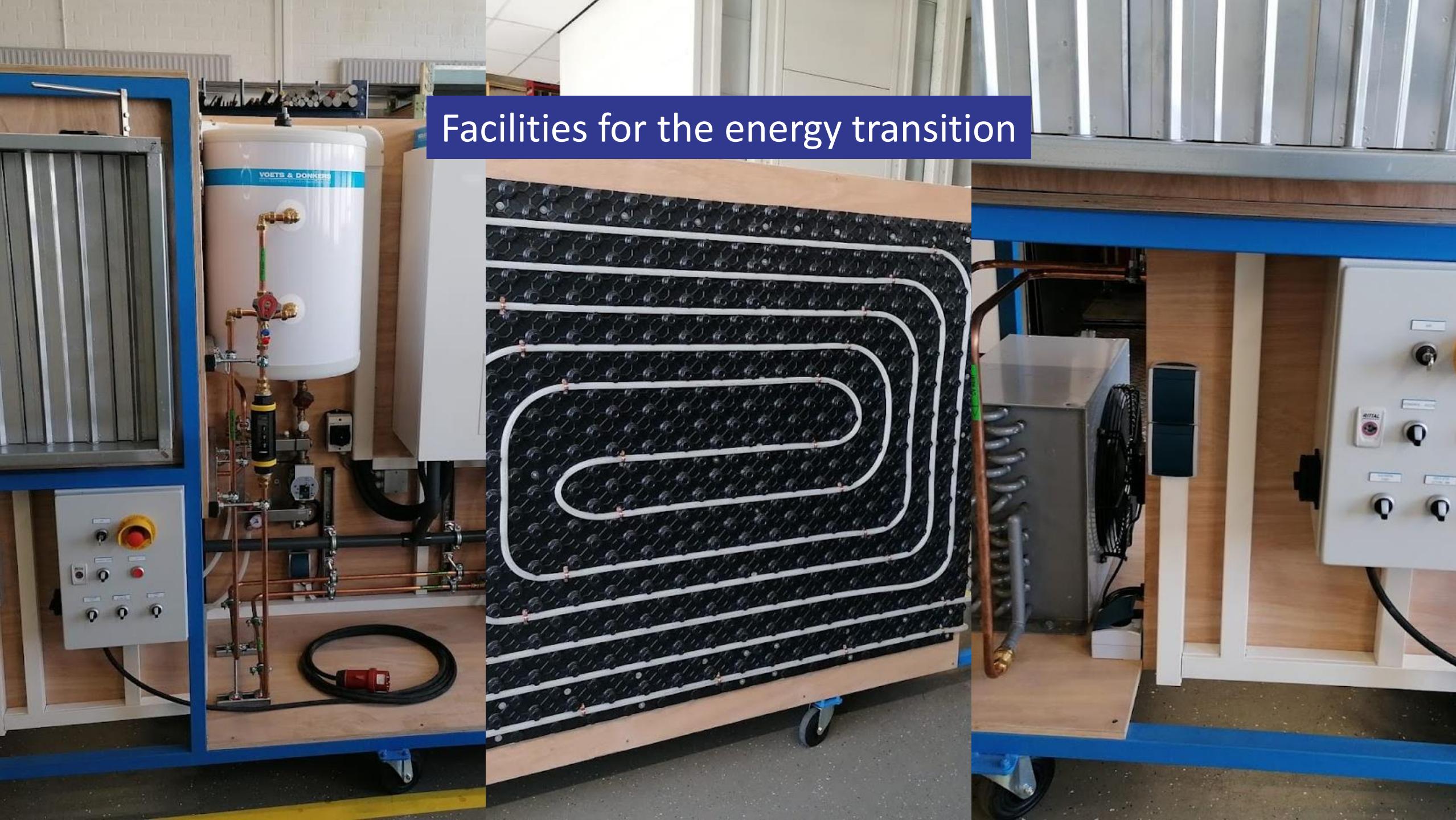
## Facilities for the energy transition



# Facilities for the energy transition



## Facilities for the energy transition





Sustainable hospitality



Sustainable hospitality



## Sustainable hospitality



Sustainable hospitality

CUINER

TINKNS EN

NATUUR

EERLIJK  
EN  
VEELZIDIG  
ETEN  
VAN  
WAT DE  
NATUUR  
ONS BIEDT

GEZOND

GOED  
VOOR  
ONS EN  
ONZE  
AARDE

BEWUST

KWALIET

WE  
KOPEN,  
KOKEN  
EN  
ETEN  
BEWUST

A photograph of a white car's front interior. The driver's side door is open, revealing the steering wheel, dashboard, and a power inverter or diagnostic device connected to the car's battery via red and black cables. The passenger seat is visible, and the car is parked outdoors.

Sustainable car repair



- Why
- What
- How

## Pedagogy

How can you make education more attractive or relevant?

How can you work with tasks from society?

Do you attend challenges, hacketons, climatons?

Do you attend circular learning?

Are you informed about good examples?

Do you carry out e-twinning and exchange with students elsewhere?



## Challenges

### The smart circular building challenge





- [Plant](#)
- [Dier](#)
- [\*\*Voeding\*\*](#)
- [MBO Challenge Voedselverspilling 2019 <](#)
- [CoE Food](#)
- [CoE Greenports](#)
- [Leefomgeving](#)
- [Praktijkgericht Onderzoek HAO](#)
- [Groenpact](#)



## Food waste challenge

# MBO Challenge Voedselverspilling

Voedselverspilling gaat veel verder dan de restjes die thuis in de afvalbak verdwijnen. In de hele keten verdwijnt voedsel door verlies of verspilling. Wereldwijd gaat het om 1,3 miljard ton per jaar, een derde deel van al het geproduceerde voedsel. In Nederland gaat het om 20 tot 25% van al het

## Belangrijke links

- [Opdracht](#)
- [Beoordelingscriteria](#)
- [Hulplijnen voor docenten](#)
- [Informatie voor bedrijven](#)
- [Challenges van bedrijven](#)

## Lesbrieven

- [Lesbrief: Wereldwijd de helft minder voedselverspilling](#)
- [Lesbrief: Agrarische sector en verwerkende industrie](#)
- [Lesbrief: Voedselverspilling in supermarkten](#)
- [Lesbrief: Voedselverspilling in horeca en ziekenhuizen](#)
- [Lesbrief: Wij #verspillingsvrij](#)

[Naar het dossier  
Voedselverspilling](#)

d voedsel

Food waste art



# Food waste factory



# The method of circular learning

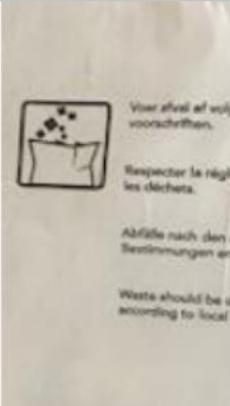
Students -> internship at companies

Input for new education

Students see the real world

They must come up with points for improvement with regard to sustainability and circular working.

Verwijderen van veroudering voor in de tuinkomst.



Kleine stukken hout zou je kunnen verkopen aan bijvoorbeeld meubelmakers of mensen die veel kleinere stukken hout kunnen gebruiken.



Voor de grotere stukken hout zou je kunnen laten bewerken zodat het er weer als nieuw uit ziet en het dan vervolgens wel te kunnen gebruiken in de woningbouw.

Het hout op de afbeelding werd het hout dat eerst in het gebouw zat hergebruikt in de nieuwbouw.



Dit **karton** is gebruikt om de zonnepanelen netjes te leggen. Het karton niet te verspillen word het weer gerecycled. De karton maakt van de balen een papierbrij oftewel pulp door het te vermengen met water. Om de laatste vuilresten te verwijderen gaan de netjes en paperclips, zeven ze de pulp. De papiergevezels overblijven gaan in een ontinkter waar met hoge druk door de vezels worden geperst zodat de inkt los komt en persen van de pulp ontstaat er een eindproduct. Dit kan ingezet om nieuwe kartonnen of papieren producten te maken.

Plastic kan je weer omsmelten tot een nieuw product. Dit geldt ook voor metalen of aluminium.

Er zijn veel mogelijkheden om puin en beton weer te hergebruiken.



Dit kost alleen wel veel tijd en soms ook veel geld dus kiezen de meeste bedrijven hier niet voor, maar ik ben er wel van overtuigt dat als iedereen actief veel gebruik maakt van dit principe niet...

Have students take pictures of what's going well and what's not. Let them explain that and use that for new teaching materials.

- Why
- What
- How
- Where



## The building

How do you show the importance of sustainability in our buildings and the environment?  
Which SDGs are important with regard to our building?  
In which business operations can you apply circularity and reuse of materials?  
How can we reduce our energy consumption and make it more sustainable?  
How can we make our water supply more sustainable?  
How can we manage our waste and make it more sustainable?  
How can we make our food and catering more sustainable?  
What about our mobility management and transport facilities?  
How can we make our procurement management more sustainable?  
Can we make our ICT facilities more sustainable?  
How can we increase biodiversity?



BALANCE™

TRANE







CITH

TRANE®

CITH

TRANE

CITH

TRANE

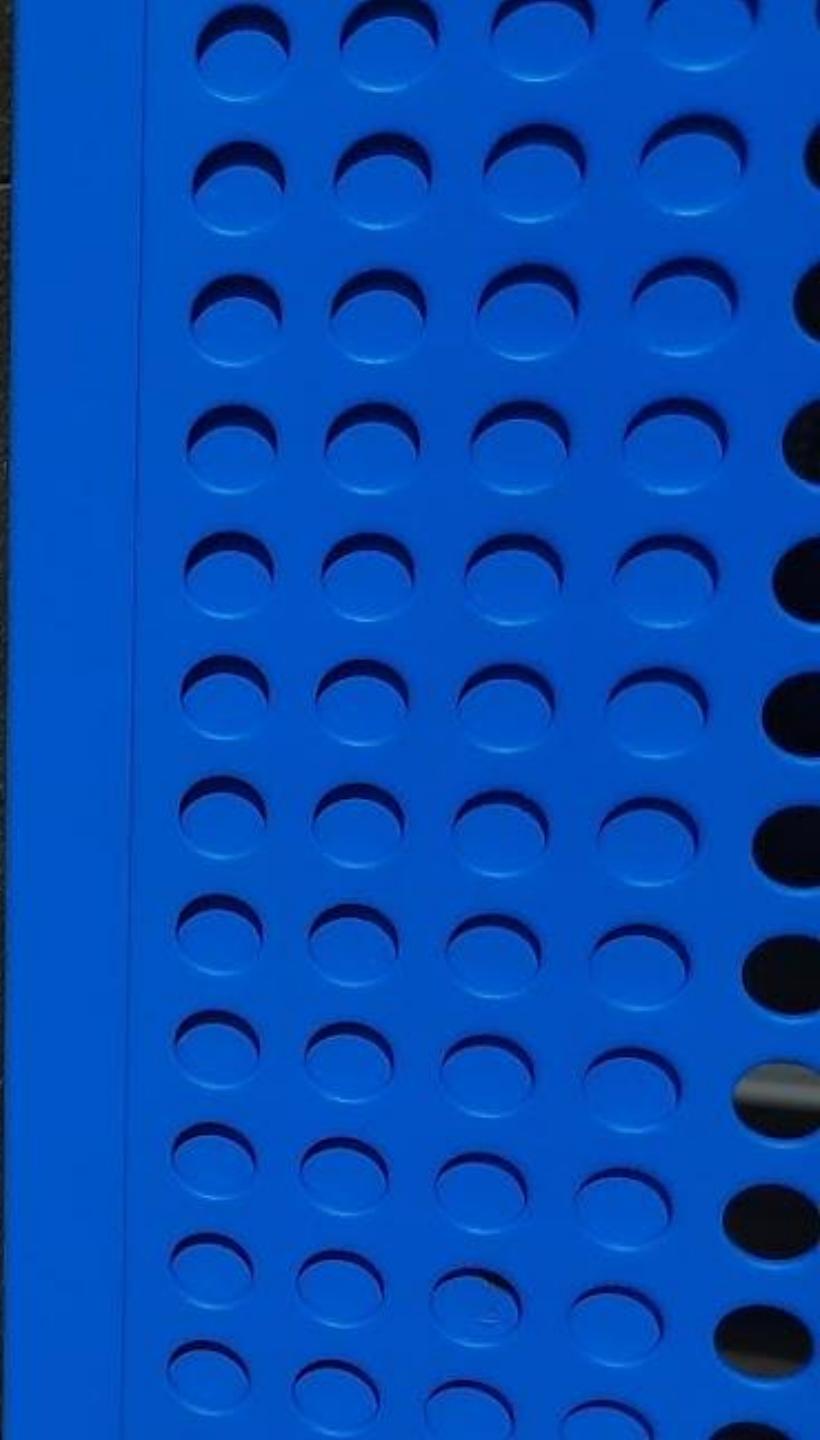




## Excursions for students



Larix uit Drenthe





02  
03



The warm air from inside the building heats up the refreshing cold air from outside.  
This saves 80% energy.























Slow  
Tea

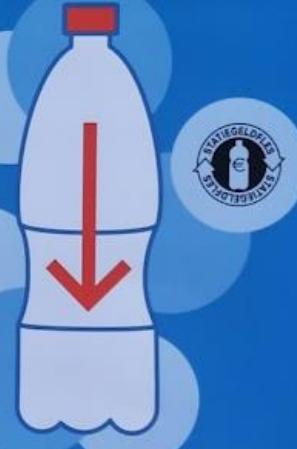
ROYAL  
ENGLISH  
BLACK TEA, FULL BODIED  
YET SUBTLE, FRESH TONES

NATURAL

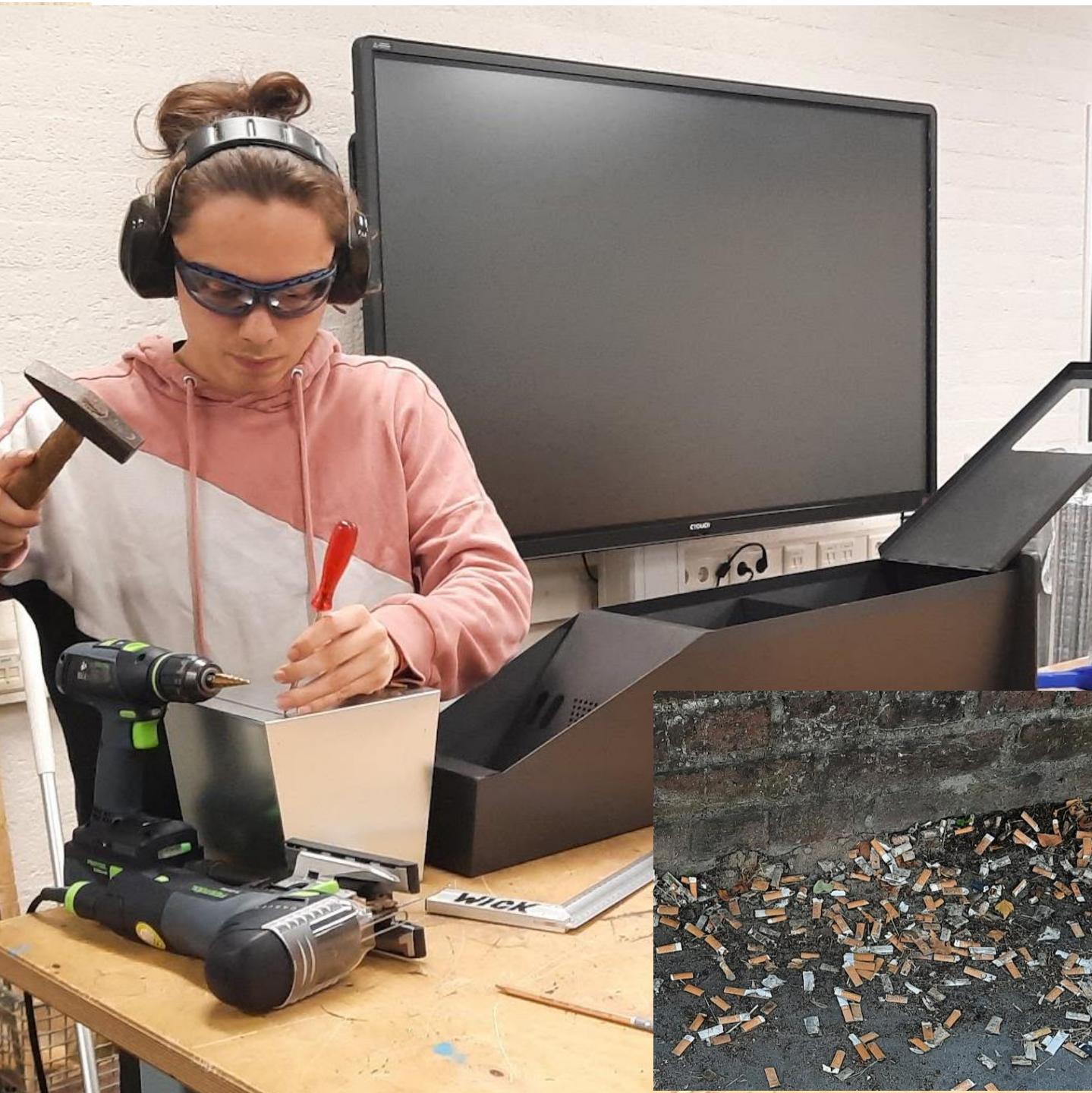




Doneer je plastic  
flesje!









BETAAL  
BANK

PLASTIC  
STRAWS  
CAN  
KISS  
MY 

100% NATURAL STRAWS  
BIODEGRADABLE.

PLASTIC  
STRAWS  
CAN  
KISS  
MY 

100% NATURAL STRAWS  
BIODEGRADABLE.





gratis  
Water!  
#Stay  
Healthy







13 CLIMATE  
ACTION





KONING  
WILLEM  
I

Hier uitsluitend  
leenfietsen KW1C plaatsen

















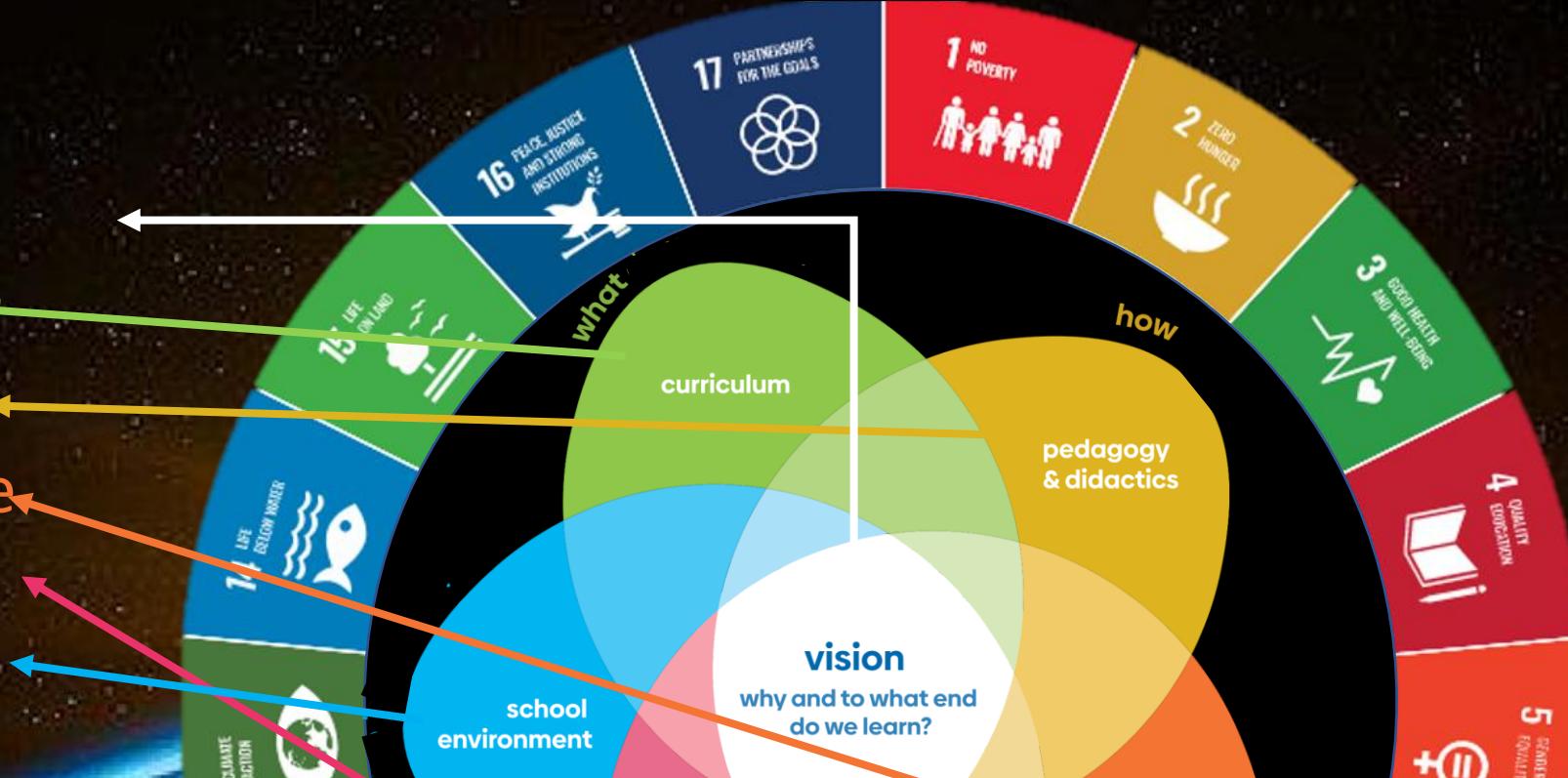
- Why
- What
- How
- Where
- Who



The staff and professionalization. Are they competent?

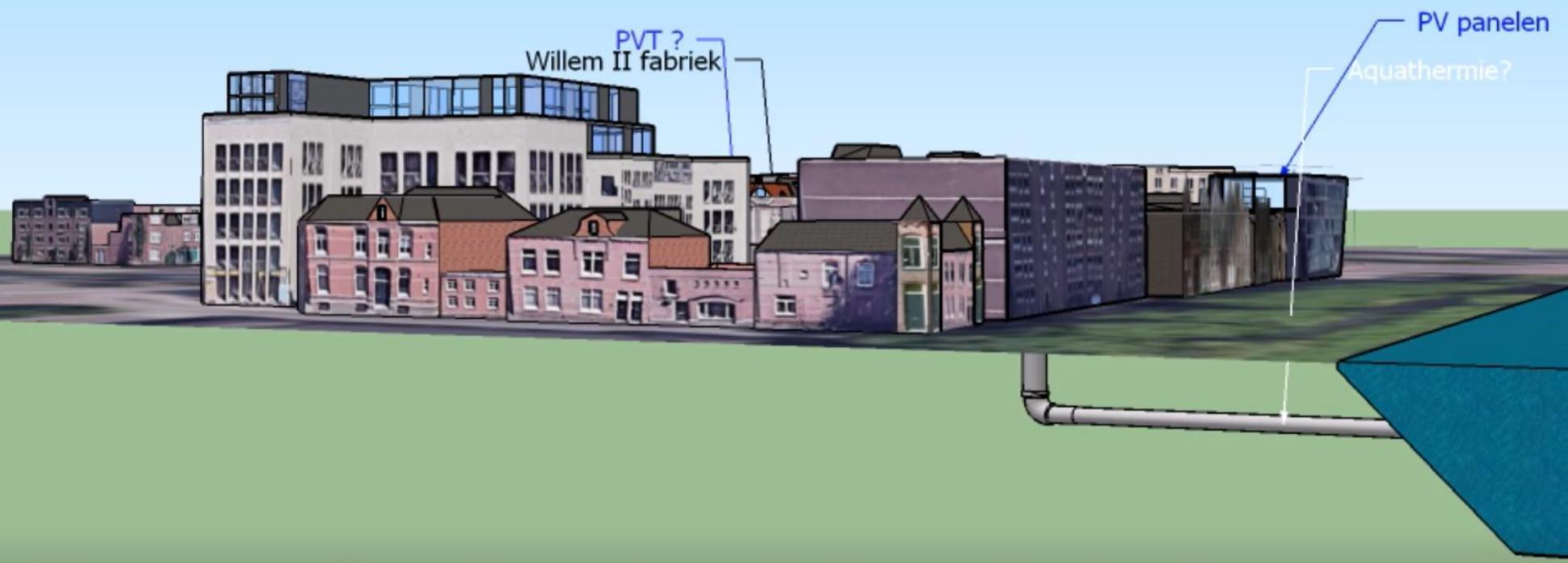
- How can we create awareness for the importance of sustainability?
- What expertise do we need?
- What knowledge, skills and attitudes are important for our employees?
- What knowledge, skills and talents do we already have?
- Where and how can the staff train themselves in the field of sustainability?
- Are we aware of sustainable developments in our field?

- Why
- What
- How
- Where
- Who
- With



### The society

- What does our network look like? Which partners are connected to school?
- What new partners and experts do you need for the sustainability goals?
- How can sustainable network grow?
- What can your school learn from our partners? How could they contribute?
- What do you have to offer to our customers and the community?



## Aquathermie



# Fauna toren



# 100 Fietsen opgeknaapt voor Oekrainse mensen



# Open winkeldeuren



# T-shirts ontworpen en verkocht voor goed doel.



# Tiny houses voor studenten ontwerpen





4 QUALITY  
EDUCATION



5 GENDER  
EQUALITY



1 NO POVERTY



2 ZERO  
HUNGER



3 GOOD HEALTH  
AND WELL-BEING



4 QUALITY  
EDUCATION



5 GENDER  
EQUALITY



6 CLEAN WATER  
AND SANITATION



7 AFFORDABLE AND  
CLEAN ENERGY



8 DECENT WORK AND  
ECONOMIC GROWTH



9 INDUSTRY,  
INNOVATION  
AND INFRASTRUCTURE



ICTalk

Build ICT Smart Community



BRIDGES

PEARL JAM

LISA SCHAFFNER  
SDG 5, 10, 11, 12, 13, 14, 15, 16, 17

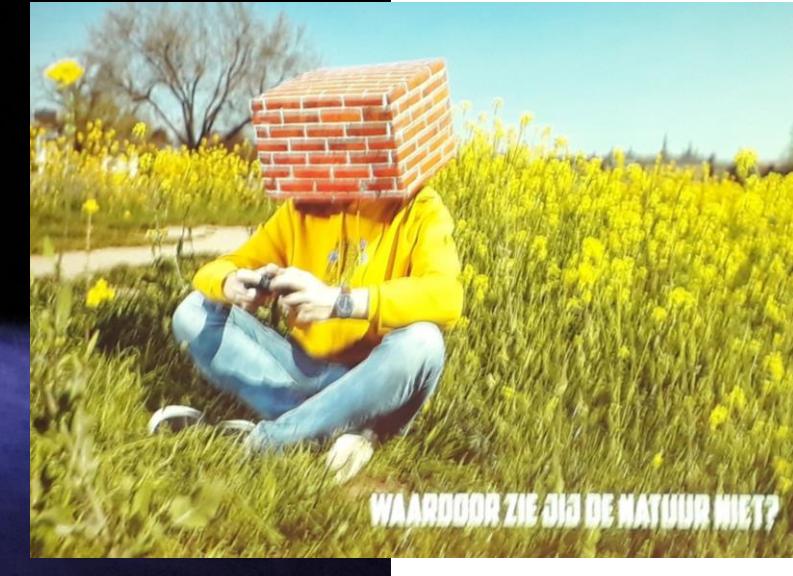
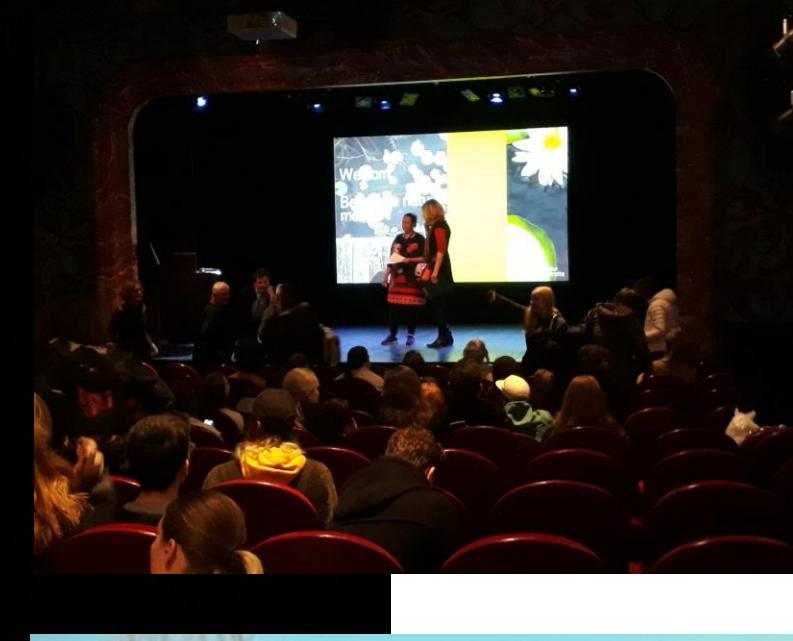
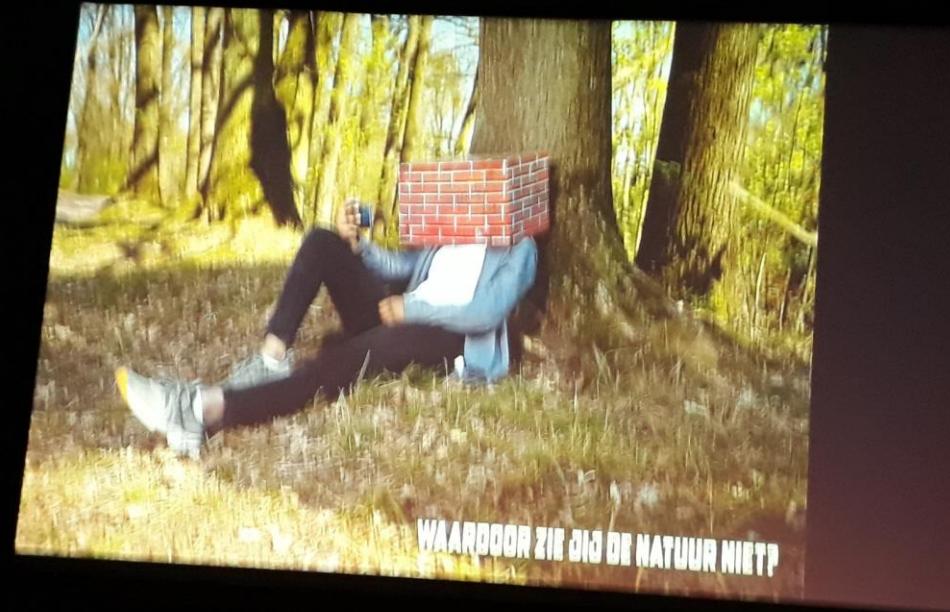




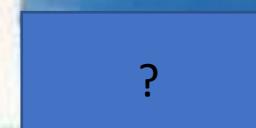
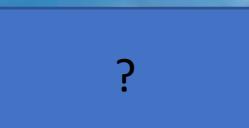
Welcome  
in the  
**ICTalk**  
**Bus!**



# How to involve youngtsers in nature (IVN)?



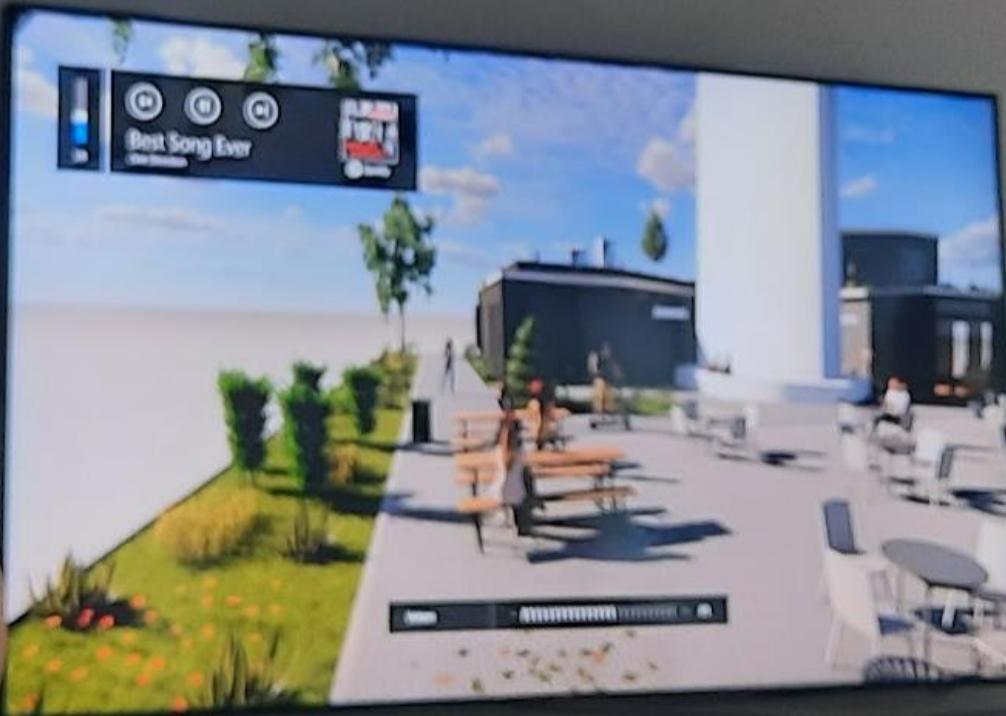
# Design a special windmill



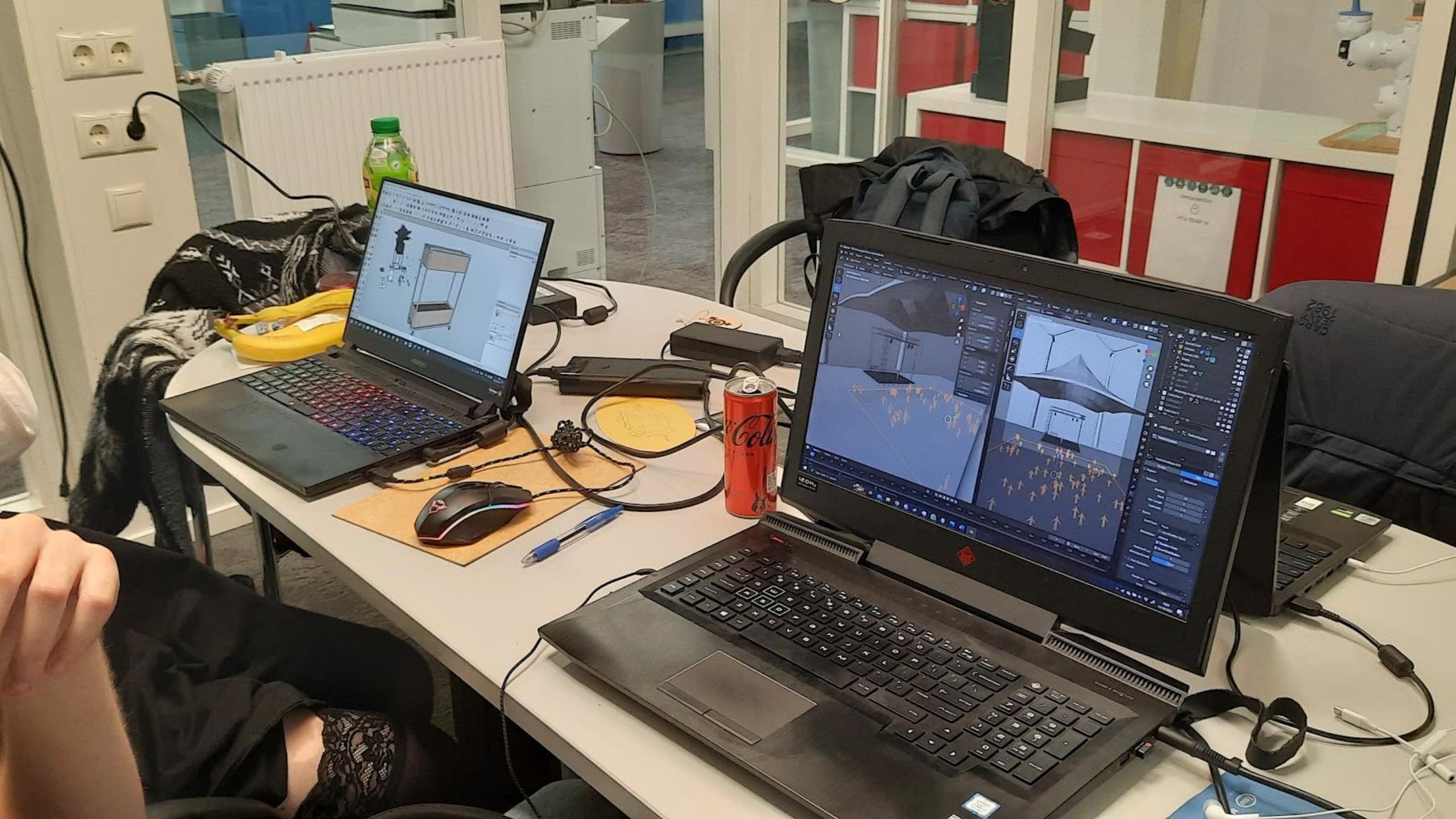




→ DLR task, Unity 3D + code  
→ DLR task, TensorFlow.js + TensorFlow.js  
→ DLR Acoustics project, in development









# Help against energy poverty

