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Floriade,
23 May 2022

OMARM DE CHAOS

**WHAT DOES IT MEAN
TO THE BUILDING SECTOR?**

1. CRISES AS CHANCE

**WE DO NOT LIVE IN AN
ERA OF CHANGE BUT
IN A CHANGE OF ERA**



IN TIMES OF CHAOS

the old is broken down &
the new is emerging



Shell
Tata Steel
Philip Morris
Energy companies
Banks
Political Parties

ASML
Philips, Bunq
Tesla, Uber, DSM
Movements
Cooperations

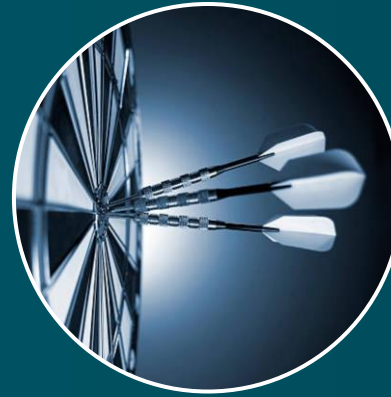
CHAOS



Unknown order



Everything is open



Closer to the core



Prerequisite for change



2019 THE PROTEST YEAR



SEMI-PERMANENT CRISIS

financial crisis

bank crisis

migration crisis

corona crisis

geopolitical crisis

?

UKRAINE WAR

wake-up call for Western countries

fossil rebound: setback to coal, oil and gas

geopolitical independency dominates sustainability

accelerates the transition to renewable energy

ipcc

INTERGOVERNMENTAL PANEL ON climate change

Climate Change 2022

Impacts, Adaptation and Vulnerability

Summary for Policymakers



**“PLANET HAS
ONLY UNTIL
2030 TO AVOID
CATATROPHIC
CLIMATE CHANGE”**

IPCC, 2022





DO WE ACHIEVE THE CLIMATE GOALS?



1.5 °C

unfeasible

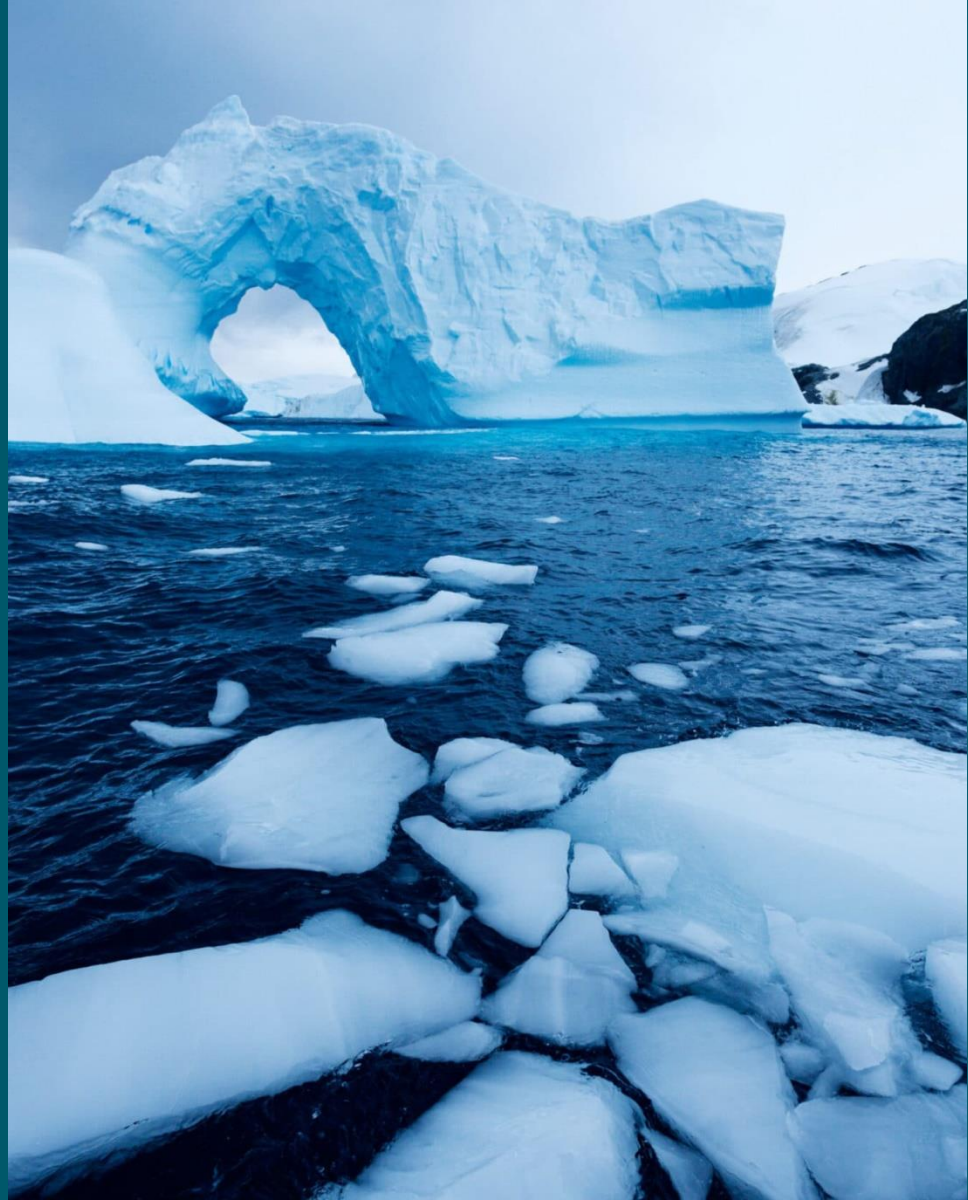
2.0 °C

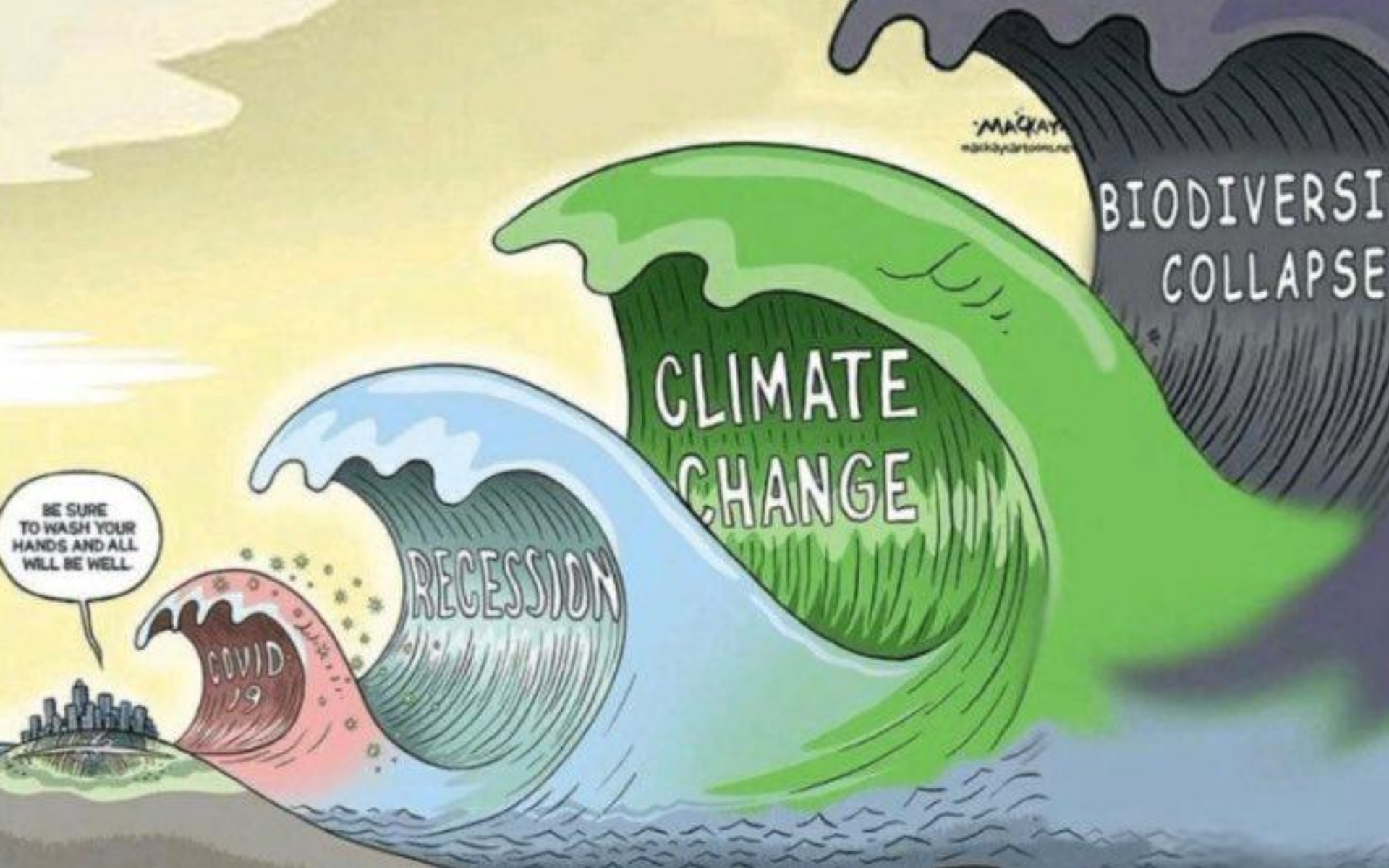
out of sight

3 °C

we are heading for

**WE NEED TO FIGHT FOR
EVERY TENTH OF DEGREE**





MACKEY
mackyart.com

BIODIVERSITY
COLLAPSE

CLIMATE
CHANGE

RECESSION

COVID
19

BE SURE
TO WASH YOUR
HANDS AND ALL
WILL BE WELL.

**DEEPEST CAUSE:
IMBALANCE BETWEEN
HUMANS AND NATURE**



MORAL CRISIS

Crisis is in ourselves



The diagram consists of two orange circles with white outlines, positioned side-by-side. The left circle contains the text 'Norms & Values' and the right circle contains the text 'Greed & Egoism'. Both circles are set against a dark teal background.

Norms
& Values

Greed
& Egoism

CRISIS ARE A BLESSING IN DISGUISE



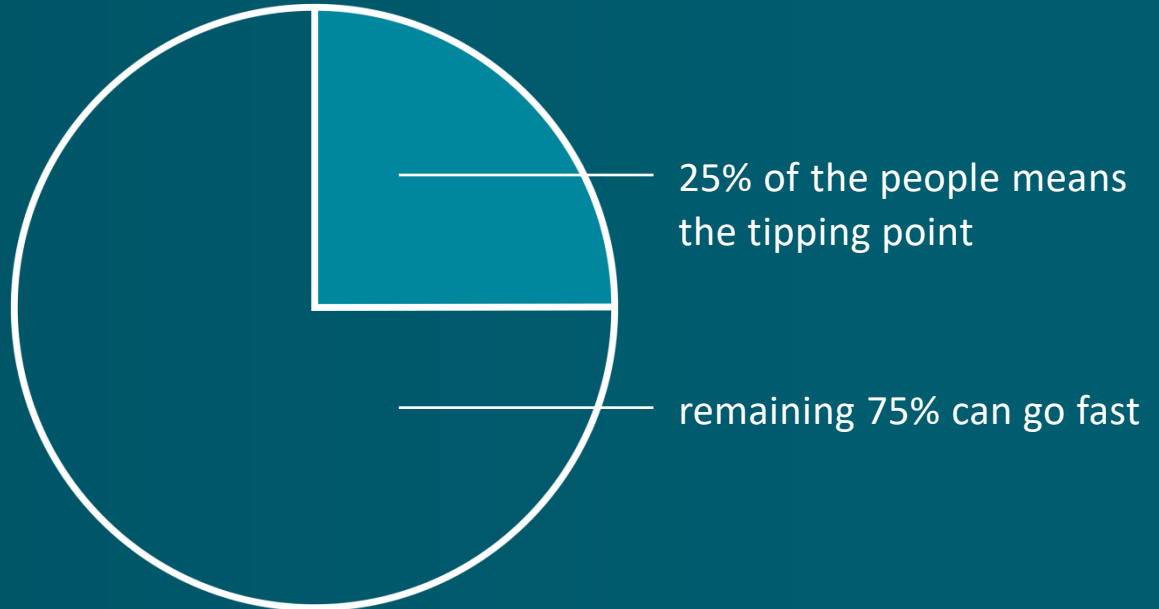
People are stubborn



We learn from crises

CRISES HELP TO CHANGE

We are close to the tipping point



SYSTEMIC CHANGE IS NEEDED

TRANSITION



TRANSITION

Fundamental change in:



Thinking
values, paradigms



Acting
attitude, behaviour



Organising
laws, rules

PALETTE OF TRANSITIONS



Energy



Resources



Circular



Food



Space



Financial



Health care



Education



Social



Democratic

BUTTONS TO PUSH

policy

fiscal impulses: taxes and mortgages

financial impulses: subsidies and loans

juridical impulses: laws & rules

technology

knowledge, R&D, institutions, implementation

behaviour

social norms, diversity of impulses

NL2121

LAND WITH A PLAN



2. WHAT DOES IT MEAN TO THE BUILDING SECTOR?

BUILDING SECTOR

produces ca. 10-15% of the CO₂-emission in the Netherlands

last 5 years hardly any CO₂-reduction in the building sector

at this pace building emits 10% less in 2030 rather than 50%

CHALLENGES FOR BUILDING SECTOR

renovation & transformation

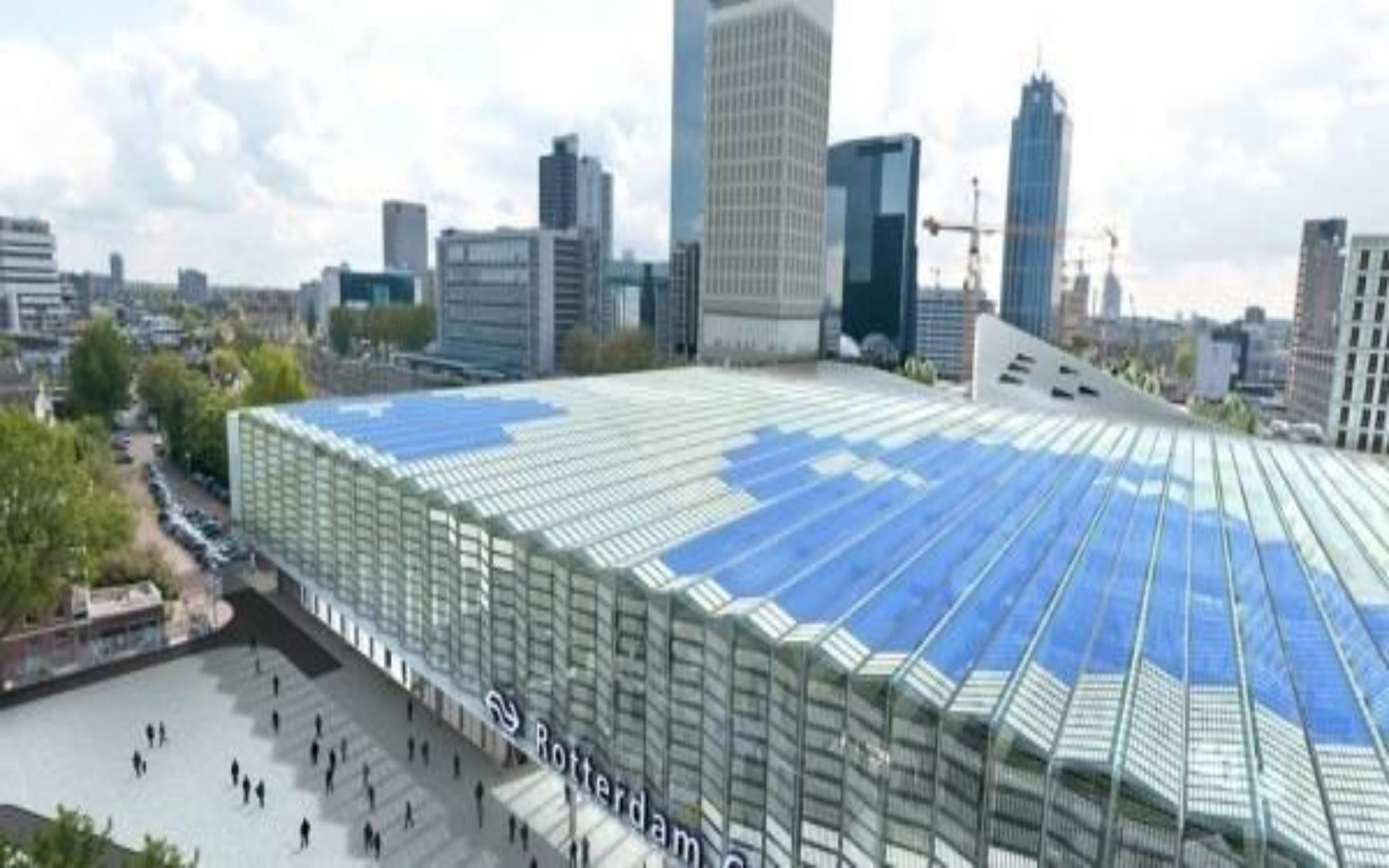
sustainable

circular

digitization

affordable

life-long housing



7 GW solar-energy [10 million panels]

10.000 soccer pitches after 20 years

70 GW needed [100.000 soccer pitches]



on 10% of roofs in NL solar panels

on roofs of business parks < 1%

on roofs of industrial estates < 1%

on fallow land < 1%







Delft-Zuid
Schipfluiden
Naaldwijk
N470

A13 A13
Rotterdam Delft
Den Haag
Amsterdam

2.5 billion m² surface on roofs & walls
that we still don't use for solar energy!

Biobased Building

BUILDING WITH WOOD

wood & biomass rather than concrete

can act as a major carbon sink

1 million wood buildings saves 50 Mton CO₂

with wood from European production forests



2.000 biobased houses after 5 years!

Circular Building



CIRCULAR BUILDING

renaissance of an existing building

80% of old building is re-used

each material has own passport

radically different in design, building, maintenance, financing

25 circular buildings after 5 years!

Rid of Gas





Loppersum

RID OF GAS

7 million houses with natural gas

in 2042 rid of gas: 350.000 houses/year
1.500 per day!

still 100.000 houses built with gas
2.000 per day!

In 4 years 2000 houses rid of gas
coming 20 years 2000 houses per day!

CONCLUSION

It should go weigh faster & smarter

3. WHAT IS NEEDED?

HIGHER AMBITION LEVEL

- acting from a deeply felt urgency
- building sector innovates, but not at system's level
- pearls of projects, but they do not scale up
- too little attention for social and radical innovation

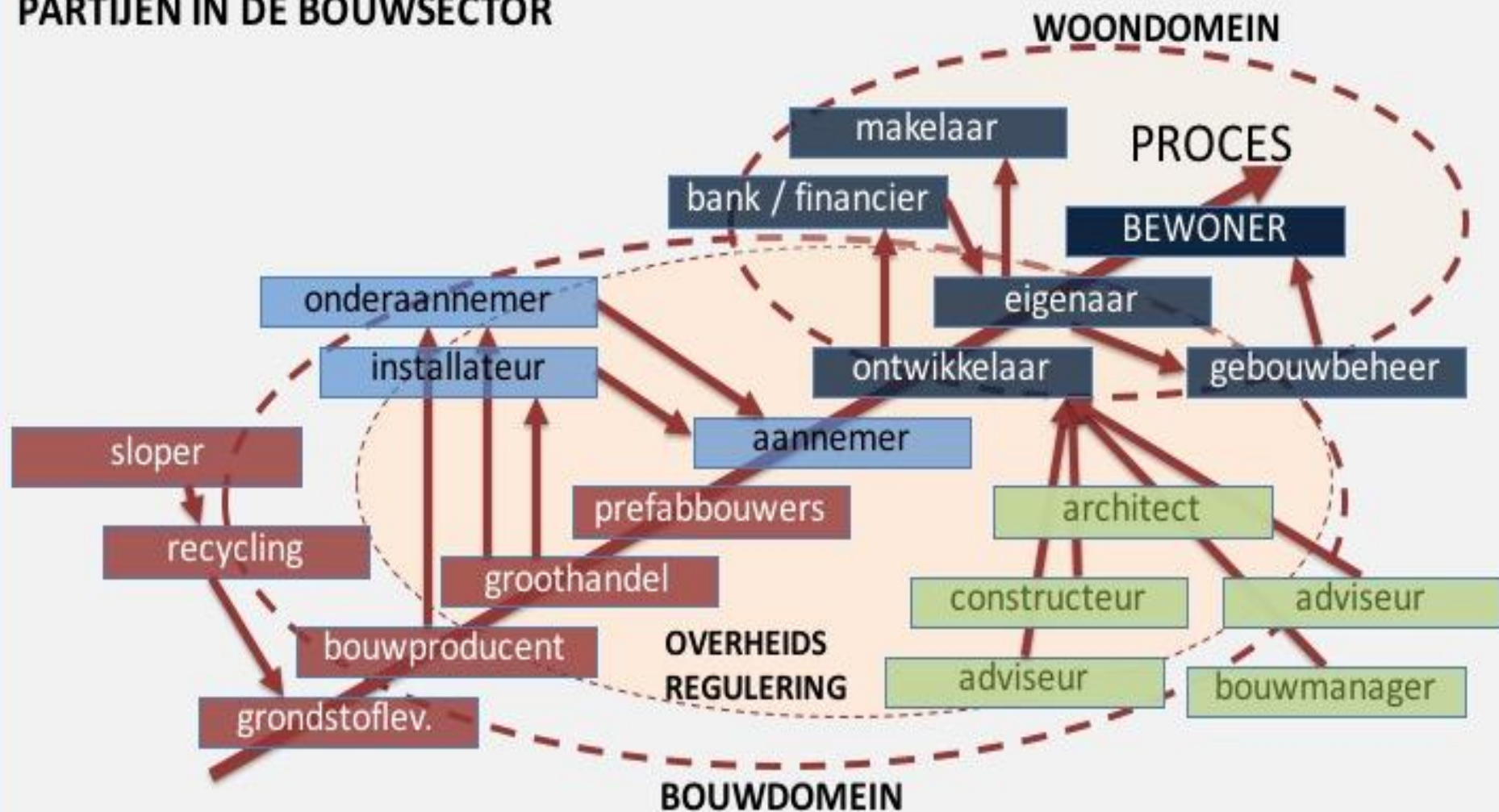
TRANSITION IN BUILDING SECTOR

structure: traditional, complex chain, user at the end

culture: inward oriented, masculine, not change-oriented

practice: tendering based at the lowest price

PARTIJEN IN DE BOUWSECTOR



DISRUPTOR

one party responsible for all building aspects

concept development

project development

architecture

financing

maintenance

end-user central

CULTURE

not really critizing each other

masculine forces dominate

lack of women and diversity

hardly any social psychologists

few cross connections with other sectors

**sustainable procurement
should become the norm**

CULTURAL SHIFT

in 5 years, if you as commissioning party or contractor, doesn't put sustainability at the centre, you are a bit of a loser

SUSTAINABLE PEARLS

at the project level quite a few pearls of projects

scaling up of pearl projects at system's level is slow

focus on technical - rather than social innovation

change inertia

75% of success of innovation is due to social innovation and not due to technical innovation

SCALING UP

top-down

centralized

not demand driven

rigid

mechanistic

high pre-financing

bottom-up

decentralized

demand driven

flexible

organic

low pre-financing

TOP-DOWN & BOTTOM-UP

both strategies are needed

in the short term we need fast industrialized processes

in the long term we need localized & customized houses

technically the challenge is to do it in a circular way

socially the challenge is to make the end-user key

TRANSITION INSIGHTS

is a difference between a pilot and radical innovation project

successful pilots are not necessarily replicated

anticipate barriers in systems when starting a pilot

need people who translate results from one context to another

we need connectors & translators

4. LEADERSHIP

LEADERSHIP ASKED

In a period of chaos leadership is
more important than ever:
authentic & connecting leadership



STAY UPRIGHT IN THE STORM

EVERYBODY HAS A ROLE IN THIS

realization that it starts and ends with you

people often look up when leadership is asked

everyone who creates impact is a potential leader

IN TIMES OF CHAOS

individuals & small groups of people
can make a significant difference



Boyan Slat
Ocean Cleanup



Greta Thunberg
Climate activist



Jos de Blok
Buurtzorg



Marjan Minnesma
Urgenda

breakthrough innovation in building
doesn't come from branche organisations
or covenants, but from people who do
things that were thought of as impossible

PERSONAL TRANSITION

- fear among people to really change
- overcoming fear is a big challenge
- working hard & long on yourself

**ANGST IS
NIEUWSGIERIGHEID
DIE NOG
IN DE KAST ZIT**

Loesje

STEP INTO THE ARENA

I don't ask you to put the world on your shoulders

I don't ask you to have no more fun

I don't ask you to raise money

I only ask you to stand up and step into the arena

The Man in the Arena

‘It is not the critic that counts. The credit belongs to the man who is actually in the arena, whose face is marred by dust, sweat & blood. Who strives valiantly, who errs and comes short again and again, but but who does actually strive to do the deeds. Who knows great enthusiasm and great devotion; who spends himself in a worthy case. Who, at the best, knows in the end the triumph of high achievement, and who, at the worst, at least fails while daring greatly, so that his place shall never be with those who neither know victory nor defeat’

Theodore Roosevelt