

Janrotmans

World in Transition: what does it mean to Taranaki?

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URGENCY

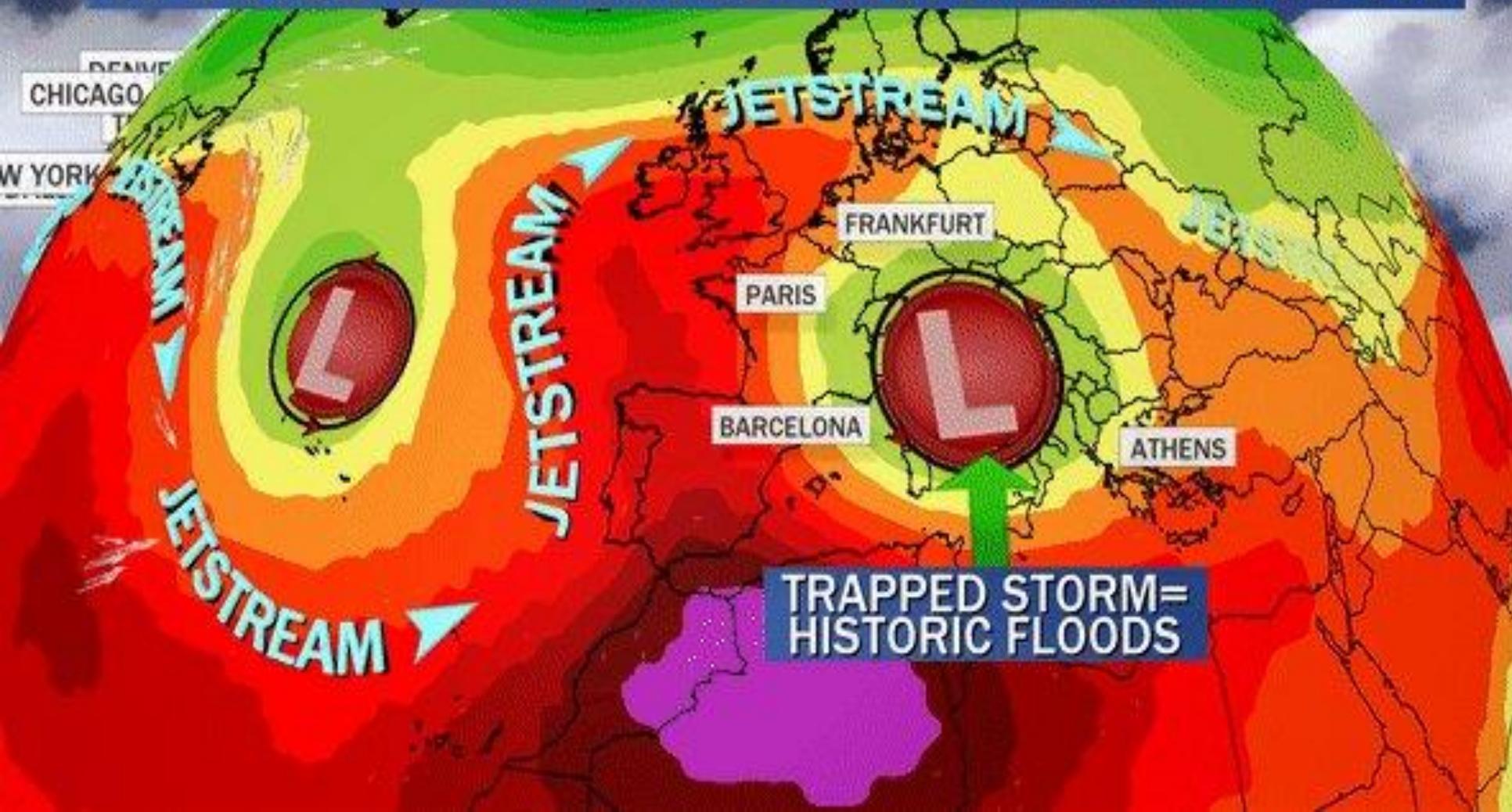
**We do not live in an era of change
but in a change of era**

CHAOS





IT'S ALL CONNECTED-WACKY JETSTREAM



TRAPPED STORM =
HISTORIC FLOODS

World in System's Crisis

economic crisis

ecological crisis

SYSTEMS

democratic crisis

moral crisis

Financial-Economic Crisis

economy is wasteful, polluting & sickening

growth at the cost of

spend money that there isn't

globalisation leads to inequality

Corona Crisis

impacts deeply on our vital systems

[health care, food, mobility, education]

uncovers system failures

[efficiency, return on investment, short term]

Deepest Cause

disbalance between humans and nature
and the way we deal with animals



**if we do not change our behaviour there will
come another pandemic with more impact**

Ecological Crisis

we destroy more ecological capital than financial capital

we produce at the cost of the earth

we borrow resources but we don't pay back

financial deficit = 3% ecological deficit = 35%

Anthropocene

DIFFERENCE BETWEEN 1.5 AND 2 DEGREES

1.5 DEGREE

- Ice at Northpole
- Coral bleaching
- 40-50 cm sea level rise
- Heat waves of 4 weeks
- Extreme drought 200 million

2 DEGREES

- Northpole ice free
- Coral dying
- 60-70 cm sea level rise
- Heat waves of 8 weeks
- Extreme drought 400 million

WILL WE SUCCEED?

chance that we stay below 1.5 degrees: almost zero

chance that we stay below 2 degrees: is still possible

we are heading for 3-4 degrees temperature increase

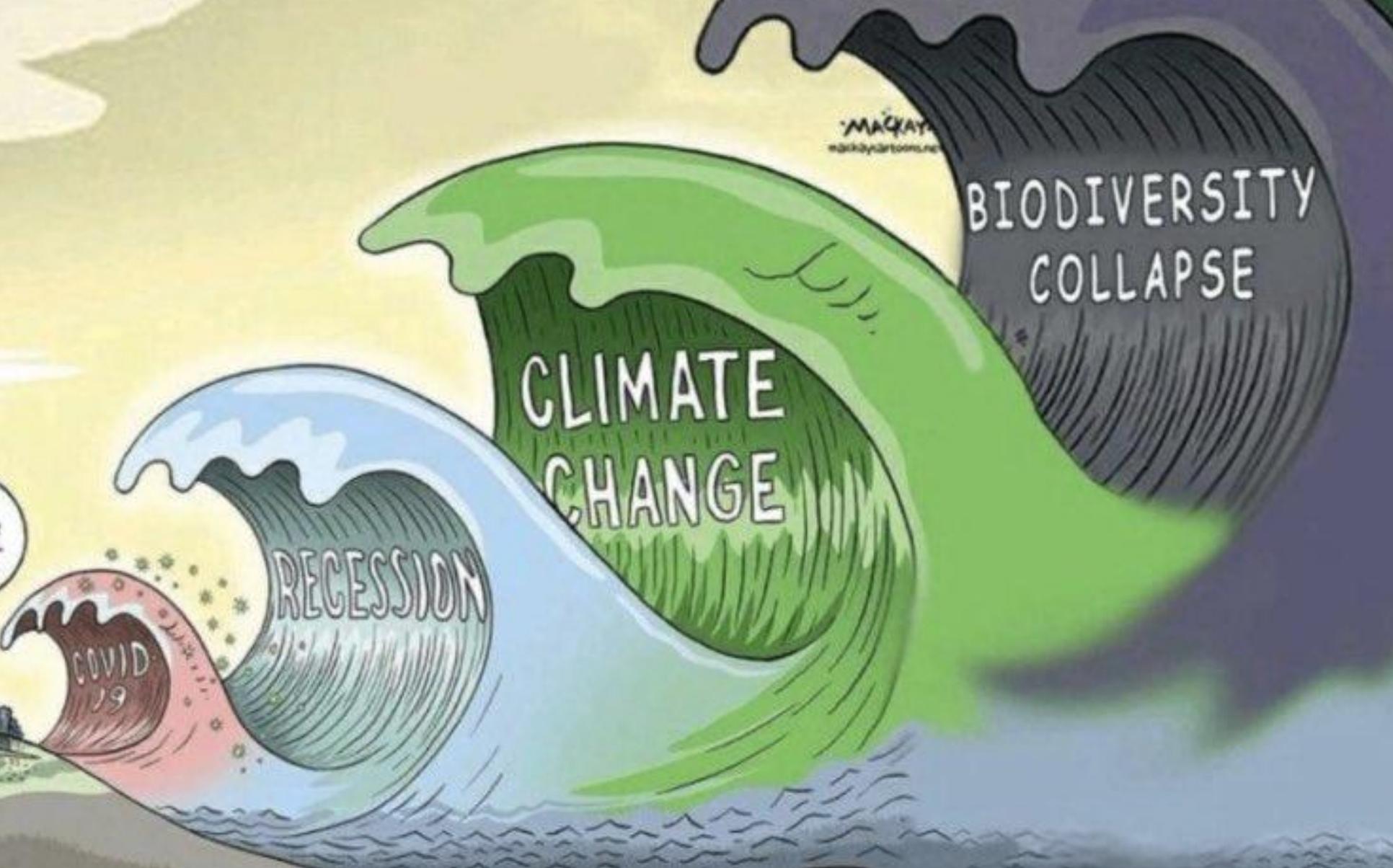
We need to fight for every tenth of a degree

Moral Crisis

Norms & Values

Greediness & Egoism

crisis is in ourselves



MACRAY
macraycartoons.com

COVID
19

RECESSION

CLIMATE
CHANGE

BIODIVERSITY
COLLAPSE

**We stumble from one crisis to
the other the coming decades**

Crises are blessing in disguise

people are stubborn

real behavioral change only during crises

Crises facilitate Change

5-10% of people change after a systemic crisis

we need a series of crises to really change

25% of people means tipping point is reached

the world won't be entirely different after corona



**WE NEED SYSTEMIC CHANGE:
TRANSITION**

Transition

THINKING:

VALUES, PARADIGMS

ACTING:

ATTITUDE, BEHAVIOUR

ORGANISING:

LAWS, RULES

Transition Governance

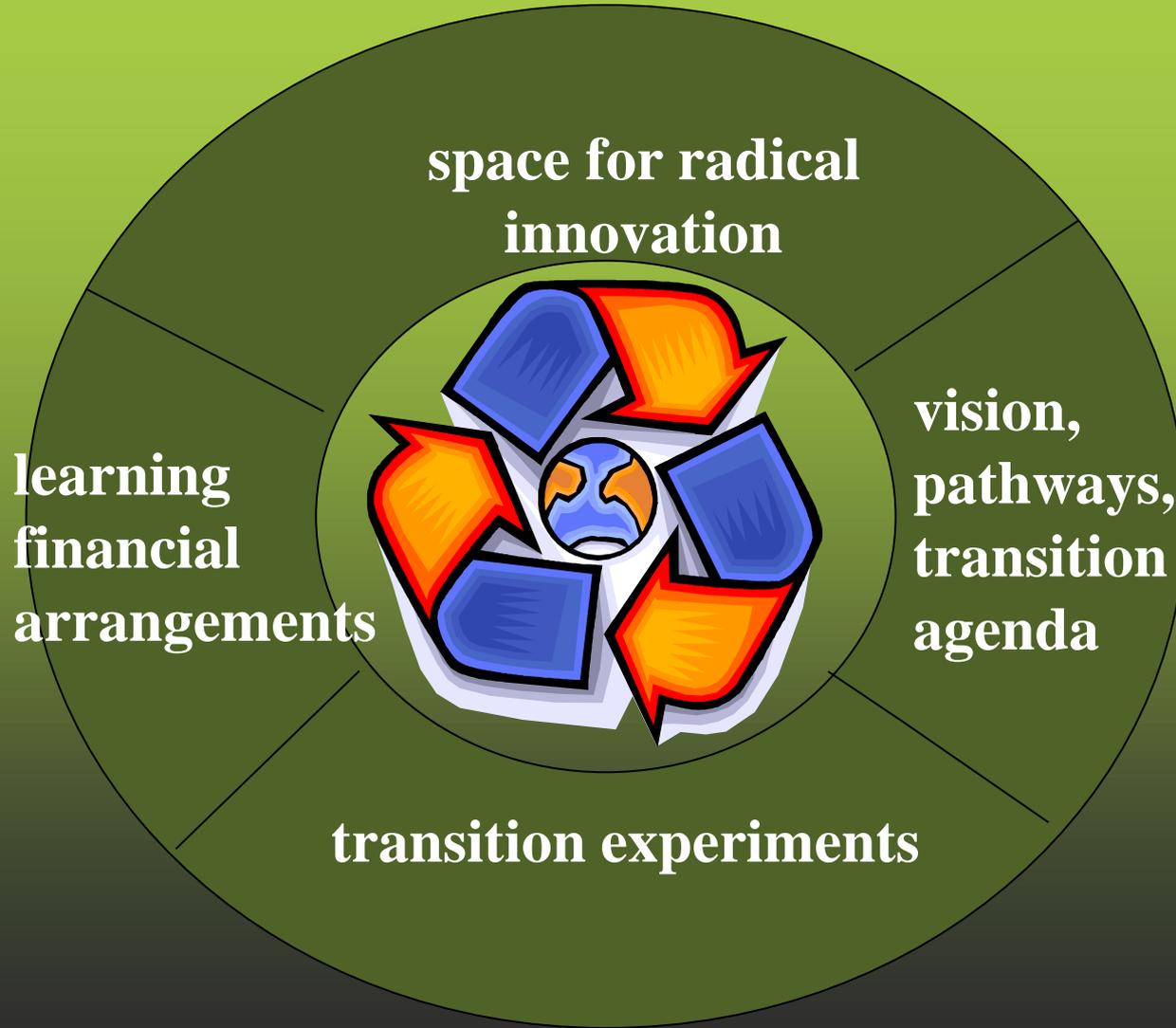
create innovation spaces for radical innovation

removing barriers for the transition

challenge the market and mobilise society

long-term thinking and short-term action

Transition Governance



Organic Planning

transitions are whimsical, chaotic processes that cover at least 2 generations and can't be directed as a project

transitions require planning, but not classical planning, more organic planning, with moving targets and continuous adjustments based on what you learn

Applications

in more than 20 countries and 50 cities all over the world

rich amount of literature within DRIFT and other places

applied in hometown of Rotterdam in districts

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NEXT ECONOMY

OLD ECONOMY....

- Economic Business
- Deriving Values
- Financial impact
- Fossil
- Linear
- Possession



NEW ECONOMY

- Impactful Business
- Creating Values
- Societal impact
- Clean
- Circular
- Usage

Societal Impact

Tesla **solve energy problem**

Unilever **reduce climate change**

TNT **reduce poverty**

Shell **contributes to climate change**



SHELL 3.0

In 20 year phasing out gas and oil

In 20 year building up sustainable energy

leadership in hydrogen economy

requires different culture and structure

OLD ECONOMY

- Banks
- Energy companies
- Taxi companies
- Hotel chains
- Book shops
- Record Companies



NEW ECONOMY

- Fintechs
- Google, Tesla, van de bron
- UBER
- Airbnb
- Bol.com
- Spotify

DISRUPTION

disruptive innovations

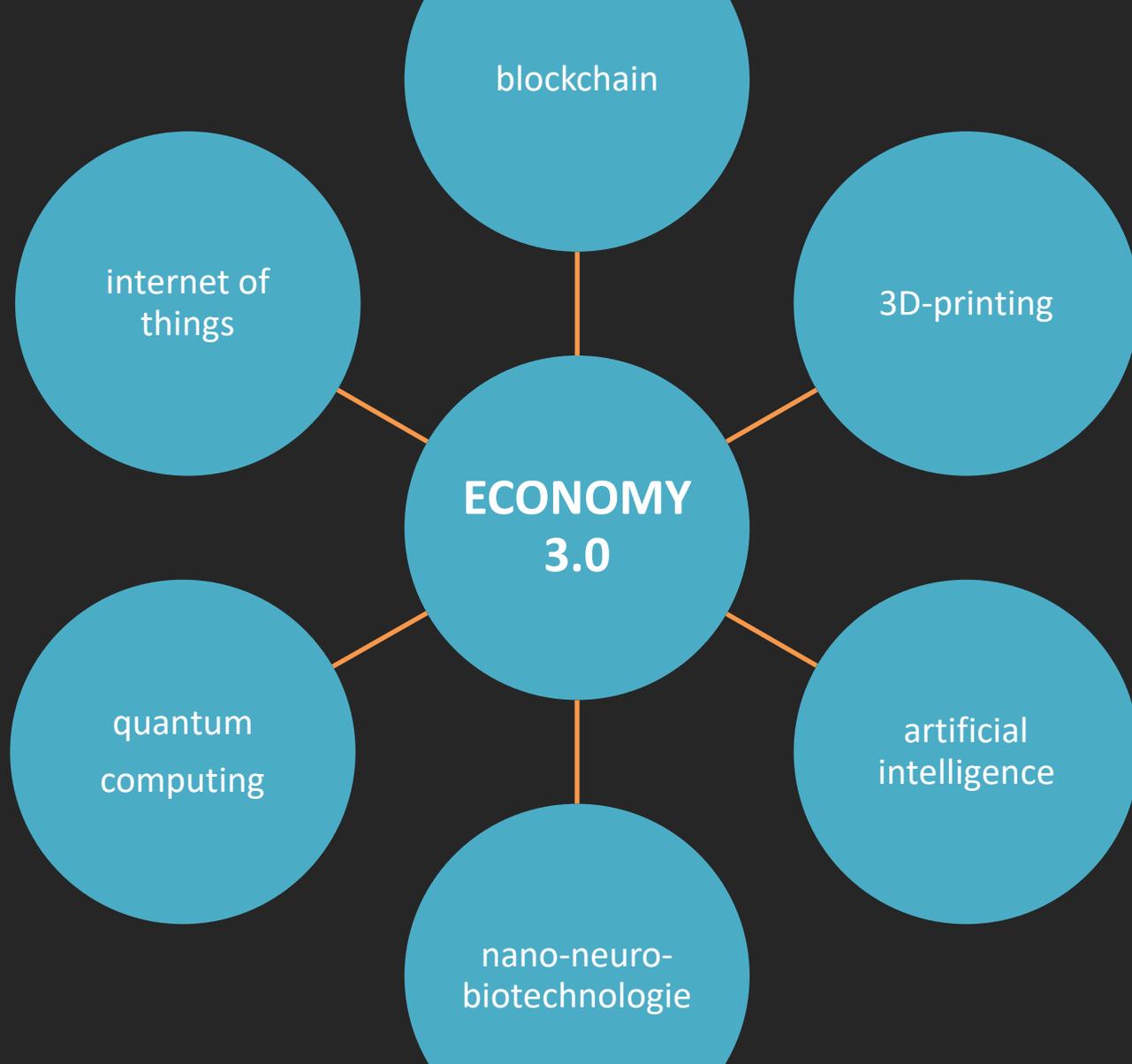
whatsapp, Iphone

disruptive technologies

blockchain, 3D-printer

disruptive companies

uber, airbnb



FUNDAMENTALLY CHANGES

our economy

production, distribution, stock management

our life

living, working, shopping, communicating



UBER DIGITAL PLATFORM

UBER connects
drivers to passengers



WITHIN 5 YEARS...



There is an UBER for Building

BLOCKCHAIN IN PORT OF ROTTERDAM



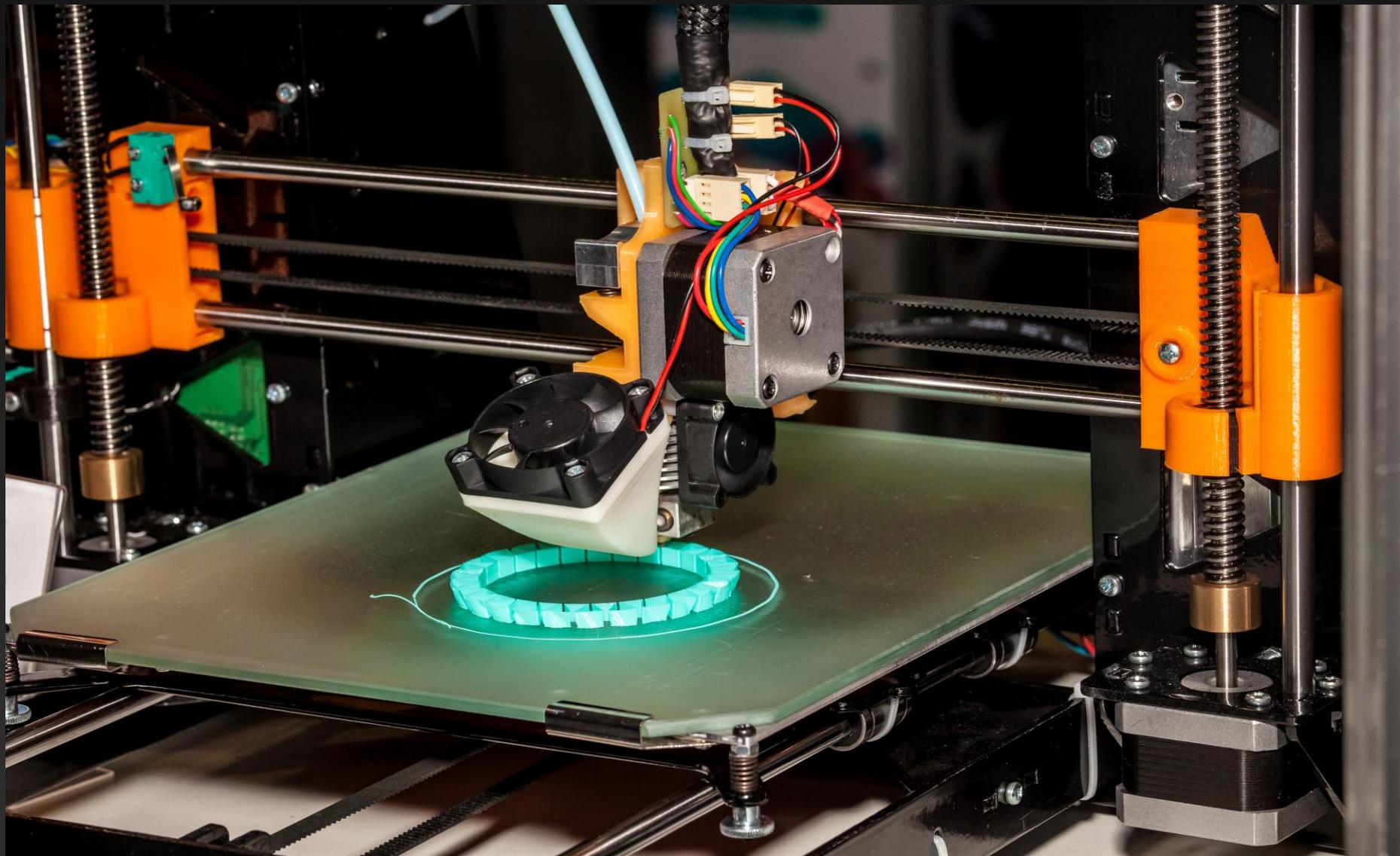
BLOCKCHAIN WILL CHANGE LOGISTIC CHAIN

chain becomes transparent and efficient

any moment visible where load is

redundant links disappear from the chain

only parties who create values will remain





IKEA

IKEA 3.0 has new Business model

circular model

waste = resource = income

producer remains owner of the resources

producer is responsible for the resources

products return to IKEA in resources depot

IKEA 3.0

IKEA is supplier and processor of resources

product = collection of re-usable resources

Return of Next Economy

every \$ invested in the NEXT economy yields 3 \$ return

innovation | employment | economic structure

every \$ invested in the OLD economy costs society 3 \$

pollution | climate change | health effects

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NEXT SOCIETY

OLD SOCIETY

- Top-down
- Central
- Collective
- Equality
- Silos



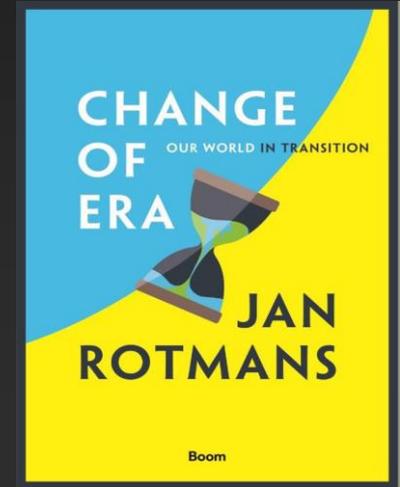
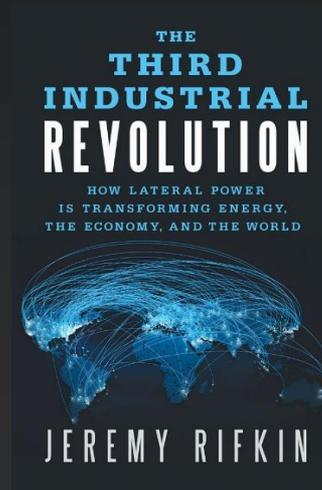
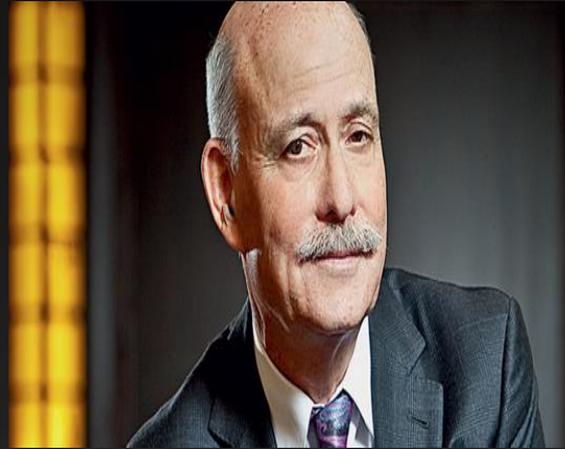
NEXT SOCIETY

- Bottom-up
- Decentralized
- Personalized
- Each his own
- Fluid

Transformation of social sectors

Labour Market	personalized, no distinction between fixed & flex
Pension System	personalized, no guarantees, freedom for youth
Health Care	personalized, more simple, more honest
Education	personalized, digital, international
Democracy	inclusive, guardianship, local & regional

Roadmap Next Economy R'dam-DenHaag





2050

Quest

Key Questions

where do we earn our money with in 20 years?

how will the labour market develop in our region?

what kind of skills are needed for the next economy?

how many and what kind of investments are needed?

Organised as a Tribe

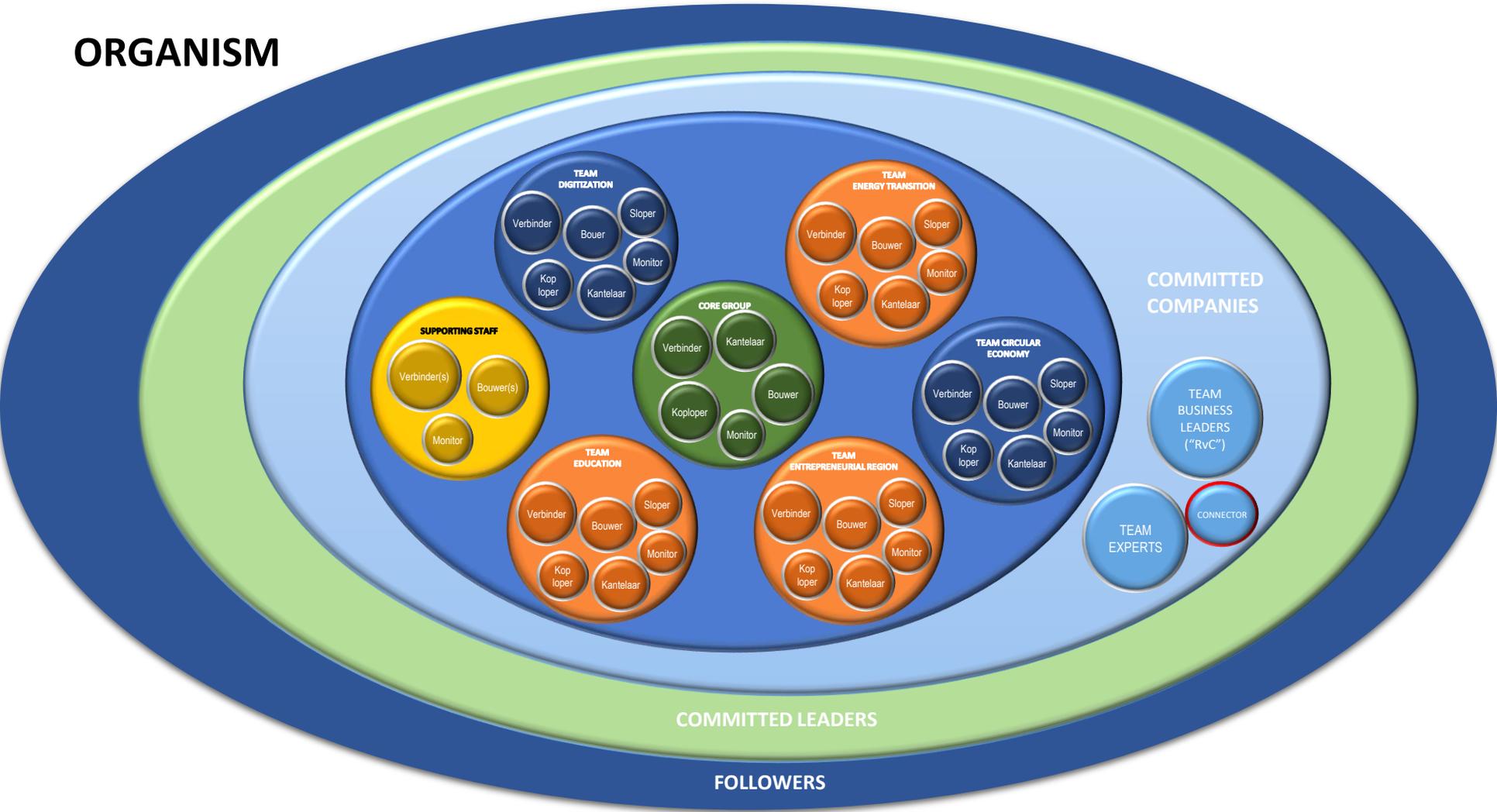
core group of 5 people [bureaucrats, scientist, entrepreneur]

thematic teams [around transition paths]

strategy group [public/private strategic people]

bunch of followers [hundreds of people]

ORGANISM





Smart Digital Delta

Towards zero marginal costs



Smart Energy Delta

Towards zero carbon



Circular Economy

Towards zero waste



Entrepreneurial Region

Towards new productivity



Next Society

Towards an inclusive society



VISION 2050

zero carbon zero waste circular digital connected

entrepreneurial

smart

inclusive

Vision-Strategy-Action

vision cleanest & smartest region of Western-Europe

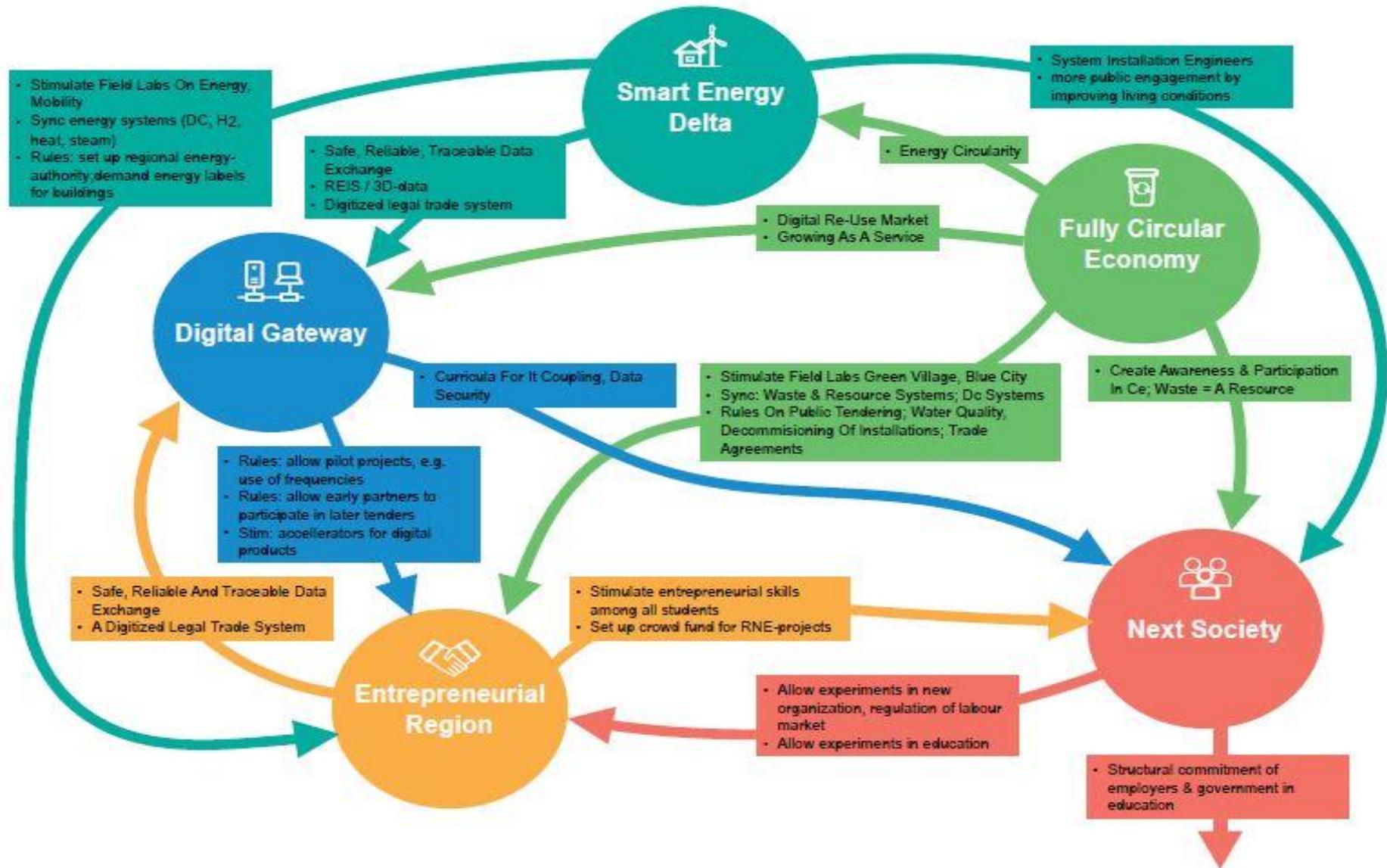
strategy alignment between 5 transition pathways

action projects / business cases

Integral Systemic Approach

alignment between

- vision, transition pathways, projects
- transition pathways
- projects [enabling, carrier, icon]



Projects



- Truck Platooning
 - Smart Public Nodes
 - Waste2Chemicals
 - Smart & Gasfree Neighbourhoods
 - Geothermy
 - Airport as Innovation hub
 - Cyber Test Proeftuin
 - Campusses
 - Health Data Cooperation
- Transition path 1,2
- Transition path 1
- Transition path 3
- Transition path 1,2,3
- Transition path 2
- Transition path 4,5
- Transition path 1
- Transition path 4,5
- Transition path 5

Energy-Producing Roads



Delft-Zuid
Schipluiden
Noordwijk
N470

A13 Rotterdam
Delft
Den Haag
A13 Amsterdam

Digitally connected Trucks



Next Generation Urban Areas



Energy



Climate adaptive



Living & Health care



Social



Mobility

Digital

Houses decoupled from gas







Transforming old Harbour Areas



Merwe-Vierhavens: Maker District



Building on Water



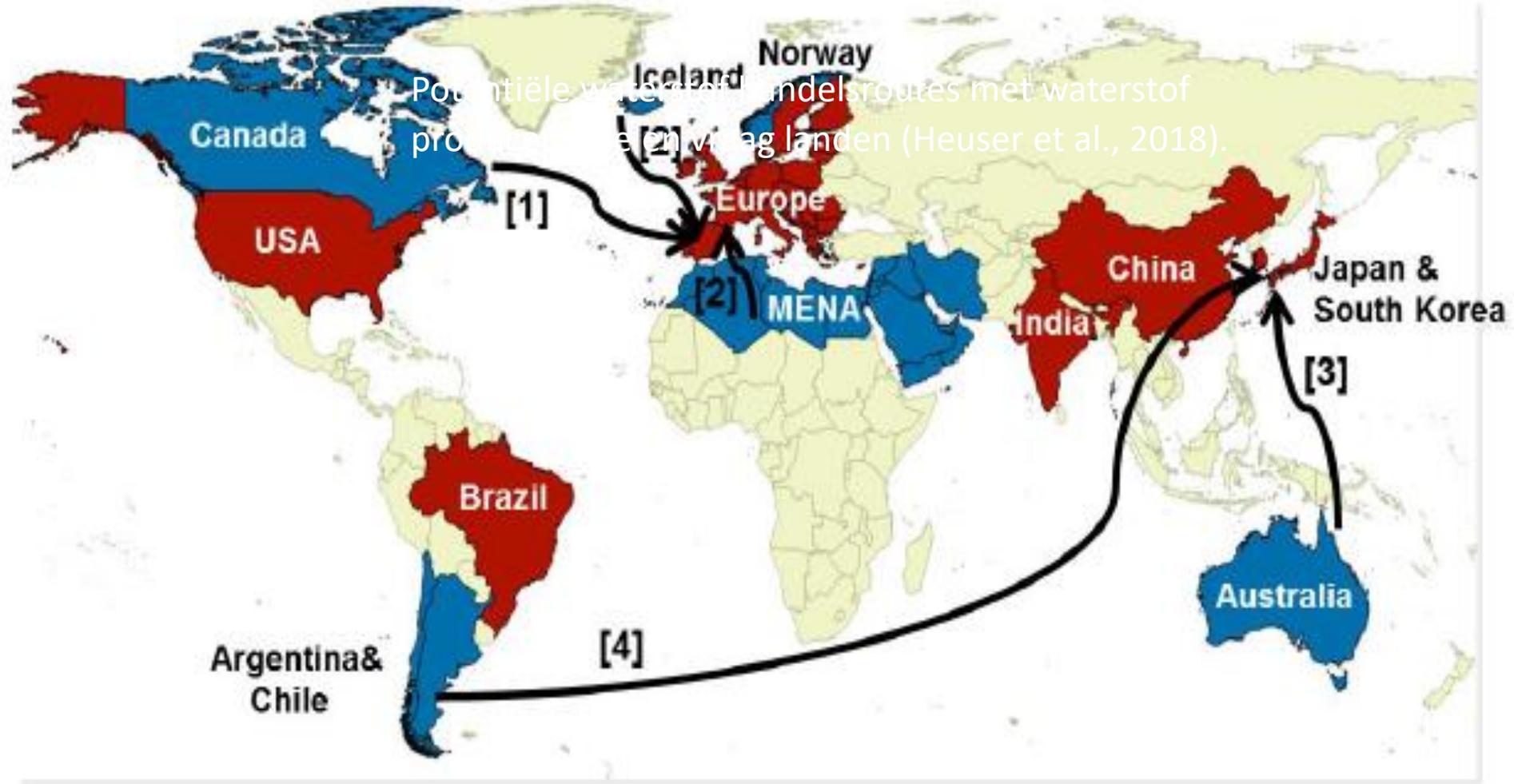




Green Hydrogen Factory



Potentiële waterstof handelsroutes met waterstof productie in de ontwikkelingslanden (Heuser et al., 2018).



■ Potential production country

■ Potential demand country

↪ Hydrogen transport

Floating Solar Panels



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LESSONS LEARNED

Social Innovation

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

competence development
making people smarter
flexible, dynamic organising
co-creation, co-production

software (people) at least as important as technology

Diverse Impulses needed

financial impulses

juridical impulses

institutional impulses

mental impulses

Legal Impulse

20 juridical barriers for the new economy

operational, structural and fundamental

structural barrier

residual currents considered as waste in law

Financial Impulses

money is not the problem, there is plenty of it

problem is to get money to the right places

investing in risky breakthrough projects

Mental Impulse

scale jump is needed

a big, ambitious story is needed

mental barrier is underestimated

lack of imagination among people

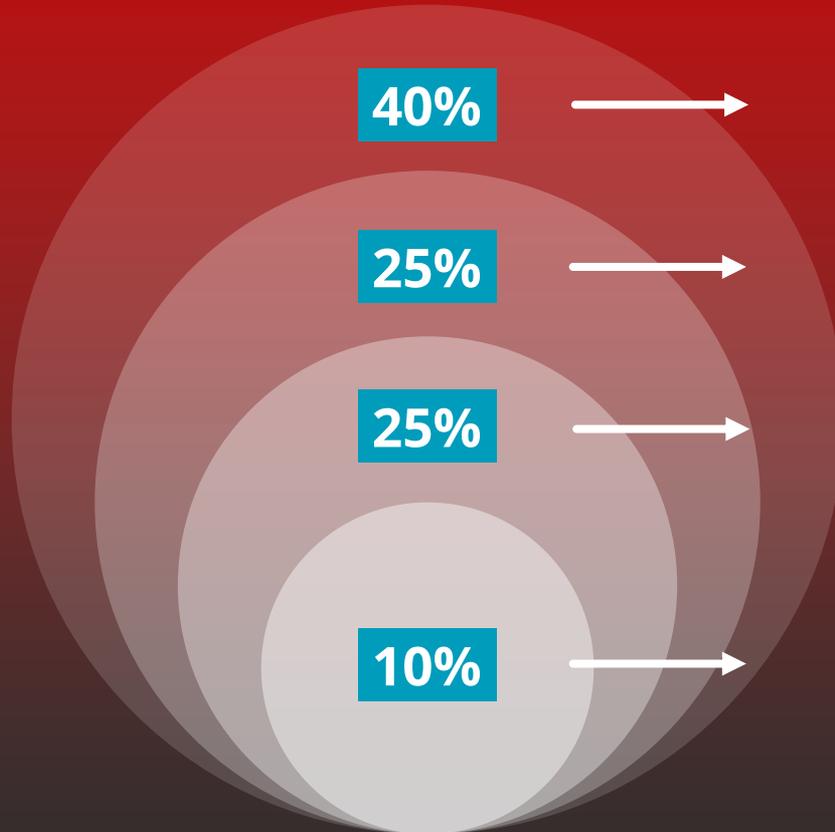
Breakthrough Coalitions

Coalition of the Willing & Able is crucial

don't try to get everyone on board

pace determined by the fastest, not the slowest

FEAR OF CHANGE



people who cannot and do not want to change

people who can change but do not want

people who want to but cannot change

people who can and want to change

Role of Government

first a initiating & directing role

later a more facilitating role

giving direction & providing space

connecting people, parties, projects

Frame it in attractive way

transition yields 200,000 jobs in region

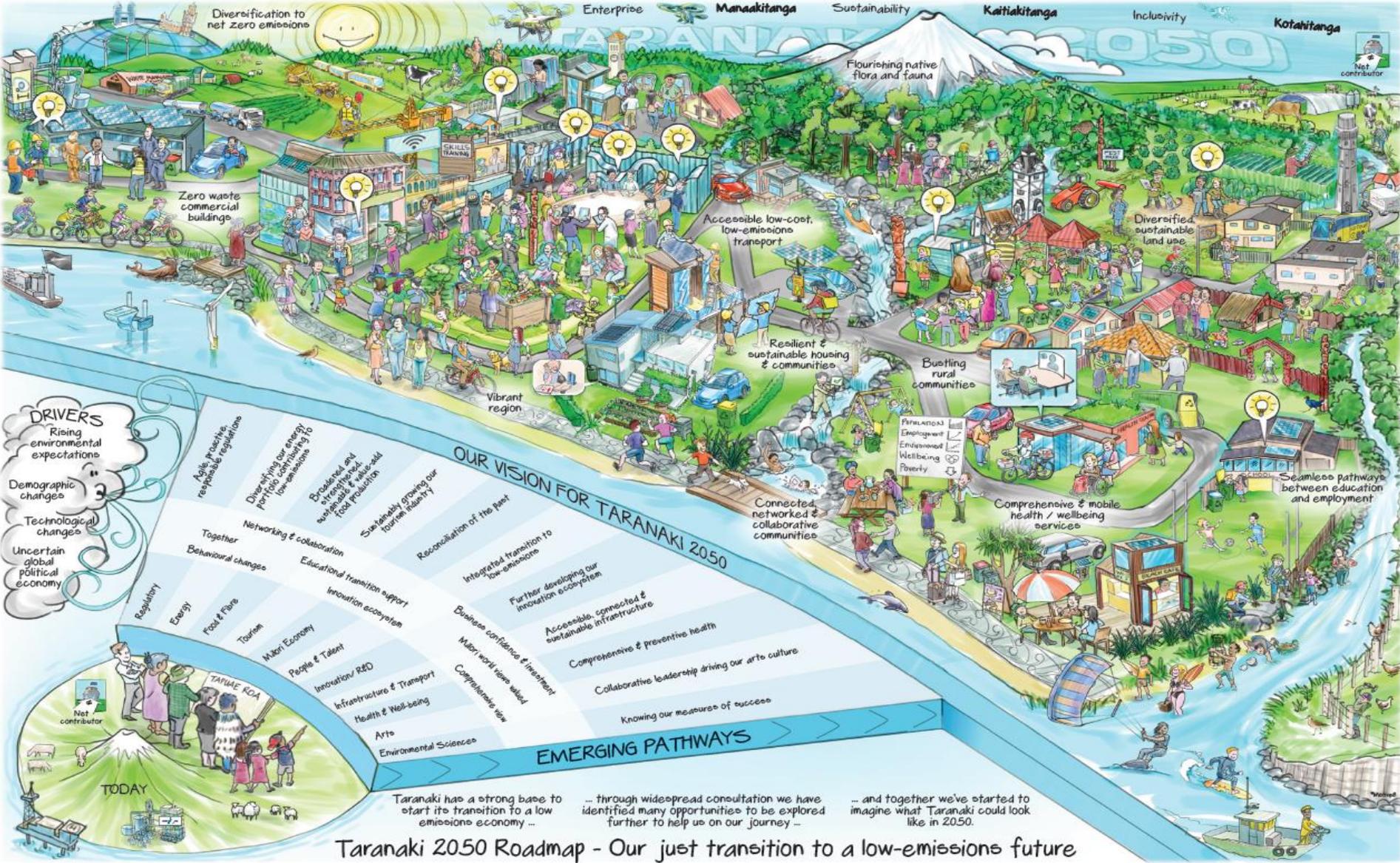
in particular for youth in poor districts

emerging ecosystem of startups & scale-ups

clean work with high wages

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Reflection on the Taranaki Roadmap



DRIVERS
 Rising environmental expectations
 Demographic changes
 Technological changes
 Uncertain global political economy



Taranaki has a strong base to start its transition to a low emissions economy ...
 ... through widespread consultation we have identified many opportunities to be explored further to help us on our journey ...
 ... and together we've started to imagine what Taranaki could look like in 2050.

Taranaki 2050 Roadmap - Our just transition to a low-emissions future

OUR VISION FOR TARANAKI 2050

- Active, progressive, responsible regulations
- Diversifying our energy portfolio, contributing to low-emissions
- Brave and strategic, low-carbon, sustainable, low-carbon food production
- Sustainably growing our tourism industry
- Reconciliation of the past
- Integrated transition to low-emissions
- Further developing our innovation ecosystem
- Accessible, connected & sustainable infrastructure
- Comprehensive & preventive health
- Collaborative leadership driving our arts culture
- Knowing our measures of success
- Together
- Networking & collaboration
- Educational transition support
- Innovation ecosystem
- Business confidence & investment
- Major world issues solved
- Comprehensive view
- Regulatory
- Energy
- Food & Fibre
- Tourism
- Micro Economy
- People & Talent
- Innovation R&D
- Infrastructure & Transport
- Health & Well-being
- Arts
- Environmental Sciences

EMERGING PATHWAYS

Zero waste commercial buildings

Diversification to net zero emissions

Vibrant region

Accessible low-cost, low-emissions transport

Resilient & sustainable housing & communities

Bustling rural communities

Connected, networked & collaborative communities

Philanthropy
Employment
Environment
Wellbeing
Poverty

Comprehensive & mobile health / wellbeing services

Seamless pathways between education and employment

Flourishing native flora and fauna

Diversified sustainable land use



Kaitiakitanga

Inclusivity

Sustainability

Manaakitanga

Enterprise

Children involved!



Taranaki Roadmap 2050

inspiring!

ambitious

well thought-out

many stakeholders involved

breaths optimism

Reflection I

I think it is a bit technocratic

‘shaping a low emissions future’

oriented towards climate change

sector-reduction of CO₂-emissions

**Transition to a new economy is not
the same as a low-carbon economy**

Reflection II

I miss the process of 'how'

maintaining spirit is a challenge

broad process with many engaged

frontrunners-peloton-laggards

pace determined by frontrunners

**Don't try to engage everybody, focus
on a coalition of the willing & the able**

Reflection III

I miss a bit multi-sectoral approach

I miss a bit the cross-cutting themes

digitization and circular economy

education and inclusive society

social innovation is really important

**Don't focus on a sectoral approach
but try to address cross-sectoral themes**

Reflection IV

I miss a bit the multi-actor approach

number of actor is not key but type of actors

influencers, sociale networks, ambassadors

roadmap might spread like a 'virus'

social-pyschological aspect is important

**engage those actors who could spread
the vision and approach like a 'virus'**

Reflection V

I miss a bit the learning process

learning-by-doing & doing-by-learning

register everything that is being learned

you learn most from your failures

**try to depolitise the Roadmap process
and make it society- & business driven**

Reflection VI

I miss a bit the evolutionary approach

transition is an evolutionary revolution

formulate intermediate steps for 2030 & 2040

formulate concrete goals for 2030 & 2040

**make the process as concrete as possible
with tangible goals and intermediate results**

**frame the process in social & economic gains
in terms of employment/innovation/inclusion**

how many jobs created in 2030? and in 2040?

how many Maori people could be employed?

**breakthrough projects are important
to keep the energy in the process high**

**Taranaki is a frontrunner in
New Zealand and you may
be really proud of that!**

**Everybody said it was impossible
until somebody stepped by
who didn't know that**