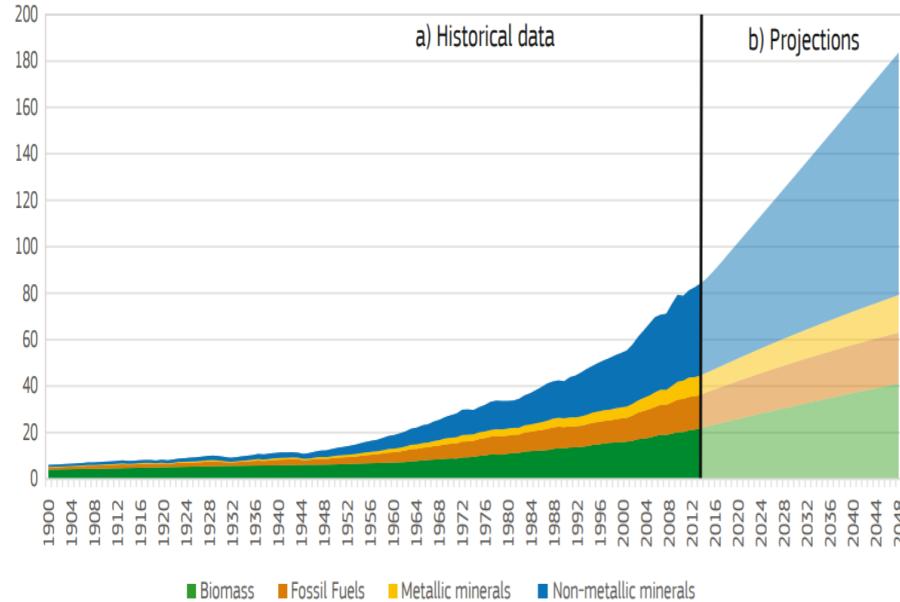
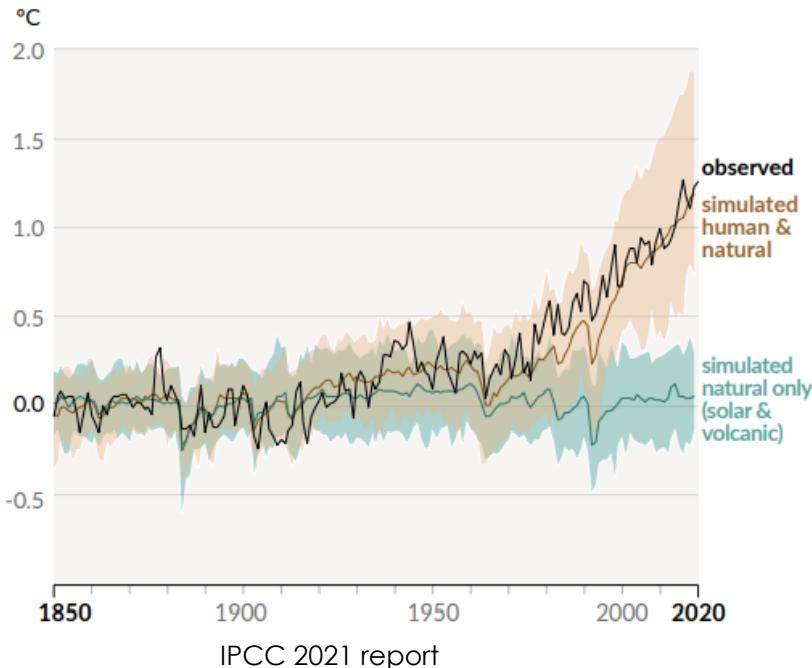


Urgency

b) Change in global surface temperature (annual average) as **observed** and simulated using **human & natural** and **only natural** factors (both 1850-2020)



History (1/2)

Nederland circulair
in 2050



Biomassa &
voedsel

Emmo
Meijer

Kunststoffen

Jos
Keurentjes

Maak-
industrie

Fried
Kaanen

Bouw

Elphi
Nelissen

Consumptie-
goederen

Anne-Marie
Rakhorst

Transitieagenda's:

Biomassa&voedsel
Kunststoffen
Consumptiegoederen
Bouw
Maakindustrie

Concrete Doelen

Actieagenda

Sociale Agenda

Kennisagenda

Investeringsagenda

CIRCULAIRE
ECONOMIE: WAT WE
WILLEN WETEN EN
KUNNEN METEN

Raamwerk en nulmeting voor monito-
ring van de voortgang van de circulaire
economie in Nederland

Beleidsstudie

José Potting en Aldert Hanemaaijer (eds.),
Roel Delahaye, Jurgen Ganzevles, Rutger
Hoekstra en Johannes Lijzen



CIRCULaire MAAKINDUSTRIE

History (2/2)

- The Netherlands Circular in 2050
- Goals:
 - Full circular economy in 2050
 - 50% reduction abiotic resources used in 2030
 - Three strategic goals:
 - Optimal use
 - Substitution(unstable/sustainable, fossil/renewable, critical/generally available cq 'elements of hope')
 - New forms of production and consumption
- National resource accord:
 - Negotiations on goals and next steps
 - Public registration system
- Creating five transition agenda's and implementation programmes

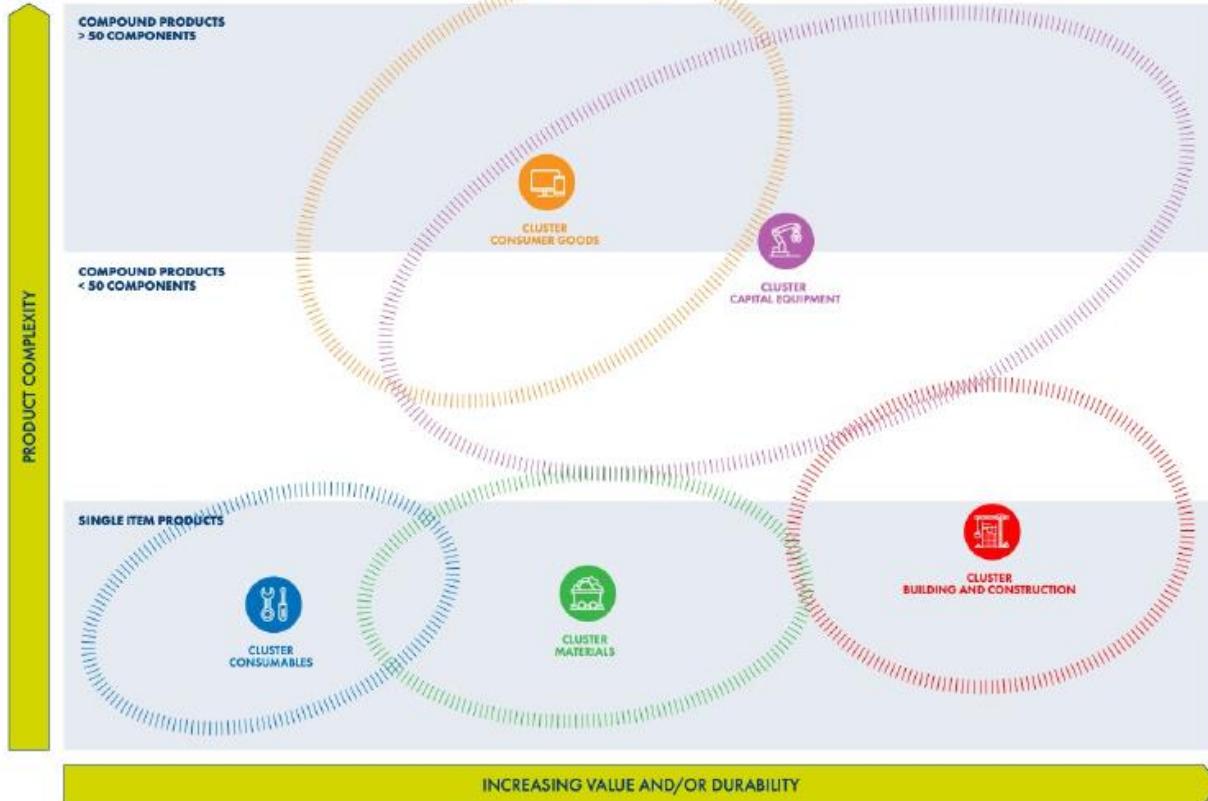
Texts new governmental accord

“There will be an **ambitious climate target for the circular economy** and an implementation program. The government is playing an exemplary role here. We ensure a better connection between climate policy and circularity.”

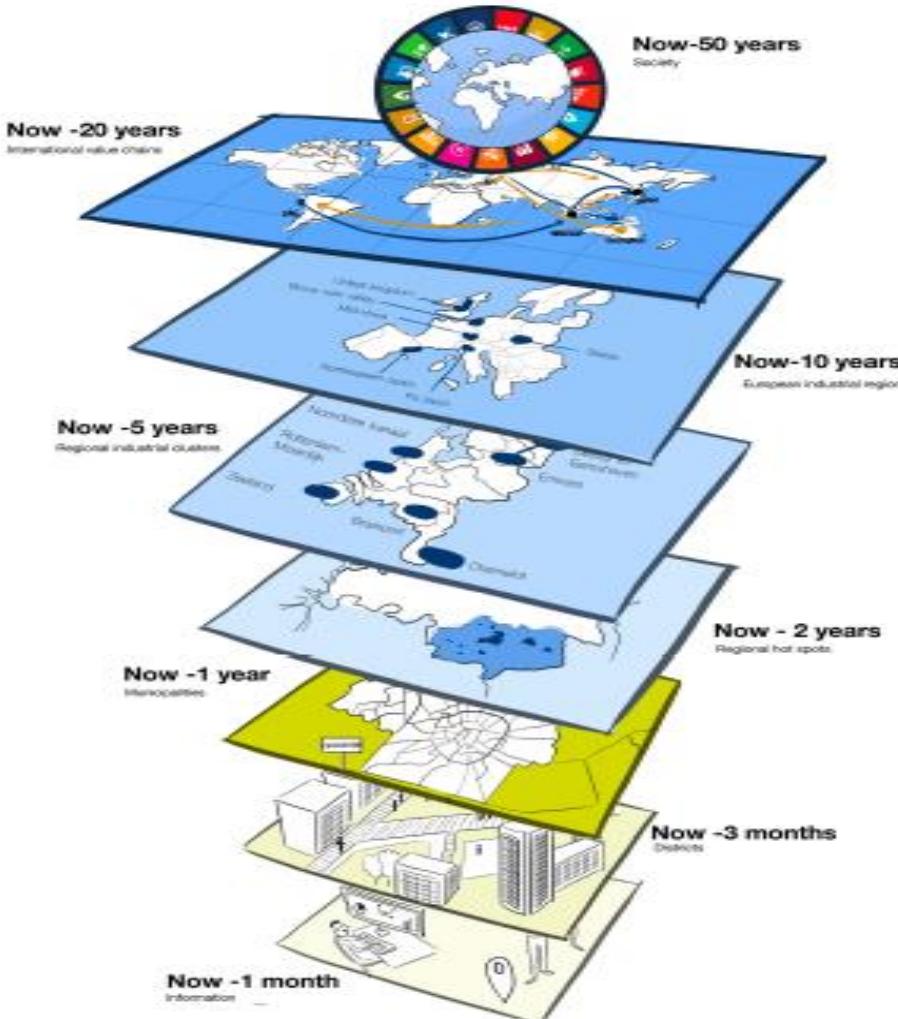
“We support innovative 'startups' and 'scale-ups' and focus the mission-driven innovation policy on the **three major transitions**: climate and energy, digitization and key technologies, and the circular economy.”

“We are **committed to strategic independence through the production of crucial (semi-)products in Europe** and by protecting vital processes and preventing unwanted control in vital companies.”

Clusters of product groups (manufacturing) industry



PRODUCT GROUPS IN CLUSTER	MATERIALS	CONSUMABLES	BUILDING AND CONSTRUCTION	CAPITAL EQUIPMENT	CONSUMER GOODS
20 Chemical industry	●				
22 Rubber & plastic products industry	●				
23 Construction materials industry			●		
24 Base metal industry	●				
25 Metal products industry		●	●		
26 Electro technical industry			●	●	●
27 Electric devices industry			●		
28 Machine-industry			●		
29 Consumer (automotive) vehicle industry		●		●	
30 other (automotive) vehicle industry		●			
32 Other industry		●			
33 Machine repair and installation services				●	
38 Waste disposal and recycling	●				



Transition approach UPCM:

- Connecting scale levels
- Three forms of activities at every scale level (realisation, acceleration, broadening)
- Time horizon includes:
 - Realistic pace of time to conclude 1 of four phases of the different transition frameworks
 - Required pace of time of all four phases of different transition frameworks

Governance UPCM

Zie bredere governance in werkwijze document



Current projects UPCM

Connection circular-, energy- and digital transition

Focus - Prioritaire projecten

Binnen het Uitvoeringsprogramma Circulaire Maakindustrie hebben we zes prioritaire projecten gekozen. Klik op een van de blokken voor meer informatie per project.

Circulaire zonneparken

De grootschalige installatie van zonnepanelen is nodig voor de energietransitie,...

→



Warmte as a Service

De energietransitie voor het verwarmen van woningen en gebouwen biedt...

→



High Tech Equipment

De productie van kapitaalgoederen vergt veel grondstoffen maar er zijn...

→



Batterijen voor e-mobiliteit

De grote groei van elektrische mobiliteit zorgt voor een enorme...

→



Circulaire Windparken

De grootschalige installatie van windparken is nodig voor de energietransitie,...

→



Circulair & Smart (CESI)

Digitalisering en nieuwe technologieën bieden veel mogelijkheden voor efficiënt gebruik...

→



Stap 1: selection impact full productgroups

Definitie productgroep, PBL Policy brief: "Een verzameling van producten met gedeelde kenmerken wordt een productgroep genoemd (zoals elektronica of textiel)."

Transitieagenda	Productgroep
Maakindustrie	High Tech Equipment
	Windparken
	Zonneparken
	Batterijen
Verkenning i.s.m. directie duurzame mobiliteit lenW	[Mobiliteit lucht/water/weg]
Bouw	Kunstwerken
	Wegen
	Woningen
	Bedrijfsruimte/kantoren
i.s.m. Maakindustrie	Klimaatinstallaties

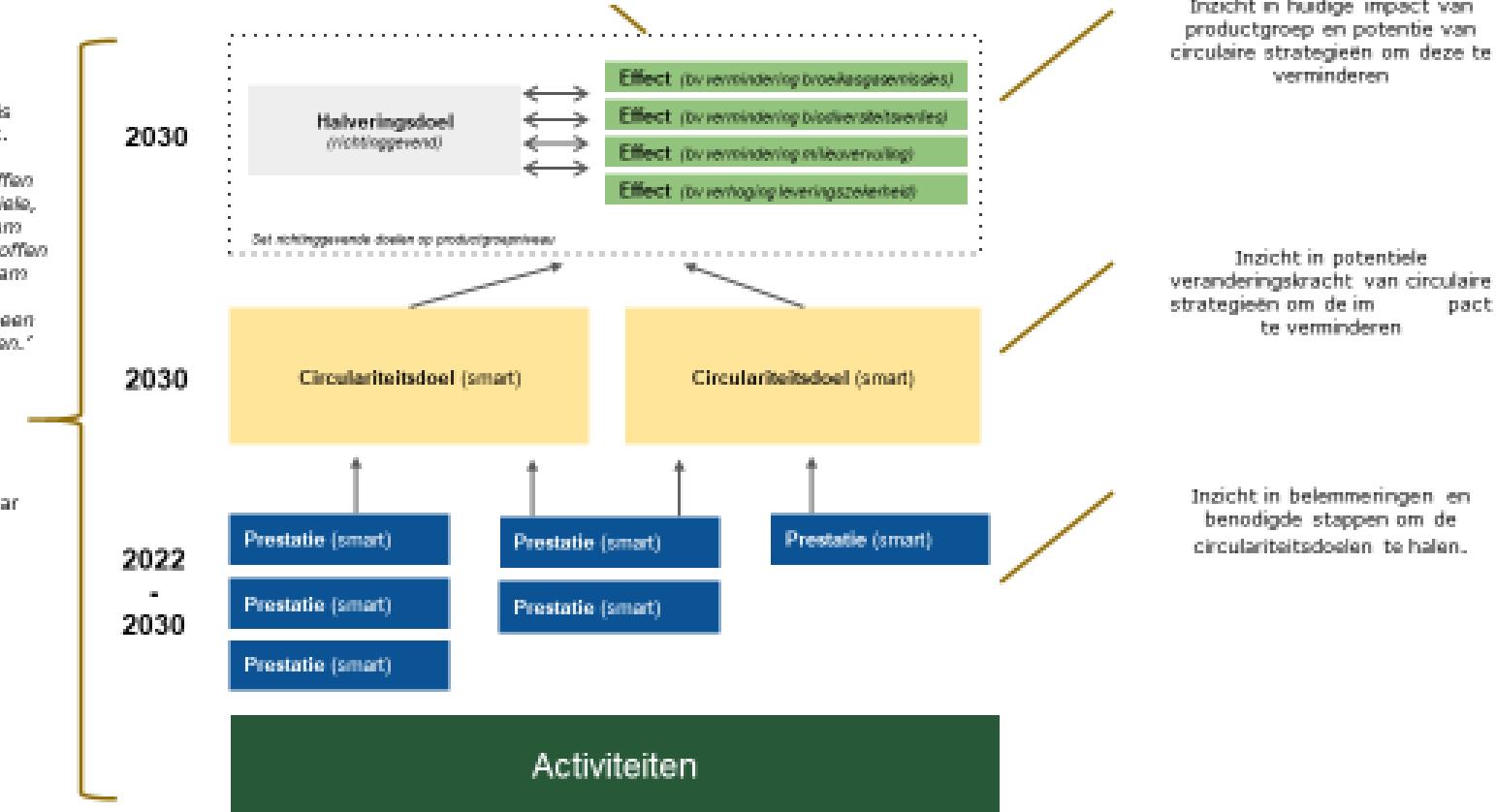
Transitieagenda	Productgroep
Kunststoffen	Plastic verpakkingen
	Plastic (afval) in de bouw
	Landbouwfolie
Wens maakindustrie / NRK	Harde plastics automotive /elektrische apparaten
Consumptiegoederen	Plastic verpakkingen en single-use
	Textiel (incl. kleding)
	Elektrische apparaten
	Meubels
	Chemische producten
i.s.m. Maakindustrie	Verven en schoonmaakmiddelen

Stap 2: Setting goals

De 2e strategische doelstelling van het riksbreed programma is nadrukkelijk van kracht.

'Waar nieuwe grondstoffen nodig zijn, worden fossiele, kritieke en niet duurzaam geproduceerde grondstoffen vervangen door duurzaam geproduceerde, herneeuwbare en algemeen beschikbare grondstoffen.'

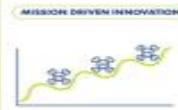
Z2S is niet randvoorwaardelijk, maar blijft van belang.



Stap 3: Creating roadmaps

How to 'circularise' 10.000 producing companies in four years

REALIZATION



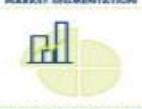
We initiate (KIA) research projects alliances for non-ferro / critical materials and new product flows.



We select the best R-strategy for product groups with a high CE potential



We organise supply chain collaboration for re-use, repair or recycle.



We know the markets and the need for circular solutions



The number of circular business cases and entrepreneurs involved increases.



We help entrepreneurs and jointly realise relevant investment projects.

Now - 1 month Now - 3 months Now - 1 year Now - 2 years Now - 5 years Now - 10 years

ACCELERATION



We know which innovation functions need to be stimulated and initiate 'system interventions'.



We increasingly know which initiatives are most promising ('sweet spots').



We ensure the right infrastructure to facilitate value chain collaboration.



We consciously facilitate new ways of working (together)



Projects have the right scope, content and (measurable) impact.



The information structure and reporting flow enables us to learn continuously.

Now - 1 month Now - 3 months Now - 1 year Now - 2 years Now - 5 years Now - 10 years

UPSCALING



We initiate consortia, embrace opportunities and address issues at EU level.



We connect to central themes in supraregional collaboration.



We join relevant existing regional (economic) clusters.



We know our target groups and their motives.



We work together with 'change makers' that empower target groups.



We communicate effectively to 'change makers' and entrepreneurs.

Realise moonshots

Shape new markets

Create conditions

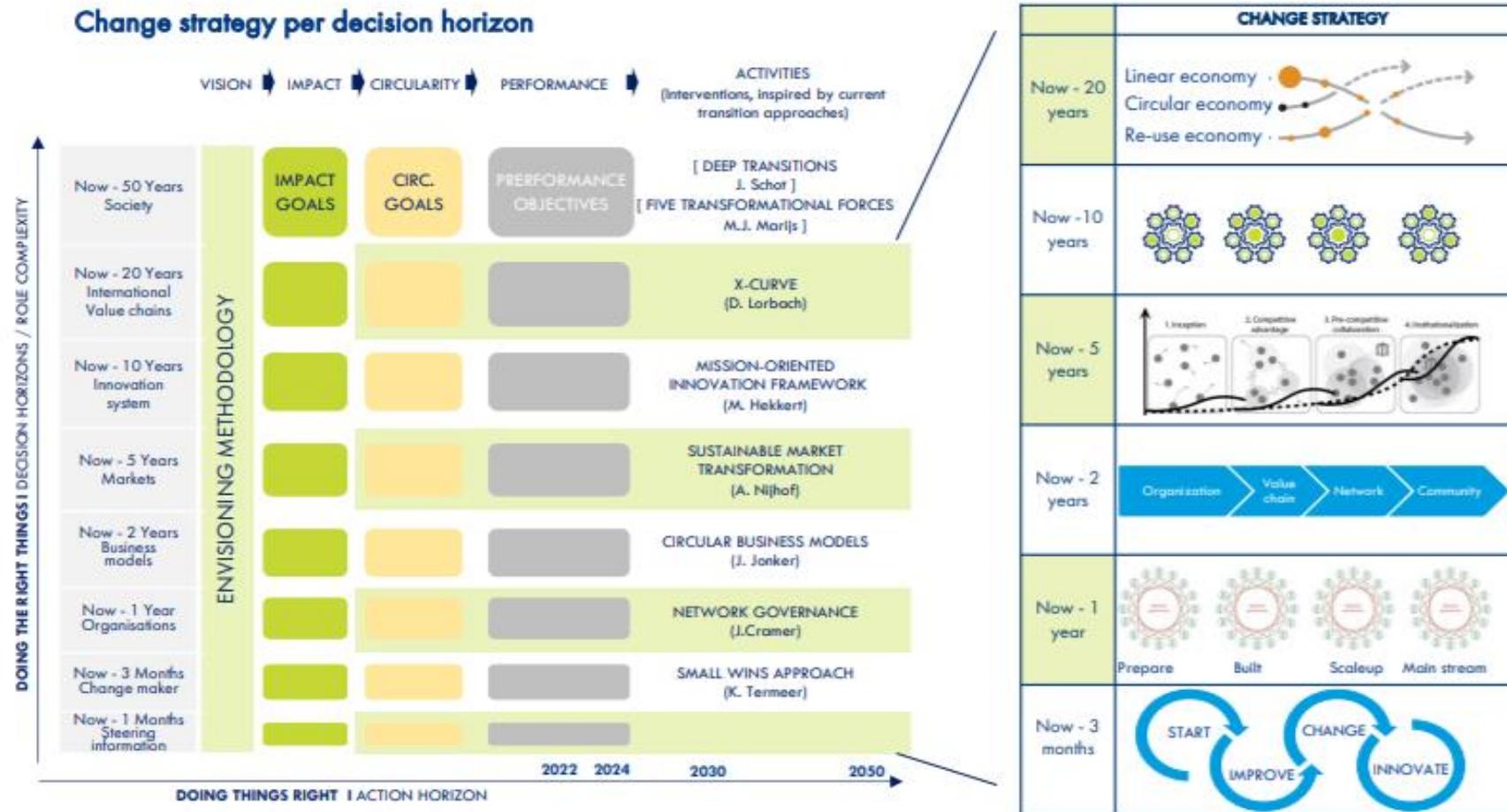


Figure 6. Change strategies per decision horizon.