

How network governance powers the circular economy, based on Dutch and international experiences



PROF. DR. JACQUELINE CRAMER

Utrecht University, Member of the Amsterdam Economic Board, Board Chair of Holland Circular Hotspot and former Dutch Minister of Housing, Spatial Planning and the Environment

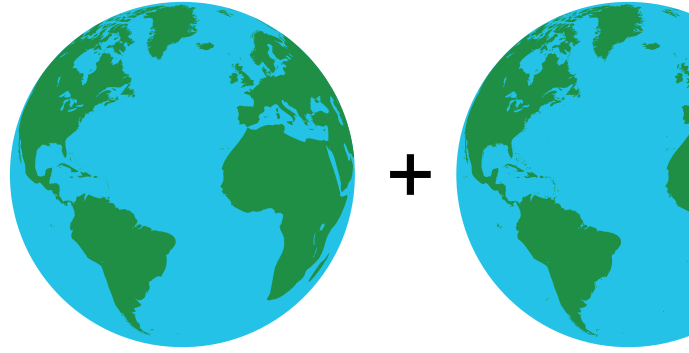


The urgency of circular economy: The overconsumption of natural resources and the scarcity of some natural resources



1 Earth

1970



1.75 Earths

Today



3 Earths

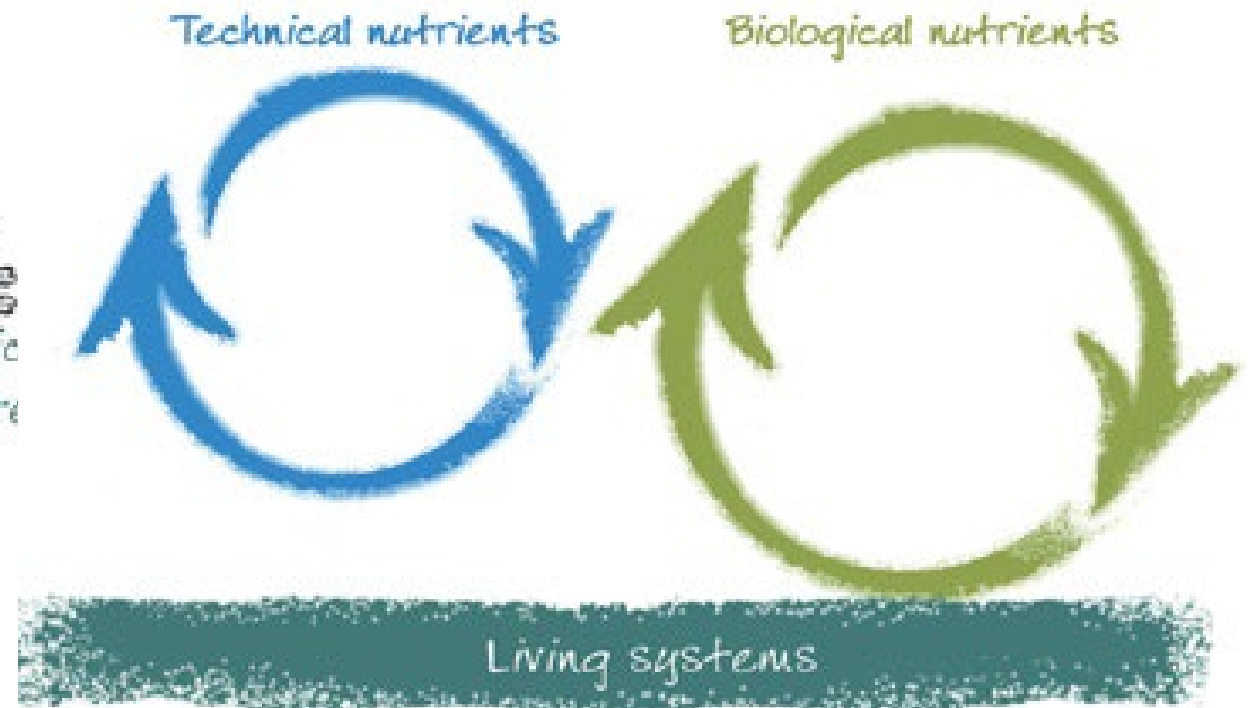
2050



We move from a linear economy...

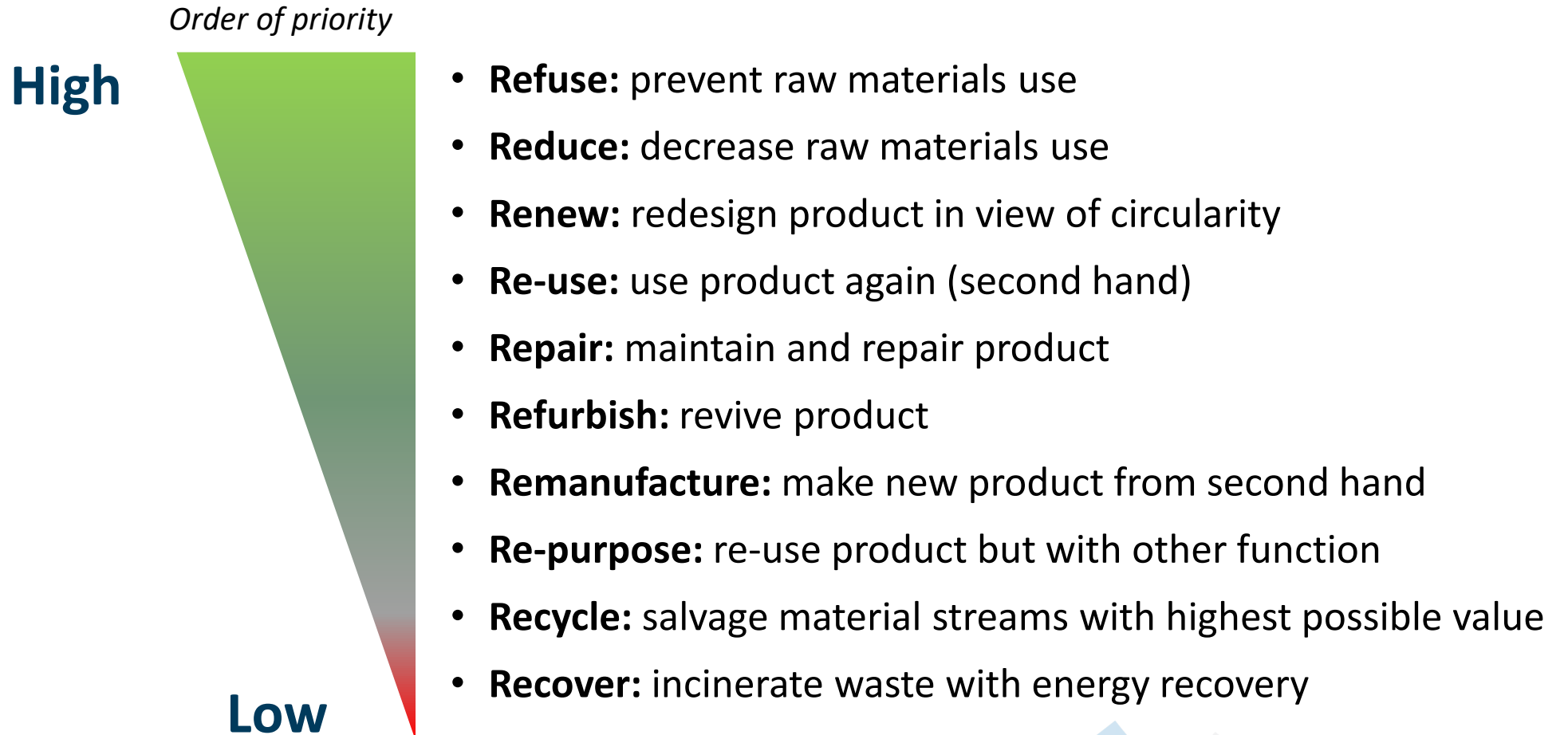


... to a circular economy



after W. McDonough and M. Braungart

Levels of circularity: 10 R's



This generates direct financial benefits...

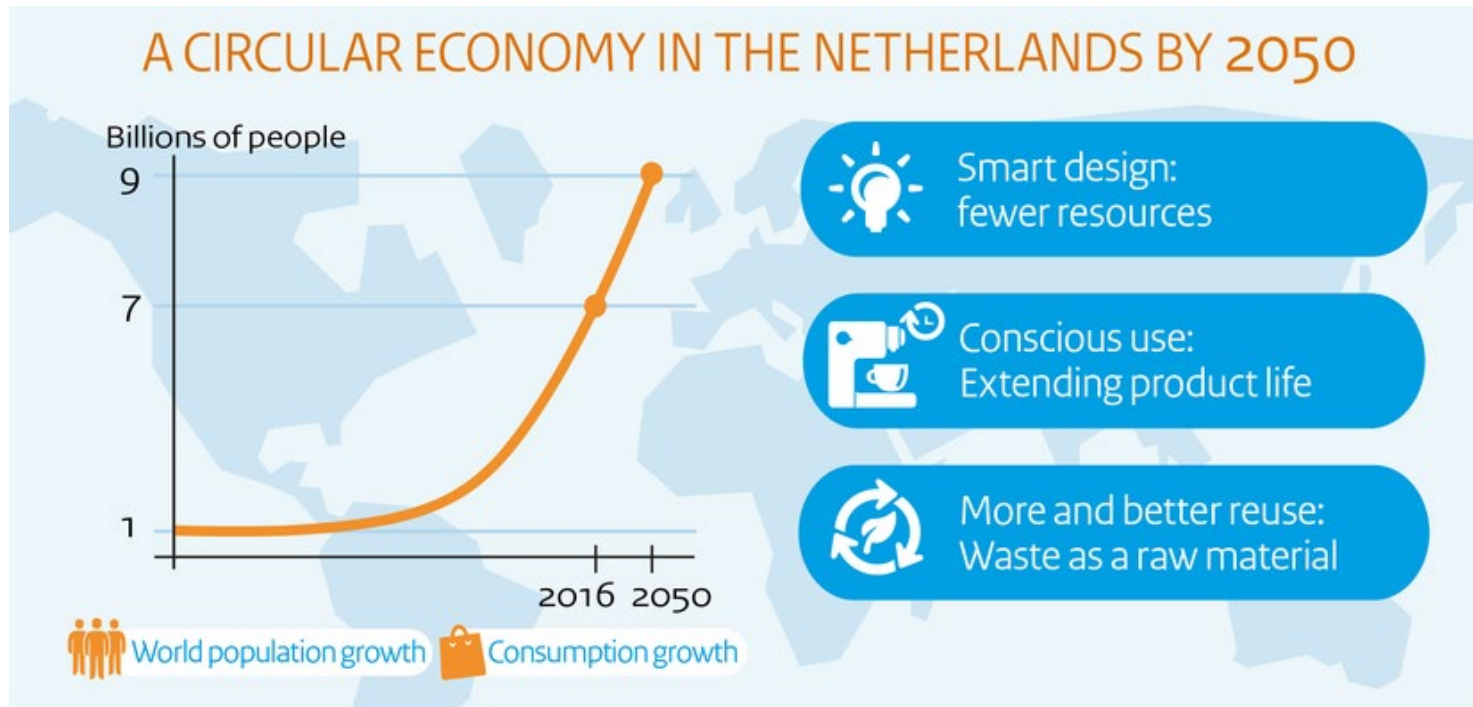
... but also indirect benefits



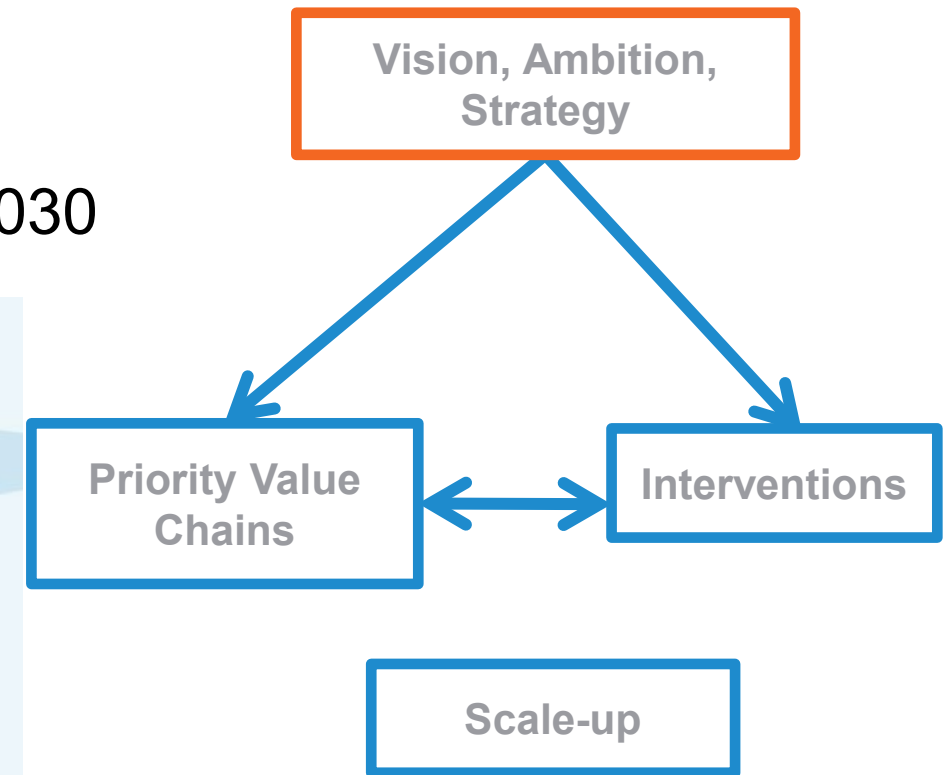
1. E. MacArthur Foundation
2. TNO
3. Rabobank
4. McKinsey

First Circular economy policy plan issued in 2016

- A circular economy by 2050
- 50% reduction in use of raw materials by 2030



Ministry of Infrastructure and the Environment, September 2016



THE DUTCH POLICY EXAMPLE

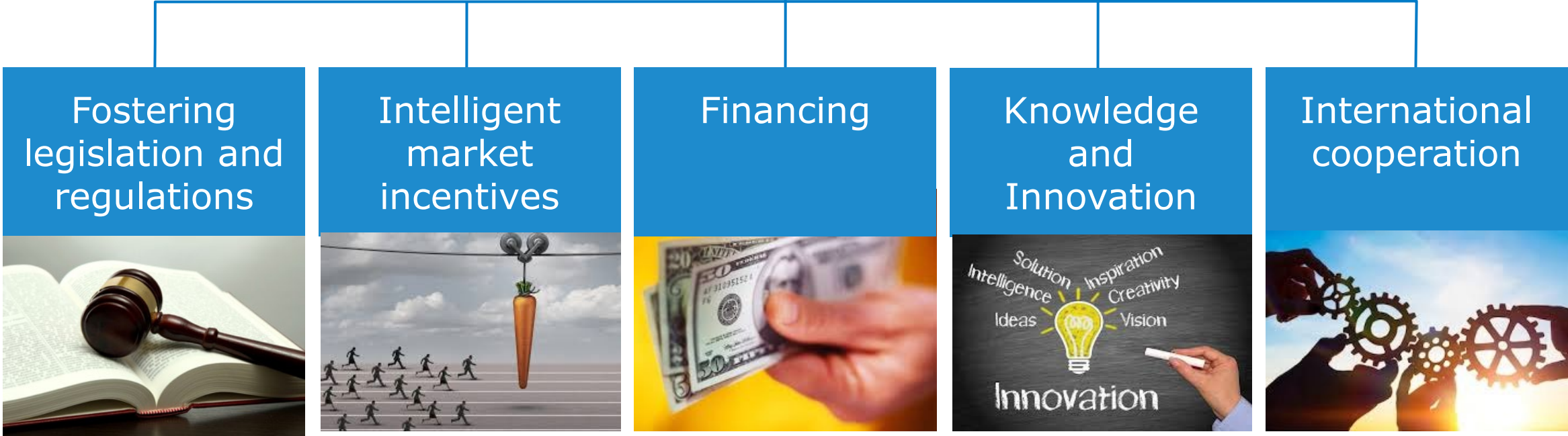
GOVERNANCE: 5 PRIORITY SECTORS



THE DUTCH POLICY EXAMPLE

GOVERNANCE: INTERVENTIONS

Interventions



Behavioural change



**Other
national
initiative:
Establishing
Acceleration
house**

Assisting individual companies to become circular (e.g., through offering CIRCO track and answering questions from companies)

Flagship projects (cooperation in product chain) together with transition agendas and regional initiatives

The worldwide use of natural resources is growing at an alarming speed. If we maintain our present consumption and production patterns, we will need three Earths by the year 2050. The circular economy can bend this curve: it closes the loops of products, materials and resources, yielding the lowest possible environmental impacts, while using renewable energy sources and safeguarding the planet's biodiversity.

In this book, Jacqueline Cramer shows how network governance can power the circular economy. Network governance is about building a coalition of partners, which all fulfill a specific function in the network and are aligned by so-called transition brokers. By complementing conventional, public governance with this new form of governance, the best of both worlds is created. Network governance strengthens the positive forces in society and increases the support for circular economy.

Cramer shares her huge experience in implementing numerous circular initiatives in the Netherlands. As a practitioner and scholar, she has identified ten guiding principles for building circular initiatives, based on network governance. These guidelines can support everyone that wants to start or expedite a circular initiative.

Jacqueline Cramer is a member of the Amsterdam Economic Board, where she is actively engaged in circular economy initiatives. She is also a professor emeritus of sustainable innovation at Utrecht University. From 2007 to 2010, she was the Dutch Minister of Housing, Spatial Planning and the Environment. She holds numerous managerial positions, among which supervisory board chair of Holland Circular Hotspot and chair of the Dutch Concrete Agreement.

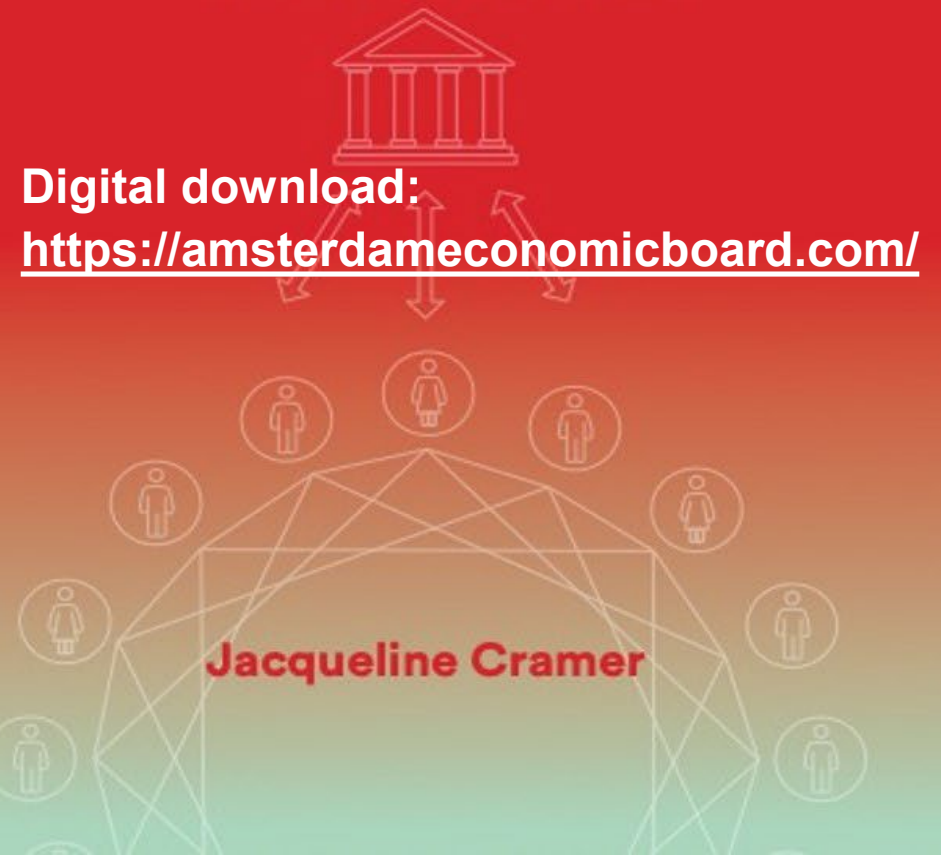


How Network Governance Powers the Circular Economy

Jacqueline Cramer

How Network Governance Powers the Circular Economy

Ten Guiding Principles for Building a Circular Economy, Based on Dutch Experiences



I have gained experiences in numerous circular economy initiatives in the Netherlands

Regional circular economy programme in:

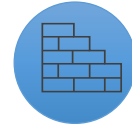
Metropolitan Region
Amsterdam

- **Two main strategies**
 - Circular procurement
 - High-value recycling and reuse of major resource streams

Initiatives of product chains



- Redesign and recycling of mattresses



- Sustainable concrete and recently also sustainable steel in the building sector



- Sustainable fashion (circular design, reuse and high value recycling)

Metropolitan Region Amsterdam : 1. Circular procurement aimed at stimulating circular products and services

Targeted approach



- **3 Communities of Practice (32 organisations)**
- **Focus on products of facility management**
- **Introduction of circular procurement requirements for each product category**
- **Scaling the approach to as many organisations as possible in the Amsterdam region**

Many ways to reintroduce a product in the economy and to redesign product chains

Repair



Reuse/redesign



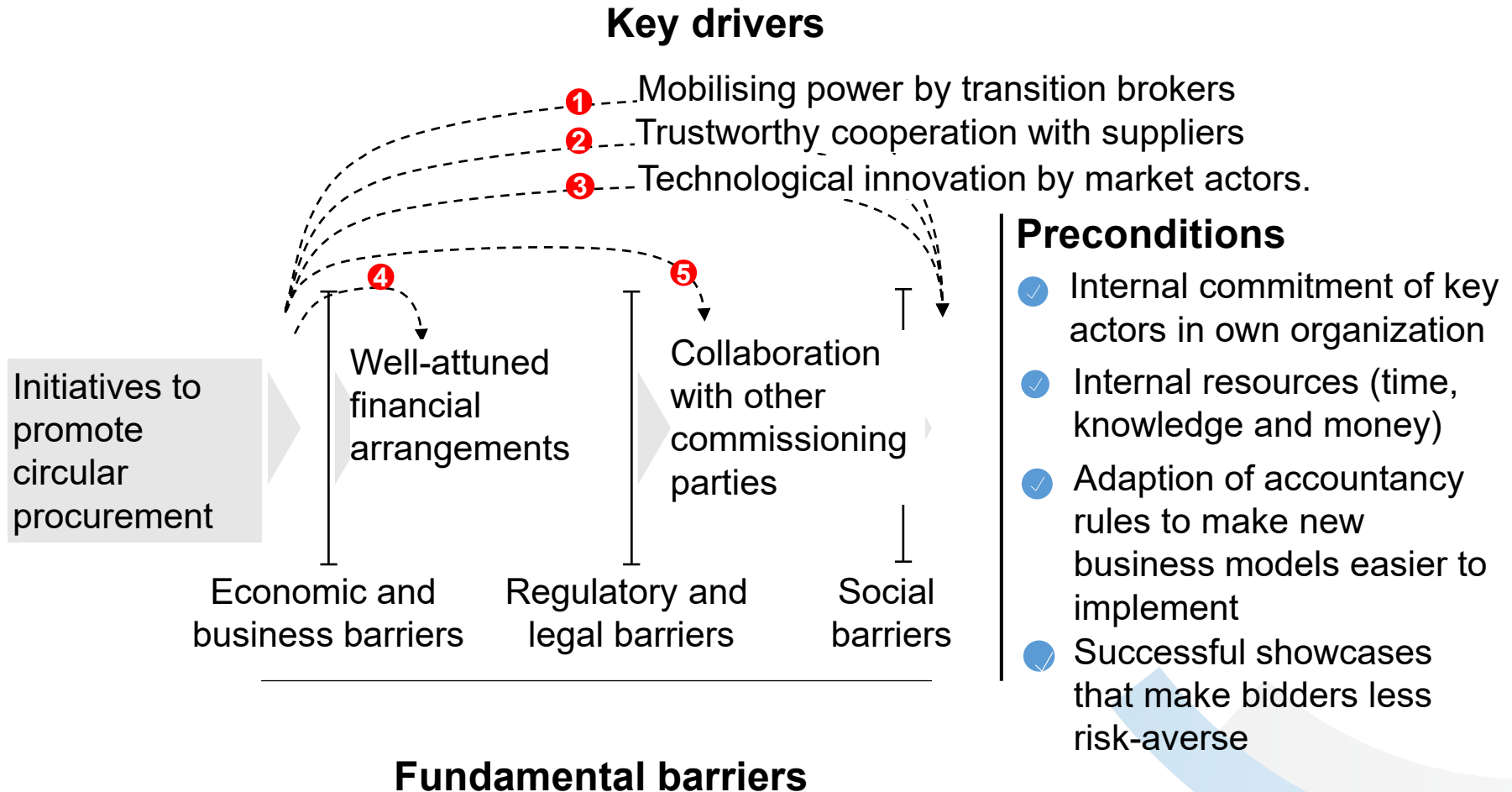
Repurpose



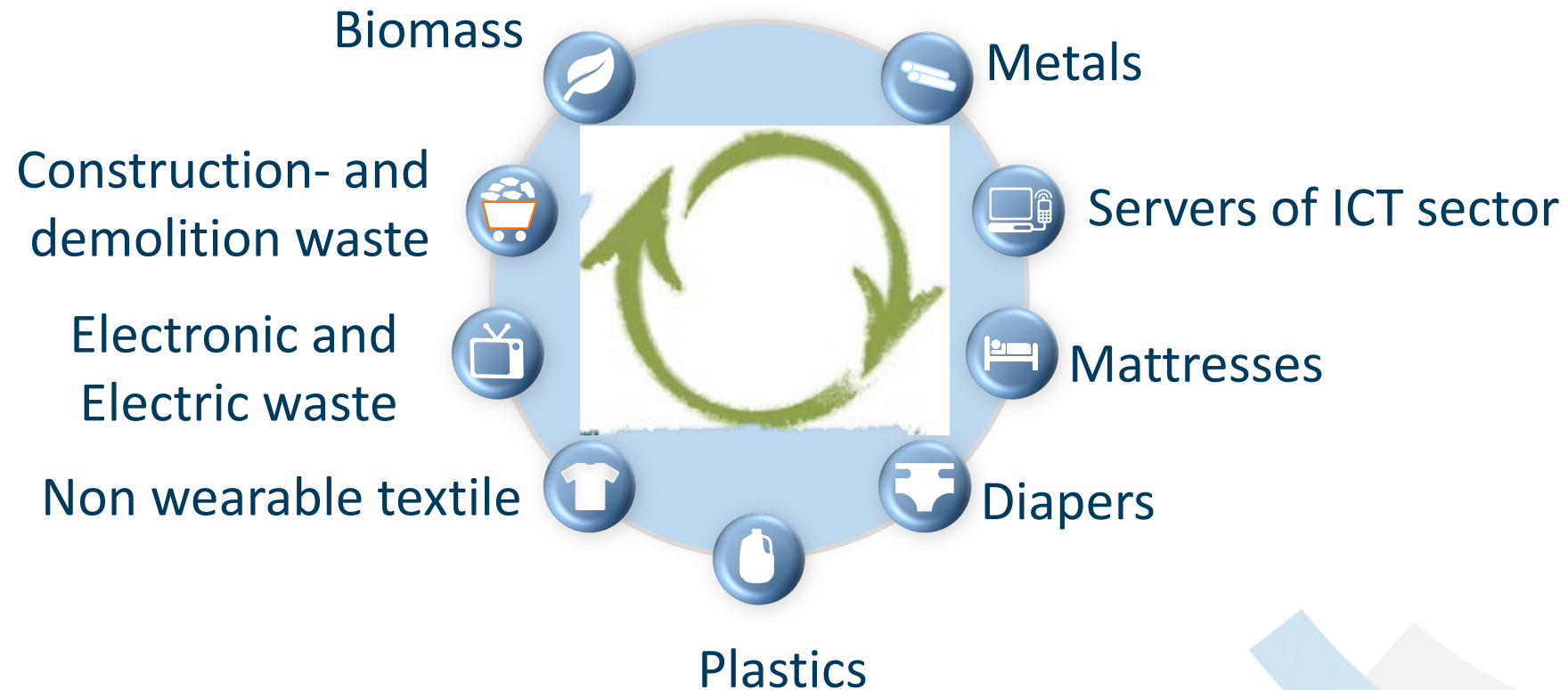
Key-Results

- **All local governments have joined forces to coordinate their procurement efforts. Targets: 10% circular procurement in 2022; 50% by 2025 and 100% as soon after is feasible.**
- **Business and educational/research institutes follow a similar, collective approach coordinated by the Amsterdam Economic Board, focused on products related to their own facilities.**
- **Joint efforts have started to use the collective purchasing power (e.g. circular solar panels made in the Netherlands)**

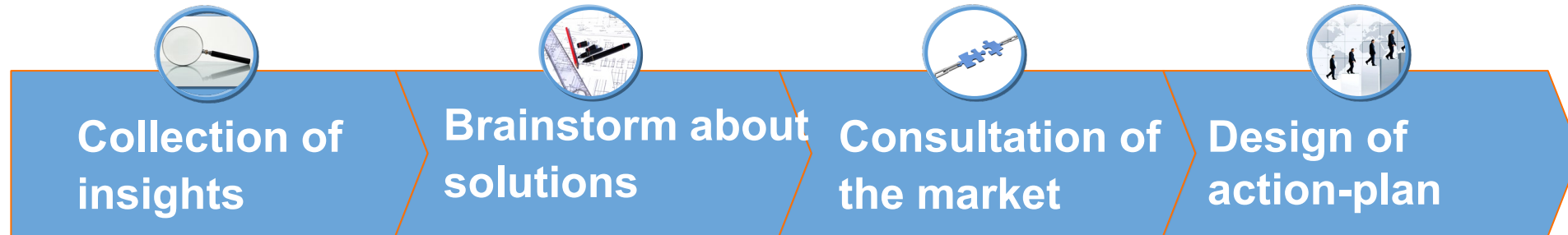
Key drivers and preconditions for circular procurement



Metropolitan Area Amsterdam: 2. High value recycling and reuse of nine priority resource streams



The approach of material streams is tailor-made



Insight in current situation on the basis of meetings with experts and documentation

Brainstorming-sessions about high value recycling/reuse of material stream

Market consultation about business interest and (if needed) support of government and other parties

Design of action-plan aimed at implementation



Case 1: High value recycling of biomass streams

Biodegradable household waste, sewage-sludge, agro-food, public greenery and waterplants



Example: High value recycling of waste streams from the food industry (multipurpose biorefinery)



Example: Closing the loop of organic waste from public green space



Case 2: Circular demolition/construction; Example: Amsterdam of 470 houses based on the Circle City approach



Case 3: Diapers recycling



Case 4: Closing the loop of mattresses: national initiative



Case 5: Textile recycling (non wearable)



Case 6: Closing the loop of plastic waste



Case 7: Electronic/Electric waste



Case 8: Servers of ICT sector



Case 9: Metal recycling



Closing the loop at regional level is tailor-made, but there are 7 generic preconditions for change

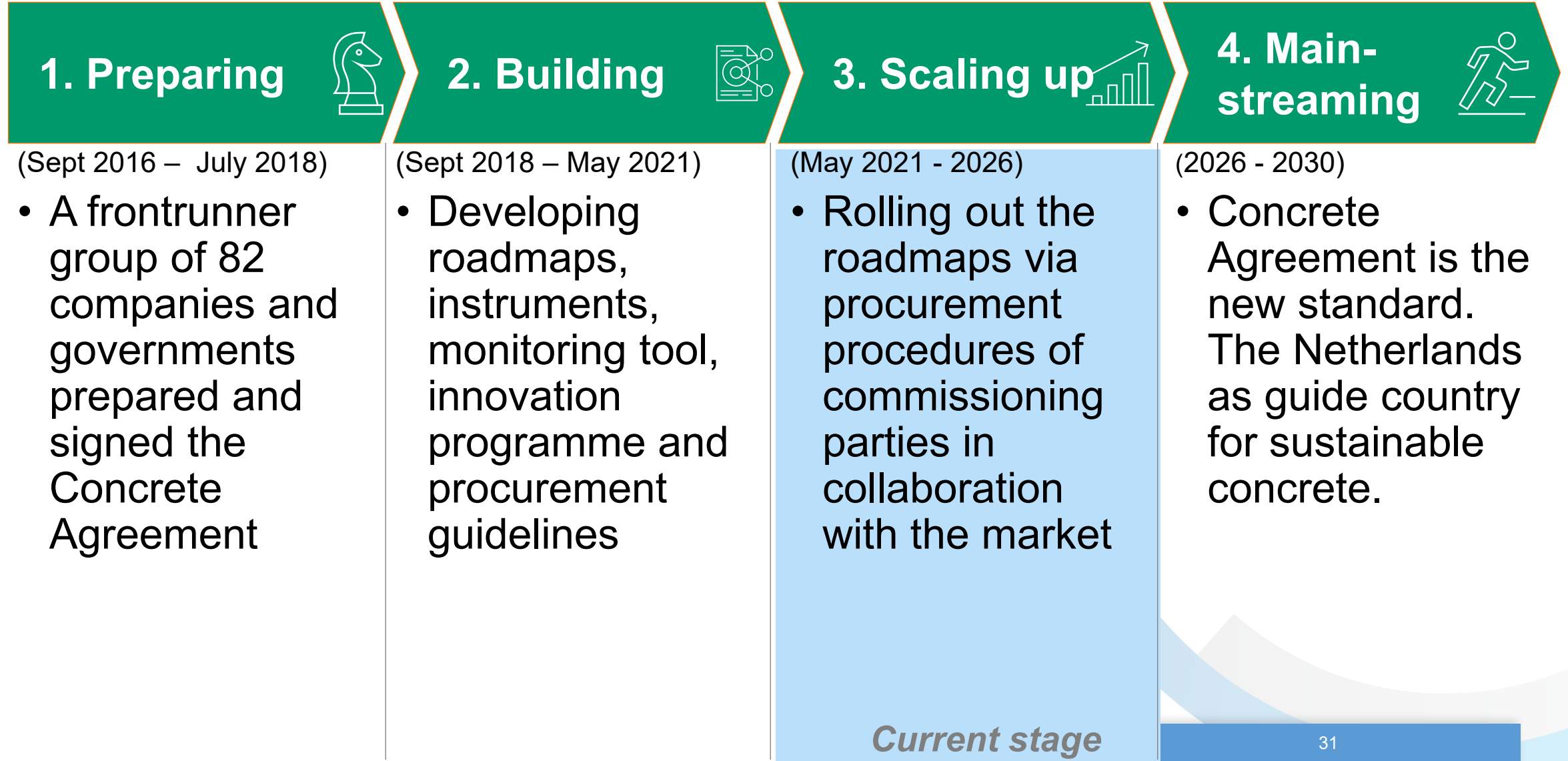
Item	Description
▪ Proper balance	▪ Finding a proper balance between closing loops at local or higher level
▪ Decrease of incineration	▪ Attuning decrease of incineration and development of circular activities
▪ Sufficient supply and clear demand	▪ Taking care of sufficient supply to be recycled and clear demand for recycled material
▪ Quality of product	▪ Securing the quality of product use and recycling
▪ Legal and technical barriers	▪ Taking away legal and technical barriers
▪ Lack of coordination	▪ Orchestrating and communicating the transition process towards circular economy
▪ Financial/organisational innovations needed	▪ Developing and applying new financial and organisational arrangements

Product chain example

Concrete Agreement: Start in 2018



The Concrete Agreement consists of four phases:



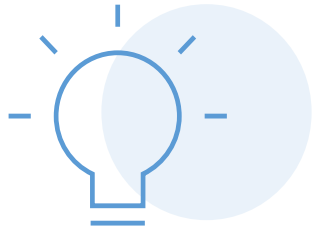
Present situation: Commissioning parties have translated roadmaps into procurement guidelines

- Core group of public and private commissioning parties has formulated **standard guidelines** in line with results of Building phase; these guidelines become more stringent in time. **Ambitions in 2030: Climate neutral concrete, 100% circularity and smart, modular and circular principles integrated in the design and construction of concrete products**
- The request of the market parties and core group of commissioning parties to the Dutch government is to **harmonise** the procurement guidelines for **all public and private commissioning parties** in order to create a level playing field in the market.

Ten guiding principles for network governance of circular initiatives

Sparking the transition

Lessons learned (1)



1

The transition starts with a shared sense of urgency. No actor can realize a circular initiative alone



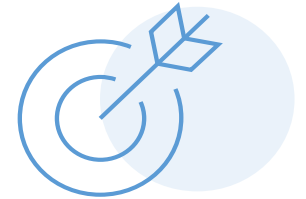
2

The implementation occurs in four subsequent, but cyclic phases (preparing, building, scaling and mainstreaming)



3

The tasks to be performed for each circular initiative are roughly the same, but case specific



4

Building a circular economy is a journey with a clear destination, but without a predetermined path

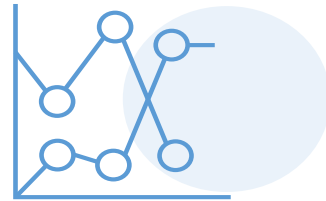
Context is key

Lessons learned (2)



5

Focus on the most promising and far-reaching innovations. Select frontrunners in industry as lead



6

Map the key drivers and preconditions for successful implementation at the start

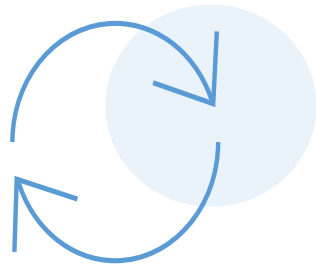


7

Identify the relevant actors and assess their willingness to join forces at the start

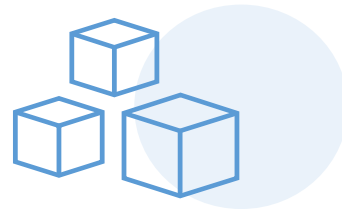
Successful implementation

Lessons learned (3)



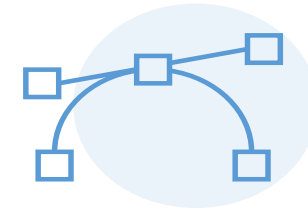
8

Develop new circular business models that benefit all consortium partners



9








Build a consortium of relevant network partners and agree upon a transparent division of labour



10

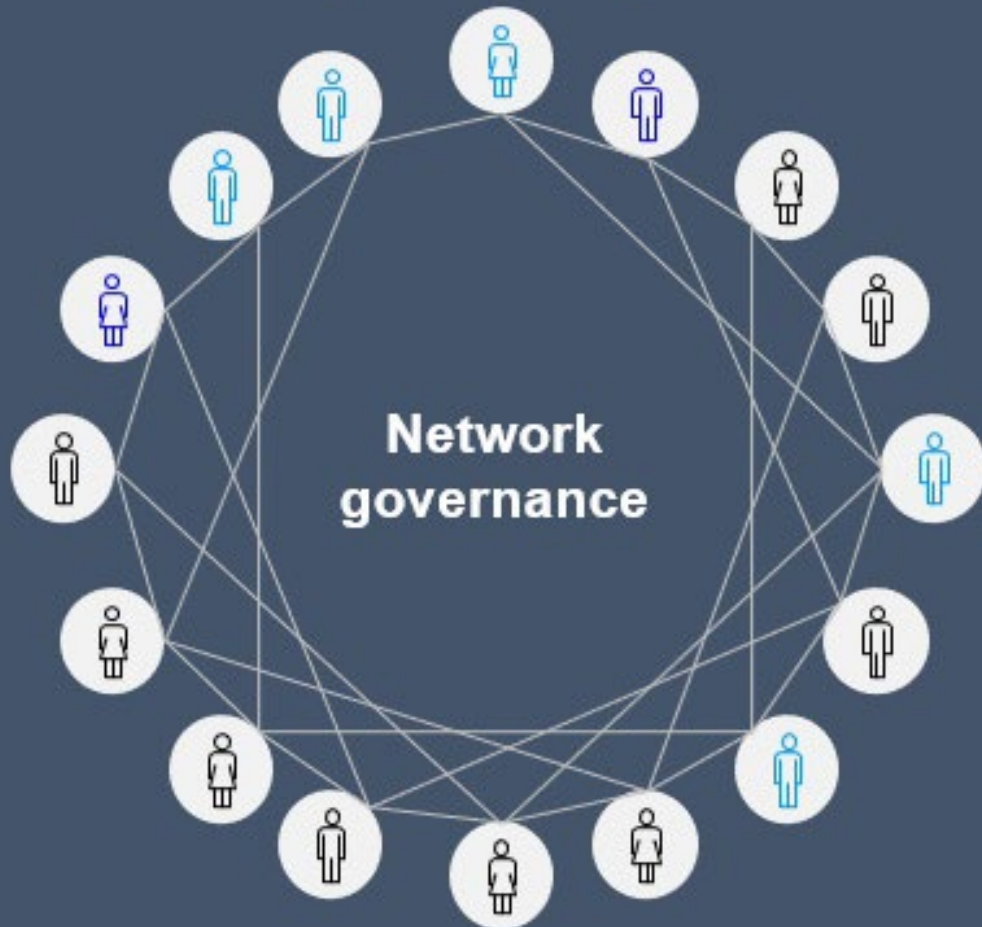
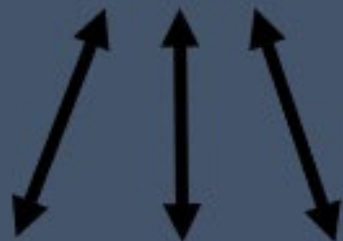
Orchestration through intermediaries ('transition brokers') can accelerate circular initiatives

Competences of transition brokers

-  To be entrepreneurial, dare to leave your comfort zone, persevere, be impatient and be willing to follow up with contacts
-  To enthuse and inspire others to cooperate
-  To think and act from a system perspective but at the same time to be pragmatic
-  To get the idea of circular economy accepted in a variety of businesses and organizations, translate the desired actions into the language of other organizations and do not appear threatening
-  To act in the collective interest and be professional enough to stand above the parties
-  To have a very broad knowledge base in CE innovations, the business environment and political culture
-  To be able to open doors at all policy level to remove barriers that need to be solved by government



Public governance



Our current production and consumption patterns are not sustainable. We need to move away from today's linear economy and transition to a circular economy. But how?

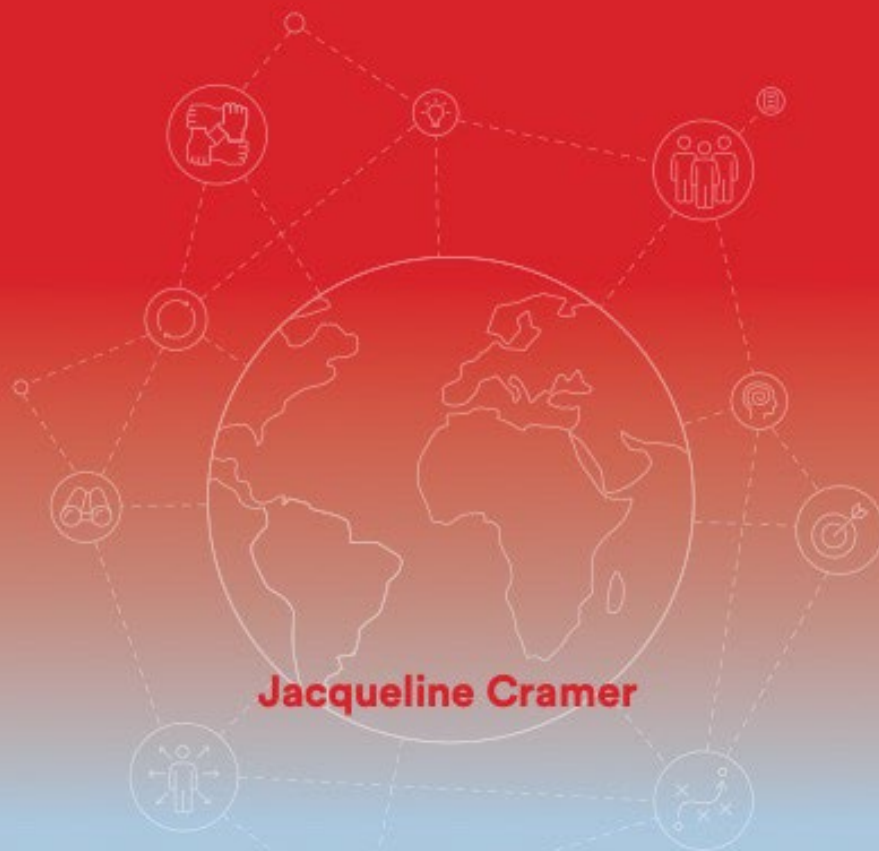
This book provides answers on how to govern the transition to a circular economy in different socio-cultural and political contexts. It's meant to help the global changemakers who are building our circular future. Author Jacqueline Cramer spoke with 20 representatives of circular hotspots worldwide, thoroughly analysed their different contexts and extracted 10 key takeaways. Everyone working on circular initiatives can use these and adapt them to their own socio-cultural and political contexts.

This book is a publication of the Amsterdam Economic Board in cooperation with the private-public platform Holland Circular Hotspot. It is a sequel to Cramer's earlier book, *How Network Governance Powers the Circular Economy, Ten Guiding Principles for Building a Circular Economy, Based on Dutch Experiences*.

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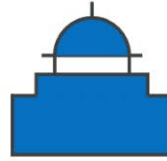
Building a Circular Future

Ten Takeaways for Global Changemakers

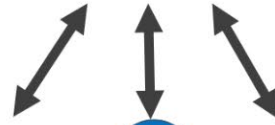


Jacqueline Cramer





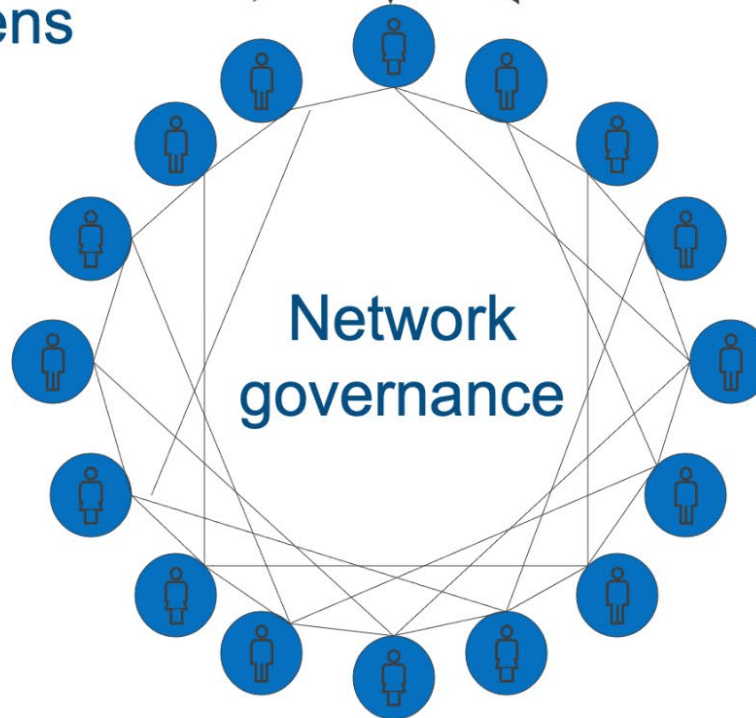
Public governance



Involvement of industry, local government, NGOs, citizens (high/medium/low)

Governmental Leadership (strong/weak)

Drivers for network and public governance



Receptivity to Network Governance (high/medium/low)



Four main avenues can be distinguished to move to a circular economy

Starting point

Government CE leadership: **strong**
Involvement industry: **medium/high**
Network governance: **medium/high**

Government CE leadership: **limited**
Involvement industry: **medium/high**
Network governance: **medium/high**

Government CE leadership: **strong**
Involvement industry: **low**
Network governance: **low**

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Network governance: **low**

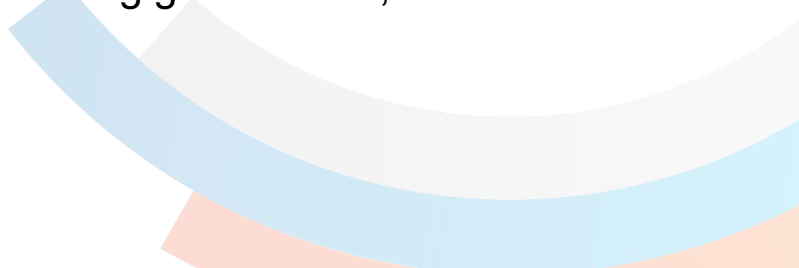
Prospects for developing CE

Conditions for starting and accelerating CE are favourable, but several obstacles should be removed to get all actors on board.

Starting CE is relatively easy. Proactive companies can start CE, but acceleration requires mobilisation of additional drivers and actors.

Starting CE is relatively easy. Government can implement policies but needs support from relevant actors for implementing top-down measures.

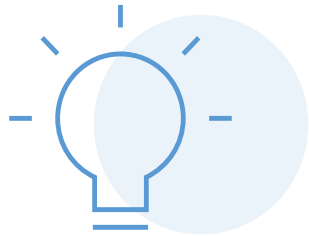
Starting CE is complicated. Kick-off possible via first movers in industry (and others), but mobilisation of additional drivers and actors, including government, is crucial.



*Thank you
for Listening!*



Ten takeaways for global changemakers(1)



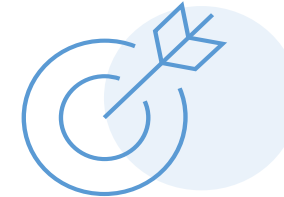
1. Combining public and network governance enhances the transition to a circular economy



2. Network governance needs transition brokers



3. Receptivity to network governance depends on the socio-cultural and political context



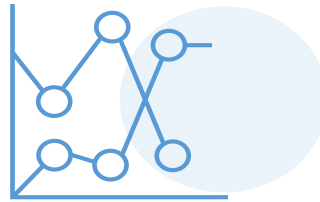
4. The governance of a circular economy is country-specific



Ten takeaways for global changemakers(2)



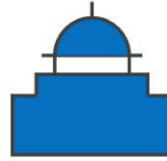
5. Effective governance of a circular economy depends on three general key determinants: leadership of government, involvement of actors and receptivity to network governance



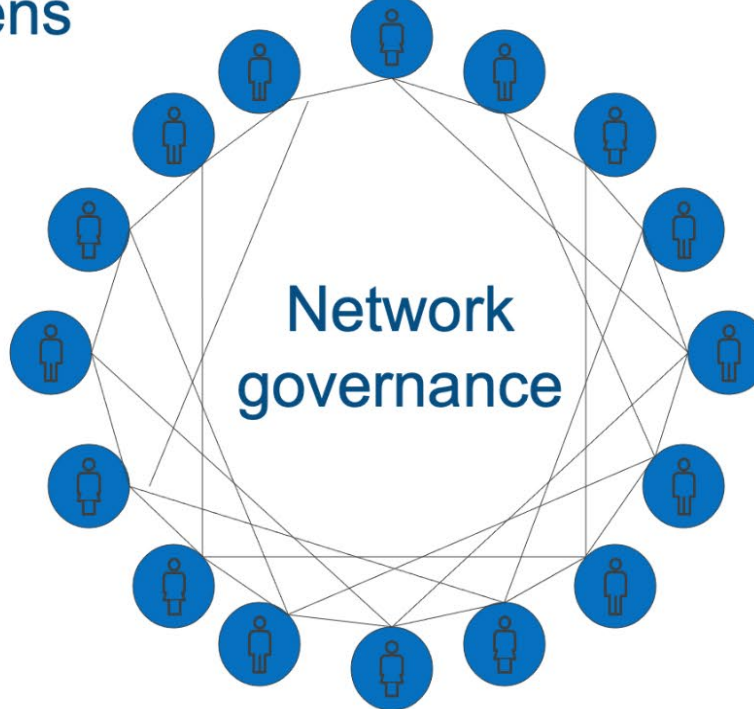
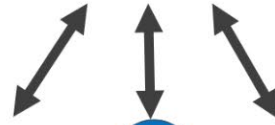
6. Specific drivers can enhance effective governance (e.g. market pressure through supranational policies; international companies committed to promoting a circular economy worldwide)



7. Utilising the strong aspects of a country's governance and mobilising the most relevant actors and adequate drivers increases the effectiveness of circular initiatives



Public governance



Involvement of industry, local government, NGOs, citizens (high/medium/low)

Governmental Leadership (strong/weak)

Drivers for network and public governance

Receptivity to Network Governance (high/medium/low)



8. Four main avenues can be distinguished to move to a circular economy

Starting point

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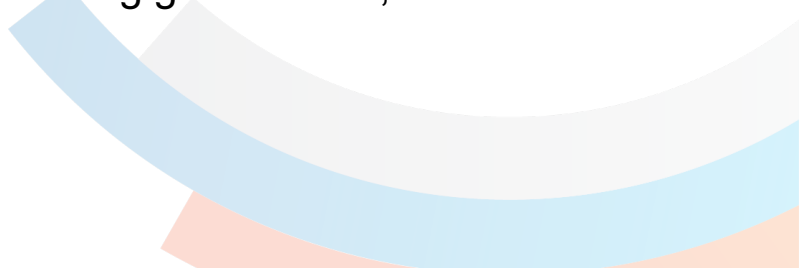
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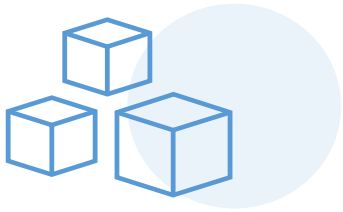
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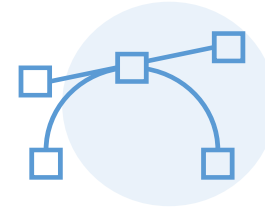
Starting CE is complicated. Kick-off possible via first movers in industry (and others), but mobilisation of additional drivers and actors, including government, is crucial.



Ten takeaways for global changemakers (3)



9. Regular reflection on progress helps to keep the right focus



10. Exchanging experiences and cooperation between countries can accelerate the worldwide transition to a circular economy