

Versnellen van de CE-transitie vanuit de maakindustrie

Harald Tepper
Regieteam UPCM, programmaleider CE Philips

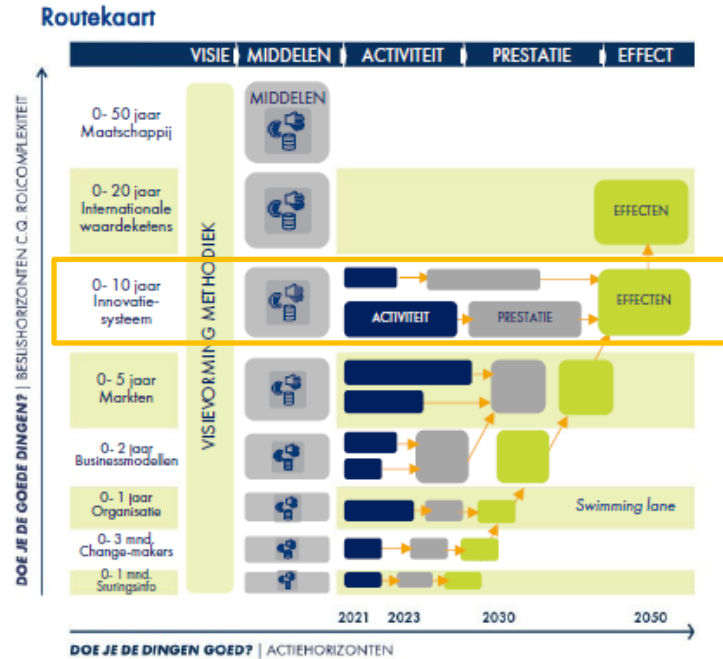
UPCM Kennisdeling
Juni 2021



Especially designed for
PHILIPS

Systeemverandering vraagt om strategische aanpak

Werkwijze UPCM



Figuur 4. Routekaart met twee dimansies.

Vijf industrieclusters UPCM

- Materialen
- Verbruiksartikelen
- Bouw en constructive
- Kapitaalgoederen
- Consumentenproducten



Kapitaalgoederen – samenwerking met PACE Capital Equipment Coalition



Capital Equipment Coalition

PHILIPS

DELLTechnologies



VANDERLANDE



ASML

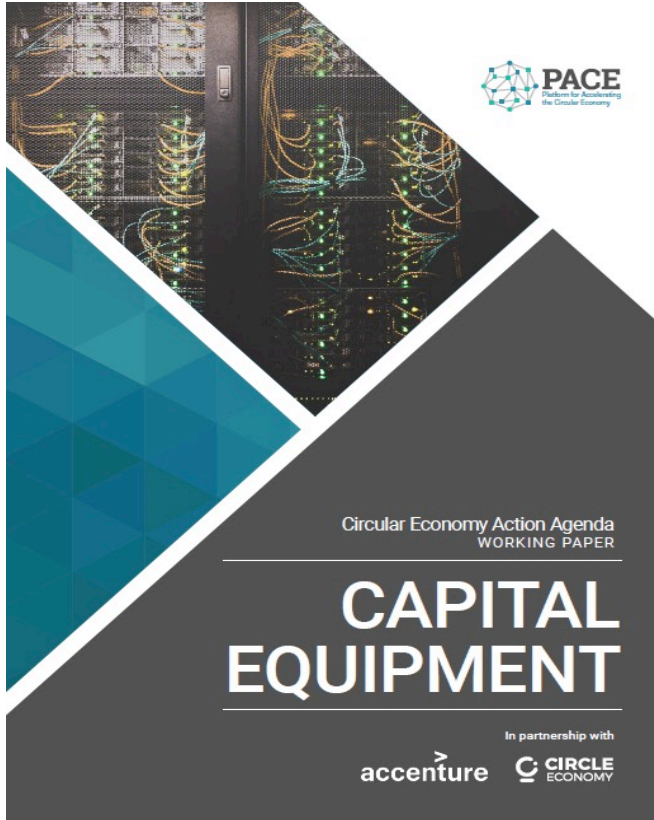


Capital equipment

- Assets with **capital value > €5,000** and user lifetime > 1 year
- Their manufacture uses **20-50% of total metal ores** extracted annually and drives long-term energy demand
- Circular economy strategies provide opportunity to **optimize equipment stocks and usage to create value**

<https://pacecircular.org/capital-equipment-coalition>

PACE Action Agenda Capital Equipment



Tien 'calls to action'

1. Provide Incentives and Guidance for Product Design for Circularity
2. Transform Customer Perception and Procurement Models to Increase Market Demand for Circular Products and Services
3. Leveraging Servitization, Guide and Support Product Use Rates and Use Life Extension
4. Increase End-of-Use Product Return
5. Enable Efficiency and Transparency in Compliant and Responsible Reverse Logistics
6. Collaborate across Value Chain and Sectors to Strategically Plan Reuse Operations
7. Increase Incentives for Investment in Reuse Technologies and Facilities
8. Enable Manufacturers to Increase Sourcing of Secondary Components
9. Leverage Digital Technologies for the Circular Transition
10. Evaluate the Contribution of Circular Capital Equipment to the SDGs

De Innovatiesystemen als leidraad

Onderzoek TNO, Universiteit Utrecht



↓
Waar werken we aan?
(Capital Equipment)

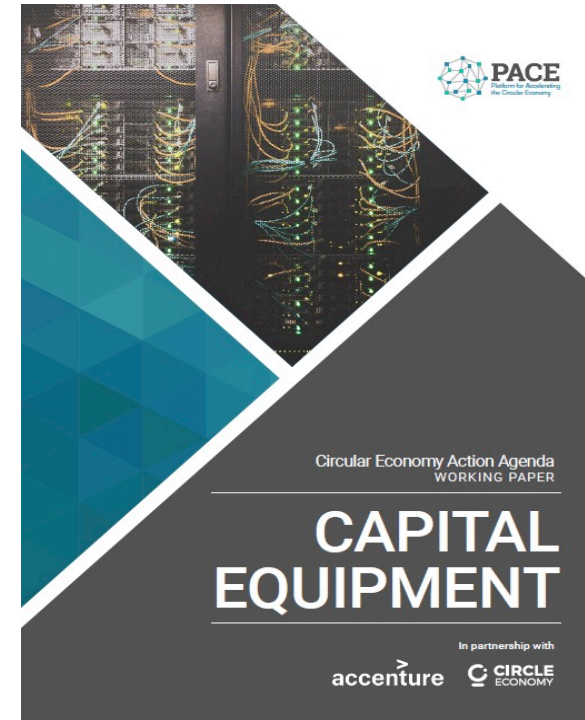
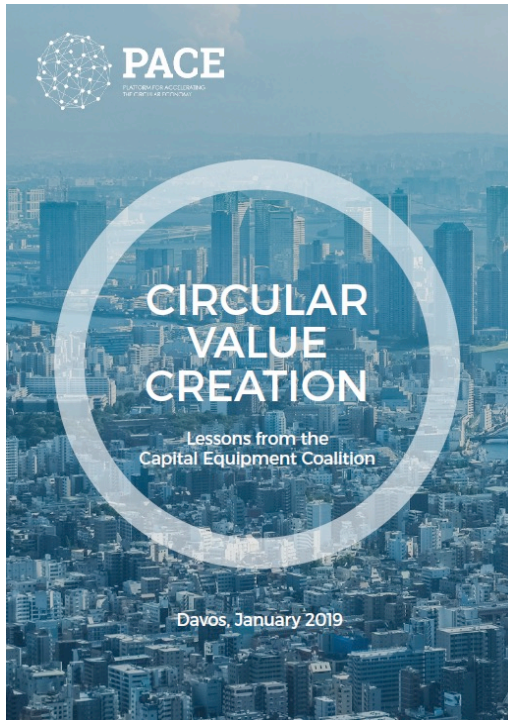
Aandachts-
punten



	Circular wind parks	PV Systems	Heat as a service	Batteries	High Tech equipment	CESI	Material passports	Method residual value	Logistic tool
F1 Entrepreneurial Experimentation	-	+	+	+	-	+	-	-	-
F2 Knowledge Development	+	+	+	+	+	+	+	+	+
F3 Knowledge Exchange	+	+	+	+	+	+	+	+	+
F4 Creation of Directionality	+	-	+	-	+	+	+	+	-
F5 Market Formation	-	-	-	-	+ -	-	-	+	-
F6 Resource Mobilisation	Not applicable								
F7 Creation of Legitimacy / Counteract Resistance	-	-	+	-	+ -	-	-	-	-
F8 Coordination	+	+	+	+	+	+	+	+	+

F2. Knowledge development

F3. Knowledge exchange

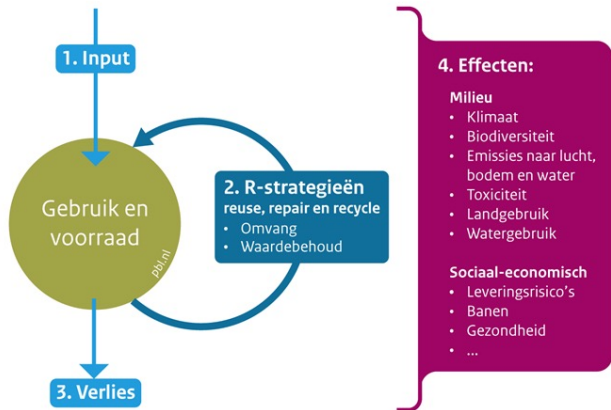


<https://pacecircular.org/capital-equipment-coalition>

F4. Creation of directionality

Metrics: UPCM levert input and Nationale Discussie

Raamwerk voor doelen en indicatoren van monitoring circulaire economie



Bron: PBL

Belang

- Eenduidige taal voor industrie, overheid, finance geeft richting
- Verschillende doelen vragen om verschillende metrics
- Monitoring en sturing vraagt duidelijke doelen per actor

Aandachtspunten

- Publiek en privaat
- Waardebehoud en materiaalstromen
- Systemen en actoren
- Prestaties en effecten



F7. Creation of legitimacy

Teaming up across the supply chain

Huidige trends in de markt

- (Langzaam) opkomende vraagsturing: Grote klanten met circulaire ambities -> OEMs -> suppliers
- Toenemende druk op transparantie in regelgeving: Materiaalpaspoorten, SCIP database, ...
- Strategische heroriëntatie van suppliers (van reactief naar proactief): van afvalverwerker, naar materiaalbank
- Opportuniteiten om in te stappen: Circo-tracks, Hubs 4 circularity, EU funding, Investment funds





F8. Coordination

Influence of government regulations and guidance on achieving the circular economy

Five key policy areas in circular Capital Equipment

- Public procurement criteria preferring circular solutions
- Harmonization of standards on circular definitions and reporting
- Trans-border shipments allowing a global circular supply chain
- Chemical regulations allowing re-use of materials, parts and systems
- Collection of used systems