

Aligning the 'right people' for a circular value chain

A method for collaboration in the Dutch consumer electronics industry

“Sustainability is not a negotiation. It's a shared problem”

- interviewee

PROBLEM

Consumer electronics are a great candidate to implement circular principles to promote a sustainable development because of:

- Competitive market with **many players** and high impact on society
- Growing demand
- Critical resource use
- Waste management challenges
- Fast innovation speed

Why a Value Chain approach

- **Systemic Transformation:** Achieving circularity requires systemic change and collaboration among diverse stakeholders, enabled by a value chain focus
- **Limited Circular Value Chain Resources:** Resources for collaborative circular initiatives in consumer electronics are limited.
- **Research result:** The research showed that the industry requires new tools and methods to foster circular value chains that leverages collaborative efforts and include supply chain redesign.

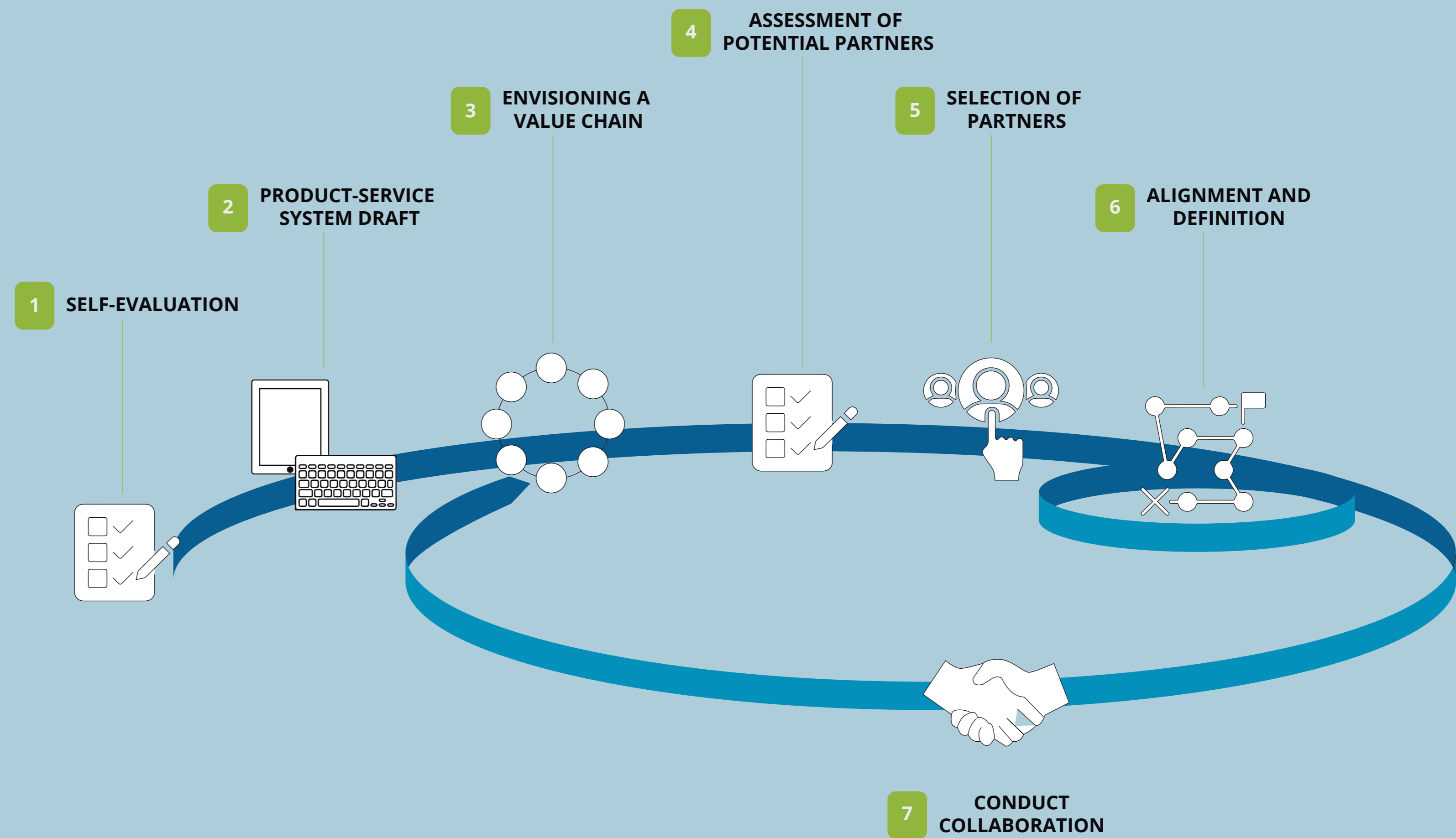
THE CVC METHOD

The Circular Value Chain (CVC) method is a **Product-Service System centric** approach that offers organizations in the consumer electronics industry guidance when setting up a new value chain for a product, following the principles of the **Circular Economy**. These value chains focus on collaboration between partners to foster the implementation of circularity in their practices and promote a sustainable development.

The method considers **design organizations and OEMs as the initiators** of the creation of the value chain and includes the rest of possible organizations further upstream and downstream. It focuses on the **assessment and selection** of the 'right' partners that could potentially fit in the necessary **roles** for an **envisioned value chain**, as well as in the **alignment** of said partners to transition into a suitable collaboration.

The method takes an **organizational approach** involving different teams in each step of the way. These teams are guided and **facilitated by an expert strategic designer** that manages the abstraction levels and the priorities of each team in order to achieve the final goal:

SETTING UP A CIRCULAR VALUE CHAIN FOR A PRODUCT-SERVICE SYSTEM



CHARACTERISTICS AND INCLUDED TOOLS

Dependent on circular maturity

By using a maturity scale defined by Acerbi et al. (2021)

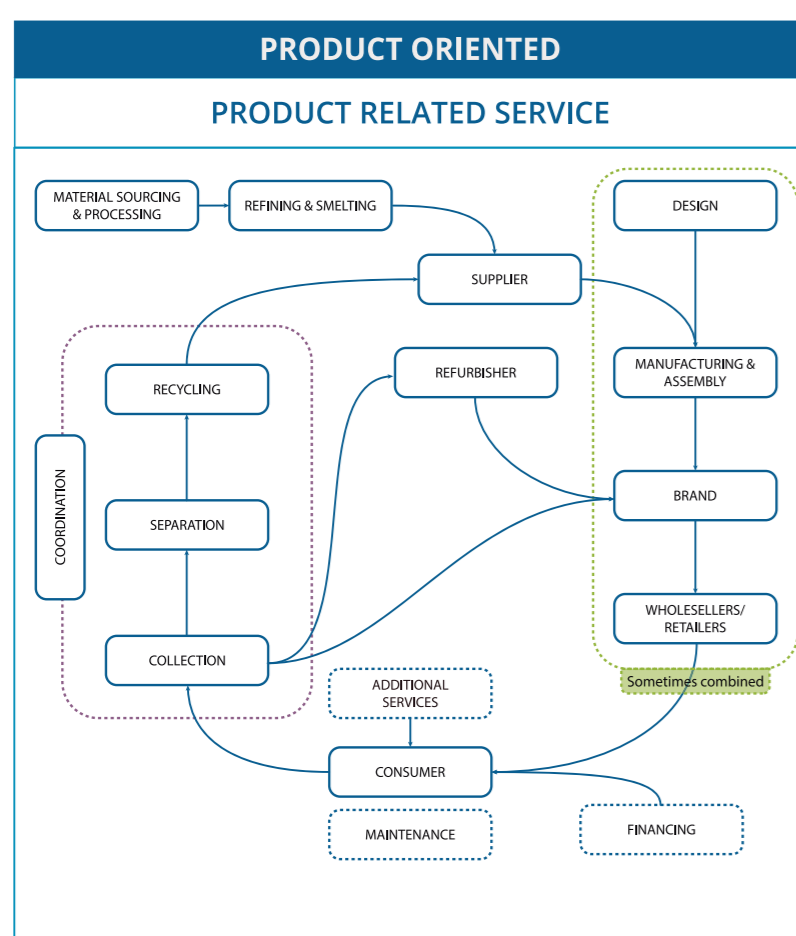
Product-Service System

The method is used to create a value chain around a Product-Service System. Tools for drafting and visualizing are offered from Moon et al. (2014)

Envisioning a value chain with Role definition

ARCHETYPES

The method uses value chain envisioning to ease the assessment of partners, and establish the roles within that value chain. For that a set of archetypes has been designed.



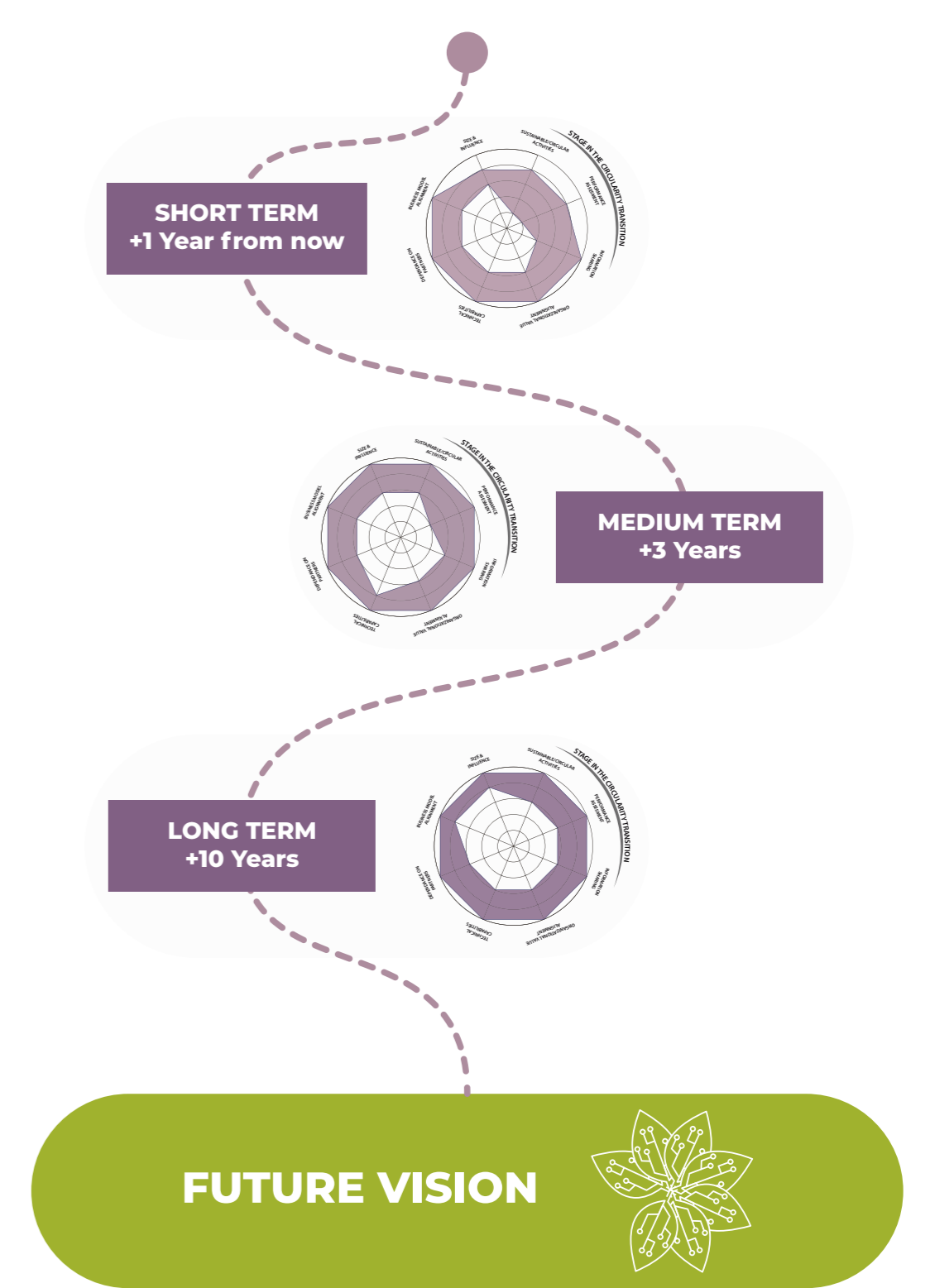
Assessment and selection of partners

ASSESSMENT CARD

Assessment of partners is done by filling a card that offers information that is relevant for all the dimensions in which organizations can align on.

NAME OF THE COMPANY	DESCRIPTION	ROLE IN THE VALUE NETWORK
	ALTERNATIVES / COMPETITORS	
STAGE IN THE CIRCULARITY TRANSITION	TECHNICAL CAPABILITIES	ALIGNMENT OF BUSINESS MODEL
Implementation of circular activities: _____ Performance assessment: _____ Information sharing: _____	ORGANIZATIONAL VALUES	Position, size and influence in the value chain: _____ HOW LONG HAVE YOU BEEN PARTNERS? _____ years DEPENDENCE ON PARTNER* HIGH, MEDIUM, LOW
*Low *Medium *High	FOCUS	

3 horizons towards a future vision GUIDELINES



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