



Federal Ministry  
of Education  
and Research



# Circular Value Creation

An International Innovation Initiative

Analytical summary of the results

#focusonpeople



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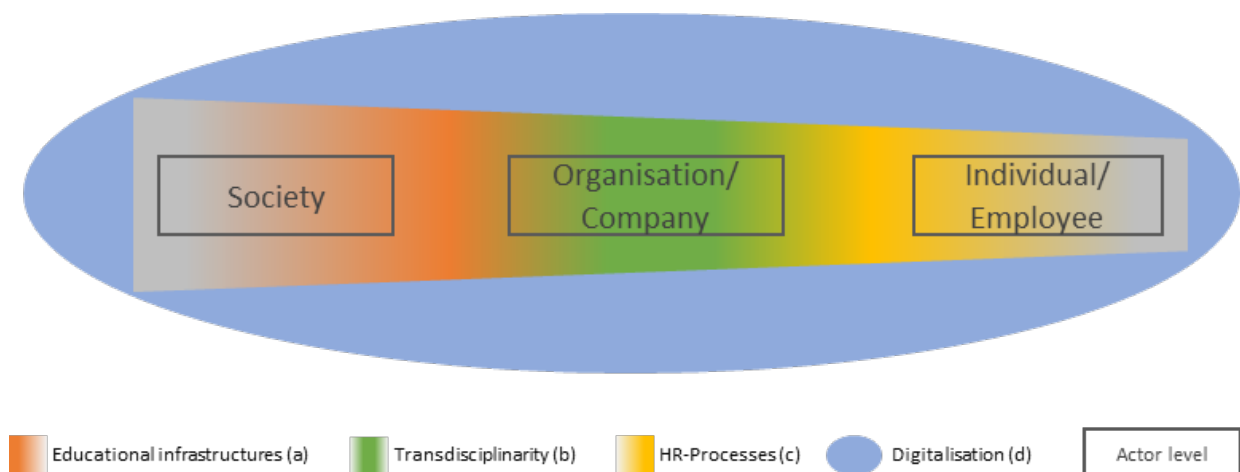


## Analytical summary of the results

Companies' workforces are a key factor for implementing a circular approach. Employees must be empowered to build and develop a circular mindset and the corresponding knowledge and skills. At the same time, corporate and cross-organisational structures need to be created and made available so that employees can use these skills effectively.

Based on the results of the Design Thinking Workshop #focusonpeople and relevant comments of the panel of experts, 3 + 1 perspectives can be identified which help achieve the above-mentioned objective and contribute substantially to circularity at employee level.

Perspectives a-c primarily refer to individual groups of actors or the relationship between them. Perspective d is of a cross-cutting nature and covers the entire field of human-centred circular economy skills development.



**Figure 1: Relating circularity fostering perspectives at employee level to relevant actor levels**

## Perspectives

### a. Educational infrastructures – access to and provision of competences (primarily knowledge) for circular value creation

This refers to the societal environment as a whole (general knowledge about and attitude towards circular value creation) and more specifically to information and education providers (relevant institutes, chambers of commerce, trade associations, etc.).

- Actors:  
Education providers, enablers, trade associations

- Dimension:  
Societal and individual circular economy mindsets; knowledge and understanding of specific job- or sector-related features
- Target:  
Basic understanding and knowledge of circularity as a mode of economic activity
- Challenges:
  - Establishing circularity knowledge on a broad basis (in the longer term → integration in general curricula), in particular in vocational training
  - Enabling the enablers (such as coaches, advisers e.g. from trade associations)
  - Opening up access to educational infrastructures at local and regional level both for companies and for individual employees

## b. Supporting transdisciplinarity

This refers to companies and their direct value creation environment; the aim is the general orientation of the organisation, its culture and mindset to the requirements of circular value creation; [transdisciplinarity meaning interdisciplinary and transformative skills, ESD (Education for Sustainable Development) key competences, circular literacy/competences, and systems thinking competences].

- Actors:  
Company, organisation
- Dimension:  
Structures / content (corporate culture, business models, collaboration, etc.)
- Target:  
Organisational mindset; internal and cross-company structures supporting transdisciplinarity and operational focus on circular value creation
- Challenges:
  - Establishing a circular value creation and sustainability mindset within the company
  - Fostering and developing the transdisciplinary skills of employees
  - Creation of structures that enable interdisciplinary exchange within and across organisations (within value creation systems; between market competitors, etc.)

## c. Incorporating circular economy skills and mindsets in HR processes

This refers to HR departments' challenge of staff development with a view to building and fostering circular value creation mindsets and skills.

- Actors:  
HR departments of companies and employees
- Dimension:  
Processes / management
- Target:  
HR processes (recruitment, staff development, ...), staff management, development of employees' circularity skills and mindsets
- Challenges:

- Enabling HR to consider circularity and transfer skills in the recruitment and development of staff
- Developing employees' circular economy mindset and competence → skills building and development
- Supporting new learning and education formats to foster the further development of employees' skills and competences (formal and informal)

#### d. Digitalisation as a circular economy enabler

Cuts across the other perspectives as digital technologies are a major driver of transformation to a circular economy; this affects the area of skills development in various forms

- Actors:  
Technology developers, education providers, companies
- Dimension:  
Digital technologies both as a specific subject and a tool of skills development
- Target:  
(a) Circularity skills and understanding acquired by employees through digital forms of learning and development  
(b) Technical skills / data literacy to implement circular economy principles and circular processes
- Challenges:
  - Teaching/developing circular economy data literacy
  - Digital, AI-supported skills development
  - AI-supported individual learning based on circular economy skills models