



CERCOM:

Circular Economy in Road COnstruction and Maintenance

Collaborative session 1: Linear to Circular economy















Content of this session

- 1. Reminder of the interactive good practice guide
- 2. Recap of the assessment framework for maturity in circular economy
- 3. Putting the assessment framework into practice
 - Practical considerations for applying the framework
 - Look at one theme in detail (ambition in circular economy)
 - Small group discussion of current levels and input of assessments
 - Discussion of results
- 4. Advantages of this approach















Interactive Good Practice Guide

CEDR Transnational Road Research Programme Call 2020: Resource Efficiency and the Circular Economy

Sweden, Switzerland and the United Kingdom



Good practice guide and case studies

June 2023

Research Driven Solutions Ltd. (RDS), Ireland Delft University of Technology (TUD), Netherlands Maple Consulting / ITEN, United Kingdom Danish Technological Institute (DTI), Denmark













D2.1 (May 2022) 95 pages 35,000 words

Good practice inventory of current systems and procurement methods



D4.3 (May 2023) 33 pages 13,000 words

Case study III – NRAs Strategic approach to transitioning to CE



Definitions

Sustainable

Product labels

Material indicator

Case studies

Circular road partner programme

MI-ROG

Responsible

Sweating the pavement asset sourcing

Pathfinder projects

https://cercom.project.cedr.eu/wp-content/uploads/2023/06/CERCOM-Good-practice-and-case-studies.pdf









culture

Organisational

CB'23







CE Ambition

Embedding

KPIs

Standards

Supply chain

Business model

Procurement

Stating the aims of the organisation in relation to CE and providing internal and external visibility of this commitment

The actions being taken to embed CE in the organisation's thinking and activities

Implementing metrics to understand use of resources and monitor progress towards greater efficiency

How relationships with the supply chain promote improvements in resource efficiency

The degree to which standards support progress towards CE while managing risks of innovation

How value is ascribed to more circular options in decision-making

The mechanism by which the supply chain is incentivised to offer more circular and resource efficient products

















Signposts material for each CERCOM framework theme

Definition of the theme

Up / down arrows to navigate between themes

Project team summary of good practice – a checklist of things to consider

Topics covered, relevant to the theme

Hyperlinks to

document

sections in the

RESEARCH DRIVEN SOLUTIONS

Embedding CE (|

economy and resource officiency

The actions being taken to embed CE in the organisation's thinking and activities. This includes staff roles, knowledge and behaviours, accountability, and openness to innovation.

Topics

<u>CERCOM framework for assessing progress towards circular economy</u>
 – a framework proposed by this project for self-assessment, by road authorities, of their progress in implementing the principles of circular

A review of the implementation strategies being adopted in Denmark, ireland, Norway, Switzerland Netherlands and UK, including recommendations on good practice

Other approaches for assessing progress in circular economy:

- BS 8001:2017 Framework for implementing the principles of the circular economy in organisations
- Platform CB'23

Related initiatives more focussed on carbon emissions:

- Science-based targets
- CO₂ performance ladder

Summary of good practice

- Select a suitable framework and establish a baseline of current organisational performance.
- Put in place further data collection as needed to support monitoring key activities.
- Commit to actions aimed at increasing circularity and resource efficiency.
- Appoint champions in key areas of the organisation to drive progress and develop competency profiles for the skills needed.
- 5. Communicate strategy throughout the organisation.
- Set corporate and personal objectives to drive innovation and change.







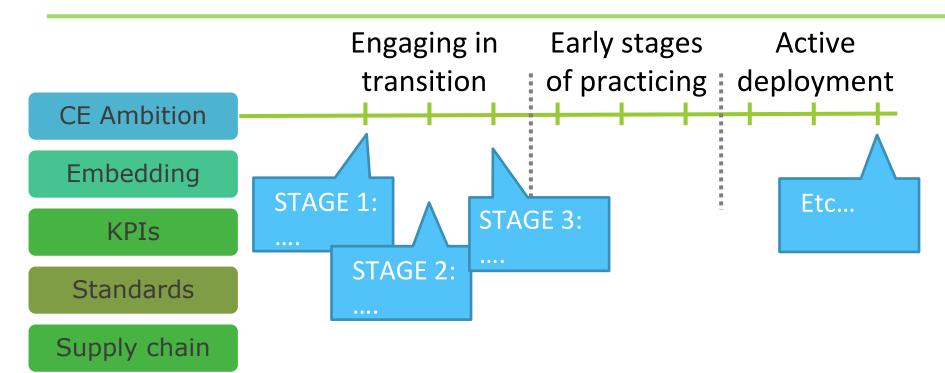








Introducing the maturity assessment framework





Business model

Procurement











CERCOM Framework for assessing progress in transition to circular economy

ASSESSMENT RUBRIC

	Engagin	g in transition	to RECE	Early st	ages - practici	ng RECE	Activ	ve deployment of	RECE
Theme	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9
	NRA has not committed to a transition to CE.	a transition to CE but is			Policy to transition to CE has been published. Targets for transition yet to be identified and developed.		Strategy for transition and route map under development. Targets for RE and CE elements are in place	Corporate strategic plan and route map for the transition are published.	Strategic plan for transition & route map with timeline in place and embedded in the NRA. Targets for RE and CE, monitoring systems to track progress are developed.
	No staff awareness of CE.	Low staff awareness of CE and how it affects their roles. No innovation in RE and CE		Growing staff awareness of CE and how it affects their roles. Initiatives are starting to occur that support innovation to deliver CE. Ad-hoc champions in some project teams, but not widely spread across projects		on commitment to CE. Corporate commitment to innovation initiatives to deliver CE. Champions in project teams are beginning to drive through change. Supporting instruments, tools and staff training are being	Champions in project teams are beginning to drive through change, are recognised, and supported by senior management. Supporting instruments, tools and staff training are fully developed and implemented. Business and personal objectives beginning to be developed.	"Director of CE", who are supported by champions in key roles. Supporting instruments, tools and staff training are fully developed and implemented. Progress in development of business and personal objectives for delivery of RE and CE.	supported by champions in
•	Inventory of the	Work on creating up-to-		Systems to monitor	RE & CE are		A common data standard has	A common data	
· · · · · · · · · · · · · · · · · · ·	resources in use is incomplete, not up to	date inventory is underway.	available of the resources in use.	improvements in RE & CE are being	monitored internally. Supply chain		been developed		
	date.	•	Tracking occurs of	developed.	involvement	required to pro-			
	No tracking occurs of	of selected and	selected and isolated	Recognition of need to	increasingIncreasing	Net			
	selected and isolated	isolated aspects, e.g.	aspects, e.g. RAP or	work with supply	detailed invent				
	aspects, e.g. RAP or	RAP or CO2.	CO2.	chain.On-going work	12-				

















Example of an assessment, May 2022

	Engaging in transition	Early stages of practicing	Active deployment
CE Ambition			' '
Embedding			
KPIs			
Standards			
Supply chain			
Business model			
Procurement			









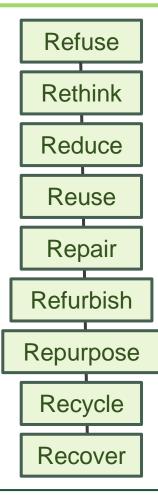






Practical considerations for applying this approach

- Select an appropriate scope
 - Assessing the whole organisation may be too ambitious
- Involve personnel with knowledge of current practice
 - Consider external participants (supply chain and local stakeholders)
- Engage to draw out knowledge and reach consensus on current level
 - Workshops can be effective
 - List activities taking place and milestones achieved
 - Keep focussed on circular economy (if that is what you want to probe)
 - Record narrative and scoring

















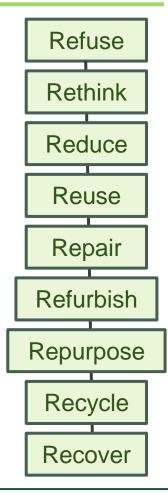
Examine one theme: CE ambition

Definition of this theme:

- Stating the aims of the organisation in relation to CE, and
- Providing internal and external visibility of this commitment

Discussion in groups (10 min):

- 1. Is circular economy considered in your organisation?
- 2. What about resource efficiency?
- 3. Are you taking steps to improve CE / RE?
- 4. Do you have a policy for this?
- 5. Do you have, or are you considering KPIs / targets?
- 6. Do you have, or are you considering a strategy / roadmap?













CE ambition – at what level is your organisation?



Engaging with transition

- 1. NRA has not committed to a transition to CE
- 2. NRA has committed to a transition to CE but is yet to define CE within the context of its operations
- 3. NRA has committed to a transition to CE and a definition for what CE means in practice is in place

Early stages of practicing

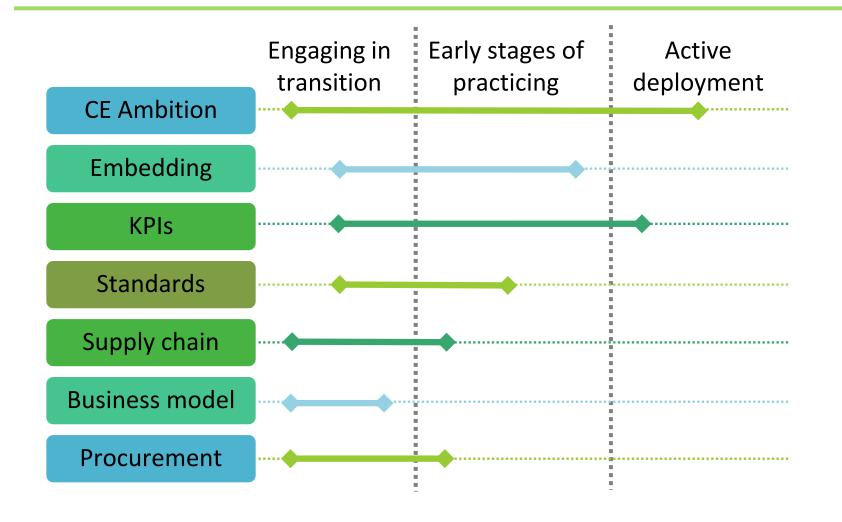
- 4. Policy to transition to CE and improve RE are under development
- Policy to transition to CE has been published.
 Targets for transition yet to be identified and developed.
- 6. Policy to transition to CE has been published. Targets for RE and CE elements, some developed & others under development

Active deployment

- 7. Strategy for transition and route map under development. Targets for RE and CE elements are in place
- 8. Corporate strategic plan and route map for the transition are published
- 9. Strategic plan for transition & route map with timeline in place and embedded in the NRA. Targets for RE and CE, monitoring systems to track progress are developed

CERCOM

Comparison with initial assessments, May 2022



6 participating NRAs:

Vejdirektoratet, DK
Transport Infrastructure
Ireland, IE
Statens Vegvesen, NO
Swiss Federal Roads
Office, CH
Rijkswaterstaat, NL

National Highways, UK







Advantages of this approach

- Increased circularity / greater resource efficiency is needed for:
 - Reducing in carbon emissions
 - Reducing waste
 - Becoming more material resilient
- We need to get on an improvement trajectory
 - Measurement and engagement are the first steps
 - The supply chain will only invest in new solutions where the standards, business models and procurement incentives point to it
- The seven themes are all important aspects for success















Suggested next steps

NRAs commit to assessing their progress using the CERCOM assessment framework

Each participating NRA will:

- Identify a part of their organizational activity for assessment
- Hold a workshop to assess each theme and record progress and narrative
- Carry out further consultation as necessary
- Identify actions and time scales relevant to your NRA agree an action plan
- Set a timescale for review and reassessment
- Share experience with other CEDR members

Assessment is only the START of the process













Framework for assessing progress in transitioning to circular economy

This framework allows road authorities to assess their progress in implementing the principles of circular economy and resource efficiency. It was produced as part of the CERCOM project (deliverable D2.1), funded by CEDR as part of the 2020 transnational research programme. Further details at: https://cercom.project.cedr.eu/

> Guidance Please see the attached guidance for application of the framework:

< Previous theme

stage

< Previous

Theme selected:

Embedding CE

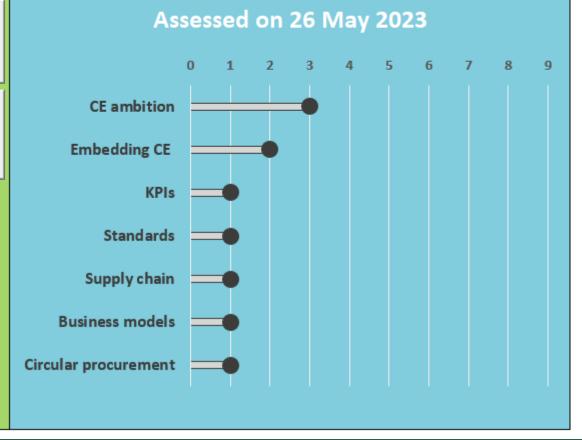
Maturity in this theme:

Next > theme

Next > stage

This stage corresponds to:

Moderate staff awareness of CE and how it affects their roles. Ad-hoc initiatives to support innovation to deliver CE.











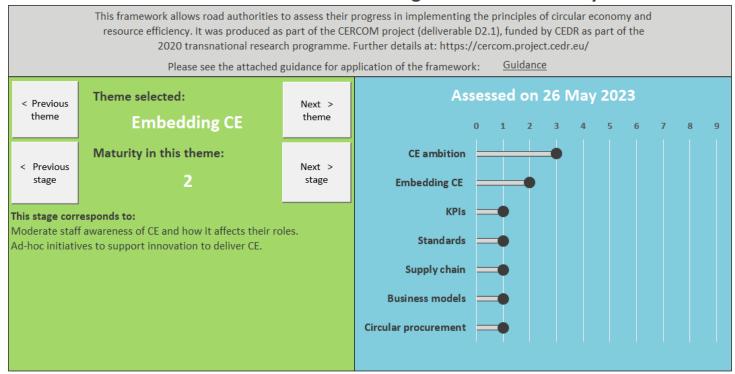




Accessing resources



Framework for assessing progress in transitioning to circular economy



https://cercom.project.cedr.eu/wp-content/uploads/2023/10/CERCOM-D5.1-Resource-Pack-to-Support-NRAs-Embed-RE-CE-Principles.pdf

The Excel tool, video and other resources are on the project website

Follow links in ANNEX B of the RESOURCE PACK under the organisational capability heading



