

# Expert workshop Planning and decisionmaking guidelines

Martin Visby Buchard, Roskilde University (DK)



## **Purpose**

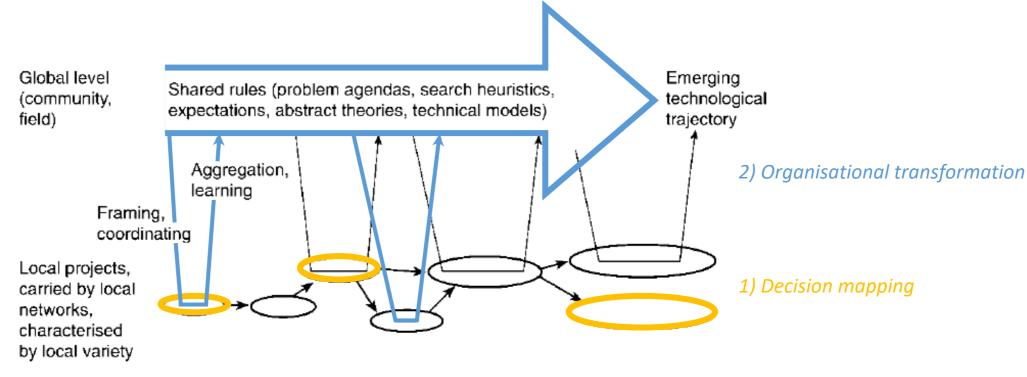


To address the implementation of circular economic practice in decision-making and planning of construction and demolition projects. The tool is developed in two parts:

- 1. A **framework to map key decisions** across the phases of demolition and construction, addressing the planning gap between demolition and construction projects.
  - a. Indicate when decisions should be taken, which stakeholders should be involved, and what knowledge inputs are needed during different stages of the process.
  - b. Address how relevant CityLoops-tools can be incorporated in the planning process supporting decision-making.
- 2. A workshop format addressing organisational change in operationalisation of circular planning and decision-making targeting three levels: i) strategy, ii) operations and iii) capacity building

## Relation between project level and strategic level





Geels & Raven, 2006

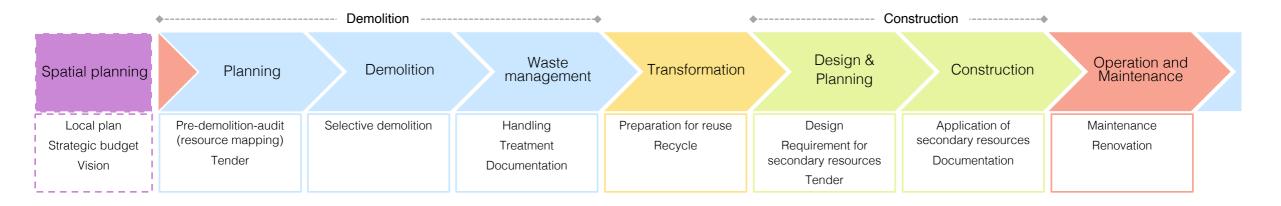
Figure 3. Technical trajectory carried by local projects



# 1. Decision-making and planning in C&D projects







Stakeholders	Område Nedrivning					Transformation	Transformation		Вуя	Byggeri		Brug			
	Samlet program	Program	Forundersøgelse	Udbud	Miljøsanering	Nedrivning	Håndtering		Ideoplæg	Program	Budget	Projektering	Udbud	Udførelse	D&V
Byudviklingsteam															
Ejendomscenter															
Vej & grønne områder															
Byggesag /myndighed															
Miljøafdeling /myndighed															
Affaldsteam /myndighed															
Planlægger															
Byråd			<b>\</b>	/lap ł	key p	racti	ces a	nd tools to	o pro	mot	e:				
Høje Taastrup C				-				d documenta							
KAB (developer)						potei	iliai aii	u documenta	tion to						
Pelcon (rådgiver)				appli	cation										
Søndergård (entreprenør)			•	Interi	nal con	nmunio	cation t	for po <mark>liti</mark> cal m	andate	2					
Norrecco															
Casa (entreprenør)			•					on (procedure	es,						
Unicon (leverandør)				requi	remen	ts, exe	cution,	/appli <mark>cat</mark> ion)							
COWI															
(rådgiver)			Miljøscreening (eksisterende materialer												
		Formulering af krav til miljø gennem	- risiko -, geoteknik, jordforurening)			økonomisk incitament i tage ressourcer ud -								Koordinering af logistik	
Beskrivelse af beslutninger	af byråd - vejledning fra myndighedsfunktioner	vejledning (kommune som mellemled)	Økonomisk risikovurdering (håndtering af risiko ved		Anvend screeninger, beregninger og kortlægninger i udbud	indvolver aftager (artiket eks.)	Anbefal anvendelse ifbm, anvisning							omkring brug af materialer Opfølgning på	
	Dialogmøde med eksterne	involver aftager af byggematerialer	brug af genanvendte materialer), forsikring kommune:			samarbejde med kommune								udbudskrav	
			Ressourcekortlægning (arkitekt, anvendelse)												
City Loop tools		1) LCA	2) Screening for				9) Material Passport					9) Material Passport			
CityLoop tools		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	selective demolition				(classification)					(Revit - BIM)			
Viden/lovgivning/ dokumenter			Miljøscreening ressourcekortlægning												
1	Mile	pæl	Milep	æl					M	l epæl			M	lepæl	
Mi <mark>le</mark> pæl	Indarbejdet CØ samlet program parameter		Ressourcekor med aftagere	tlægning					At konkret tænkes ind	e materialer			Krav til spe anvendelse ressourcer	e af	

## Decision-making & planning - lessons learned in Høje Taastrup







## **Decision-making & planning**

- lessons learned in Høje Taastrup

### Concrete

**1088 tonnes** recycled aggregate were used to cast the foundation with 100% recycled aggregate

## Soil

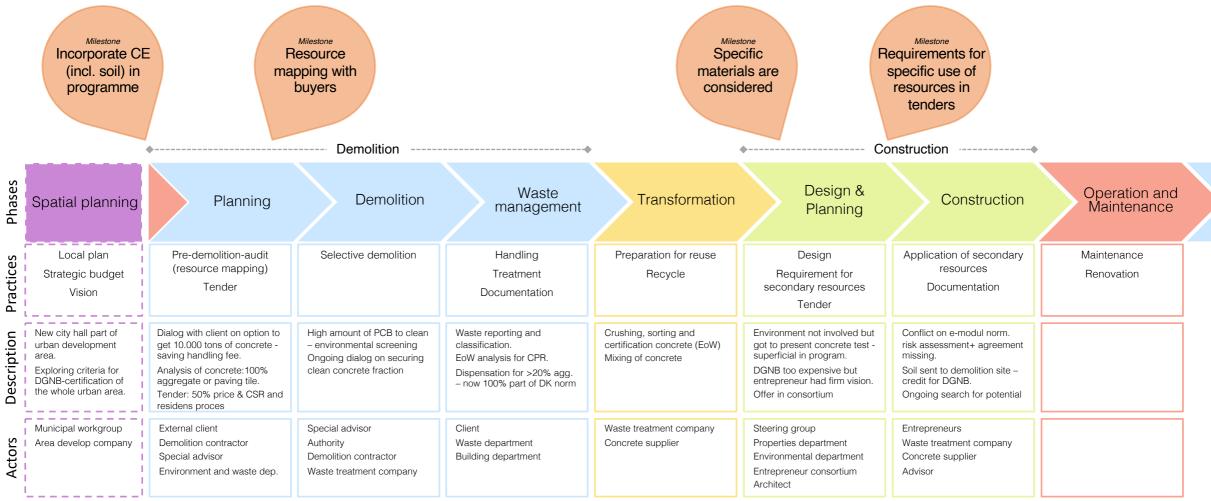
**9000 tonnes** soil were transported from the town hall to Taastrupgaard, which corresponds to approx. **250 trucks.** 

Total of approx. **770 km driving** with the soil instead of approx. **12,900 km** (normal circumstances)



## Decision-making & planning - lessons learned in Høje Taastrup







# 2. Organisational Transformation



## Strategy

how to implement circular economy in strategies to give mandate and obligate all parties to work in this 'circular' direction together across disciplines

## Operations

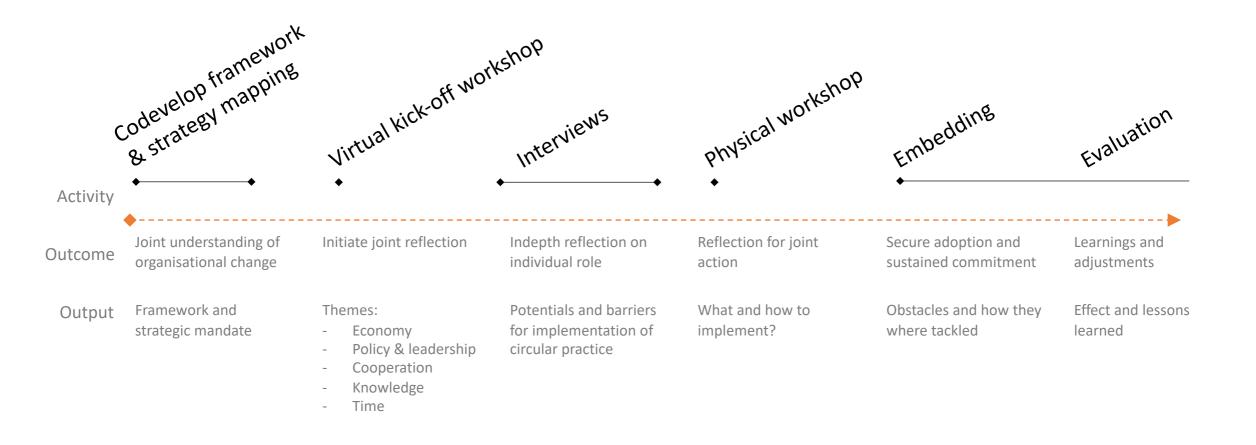
how to operationalize a 'doing your normal job in another way' based on the strategic/political mandate

## Capacity building

what new knowledge and competencies are needed to support this organizational shift

## (Co)developing an approach for organisational change





## (Co)developing an approach for organisational change



#### **Current situation**

At what stage is the city strategically? E.g., establishing political vision / Operationalisation of vision

What are the limits circular mandat? E.g., from project to project / specific geografic area

#### Challenges

Cross-cutting cooperation	Knowledge and Competences	Time	Economy	Policy and management

#### **Development actions**

How to promote circular economy in construction & demolition and urban development (soil and construction materials)?

STRATEGIC LEVEL

**OPERATIONAL LEVEL** 

## Strategy mapping (current situation)



A mapping in Municipalities of policies, strategies and plans that support circular practice in construction & demolition and city development.

HTK (example)	Climate mitigation	Construction waste	Sustainable procurement	Value chain collaboration
Wasteplan 2014- 2024		Х		
Climate actionplan 2020	X			
Procurement strategy 2020			X	
Procurement actionplan 2020			X	
Development strategy 2032	X			
Climate actionplan 2030	X	X	X	X
Housing policy 2021-2033	X	X		

## Strategy mapping (current situation)



	Climate mitigation	Construction waste	Sustainable procurement	Value chain collaboration
Wasteplan 2014-2024		Х		
Climate actionplan 2020	X			
Procurement strategy 2020			X	
Procurement actionplan 2020			X	
Development strategy 2032	X			
Climate actionplan 2030	X	X	X	X
Housing policy 2021-2033	X	X		

	Climate actionplan 2030							
Nr.	Action	Goal 2030	Goal 2050	Period				
36	Active member of the Partnership for Public Green procurement (POGI)	Høje-Taastrup Kommune have intergrated all relevant POGI goals		2021-2030				
39	Recycling of construction materials and circular economy	Circular products are prioritized when possible	Circular products and TCO are priotitized in all tenders when possible and market dialog is normal practice	2021-2050				
43	Climate mitigation in local planning	CO2-calculation or similar should be included in localplan proposals.	Sustainability is integrated in localplanning	2021-2050				
45	Information procedure for private clients on energy efficiency and renovation in building authorisation	The procedure for increased communication to private clients are implemented and evaluated by 2030.		2021-2030				
50	Actor involvement in sustainable development	Development of participatory activitys in the assesment of relevant SDGs.	Development of participatory activitys in the UN's work on SDGs after 2030.	2021-2050				

## **Current situation**



At what stage is the city strategically? E.g., establishing political vision / Operationalisation of vision						
Mikkeli (FI)	Høje Taastrup (DK)	Roskilde (DK)				
Embedding political vision - CE in city strategy and climate action plan	Operationalising political vision - CE in climate action plan and housing policy	Operationalising political vision - CE in climate action plan and properties strategy				
What are the limits circular mandat? E.g., from project to project / specific geografic area						
Mikkeli (FI)	Høje Taastrup (DK)	Roskilde (DK)				
From project to project but currently business as usual	From project to project	Specific geographic area and diffusion to other projects				

## Roskilde - Strategic action to operation









### Climate Action Plan

DGNB certification of all new building

Reuse/Recycling of construction and demolition waste

Lifecycle assessment of construction projects

## Property strategy & Action Plan

Economic, social and environmental sustainability in all construction projects

CO<sub>2</sub> emission in construction projects

Circular economy and tender practice

## Project Specific Sustainability Plan

Total cost of ownership

Lifecycle assessment

Adaptable building

Reuse/recycling potential

Design for disassembly



Required to document in offer

## Høje Taastrup – Operation to Strategic action CITYLO

Recycled concrete, soil and wood panels

DGNB Gold-certified

Analyzes of the concrete quality

Timing and materials

Price weighed 50 percent, CSR and resident process

No specific requirements — a supplement in the tender







Recycling of building materials and circular economy

All tenders include a individual assessment of CE products



## **Housing Policy**

Increased energy efficiency in own buildings

Sustainability certification and labeling schemes

Sustainable resource utilization, e.g. recycling building materials when existing buildings are to be demolished

## Organisational challenges





	Pr	oje	ct	:/
U	rb	an	aı	rea

Whole Municipality

Grass roots group

Whole organization

Separate flows

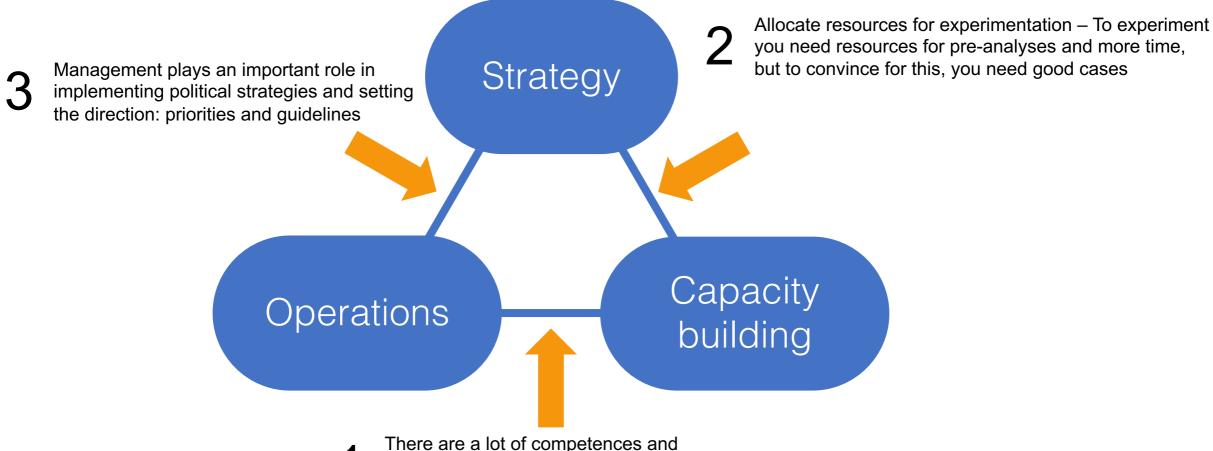
Total potential

Upscaling of experiments			Diffusion from grassroots	Systematic ha	ndling of resources
opscaling of e	Cross-cutting cooperation		Tasks and economy are too tied up in divided de Integrate sustainability from the start Structured involvement of relevant actors to become	partments	raining of resources
	Knowledge and • Competences •		Shared learning as a basis for dialogue Room for experimentation		
	Time	•	Time to organize networks  Time for reflection and evaluation		
	Economy	•	<b>Allocation of financial resources</b> to sustainability How is sustainability valued?	and circular economy	
	Policy and management	•	Political focus translated into concrete guidelines Mandate from managerial level in the execution Support political decision-making processes	•	

## Organisational challenges

- lessons learned in Høje Taastrup, Roskilde & Mikkeli





There are a lot of competences and knowledge across the organisation, but they are often randomly activated



## Strategic level >< Operational level



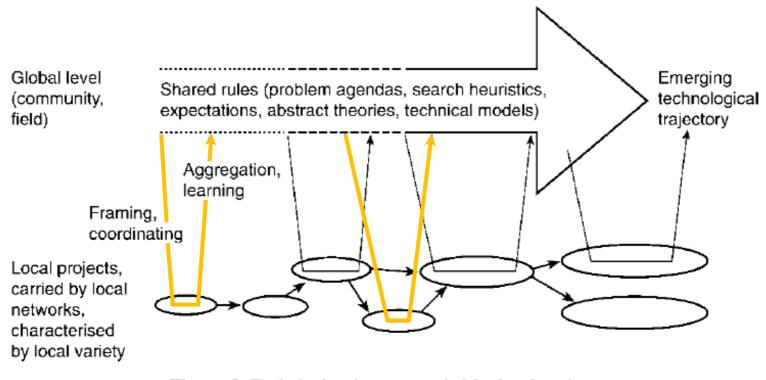


Figure 3. Technical trajectory carried by local projects

Geels & Raven, 2006

## **Development actions**

- lessons learned in Mikkeli, Høje Taastrup & Roskilde



### Strategic actions

#### Mikkeli (FI)

- 1. Strategy allignment
- Departments adopt the goals in climate action plan
- Property strategy (incl. construction, renovating and demoliton -plan)
- Implementation plan of procurement strategy
- 2. Better interconnection between:
- i. planning,
- ii. demolition and
- iii. construction

#### Høje Taastrup (DK)

- 1. Strategy alignment and professional pride
- Strategy for active ownership as culture change
- Property strategy (incl. plot sales) min. requirements
- Specific actions for departments in new sustainability strategy
- 2. Adoption of strategies across disciplines
- Budget item or percentage for CE I projects
- Dialog tool across organisation for political prioritization and mandate

#### Roskilde (DK)

- 1. Mandate and professional pride
- · Formalization of political mandate
- · Focus on responsibility and risk
- · Clear gains, vision and success criteria
- Submit specific projects for political approval
- · Input to strategies and signature programmes
- 2. Adoption of strategies across disciplines
- Common language and concepts
- · Economy and time for early screening
- Room for grassroots
- Mentoring scheme

### Operational actions

#### Mikkeli (FI)

- 1. Knowledge sharing and diffusion
  - Develop a group across siloes
- 2. Develop practices and procedures
- Implementation of strategies and plans in guidelines (with best cases)
- · Procurement guides for specific branches/services
- Involve procurement manager and specialist in development projects
- Identify key persons at different levels who is in charge?

#### Høje Taastrup (DK)

- 1. Develop practices and procedures
- Process to integrate CE when initiating projects
- Early cooperation regarding local plans and tenders
- Resource screening common procedures as environmental screening
- · Early screening of potentials
- 2. Knowledge sharing and diffusion
- Quantitative business cases
- Formalize early involvement of internal experts
- Identify persons with expertise in departments
- 3. Value chain communication
- Paradigm to communicate political focus to developers
- Dialog tool for early value chain communication

#### Roskilde (DK)

- 1. New project areas
- · Diffusion from Musicon to e.g. Sankt Hans area
- 2. Develop practises and procedures
- Tender requirements
- · Requirements/guidelines for plot sales
- · Early screening of potentials
- 3. Resource mapping (incl. soil) as basis for municipal development plan
- 4. Establish permanent material bank
- 5. Collect knowledge and experience
- Platform for cases and inspiration template
- · One page med cases and videos for dissemination

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### Practical tools

- 1. Collect, spread and adjust tools
  - DGNB, CO<sub>2</sub>-calculator, resource mapping, material passport, material database, soil prognosis, geotechnical test
  - Introduction guides/-videos
  - Superusers in every department
  - Introduction courses
  - Identify potentials in every department
- 2. Develop pract

1. Knowledge sh

Develop a group

- Implementation of strategies and plans in guidelines (with best cases)
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## Mapping of Planning and decision-making

Further focus mapping on specific practices

Final tool/framework development

## Organisational transformation

Replication workshop in Seville

Embedding activities in Roskilde and Høje Taastrup

- Roskilde: Sustainability group discussions on i) concretize and prioritize actions, ii) cases and iii) theme meetings
- Høje Taastrup: Workshop results as specific input to new sustainability strategy





Website: www.circularcities.eu

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