




Stakeholder Engagement Plan Roskilde CDW

Deliverable 2.1

Roskilde Municipality



Version	2.0, Document will be revised during the project implementation
WP	2
Deliverable	2.1
Date	29/07/2020
Dissemination level	confidential
Deliverable lead	Roskilde Municipality
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Abstract	This is a stakeholder engagement plan for the City of Roskilde, supporting the implementation of the CityLoops activities in the construction and demolition waste (CDW) stream. The goal of stakeholder engagement is to develop a process that inspires individuals, groups, businesses, institutions and others to improve their interaction and to cooperate effectively to accomplish goals. The stakeholder plan is our tool to organize stakeholder processes in the implementation of our main and sub-activities of the CityLoops project.
Keywords	Communication; dissemination; awareness
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1. Executive Summary

This is a stakeholder engagement plan for the City of Roskilde, supporting the implementation of the CityLoops activities in the construction and demolition waste (CDW) stream. The goal of stakeholder engagement is to develop a process that inspires individuals, groups, businesses, institutions and others to improve their interaction and to cooperate effectively to accomplish goals. The stakeholder plan is our tool to organize stakeholder processes in the implementation of our main and sub-activities of the CityLoops project. The stakeholder plan and the stakeholder analysis we provide in this document will act as an informative platform to carry out stakeholder activities and achieve our goals. This plan represents an initial idea of how stakeholder engagement may work with the tools and demonstration actions in our city, but it is important to highlight that stakeholder engagement processes are reflexive and repetitive, and that the plan will be updated.

2. Introduction to CDW process demonstration

This stakeholder engagement focusses on the demonstration case of hall 11/12 in Roskilde in the Musicon area.

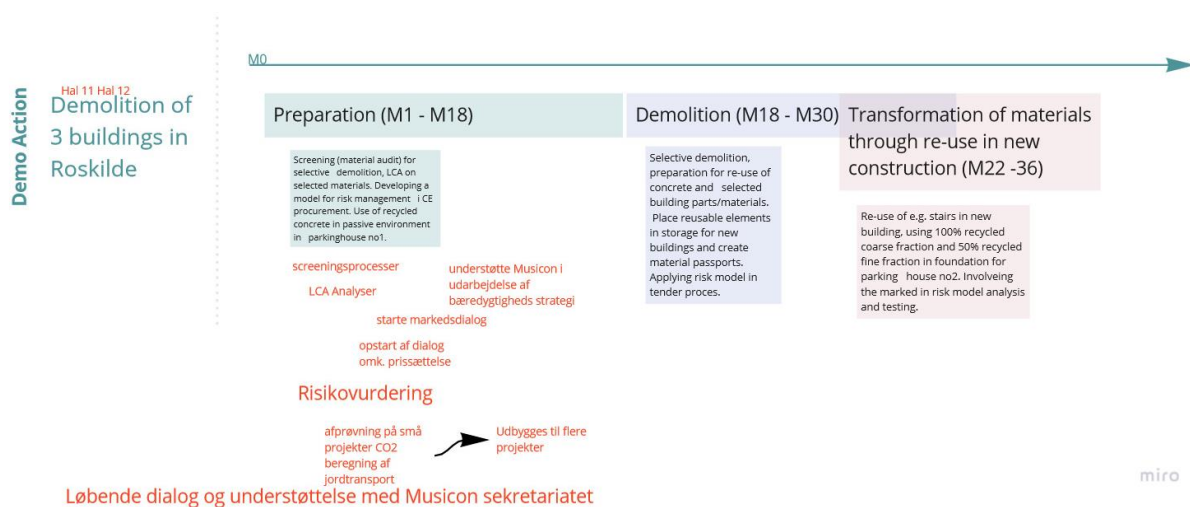
The case's focus is on:

- Screening and selective demolition of buildings.
- Place reusable elements in storage for new buildings and create material passports.
- Create virtual material bank through design for disassembly and BIM amounts.
- LCA on selected materials to support decision making.
- Use of recycled concrete in passive environment.
- Circular soil strategies by minimising soil movement and facilitating reuse on site as well as promoting use of LCA for soil to the wider municipality.

2.1. Timeline

In addition to the phases identified in the draft Optimised Implementation Plan (OIP, internal document), the following sub-activities were identified as part of the preparation phase (M1 – 18):

- Risk assessment and risk sharing
- Market dialogue
- Support Musicon in developing a sustainability strategy and continuous dialogue and support to the Musicon Secretariat
- Testing CO2 calculations on soil transportation and scaling CO2 calculations on soil
- Internal organisation and steering group meetings



3. Stakeholders and stakeholder groups in CDW process demonstration

In order to identify, characterise, and plan for engagement of stakeholders, the Municipality of Roskilde has conducted two workshops based on the guidance provided by NRI. The results of the workshops are presented here and in more detail in Appendix 1. The main stakeholders have been identified and grouped in five different main groups

- A. Contractors/Consultants
- B. Legislation and protection of interests
- C. Knowledge partners
- D. Roskilde Municipality
- E. Demo case external stakeholders

3.1. Group A. Contractors and consultants

Contractors and consultants are primary stakeholders and constitute the value chain of the CDW process. In terms of succeeding in circular construction and soil handling, it is pivotal that the value chain is co-operating and has adequate competencies in circular construction. Moreover, it can be relevant to involve new stakeholders in the value chain capable of closing the circular loop of construction. The group consists of engineers, advisors to the construction client, architects, waste demolition companies and construction companies.

3.2. Group B: Legislative stakeholders

The legislative stakeholders are secondary external stakeholders. The environmental and construction legislative framework is important for possibilities for closing the loop for circular construction. The group consists of the Danish Ministry of Environment, the Danish Transport, Construction and Housing Authority who are responsible for the legislative framework, implementing EU legislation, and developing guidance documents on e.g. selective demolishing, and also are developing strategies on circular economy and construction. Moreover, Horten law firm is identified as a stakeholder in this group as they have competencies in environmental and construction law – compliance and risk management.

3.3. Group C: Knowledge partners

The knowledge partners are external secondary stakeholders. The group consists of universities (BUILD/SBI), industry organisations (Dansk Beton), knowledge institutions (Videncenter for Cirkulær Økonomi i byggeriet), DGNB – the Green Building Council in

Denmark. These stakeholders are developing or expanding circularity in construction and have projects concerning circularity in demolition and construction sector. BUILD/SBI has extensive knowledge about embedded CO₂ in the construction sector and is developing and managing LCA and LCC tools for the construction sector. The stakeholders are important in terms of qualifying, challenging and communicating the demonstration projects.

3.4. Group D: Roskilde Municipality

The different departments in Roskilde Municipality as well as politicians have been identified as internal core partners. The internal stakeholders are different departments responsible for different processes of circularity, such as the environmental department, the real estate department, the procurement department and the planning department. It is important to establish co-operation between the different departments in terms of succeeding with circular construction and city planning. The politicians and the management of the city are also important stakeholders in terms of continuous economic and strategic support to the area.

3.5. Group E: Demo case external stakeholders

The external stakeholders of the democase, such as the Musicon secretariat, the citizens (both the coming users/residents in the Musicon area and the general Roskilde citizens) and the local enterprises and organisations are categorized as secondary external stakeholders. The Musicon secretariat is an important stakeholder as they are responsible for the local city planning of the Musicon area and communicating with local stakeholders, such as residents, citizens, organisations and enterprises.

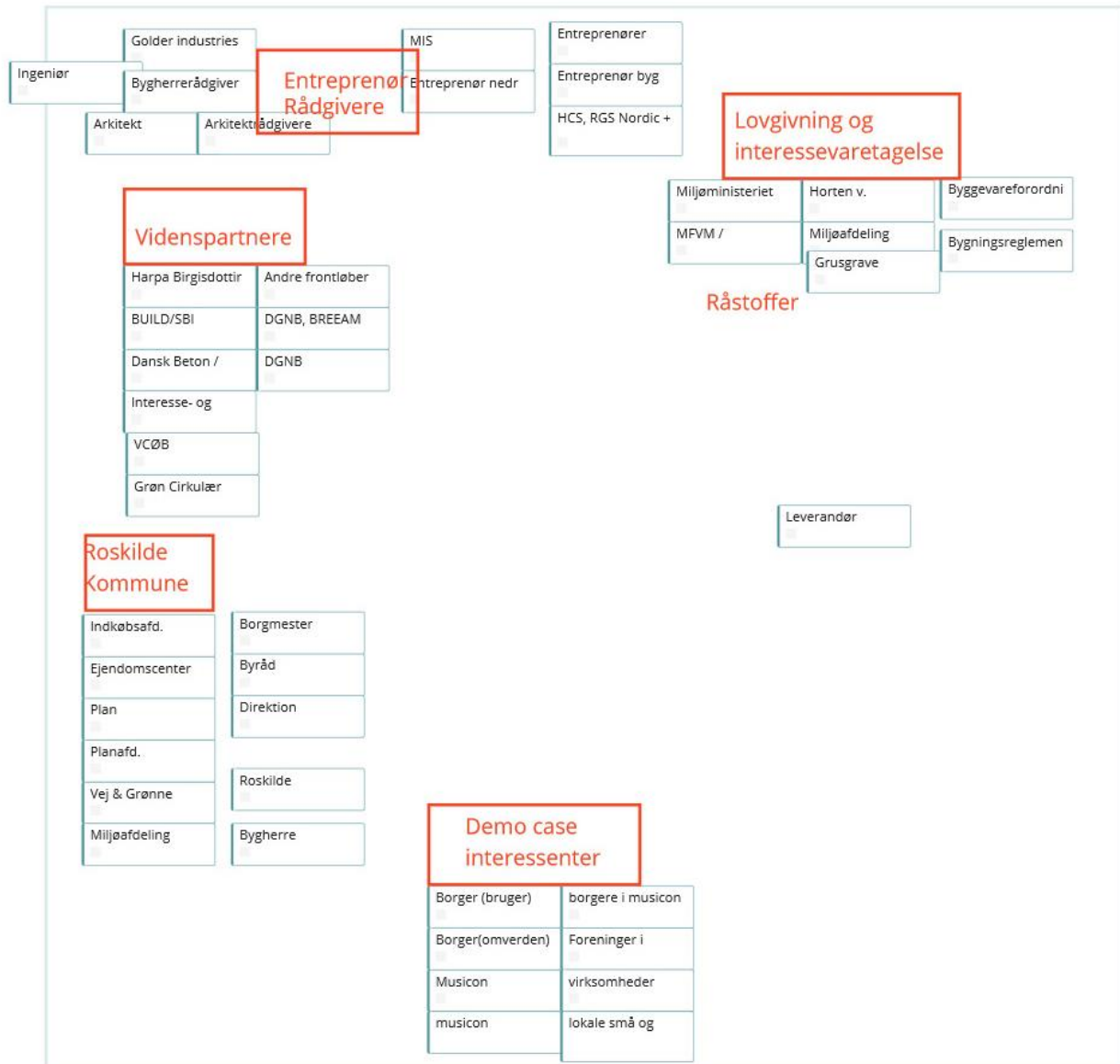
The definition of the stakeholder groups as core partners, internal primary and external secondary can be seen below:



Graph 1 – Stakeholder ecosystem

The board and the clustering of the stakeholder groups is displayed below:

Fælles board



Graph 2 – Stakeholder clustering

The complete list of the stakeholders can be seen in the table below. Reference to a translation of table A 1 – 3 (see appendix A part 1 below):

Group	Actor name	Agenda/motivation	Alliance/resources
A	Engineers	Advising	screening
	Golder industries	Environmental screening, leader in circular construction	Knowledge about possibilities for reuse and recycling
	Advisor (to the construction client)	Advising	Input to the decision making

	Architects	Designing building	designing and using secondary resources
	MIS recycling	Concrete demolishing/crushing	Fronting concrete recycling
	Demolishers	Demolishing business	Testing best and next practice
	Contractors	Risk assessment and risk sharing	Knowledge about usage of secondary resources
	Waste management companies/recycling companies: HCS, RGS Nordic + div. Soil contractors	Business - and sometimes business as usual.	Large players - important for the recycling
B	Harpa Birgisdottir Sbi	Embedded CO2	LCA, LCC tools, knowledge about embedded CO2
	BUILD/SBI	Researching sustainable construction	LCA and LCC tools
	Dansk Beton / Dansk Byggeri	Supporting the industries, member enterprises	Knowledge about best practice in the industry and value chain
	Interesse- og brancheforening	Same as above	Same as above
	VCØB (Videncenter for Cirkulær Økonomi i Byggeriet)	Knowledge about waste and regulation	Communication of demo activities
	Grøn Cirkulær Omstilling (GCO) - project	Assisting SMEs in circular business development	konsulentstøtte, investeringsstøtte, processtøtte til SMV'erne
	Frontrunner cities in Europe	Being a frontrunner within the agenda	Sharing best practice circular construction
	DGNB - Green Building Council Denmark	Expand DGNB certification in Denmark	Supporting certification of buildings in demo projects
C	Miljøministeriet	Environmental legislation, waste strategies	Knowledge about future possibilities and communication and sharing best practice
	MFVM / klimapartnerskaber etc.	Same as above	Same as above
	Horten law firm (Henriette Soja)	Competencies in environmental and construction law	Decision making within compliance and risk management.
	the Danish Transport, Construction and Housing Authority - Byggevareforordningen	Construction product regulation and standards	Important for the development of sustainable construction products
	the Danish Transport, Construction and Housing Authority - Bygningsreglementet	Eg. Voluntary sustainability standard as part of the construction legislation	Knowledge about future possibilities and communication and sharing best practice
	Grusgrave	business	
D	Procurement dep.	Responsible for procurement	Sustainable procurement principles, decision power
	Real estate dep	Construction of public buildings	Test and demo of circular construction
	Planning dep.	Fokus på politisk ønske om klima og CO2 mål forfølge	Political focus, strategies.
	Road and Parks (Vej & Grønne områder)	Many projects with soil handling and transport	Use environmental and CO2 tools
	Environmental dep.	Environmental audit and approval, waste strategies etc.	

	Mayor	Developing the city	Fronting and supporting the test and demo projects as well as scaling
	Politicians	Developing the city	Fronting and supporting the test and demo projects as well as scaling
	Management / direktion		
E	Citizen (user of building)	User of building	Potential local ambassador of circular construction
	Citizen (other)		Supporting Roskilde as frontrunner in circular construction
	Musicon sekretariatet	Development of a green and sustainable town area	Close coordinating and supporting
	Organisations in Musicon area		Involvement in test and demo
	Local enterprises		Involvement in test and demo
	Suppliers		

Table 1- Full list of stakeholders

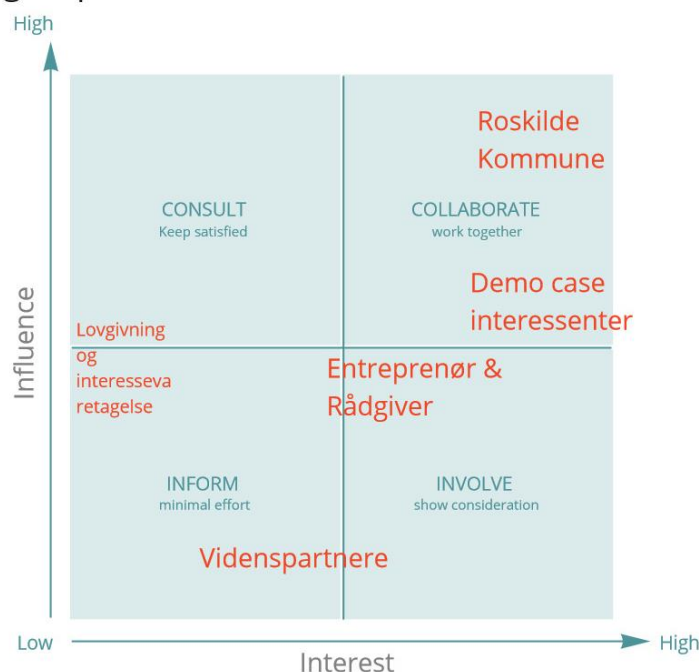
4. Stakeholder engagement methods

4.1. Engagement matrix

NRI has provided a series of stakeholder mapping and characterisation exercises, in tables A 4 – 10, which have been translated to the following exercises during two internal workshops.

Actors were placed in the matrix according to their assumed degree of influence and interest. This was followed by discussions on the placement actors relative to different perceptions of influence and interest.

Matrix - Actor groups



Graph 3 – Actor Matrix

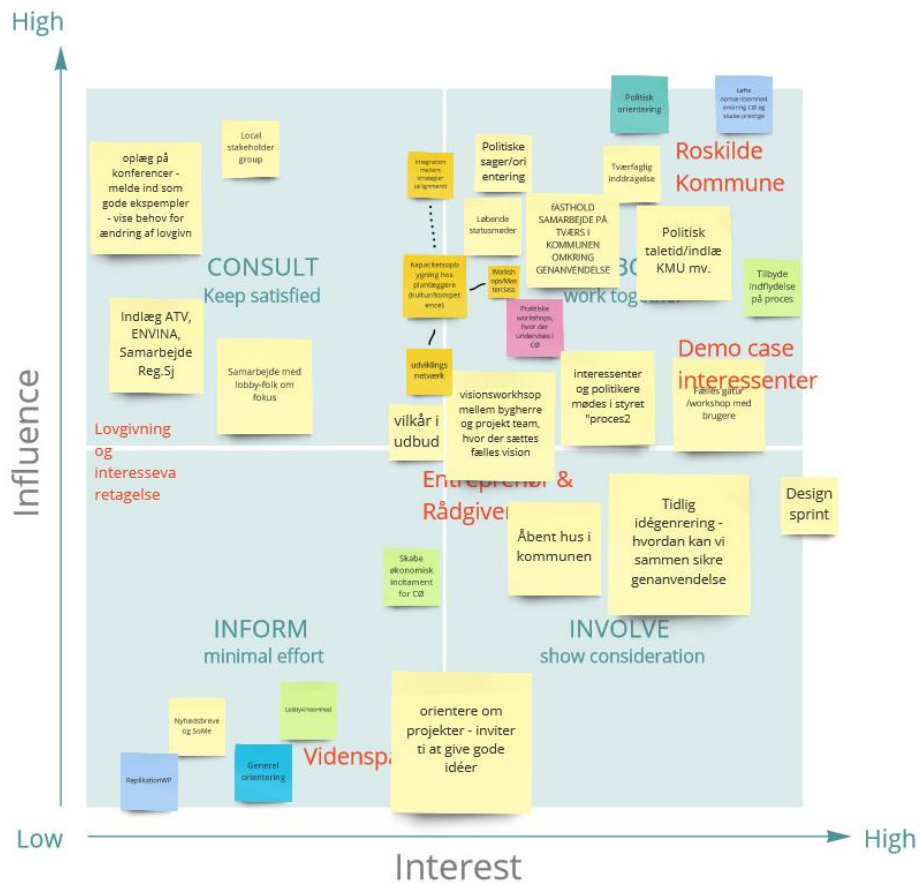
4.2. Engagement Methods

Ideas on ways to engage stakeholder groups were categorized relative to the 4 squares in the matrix:

- Consult – keep satisfied
- Collaborate – work together
- Inform – minimal effort

- Involve – show consideration

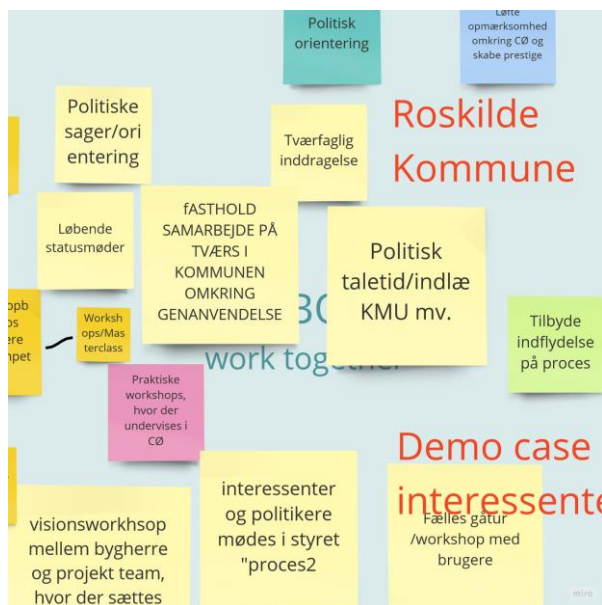
Matrix - engagement methods/elements



Graph 4 – Engagement methods

Consult – keep satisfied

- Local Stakeholder group
- Presentations at conferences
- Collaboration with lobby-parties about focus
- Integration of strategies (alignment)
- Capacity building
- Development network



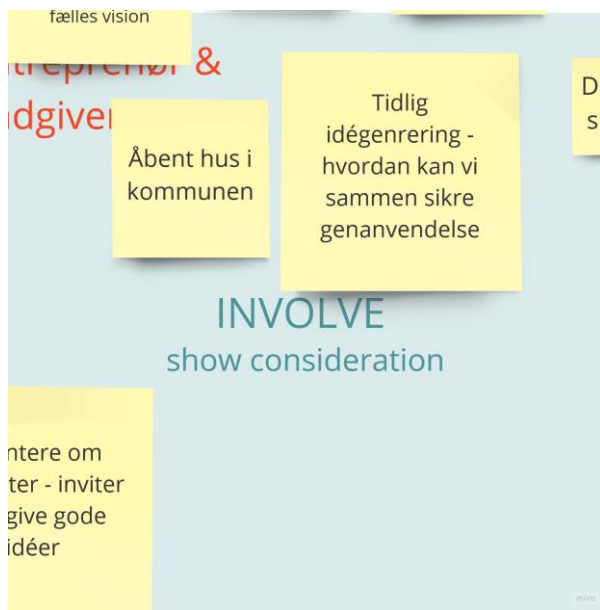
Collaborate – work together

- Political orientation
- Raise attention on circular economy and create prestige
- Workshops/master class
- Continuous status meetings
- Cross-disciplinary engagement



Inform – minimal effort

- Newsletters & SoMe
- Replication WP
- General orientation
- Lobby activity
- Create economic incentives



Involve – show consideration

- Open days in the municipality
- Early idea generation – to collectively ensure recycling

5. Plan for stakeholder engagement

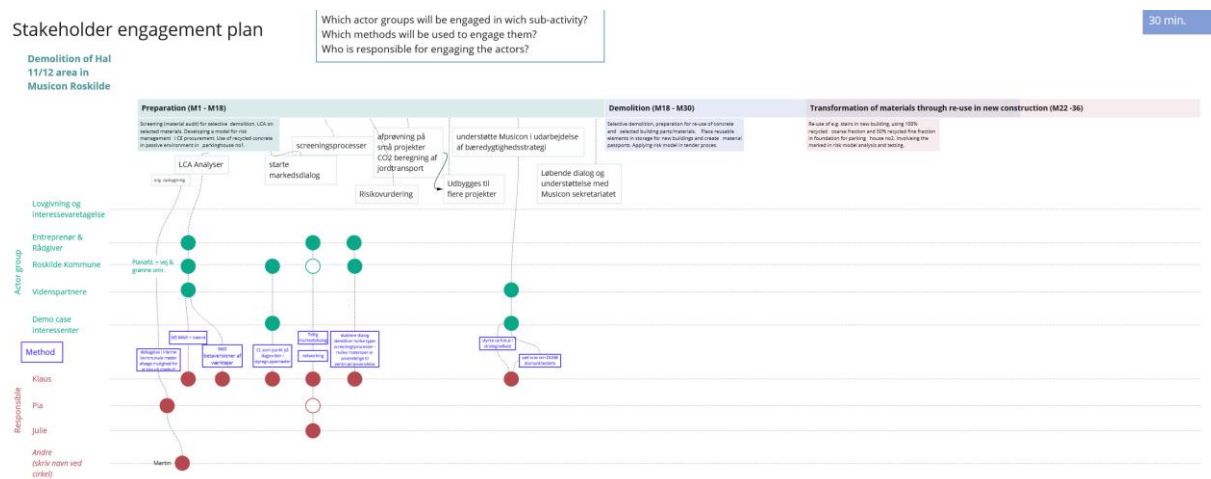
The resulting stakeholder engagement plan is presented in three different ways:

- 1) stakeholder engagement plan developed during the workshop (visual)
- 2) Sub-activities of stakeholder engagement plan in words (table)
- 3) Detailed plan for stakeholder involvement in a time plan (excel file)

The different descriptions constitute different overviews and levels of detail of the stakeholder engagement plan.

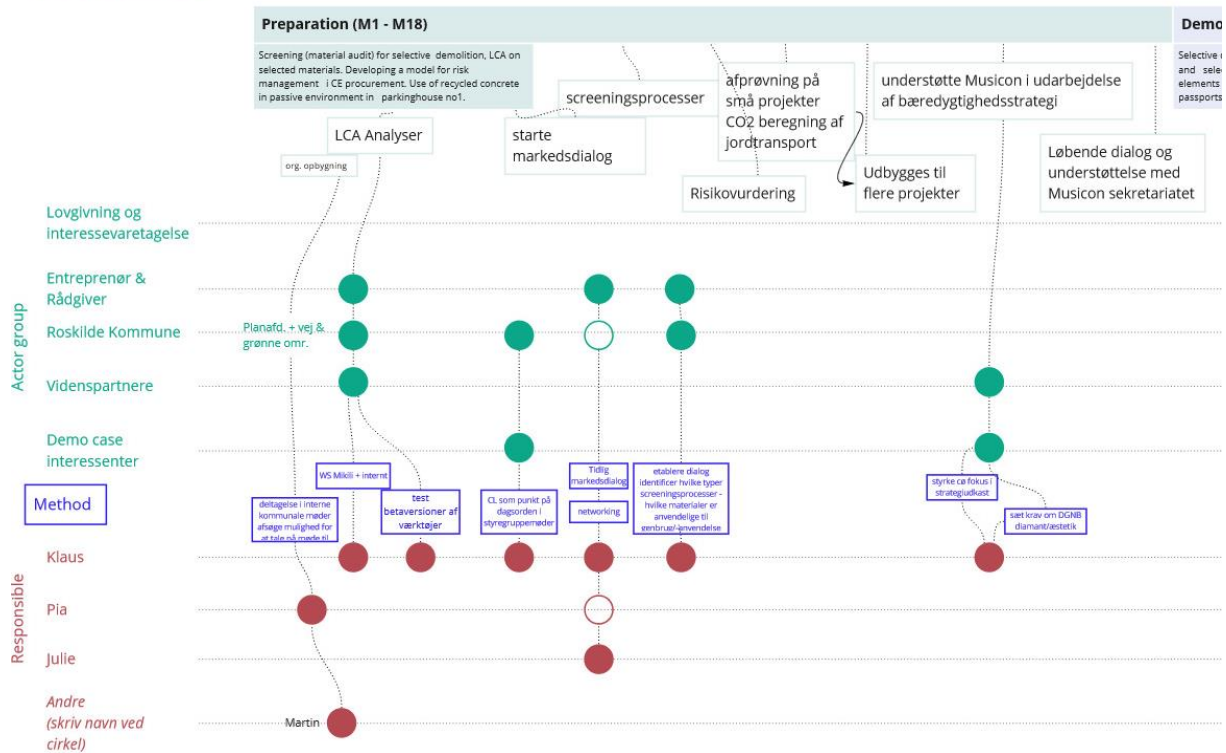
5.1. Stakeholder engagement plan developed during the workshop (visual)

At the workshop, the stakeholder activities were defined in most detail for engagement during the project's preparation phase. The stakeholder groups were listed (green) and marked with a green dot if involved in the activity. The method of involvement is listed in the blue boxes and the partner responsible for the activity marked with a red dot. A list of the stakeholders and related activities can be found in the next section.



Graph 5 – Stakeholder engagement activities

Demolition of Hal 11/12 area in Musicon Roskilde



Graph 6 – Stakeholder engagement activities (continued)

5.2. Sub-activities of stakeholder engagement plan in words

Sub-activities are detailed and described in words below

ACTIVITY 1	INTERNAL ORGANISATIONAL CAPACITY BUILDING AND CO-OPERATION
Responsible	Pia and Klaus
Involvement	Planning department, road and green areas. Roskilde internal stakeholders
Time	Wk 34 + wk 39-40 2020
Description	<ul style="list-style-type: none"> - Clarify possibilities for having CityLoops as agenda point on team meetings and meetings in the department - Participation in internal meetings in the municipality with the objective of discussing, developing and mainstreaming CityLoops in the municipality

ACTIVITY 2	LCA ANALYSES
Responsible	Klaus and Gate 21
Involvement	Internal stakeholders at Roskilde municipality, external stakeholders primarily contractors and consultants and knowledge partners

Time	Wk 26 + wk. 36 + wk 39-40
Description	<ul style="list-style-type: none"> - Involving internal and external stakeholders in testing and qualifying the LCA tool via meetings and workshops with Mikkeli, internally in the departments at Roskilde municipality, with the Danish CityLoops group and with primary external stakeholders, such as knowledge partners, contractors and consultants

ACTIVITY 3	STEERING GROUP MEETINGS
Responsible	Klaus
Involvement	The steering group of Hall 11/12 (consists of stakeholders in Roskilde municipality and democase external stakeholders such as the Musicon secretariat)
Time	Continuously – at each meeting – wk. 33, 39, 47, 52
Description	<ul style="list-style-type: none"> - At each of the existing steering group meetings, the possibilities for circular construction as part of CityLoops will be discussed and decided on.

ACTIVITY 4	MARKET DIALOGUE
Responsible	Klaus, Pia and Julie
Involvement	Contractors and advisors, knowledge partners, other municipalities and the Danish Association of Construction Clients
Time	Wk. 27 + 40-41
Description	<ul style="list-style-type: none"> - Early market dialogue with contractors - Testing business case - Networking and presenting CityLoops and tools at Envina annual meeting

ACTIVITY 5	SCREENING PROCESSES
Responsible	Klaus and Gate 21
Involvement	The Capital Region (Erik), contractors and consultants, ICLEI and Rijkswaaterstaat
Time	Wk 25-26, wk 34 and continous
Description	<ul style="list-style-type: none"> - Involving knowledge partners and contractors in developing and qualifying criteria for selective demolishing in the tender - Involving knowledge partners and other frontrunner cities on sustainable procurement /tendering process

ACTIVITY 6	RISK ASSESSMENT
Responsible	Klaus and Pia
Involvement	Internal management and external stakeholders such as contractors
Time	Wk. 35, 44-45
Description	<ul style="list-style-type: none"> - Internal dialogue on how to manage risk sharing, - External dialogue with contractors on risk sharing

ACTIVITY 7	CO2 CALCULATION ON SOIL
Responsible	Pia and Klaus
Involvement	Internal stakeholders, planning department.
Time	Wk 39-40
Description	<ul style="list-style-type: none"> - Testing CO2 calculator on specific small projects - Scaling and mainstreaming CO2 calculator on soil handling projects in the municipality

ACTIVITY 8	DIALOGUE WITH AND SUPPORT TO THE MUSICON SECRETARIAT
Responsible	Klaus and Gate 21
Involvement	Demonstration case external stakeholders and knowledge partners
Time	Wk. 38, 42, 46, 50 2020 and Q12021
Description	<ul style="list-style-type: none"> - Continuous dialogue with and support to the Musicon secretariat in terms of strengthening sustainability in the strategy and in implementing the strategy, - Dialogue and meeting with Green Building Council in order to clarify possibilities for DGNB diamond.

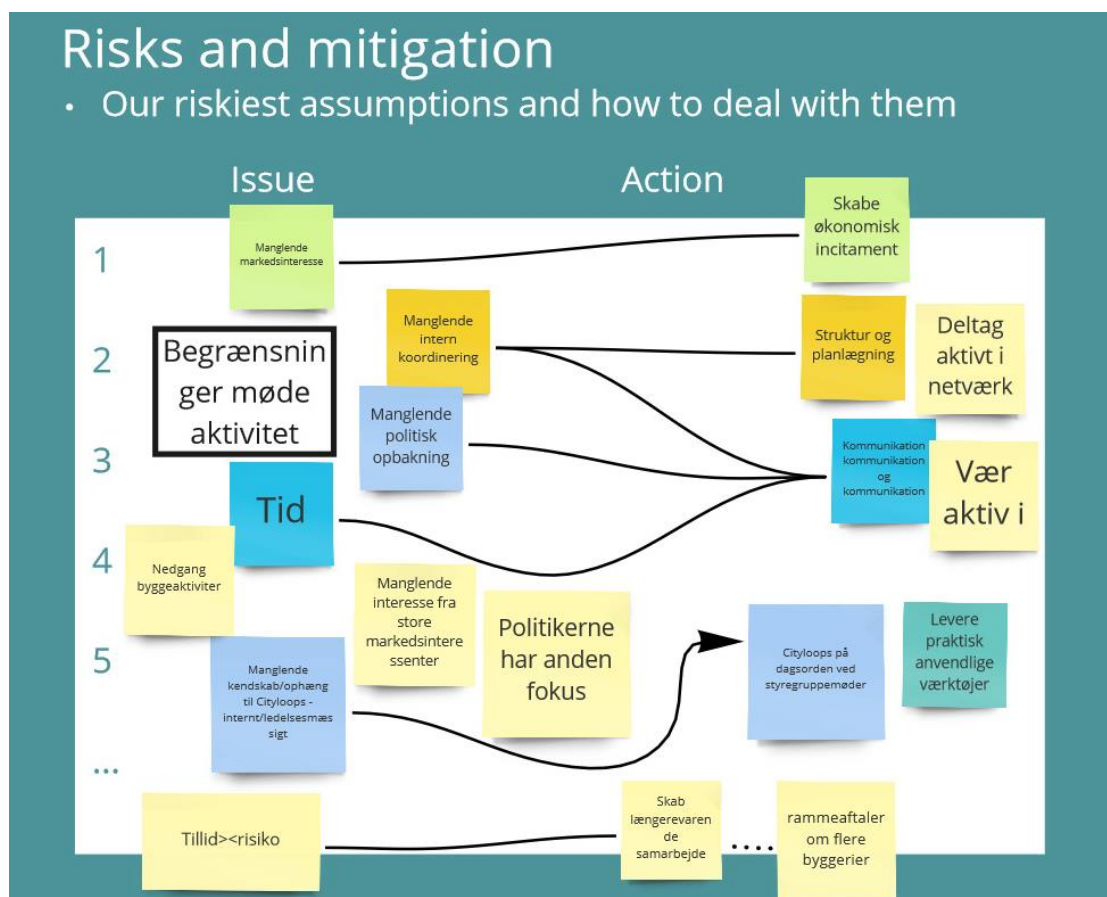
5.3. Detailed plan for stakeholder involvement in a time plan (excel file)

The detailed plan for stakeholder involvement is described below defining activity, responsible partner and stakeholders involved as well as timelines for the activities. The detailed plan is filled in for 2020 and start 2021 and will be revised continuously and when needed.

5.4. Key risks and risk mitigation

Translation of table A 11 from NRI's guidance document (see appendix A part 1 below).

Issue	Action
Lack of market interest	Create economic incentives and risk sharing
Lack of internal coordination	Structure and planning
Lack of political support	Communication and orientation
Time for test and demonstration	Communication and orientation
Decrease in building activities	
Lack of knowledge on CityLoops project – internally on senior level	Cityloops on the agenda at steering group meetings
Trust < > risk	Establish lasting collaborations – contracts on more building projects



Graph 8 – Risks and mitigation

6. Appendix A: Guidance and background documentation

Motivation for approaches - A dynamic process

Stakeholder engagement is in practice a dynamic process. Therefore, we have chosen to adjust some of the proposed detailed steps provided by NRI in the guidance document. We have created an interactive process with two workshops, based on translations of the ideas in the guidance document. Our focus was to create an environment that served a purpose of kick-starting a dialogue on stakeholders and how these might be engaged in the demo project.

The two workshops served the purpose of creating insights at an overall level. It is proposed to hold further workshops throughout the project – where the focus can be related to specific activities in the project.

Examples of translations

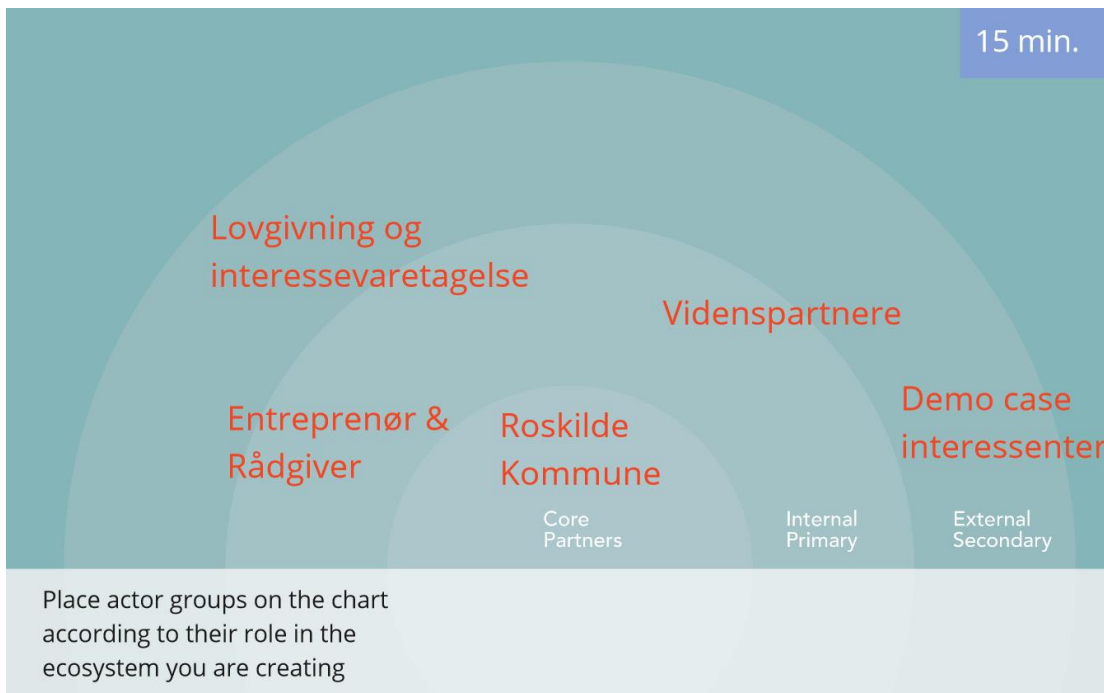
Table A 3: Questions to develop actor profiles (Step 5). Adapted from Zimmermann and Maennling (2007:16). From: Lelea et al. (2014).

Attribute	Example Questions
Agenda	<ul style="list-style-type: none"> • What are the mandates, missions, and objectives of each actor?
Arena	<ul style="list-style-type: none"> • In which part of the system is the actor present and active? • Where exactly does each actor performs his/her actions (e.g. in which locations)? • What is the scope of these actions?
Alliances	<ul style="list-style-type: none"> • Which relationships exist with other actors in the system? • With which other actors does the actor cooperate? • What is the cooperation based on (e.g. information exchange, use of common resources, institutionally regulated dependency)?

This table provided by NRI was translated into *Actor cards* to be filled in by the participants at the workshop.

Actor 1	Actor name
	Agenda/Motivation
	Alliances/Resources

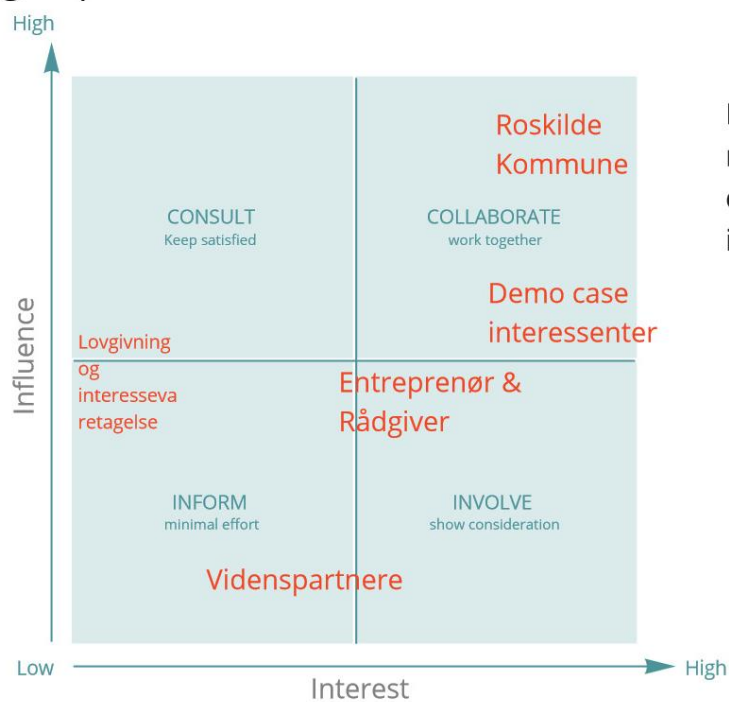
Table A 4 – Table A 10 was translated into an *actor role diagram*



And an *engagement matrix*

Matrix - Actor groups

7 min.

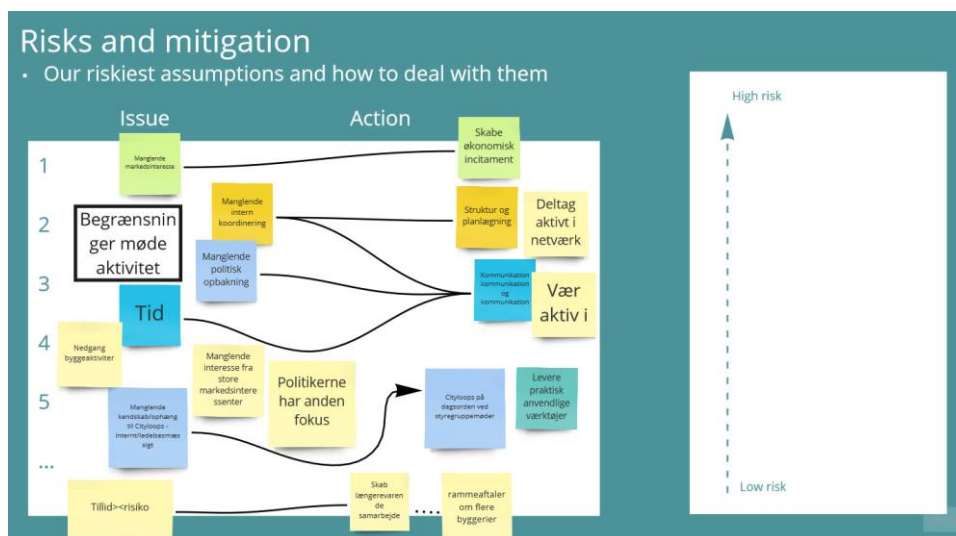


Place actor groups in the matrix according to their degree of influence on and interest in the subject/project

Table A 11 was translated into a *risk and mitigation exercise*

Table A 11: Critical risk elements to be evaluated (Step 8). Source: Adapted from Zimmermann and Maennling (2007)

Issue	Stakeholder assessment	Score	
Resistance	To what degree do you expect resistance from stakeholders towards demonstration case (both inside or outside of the group of stakeholders that has been identified)	Strong degree of resistance	- 2
		Some degree of resistance	- 1
		Resistance within some area	0
		Little degree of resistance	+ 1
		No resistance	+ 2
Marginalized knowledge	To what degree is marginalized knowledge present in the stakeholder group	Not present at all	- 2
		Limited present in some areas	- 1
		Moderate present	0
		Present in most areas	+ 1
		Present to a high degree	+ 2
Time	To what degree will stakeholders lack time to participate (could be a factor to consider when choosing if and how stakeholders should be engaged)	Lack time to a high degree	- 2
		Lack time to some degree	- 1
		Moderate time use	0
		Is active in several areas	+ 1
		Is active in all areas	+ 2
Trust	To which degree has the stakeholder group a good balance between participants that are necessary for a practical and efficient operation and participants that can bring in alternative/other needed perspectives	High degree	- 2
		Some degree	- 1
		Neither nor	0
		Little degree	+ 1
		No degree	+ 2



Digital set-up Miro Platform

Miro was used as online workshop platform to enhance the level of interaction in the current state of corona lock down. Here all participants at the workshops were able to write post-it's, create and move elements around and thereby contribute and engage with the content.

miro | RK - Stakeholder Workshop ☆

Share ? 1

Intro

1 - Title slide & Sub-activities

2 - Actors & Actor groups

3 - Ecosystem feedback

Tak for i dag

2 - Actor boards

Stakeholder Workshop

3 - Engagement activities

4 - Methods & elements

4 - Stakeholder engagement plan

4 - Risk & mitigation

14%



CityLoops is an EU-funded project focusing on construction and demolition waste (CDW), including soil, and organic waste (OW), where seven European cities are piloting solutions to be more circular.

Høje-Taastrup and Roskilde (Denmark), Mikkeli (Finland), Apeldoorn (the Netherlands), Bodø (Norway), Porto (Portugal) and Seville (Spain) are the seven cities implementing a series of demonstration actions on CDW and OW, and developing and testing over 30 new tools and processes.

Alongside these, a sector-wide circularity assessment and an urban circularity assessment are to be carried out in each of the cities. The former, to optimise the demonstration activities, whereas the latter to enable cities to effectively integrate circularity into planning and decision making. Another two key aspect of CityLoops are stakeholder engagement and circular procurement.

CityLoops runs from October 2019 until September 2023.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 821033.

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