



## Circular Project Advisory: Draft Scoping Report Linnanniemi – Turku

### 1. Contents

Circular Project Advisory: Draft Scoping Report Linnanniemi – Turku .....	1
Introduction .....	2
2. Overview of project’s current situation: .....	2
3. Identified needs and challenges .....	3
4. Proposed focus areas for consultancy .....	4
5. Scope of assignment .....	5
6. Methodology.....	6
Activity 1: Aligning with Circular Turku’s Roadmap (ca 15 % of total scope) .....	6
1.1. Baseline assessment of circularity in line with Circular Turku .....	7
1.2. Benchmarking .....	7
1.3. WORKSHOP 1 – Linnanniemi’s Circularity Vision .....	7
Activity 2: Understanding the Project Governance for Circularity (ca 15% of total scope).....	7
2.1 Assessment of the Project Governance for Circularity .....	8
2.2. Stakeholder Mapping.....	8
2.3. Archetype for circular project governance .....	8
2.4. WORKSHOP 2 – Circular project governance.....	8
Activity 3: Shaping a Circular Flood Protection and Water Management Infrastructure (ca. 50 % of Scope).....	9
3.1. Peer review of flood risk assessment with a future climate perspective .....	9
3.2. Assess flood protection and water management infrastructure against future risks .....	9
3.3. Exploration of opportunities for circular flood protection and water management infrastructure ....	10
3.4. WORKSHOP 3 – Prioritisation of Circular Opportunities.....	10
3.5. Detailed opportunity profiles for circular flood protection and water management .....	11
Activity 4: Anchoring Circularity into Linnanniemi’s Governance (ca. 20 % of scope) .....	11
4.1. Alignment of project governance with the circularity ambition.....	11
4.2. Circular Development roadmap.....	11
4.3. Close-out meeting.....	11
7. Summary of tasks and deliverables .....	12
8. Workplan.....	13
9. Proposed roles and inputs from consortium .....	14
10. Ways of working.....	14
11. Delivery model and fee proposal (EIB/CNS): .....	14

## Introduction

This CPA scoping report lays out proposed circular economy related technical assistance to be delivered by C3 for the city of Turku in the context of the Linnanniemi redevelopment. Services and activities have been identified in close exchange with the city of Turku, EIB and C3 in response to an expression of interest issued by the City of Turku in August 2024. Overarching goal of the proposed services is to increase and improve the circularity of the Linnanniemi project and mature the development towards bankability.

Upon agreement and confirmation by all parties, the proposed activities will be implemented by C3 in the context of a CPA assignment.

## 2. Overview of project's current situation:

The Linnanniemi area, which surrounds Turku Castle and the harbour, is set to undergo significant urban transformation in the coming years. Currently dominated by harbour and logistic operations, this district will be redeveloped into an attractive cultural hub featuring maritime activities, recreational spaces, and the Museum of History and the Future, scheduled to open in 2030.

Various architecture competitions have been conducted for landmark buildings in the area, such as a new ferry terminal and a new museum building. The zoning plan for the renewal of Linnanniemi is divided into three areas, which are currently at different planning maturities:

- A. **Ferry Terminal zoning plan:** Will host a new joint terminal and traffic areas – legally binding. Architectural competition for the terminal building won by PES-Architects Ltd.
- B. **Museum of History and Future zoning plan:** Redevelopment of current terminal area into a cultural district – approved. Architectural competition for the Museum of Future won by Sigge Architects
- C. **Merikortteli zoning plan:** Primarily residential development – zoning process to begin in 2025



Figure 1: Timeline for Linnanniemi redevelopment as of August 2024 – shared by Turku Municipality

According to the information provided, Linnanniemi faces significant coastal and stormwater flood risk (FCG, Stormwater and Coastal Flood Assessment, 2023). Part of the flood prevention measures outlined by the city include the development of a two-meter-high flood barrier along the shoreline, several detention basins, and park areas assigned to act as overflow in the case of flooding events.

Turku has applied to the Circular City Centre requesting support in developing approaches to circular water management and reuse, as the planning of the flood protection infrastructures goes forward. **We propose to the Turku authorities to extend the application of CE principles beyond the water management and reuse to address further CE opportunities, as well as the consideration of circularity principles in water infrastructure and beyond in Linnanniemi.**

Flood protection infrastructures require significant quantities of materials and capital expenditure. The principles of the circular economy can help to develop resource- and material efficient solutions which are adaptable over time. Exploring circular opportunities in flood protection infrastructure and beyond can further help pave the way towards investment through providing an early picture on costs associated with the construction and opportunities for EU Taxonomy compliance under the circular economy objective.

### 3. Identified needs and challenges

The City of Turku has a strong and mature circularity vision supporting their ambition to become carbon neutral by 2029 and climate positive with negative net emissions thereafter. To do so, the city has established a systemic circularity framework, the Circular Turku Roadmap focussing on five priority fields to achieve a resource wise future with zero emissions, zero waste and sustainable use of natural resources by the year 2040:



Figure 2: Circular Turku roadmap - priority areas

The Roadmap defines actions covering the entire value chain across five interconnected strategies:

- **Rethink:** Redesign the system
- **Regenerate:** Harmonize with nature
- **Reduce:** Do better with less
- **Reuse:** Use longer
- **Recover:** Make waste history

In a bottom-up approach, over 200 stakeholders from local businesses to research institutions, public companies and national and regional actors, jointly defined interventions included in the Circular Turku roadmap. Additionally, Turku is conducting social risk assessments for interventions.

Considering the advanced maturity of Turku in the area of circularity, and based on the currently available documentation and insights into the project, we have identified the following needs and

challenges impacting the circularity during planning, construction, operation and end of life of Linnanniemi:

- **Harmonized CE approach on project level:** The project lacks an overarching CE strategy, which identifies, characterizes and prioritizes applicable CE approaches in the whole development of Linnanniemi and beyond, such as deconstruction instead of demolition, reuse of secondary material, design for disassembly, etc. The absence of an overarching approach (aligned with the Circular Turku roadmap on city level) will likely lead to not fully realized CE potentials.
- **Review of project site and the project timeline for maximum use of secondary raw-material uptake:** Re-use of existing materials in multi-phased, long-term developments is a coordinative challenge, which can omit the purchase of large quantities of primary construction materials. Core requirement is a detailed assessment of the current material- and building stock on. Technical assistance can help identify opportunities for (local) reuse of materials, without increasing project costs.
- **Lack of specific water management and reuse solutions that consider local conditions and climate:** The city identified a knowledge- and technical gap concerning water management solutions that take local conditions into account. Technical assistance can help to identify and define a catalogue of suitable circular solutions adaptable to local conditions and potentially applicable to other geographies, adding increased value by considering circularity principles at different levels. Joint work between C3 and the municipal team can help close knowledge gaps and disseminate circular economy approaches.
- **Dominance of incumbent design practices in flood protection infrastructure and construction:** Adoption of circular design principles in the development of flood protection infrastructure is not widely researched, which (indirectly) favours incumbent, material- and carbon-heavy construction methods. Perceived risks of novel approaches can hinder the adoption of circular innovations. Expected frequent stormwater and flooding events provide a suitable context to test and apply solutions, as well as for design for repair and maintenance.

#### **4. Proposed focus areas for consultancy**

We propose four focus areas as outlined below:

1. **Holistic Project Circularity Strategy:** Further refine the project's circularity strategy across all stages, from vision, through target-setting to implementation of the project to yield maximum circular impact against relevant metrics.
2. **Understand the landscape of actors and stakeholders involved in making Linnanniemi a circular landmark project and how the different planning streams interrelate**
3. **Circular Flood Protection and Water Management Infrastructure:** explore and detail opportunities for circularity in water systems and their interface with other sectors, in line with Circular Turku's ambitions.
4. **Project governance to support circularity:** Define the right governance, including procurement policies to put technical solutions into practice.

## 5. Scope of assignment

We propose to divide the CPA into two advisory workstreams – Technical and Governance Advisory – running in parallel and informing each other. The aim is to produce a comprehensive document integrating technical and development guidelines to realize the project’s circularity ambition.

Workstream	1. Urban Circularity Technical Advisory	2. Urban Circularity Governance Advisory
Goal	Increase Linnanniemi’s circularity ambition and guarantee that these aspirations are made tangible along the project implementation	Assess how to translate circular ambitions and solutions into the Linnanniemi development scheme.
Activities	<ol style="list-style-type: none"> <li>1. Aligning Linnanniemi with Circular Turku’s Roadmap</li> <li>3. Shaping a Circular Flood Protection and Water Management Infrastructure</li> </ol>	<ol style="list-style-type: none"> <li>2. Understanding the Project Governance for Circularity in Linnanniemi</li> <li>4. Anchoring Circularity into Linnanniemi’s Governance</li> </ol>
Required Inputs from the city	<ul style="list-style-type: none"> <li>– Linnanniemi Masterplan</li> <li>– Ongoing assessments / projects (architecture, landscape, etc)</li> <li>– Detailed phasing and works planned and any other available technical supplementary information</li> <li>– Coastal and stormwater flood risk assessment and management strategy</li> </ul>	<ul style="list-style-type: none"> <li>– Insights on current development pathway being explored</li> <li>– Currently identified partners and stakeholders</li> </ul>
Outputs	<ol style="list-style-type: none"> <li>1. Linnanniemi’s Circularity Vision</li> <li>3. Detailed opportunity profiles for circular flood protection and water management infrastructure</li> </ol>	<ol style="list-style-type: none"> <li>2. Outline of enriched circular project governance</li> <li>4. Anchoring Circularity into Linnanniemi’s Governance</li> </ol>
Outcomes	<ol style="list-style-type: none"> <li>1. Enhance the circularity ambition of Linnanniemi. Shape Linnanniemi as a <b>pilot project at the forefront of urban circularity for circular flood protection and water management</b>, showcasing circular innovative solutions to face the flooding effects accentuated by climate change</li> <li>2. Develop <b>guidelines for circular water solutions</b> that can be applied in similar climate contexts through a multifaceted approach.</li> <li>5. Position Linnanniemi as a frontrunning <b>Circular Art District</b>, a waterfront development that <b>attracts talent and green investors</b> through a unique approach to material reuse and sustainable and circular water management solutions</li> </ol>	<ol style="list-style-type: none"> <li>3. Understand the <b>landscape of actors and stakeholders</b> involved in making Linnanniemi a circular landmark project and how the different planning streams interrelate.</li> <li>4. Shape the role of these stakeholders and attract them into the project through <b>innovative governance and business models</b> from design to operation. This will anchor key players in sustainable urban development to the project and enable the creation of a Sustainable Creative Waterfront District</li> </ol>

Figure 1: Scope table

## 6. Methodology

C3 proposes a holistic and integrated approach to urban circularity based on the understanding of:

- The scale and potential impact of the project.
- The level of detail applicable to the current stage that of the project.
- The current identified needs and challenges.

The detailed methodology for the advisory has been divided in four activities which are further explained in the following sections.

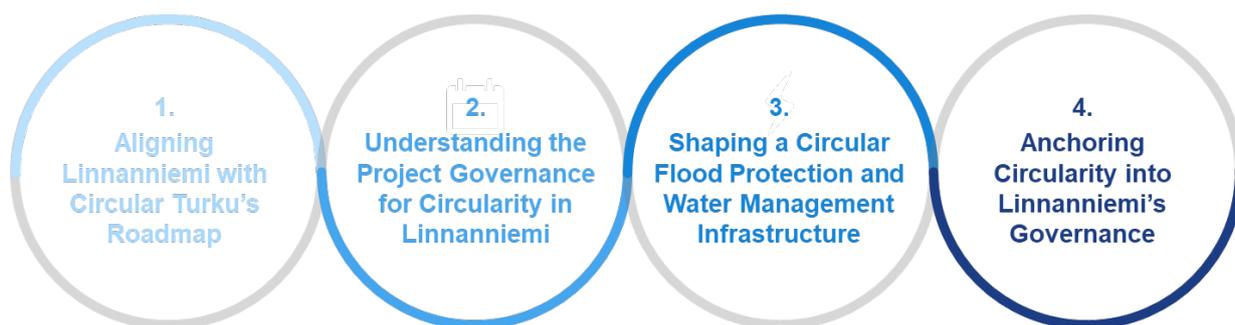


Figure 3: Proposed activities

- **Activity 1 – Aligning Linnanniemi with Circular Turku’s Vision:** co-define with Turku the circularity vision for Linnanniemi that will guide the CPA in line with Circular Turku’s Roadmap, with a focus on water and its interface with other priority areas.
- **Activity 2 – Understanding the project governance for circularity in Lianniemi:** Understand the landscape of actors and stakeholders involved in making Linnanniemi a circular landmark project and how the different planning streams interrelate.
- **Activity 3 – Shaping a Circular Flood Protection and Water Management Infrastructure:** stress-test the current flood protection and water management solutions to future flood and climate scenarios, and shape an inherently circular proposal by refusing unnecessary new construction, building for long-term use, increasing efficiencies and using the right materials.
- **Activities 4 – Anchoring Circularity into Linnanniemi’s Governance:** develop a collection of recommendations and actions to guide the Linnanniemi project beyond masterplan and support Turku in the development of a circular bankable project.

### Activity 1: Aligning with Circular Turku’s Roadmap (ca 15 % of total scope)

The primary objective of the initial activity is to formulate a comprehensive circular vision for Linnanniemi based on the Circular Turku Roadmap. The Circular Vision for Linnanniemi will be carved out through a collaborative process between C3 and Turku’s Municipality. This vision will serve as the cornerstone for the subsequent phases with the ultimate goal of setting the circularity frame for the project’s development and technical Implementation Guidelines.

### 1.1. Baseline assessment of circularity in line with Circular Turku

C3 will conduct a brief appraisal of the Linnanniemi development and supplementary information received from Turku (e.g. detailed phasing of works, flood protection and water management measures), in order to identify 1) current opportunities for circularity at district, infrastructure, public space and building levels; 2) current approaches to water management and 3) potential challenges, and opportunities for innovation.

The 5 focus areas of Circular Turku's Roadmap will be the foundation for the development of Linnanniemi's Vision, with a special focus on Circular Water Systems and Circular Buildings and Construction, to ensure alignment between the city and the project's circular ambition. Opportunities around the remaining focus areas of Circular Turku's roadmap (energy, food and transport & logistics) will be explored on the interface with Circular Water Systems and Circular Buildings and Construction.

### 1.2. Benchmarking

C3 will undertake a benchmark assessment of Circularity Strategies in waterfronts and urban developments facing coastal and stormwater flood risks. This exercise will focus on defining how circularity is brought into similar urban projects, based on case studies that enable to identify key trends, focus areas, circular strategies and targets at the district, infrastructure, landscape and building levels, as well as identifying the value added by bringing circularity strategies into the project. The benchmarking exercise will also feature up to six case studies of innovative project governance anchoring of circularity at the heart of development projects.

### 1.3. WORKSHOP 1 – Linnanniemi's Circularity Vision

A face-to-face Workshop will be held with the Municipality of Turku and up to 2 experts on urban circularity and water. The purpose of the workshop is to co-define a high-level circular vision for the future development of the Linnanniemi Masterplan. C3 will prepare materials for the session based on outcomes of previous activities. The expected outcome of the workshop will include:

- Establish Linnanniemi's circularity vision in line with Circular Turku and calibrate Linnanniemi's circularity ambition at district, infrastructure, landscape and building levels focused on water, buildings & construction and their interface with energy, food and transport & logistics (e.g. potential material reuse from building demolition, agricultural systems for water management, integration of nature-based solutions in roads, etc)
- Agree on strategic circular objectives for each of the focus areas
- Explore emerging opportunity areas to achieve the circular ambition

The final attendees, date, location and agenda for the workshop will be agreed with Turku's project team in the early stages of the project.

#### **Activity 2: Understanding the Project Governance for Circularity (ca 15% of total scope)**

The objective of this activity is to understand key drivers, stakeholders and activities involved in making the complex development in Linnanniemi a light tower showcasing the potential of urban circular economy projects as basis to anchor circularity into the project governance in Activity 4.

## 2.1 Assessment of the Project Governance for Circularity

C3 will conduct a virtual meeting with the Turku Municipality, during which the Linnanniemi project team will present their insights on the project's development pathway, including project governance across workstreams, decision making and detailed project scheduling.

The expected outcome of the meeting will include a thorough understanding of:

- The development pathway that the city of Turku is pursuing
- The breakdown of the overall development into phases and activities during which critical decision making for circularity is taking place

## 2.2. Stakeholder Mapping

C3 will develop a stakeholder landscape including public and private actors involved in circular economy related aspects of Linnanniemi and laying out their mandates and drivers. In conjunction with activity 2.1 (Assessment of Linnanniemi Project Governance for Circularity), this activity will inform the identification of neuralgic points of decision making during the development, which will result in a higher circularity of Linnanniemi.

## 2.3. Archetype for circular project governance

C3 will outline an archetype for the circular governance of the project for comparability to the current governance. The result of this exercise can inform the existing scheme with further considerations of stakeholders and criteria for increased circularity uptake. The timeline for development will be considered to ensure the focus is placed on those areas where there is room for actions to be incorporated in the planning. The following aspects will be analysed:

- Current consideration of circularity into the project's governance
- Archetypical project governance to yield circularity through all project stages, from design to operation
- Gap analysis between the current project governance and the archetypical circular project governance
- Identification of roles/competences for project implementation
- Compare key factors from each governance scheme (the current and the alternative) that influence the promotion of circular projects, including sustainability criteria, economic viability, stakeholder engagement, technological innovation, regulatory frameworks, and resource efficiency

The assessment will finalise with a multicriteria comparison of the pathways allowing for an informed decision making.

## 2.4. WORKSHOP 2 – Circular project governance

A virtual workshop will be held with the Municipality of Turku and up to 2 experts provided by C3 on circularity and urban planning. In this workshop, C3 will present the conclusions drawn from the assessment of the project's governance in relation with the project's development pathway, in line with the vision defined in Activity 1.

With the basis of the current project governance and the archetype for a circular project governance, we will collectively discuss the gaps, the challenges and the opportunities achieved

through the enrichment of the current governance scheme. The final attendees, date, location and agenda for the workshop will be agreed with Turku's project team in the early stages of the project.

### **Activity 3: Shaping a Circular Flood Protection and Water Management Infrastructure (ca. 50 % of Scope)**

In this step, C3 proposes to carry an expert review of the proposed flood protection and water management infrastructure with a circularity lens based on the key principles outlined in Circular Turku's roadmap:

- **Rethink:** making the proposal inherently circular by refusing unnecessary construction
- **Regenerate:** consider nature-based solutions whenever possible
- **Reduce:** explore efficiencies to cover different needs with optimised solutions
- **Reuse:** consider reuse and adaptation of existing assets and materials, as well as adaptive phasing for the interventions needed
- **Recover:** explore potential for on-site material reuse

Opportunities will be explored and detailed for the flood protection and water management infrastructure, as well as the interface between water systems and the other focus areas outlined in the Circular Turku Roadmap: Buildings & Construction, Energy, Food and Transport & Logistics.

#### **3.1. Peer review of flood risk assessment with a future climate perspective**

An initial virtual meeting will be held with C3 and relevant stakeholders to understand relevant available datasets. The datasets will be collated and catalogued. In this meeting, the wishes, challenges and opportunities that the city may be seeking to address will also be carved out, to see if and how these can be fulfilled through a reviewed water infrastructure proposal and further CE opportunities.

Following the virtual meeting, C3 will undergo a high-level expert review of existing coastal and stormwater flood risk assessment documents, mapping and other resources shared by the city. Based on the data shared, C3 will review the context of current risk and how this might change in the future due to climate change, utilising a range of Shared Socioeconomic Pathways (SSP) scenarios based on the most up to date climate projections from the Intergovernmental Panel on Climate Change.

#### **3.2. Assess flood protection and water management infrastructure against future risks**

C3 will review the current flood defence project and assess robustness and effectiveness through a climate change perspective. The aim of this phase will be to make the proposed infrastructure inherently circular by refusing unnecessary construction. Both the proposed direct tidal defence solution and the surface water management solution will be analysed.

The degree to which an assumptive approach (building based on assumed future scenarios) versus an adaptive approach (flexible to multiple future scenarios) has been considered will be evaluated.

A focus will be placed on ensuring that solutions are delivered on a phased basis, with interventions implemented only as climate change impacts arise. It will be ensured that each intervention builds upon previous elements, representing a 'no regrets' solution.

### 3.3. Exploration of opportunities for circular flood protection and water management infrastructure

#### **Opportunities for Circular Flood Protection and Water Management**

C3 will explore circularity opportunities in the flood protection and water management proposal, focusing on:

- Restoring, retaining, or strengthening existing quayside walls to support raised coastal defences.
- Replacing infrastructure with nature-based solutions where feasible.
- Leveraging synergies with nearby buildings to integrate perimeter defences.
- Using circular materials to seamlessly blend defences into the landscape, preserving waterfront connectivity.

Examples of best practices and solutions suitable for Finland will emphasize water reuse, circular design, and low-carbon principles over traditional approaches. Solutions will address full lifecycle aspects (operation, maintenance, repurposing, etc.) for various flooding and water management scenarios.

#### **Opportunities at the Interface between Water and Other Sectors**

Additionally, we will identify circular opportunities at the intersections of water and other sectors outlined in the Circular Turku Roadmap and Linnanniemi vision from phase 1:

- **Water & Buildings/Construction:** Material reuse from demolition activities.
- **Water & Energy:** Small-scale hydropower potential in retention basins.
- **Water & Food:** Integrating agricultural systems as nature-based flood solutions.
- **Water & Transport/Logistics:** Stormwater collection within road infrastructure.

These high-level opportunities will include preliminary assessments of scalability, CO2 mitigation potential, potential alignment with eligibility criteria and project feasibility. They will inform Workshop 3, where selected opportunities will be prioritized and further developed (see sections 5.3.4 and 5.3.5).

### 3.4. WORKSHOP 3 – Prioritisation of Circular Opportunities

A face-to-face Workshop will be held with the Municipality of Turku and up to 2 experts provided by C3 on circularity and water. In this workshop, C3 will present the conclusions drawn from the assessment. The workshop will serve as a platform to discuss the appraised circular flood protection and water management infrastructure, and exchange on circular opportunities for water systems and their interface with other sectors. The expected outcome of the workshop is the selection and prioritisation, together with Turku:

- Validated and enriched circular flood protection and water management infrastructure
- Selection of top 5-10 opportunities for circular flood protection and water management infrastructure, including opportunities on the interface with the other focus sectors, to be further detailed in the next step

The final attendees, date, location and agenda for the workshop will be agreed with Turku's project team in the early stages of the project.

### 3.5. Detailed opportunity profiles for circular flood protection and water management

For each prioritised circularity opportunity from the 5-10 selected ones during Workshop 3, detailed profiles will be developed from a technical and economic perspective, to articulate a high-level estimation of the costs and circular value obtained in each intervention. Tentatively, each opportunity profile will include:

- Goal and definition.
- Categorization according to scale, applicable stage and impact
- Partial governance scheme and potential stakeholders to anchor circularity
- Identification of potential partners.
- Identification of benchmark/examples.
- Where possible, a preliminary estimation, based on available benchmarks, of the required CAPEX and savings in life cycle carbon emissions and life cycle costs.

#### **Activity 4: Anchoring Circularity into Linnanniemi's Governance (ca. 20 % of scope)**

These guidelines will build on the assessment carried out in Phase 2 and will set the basis for the implementation and include an identification of key required next steps.

##### 4.1. Alignment of project governance with the circularity ambition

Based on the archetype for circular project governance defined in Activity 2, C3 will further detail its applicability to the case of Linnanniemi considering the prioritised opportunities in Activity 3.

- Definition of key circularity drivers for project planning and execution.
- Definition of how circularity should be integrated across the different phases of the project implementation.
- High-level risk assessment and preliminary risk allocation.

##### 4.2. Circular Development roadmap

The key steps towards technical and governance circularity implementation will be outlined in alignment with the project's timeline and future operation.

To track and evaluate alignment with the circular ambition, C3 will define a set of qualitative targets and metrics to measure circularity along the project. These will enable the monitoring of the future site development, infrastructure and architecture projects:

- Ensuring their compliance with Linnanniemi and Turku's circular vision and ambition.
- Ensuring their alignment with the criteria set by the green financiers and private investors

##### 4.3. Close-out meeting

A virtual close-out meeting will be held with the Municipality of Turku to present the final document, comprising the outputs of all Activities defined.

## 7. Summary of tasks and deliverables

Activity	Task	Output	Extension
<b>Activity 1 – Aligning with Circular Turku’s Roadmap</b>	Baseline Assessment of Circularity in line with Circular Turku	<ul style="list-style-type: none"> <li>Brief appraisal of the Linnanniemi development</li> </ul>	Excel sheet + 1-2 page summary
	Benchmarking	<ul style="list-style-type: none"> <li>Benchmark of Circularity Strategies in large-scale urban Project (4-6 case studies)</li> </ul>	8-16 pages
	WORKSHOP 1 – Linnanniemi’s Circularity Vision	<ul style="list-style-type: none"> <li>Face to Face workshop (workshop notes will be circulated)</li> </ul>	One pager + 1-3 pages
<b>Activity 2 – Understanding the Project Governance for Circularity</b>	Assessment of the Project Governance for Circularity	<ul style="list-style-type: none"> <li>Summary of insight provided by Turku in the meeting</li> </ul>	1-3 pages
	Stakeholder Mapping	<ul style="list-style-type: none"> <li>List of potential stakeholders to secure the project circularity</li> </ul>	2-4 pages
	Archetype for Circular Project Governance	<ul style="list-style-type: none"> <li>Summary of current project governance</li> <li>Archetype for circular project governance</li> </ul>	2-4 pages
	WORKSHOP 2 – Circular Project Governance	<ul style="list-style-type: none"> <li>Virtual workshop (workshop notes will be circulated)</li> </ul>	One pager + 1-3 pages on vision
<b>Activity 3 – Shaping a Circular Flood Protection and Water Management Infrastructure</b>	Peer review of flood risk assessment with a future climate perspective	<ul style="list-style-type: none"> <li>Virtual meeting (meeting notes will be circulated)</li> <li>Reviewed flood risk assessment</li> </ul>	5-10 pages
	Assess flood protection and water management infrastructure against future risks	<ul style="list-style-type: none"> <li>Future-proof flood protection and water management infrastructure proposal</li> </ul>	5-10 pages
	Exploration of opportunities for circular flood protection and water management	<ul style="list-style-type: none"> <li>Long-list of opportunities for circular flood protection and water management</li> </ul>	5-10 pages
	WORKSHOP 3 – Prioritisation of Circular Opportunities	<ul style="list-style-type: none"> <li>In-person workshop (workshop notes will be circulated)</li> </ul>	One pager
	Detailed opportunity profiles for circular flood protection and water management	<ul style="list-style-type: none"> <li>5-10 detailed opportunity profiles</li> </ul>	10-20 pages
<b>Activity 4 – Anchoring</b>	Alignment of project governance with the circularity ambition	<ul style="list-style-type: none"> <li>Alignment the project structuring with the circularity ambition</li> </ul>	10-20 pages

Circularity into Linnanniemi's Governance

Preliminary Circular Development Roadmap	<ul style="list-style-type: none"> <li>Key steps towards technical and governance circularity implementation</li> <li>Targets and metrics</li> </ul>	2-5 pages
Close-out meeting	<ul style="list-style-type: none"> <li>Virtual meeting (meeting notes will be circulated)</li> </ul>	One pager

## 8. Workplan

The city of Turku has defined a timeline for the redevelopment of Linnanniemi between 2024 and 2031 (see Section 1). As the redevelopment comprises of various sub-projects, different levels of planning maturity need to be managed simultaneously. Significant next milestones are the beginning of construction activities at the Ferry Terminal and the start of a landscaping competitions to redefine the area at Linnanpuisto (both in 2025).

This scoping report proposes activities, which are contributing to the increasing planning maturity and degree of definition, without interfering or delaying upcoming planning steps.

The activities are aimed at kicking off in January 2025 and will be delivered during six months until end of June 2025. The workplan will be updated and detailed at the beginning of the advisory works in coordination with the City of Turku.

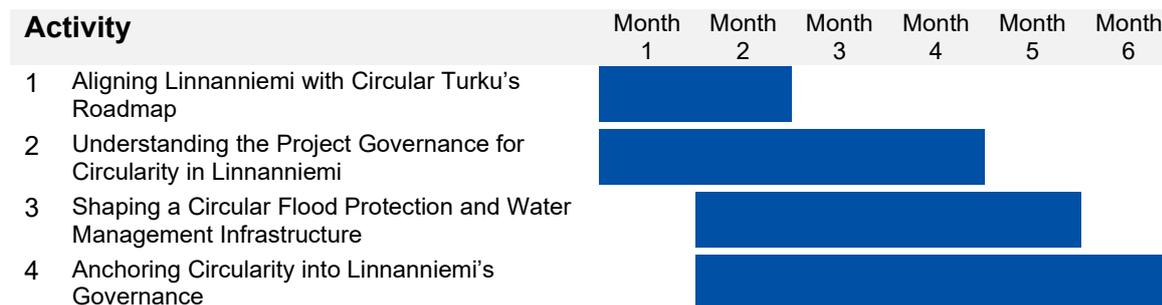


Figure 4: Indicative timeline for the delivery of advisory services to Turku

## 9. Proposed roles and inputs from consortium

The advisory need identified to ensure that Turku will successfully implement its circular economy ambitions for Linnanniemi ranges at the intersection of various disciplines and skills, among others circular strategy making, flood risk engineering, urban- and architectural planning as well as project management and facilitation.

Further key requirements of the team are:

- Familiarity with multi-stakeholder planning processes in the context of urban regeneration projects
- Ability to process Finish source documents within the team if need be. While the project language is agreed to be English, the consortium will try to accommodate for the need to translate/ speak Finish where unavoidable.

Upon assignment, C3 will appoint a dedicated project team compliant with the above set criteria.

## 10. Ways of working

The activities outlined above will be delivered collaboratively by EIB, the project promoter, and a consulting team from C3. A CPA project manager (CPA-PM) will lead the project, holding primary responsibility for delivering it on time, within budget, and to the highest quality standards. The CPA-PM will also coordinate closely with the broader C3 team, particularly the workstream lead for WS4, to align CPA delivery with other C3 initiatives.

The project implementation process consists of four distinct stages, each with management gateways to assess requirements for the subsequent stage. These gateways enable detailed planning, controls, and quality management activities. The stages are as follows:

**Project Set-up:** The CPA-PM appoints a project team, establishes necessary project management systems, and sets up a dedicated project environment (e.g., SharePoint).

**Inception:** The CPA-PM refines the project plan, including team structure, milestones, work plan, roles, and responsibilities. The CPA-PM also organizes and conducts the kick-off meeting, during which all involved parties agree on the meeting schedule, key principles for project delivery, and specific project requirements. Risk and quality management plans are updated based on these inputs.

**Delivery:** Main project activities are carried out according to the agreed scope and work plan. The CPA-PM manages resources, scope, schedule, and quality throughout. Key deliverables, approved by the EIB, are then delivered to the city team, with the CPA-PM carefully managing the review process to ensure timelines remain on track.

**Close-out:** Once all deliverables are accepted by the client, the CPA-PM coordinates close-out activities, including documentation, a debrief with the EIB, and the issuance of a close-out letter to the project promoter along with a satisfaction survey.

In addition to the above mentioned, standard C3 principles and procedures of project implementation apply.

## 11. Delivery model and fee proposal (EIB/CNS):

[to be finalised after approval of final CPA scoping report]