

Eurodelta Corridors

Circular Strategies for Resilient Living

Textiles and Timber

Topic

Europe's circular transition faces challenges from population growth and resource constraints. Despite policies like the WFD and Green Deal, barriers in scale, materials, and mindset persist. Construction alone generates 35% of EU waste, but better material efficiency could cut emissions by 80%. This study explores textiles and timber as sustainable solutions in the Eurodelta by 2050, though recycling gaps and funding remain hurdles. Circular infrastructure corridors, like the North Sea–Rhine–Mediterranean corridor, could enhance connectivity, innovation, and sustainable material use.

Goals

Investigate textile waste flows into insulation and timber's role in sustainable construction through a literature review.

Analyze spatial and logistical needs for textile recycling hubs and timber facilities in the Eurodelta.

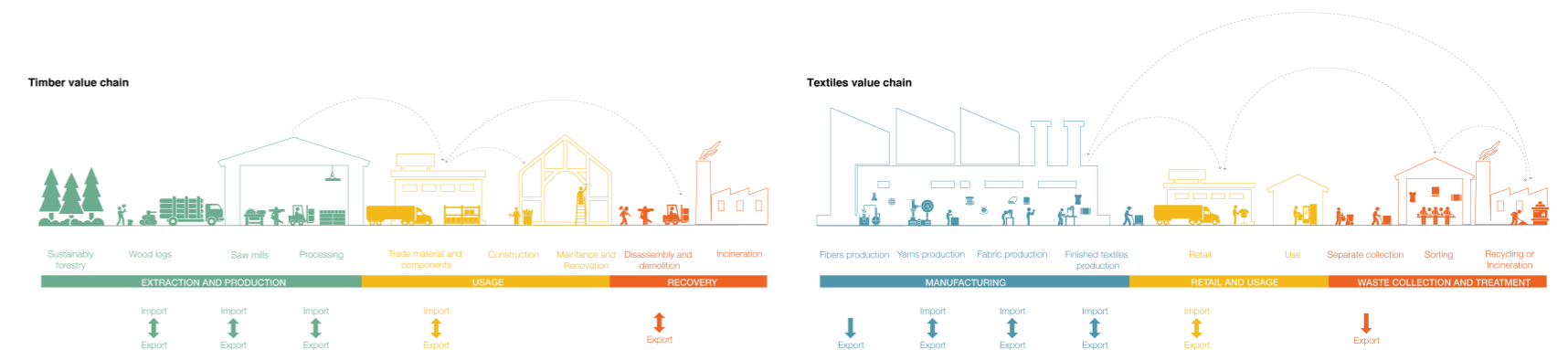
Develop strategies for a circular Eurodelta by 2050, combining literature, fieldwork, and expert insights.

Questions

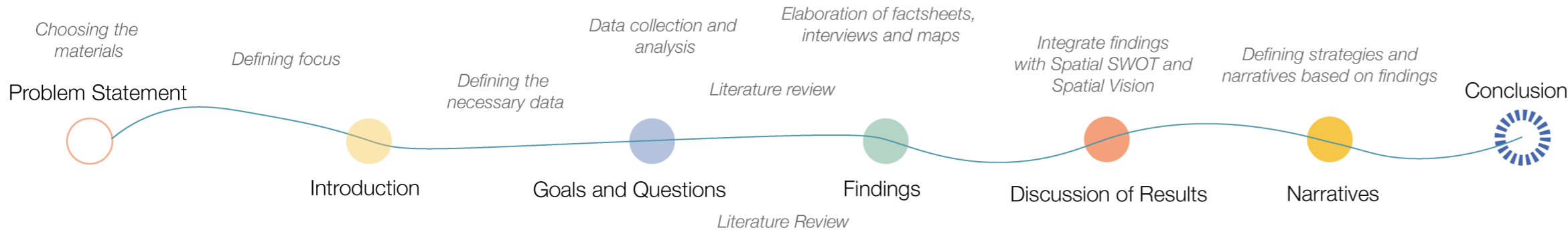
How can textiles be effectively repurposed as insulation materials in timber-framed buildings to enhance energy efficiency and reduce waste?

What spatial and logistical infrastructure is required to align textile recycling and timber production within a circular built environment in the Eurodelta?

What are the economic and technical challenges of integrating textile insulation with timber structures, and how can these be addressed?



Methodology



Strategies

	Regional Corridor	City Corridor	Neighborhood Corridor
Economic Aspects	Create economic incentives through subsidies, grants, and tax cuts for the whole Eurodelta Standardize materials and recycling regulations Focus on initiatives in economically declining regions	Support reverse logistics in city stores Support startups and enterprises focused on the circular economy Strengthen the local economy by jobs related to circularity	Support small neighborhood businesses upcycling textiles or producing modular timber structures Create programs to educate communities on circular economy benefits but also to be an actor
Spatial Aspects	Enhance recycling hubs in Belgium and Germany Improve port and waterway logistics for low-carbon transport Develop smart mobility and circular logistics hubs	Build multifunctional spaces with collection points and small facilities for workshops Adopt more flexibility in building usage allowing for temporary pop-up stores and warehouses	Implement digital platforms for local stakeholders to track materials, components and statistics Adopt a pilot program with a focus on circular interests for city residents
Building Applications	Promote large-scale use of timber in modular buildings Track timber and textile flows via a digital platform Map and prioritize extraction and regeneration sites across borders	Use recycled textiles and sustainably sourced timber in public space projects City incentives for retrofitting buildings with circular materials City code for building reuse and disassembly	Promote affordable housing using modular timber construction with textile-based insulation Discount cards for residents buying circular materials for building repairs, renovation and construction

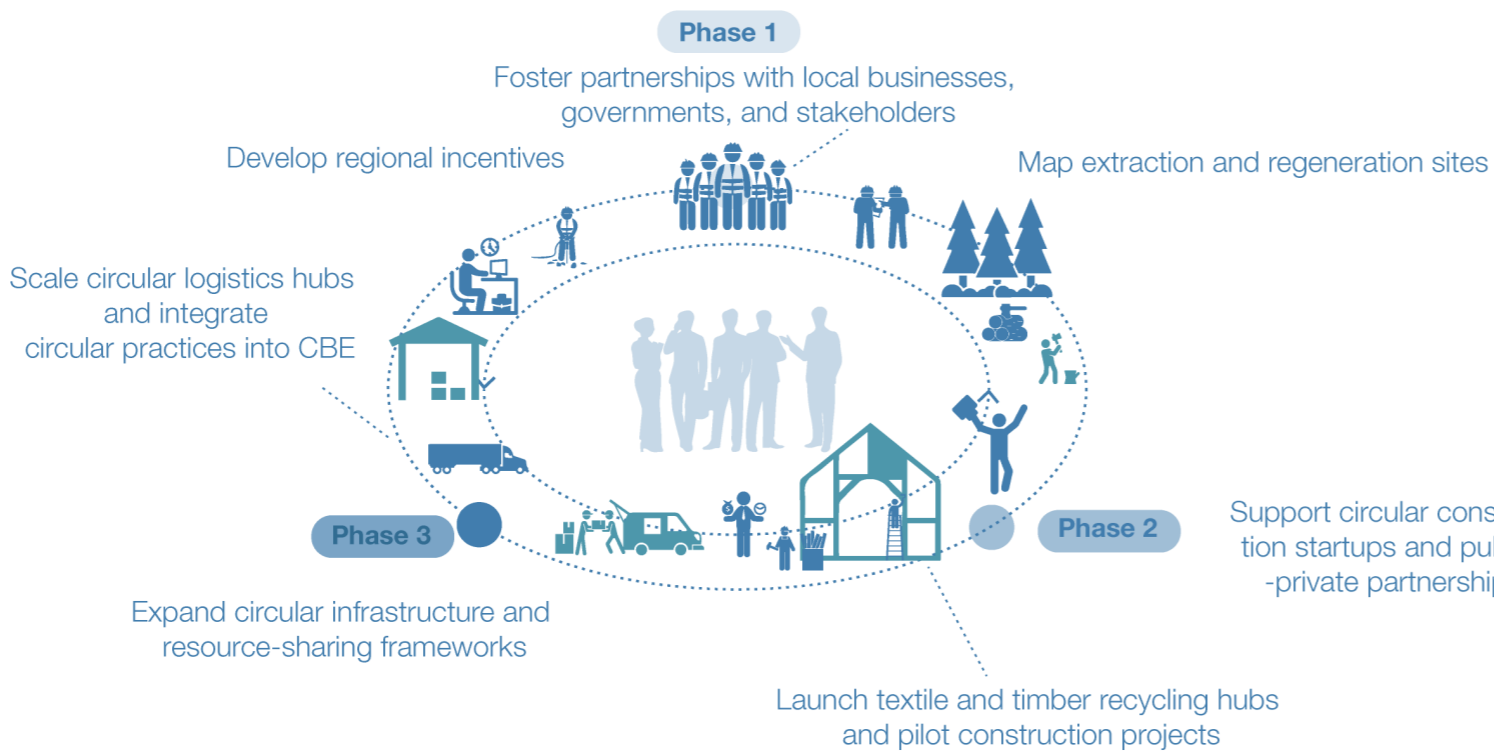
Narratives

The Circular Regional Corridor: Resilience through Growth

Focus: Economic opportunity, job creation, shrinking cities, start-ups, economic incentives and regional economic resilience.

Key Infrastructure:

- Circular economy hubs
- Multi-modal logistics
- Infrastructure investments
- Industrial synergies
- Flexible building use

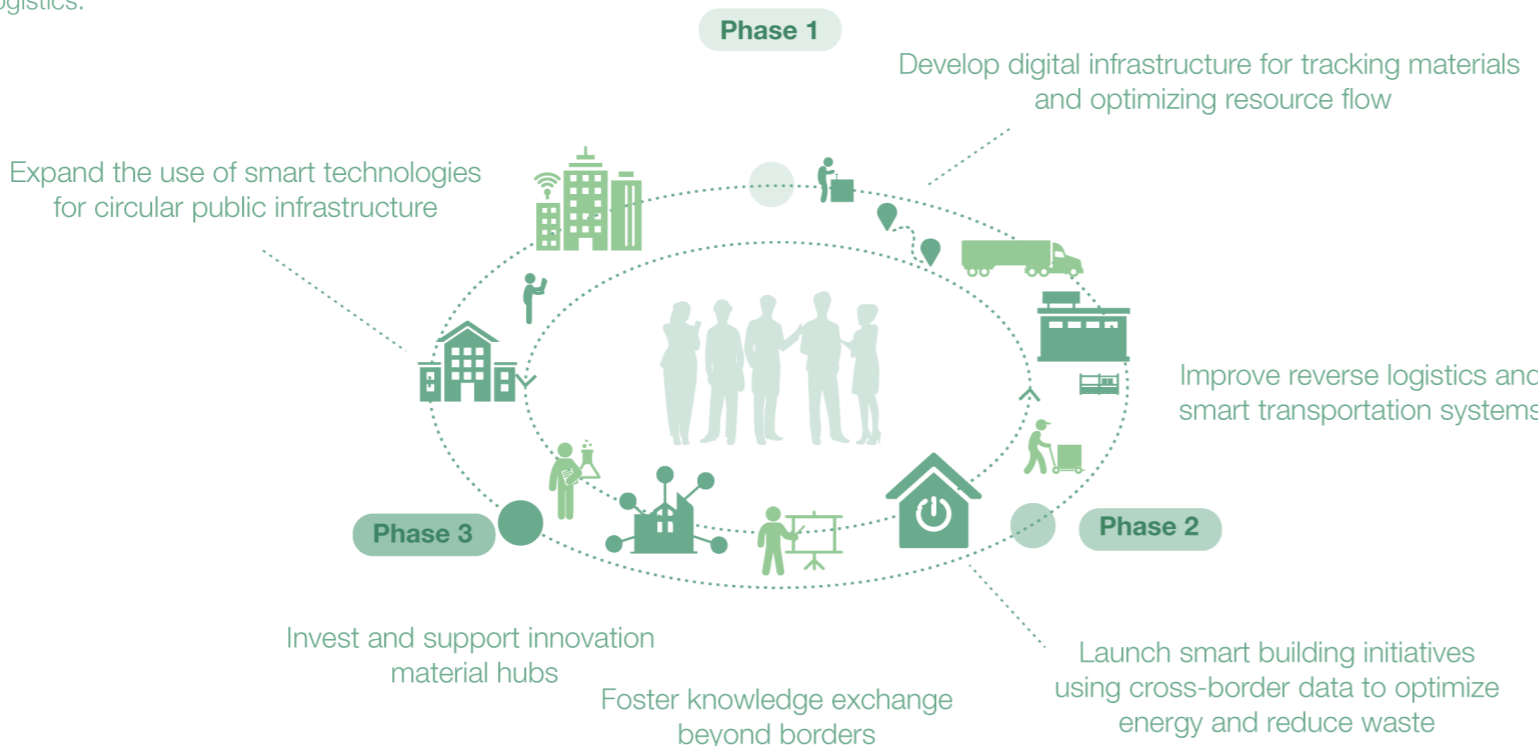


The Circular City Corridor: Smart and Innovative Built Environment

Focus: Technological innovation, material innovation hubs, smart city development, intelligent transportation systems, reverse logistics.

Key Infrastructure:

- Intelligent transportation systems
- Reverse logistics
- Innovation hubs
- Digital platforms
- Flexible building use

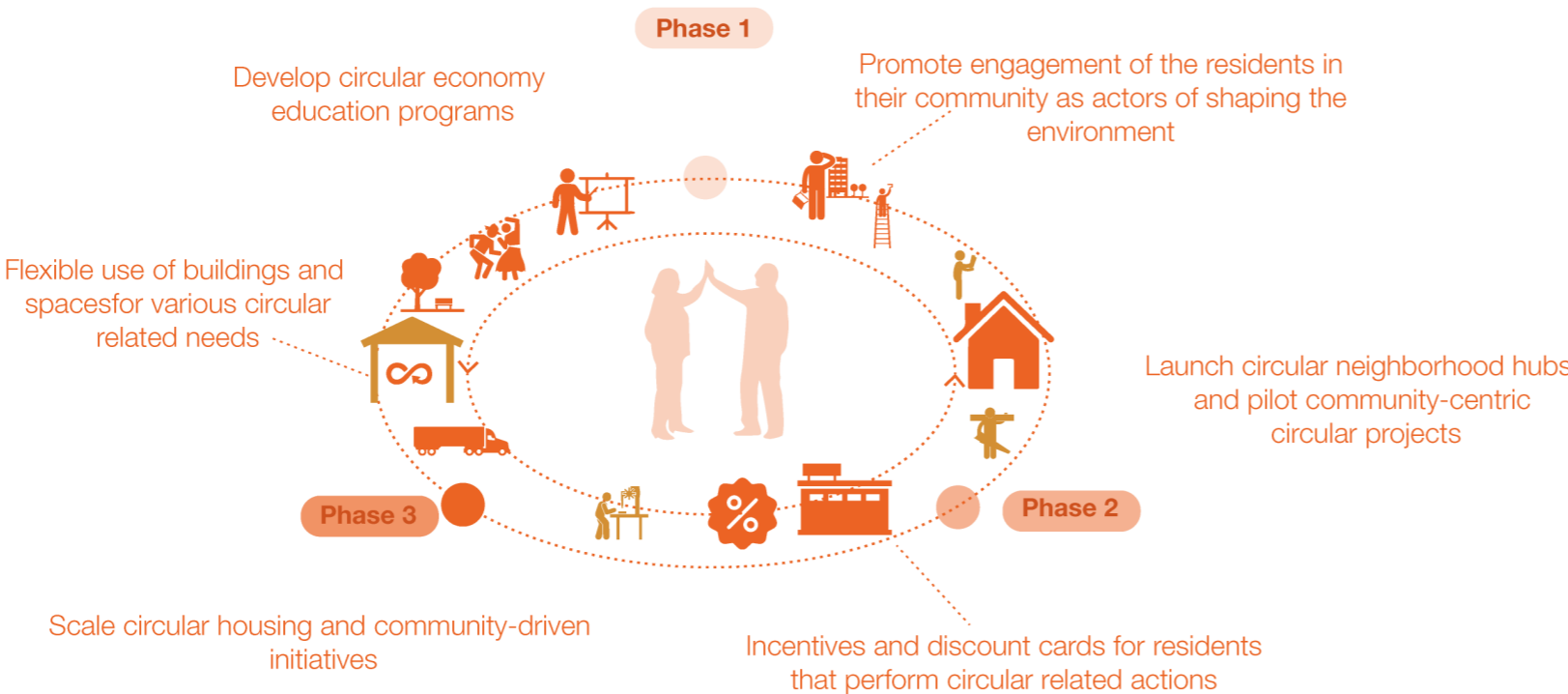


The Circular Neighborhood Corridor: Communities for the New Normal

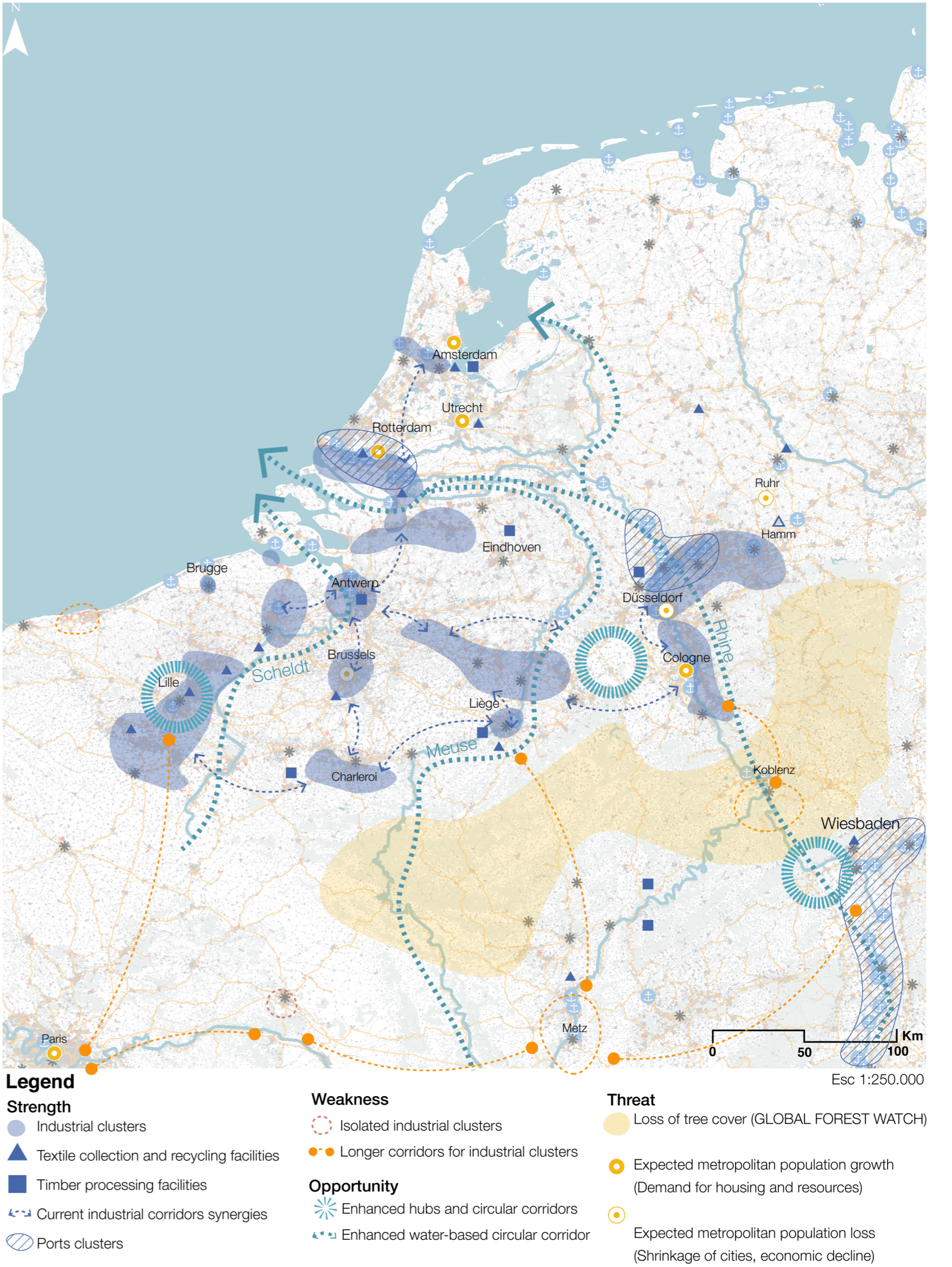
Focus: Community empowerment, social equity, improved quality of life, stakeholder engagement, hands-on approach.

Key Infrastructure:

- Local material banks
- Craft and workshop centers
- Drop off points for recycling
- Reverse logistics stores
- Community centers



Spatial SWOT



Spatial Vision

