care-full fashion

pattern booklet

| topic	author	studio
Amsterdam's ,care-full' transition	*Gillian K. J. Weber*	*Planning Complex Cities*

pattern language
introduction & process of development

A pattern language is a design method that brings together knowledge from different fields and scales. This approach allows for flexible design while helping to understand the impact of design choices. First introduced by Christopher Alexander (1977), it consists of a network of design solutions, called a pattern field, organised according to their relations. This structure helps to break down complex problems into comprehensible units of knowledge and shows how changes at one level can lead to changes at another. Therefore, pattern language is a useful tool for designing systemic change in this context. In this thesis, it is used to explore how broader system transformation connects to changes in programs and land use.

The pattern set and network was started to be developed based on conclusions from the analysis of ‚care-full' aspects in the context of the MRA and informed by the three main theories introduced in the theoretical framework. Later the pattern set was expanded based on the conclusions and startegies of the site analysis of the pilot areas.

fig. 1 *Scheme of the pattern development process*
source // author
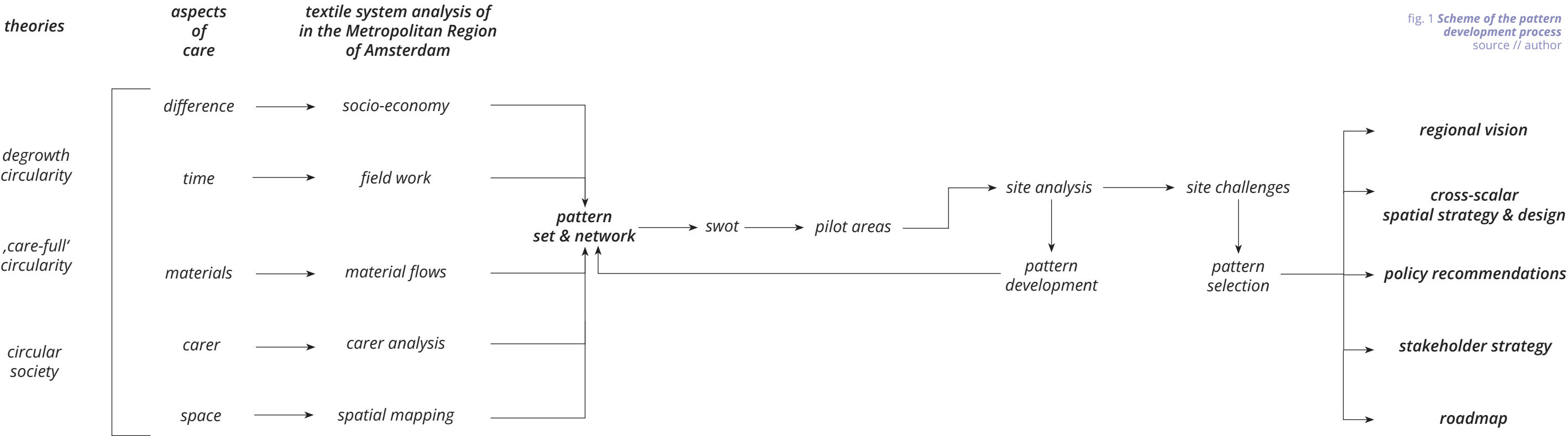
key dimensions of action

This diagram (fig.2) visually organises the main dimensions of action needed to be addressed for the transition towards a ‚care-full' circular textile system, using three key spatial planning tools: spatial design, governance, and policy. Each tool is represented as a distinct section, and within each, relevant spatial aspects and other strategies are mapped out to illustrate their interconnections and roles.

spatial design
This dimension focuses on the physical and functional aspects of space that support circular textile practices.

spatial qualities
• Visibility, accessibility, flexibility, short distances: These qualities ensure that textile circularity activities are easy to find, reach, and adapt to changing needs.

spatial context
• Bio-regional production: Aligns textile activities with local ecological and economic contexts.

spatial functions & infrastructure
• ecological regeneration, closing/narrowing/slowing textile loops, zero-emission transport: These functions describe how spaces and infrastructure can support sustainable textile flows and reduce environmental impacts.

community elements
• Raising awareness, community building, commoning: Design can foster social engagement and collective stewardship.

governance
This dimension addresses how spaces and activities are managed and shared.

ownership & space use
• governance models encourage shared ownership and use of spaces, empowering communities to co-manage textile initiatives.

policy
This dimension highlights regulatory and strategic support for circular textile systems.

financing
• equitable funding, fair work conditions, inclusivity: Policies should ensure fair and inclusive access to resources and opportunities, supporting social equity.

innovation & education
• policies can drive innovation and provide educational opportunities, both essential for systemic change.

diversity
• promoting diverse strategies ensures that different groups are included and benefit from circular textile systems.

fig. 2 *Pattern field of main dimensions of action* source // author
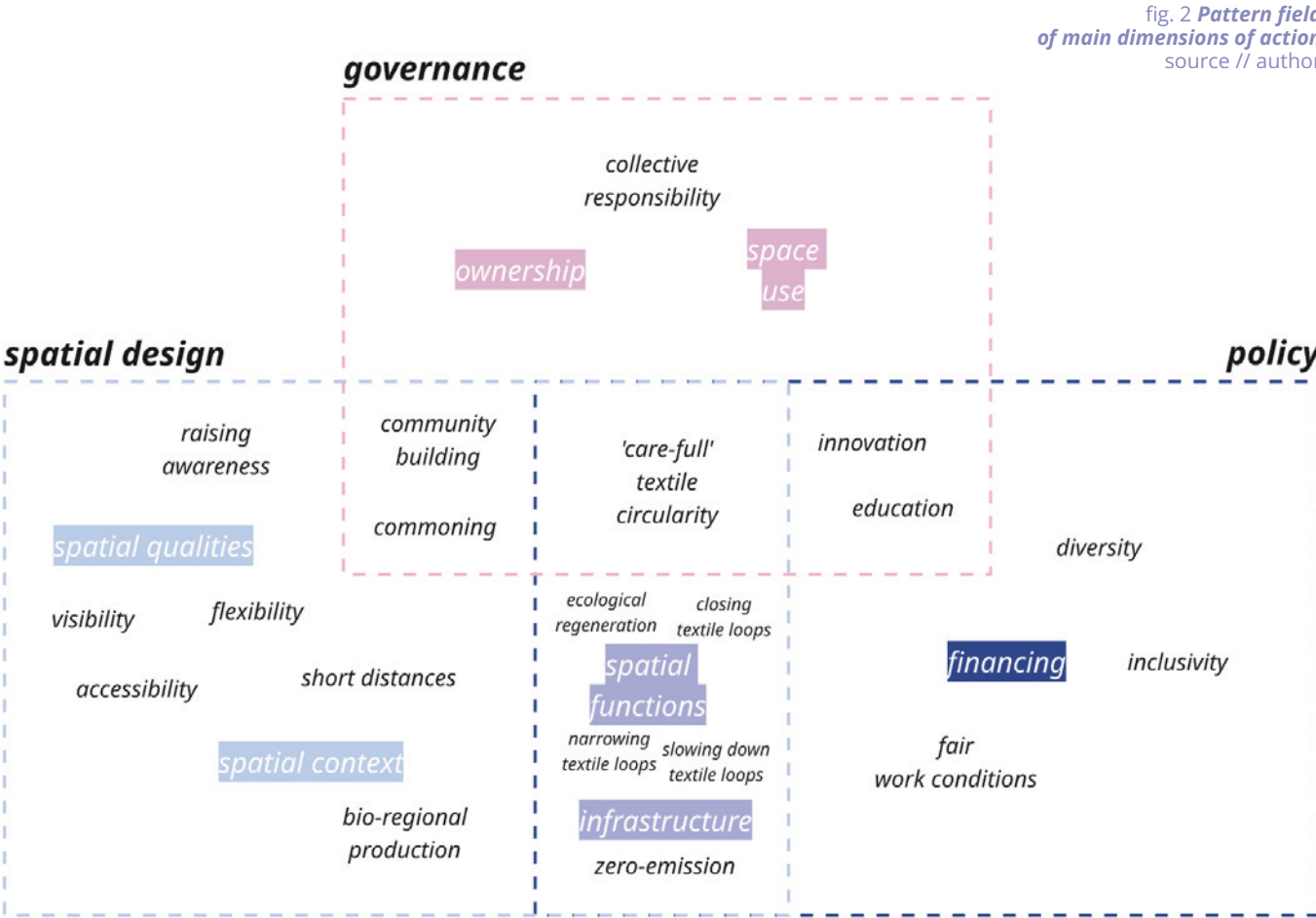
the pattern field
five aspects of care across scales

The development of the pattern field was a gradual and iterative process, shaped by multiple research methods (as presented on pages 156-157) that contributed a range of principles towards ‚care-fullness' and revealed meaningful connections between these. What distinguishes a set of patterns to a fully functional pattern field is its internal structure - specifically, the relationships between patterns and the hierarchical organisation across scales. The true value of a pattern language lies not just in individual patterns, but in how they are interlinked to form a coherent system of design solutions (Salingaros, 2008).

One key challenge in developing a coherent pattern field is the lack of cross-scale connections, which weakens its effectiveness. Patterns should not stand alone, since their true strength lies in how they combine to form higher-order patterns, whose qualities are based on the interactions of lower-level ones. This relational structure is what enables the pattern language to support systemic understanding and design.

Figure 103 shows how the pattern field of the developed ‚care-full' patterns, which are distributed across different scales to ensure a systemic approach. The interrelations between the patterns will be introduced in the next chapter to support the design decisions.
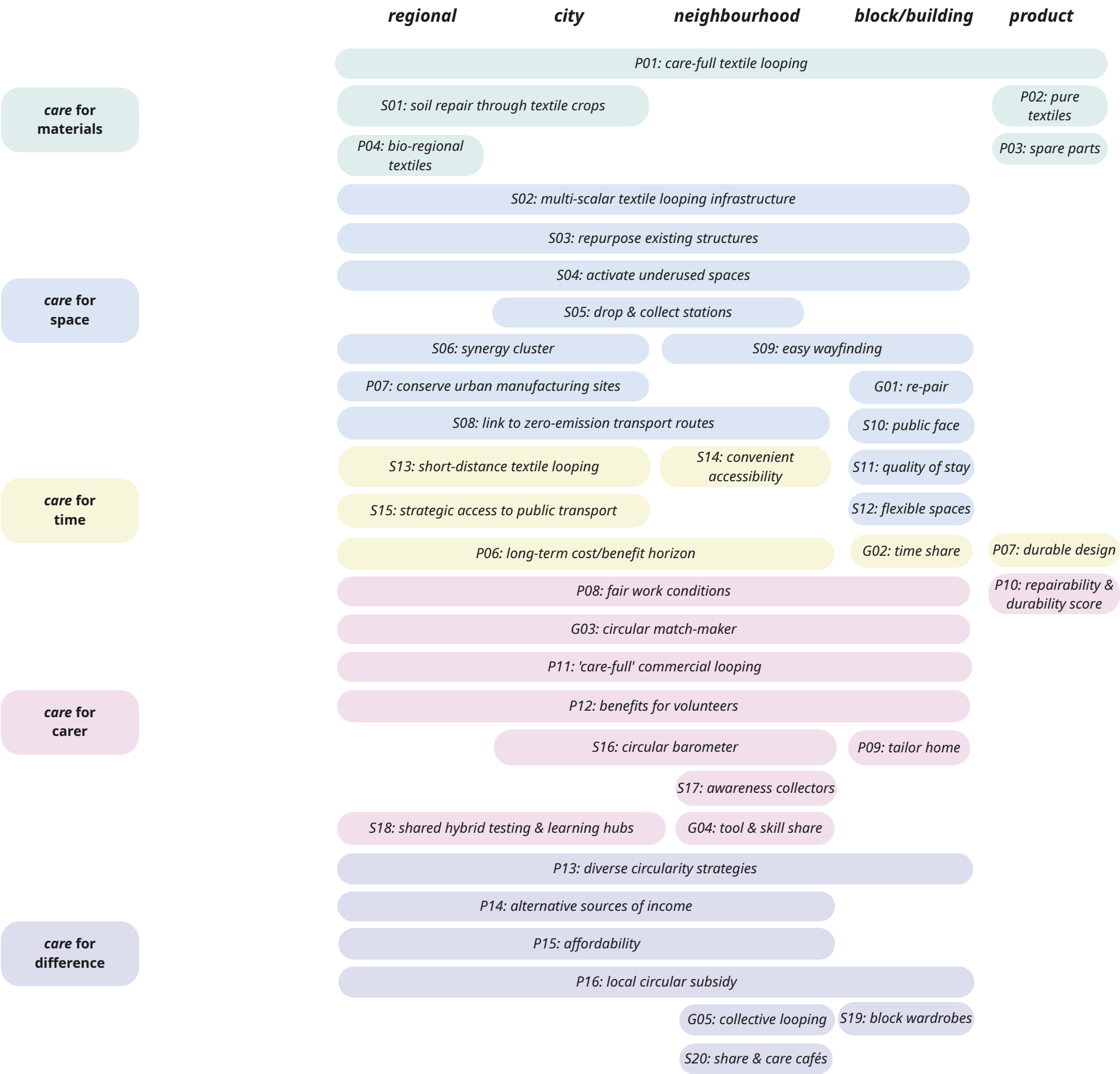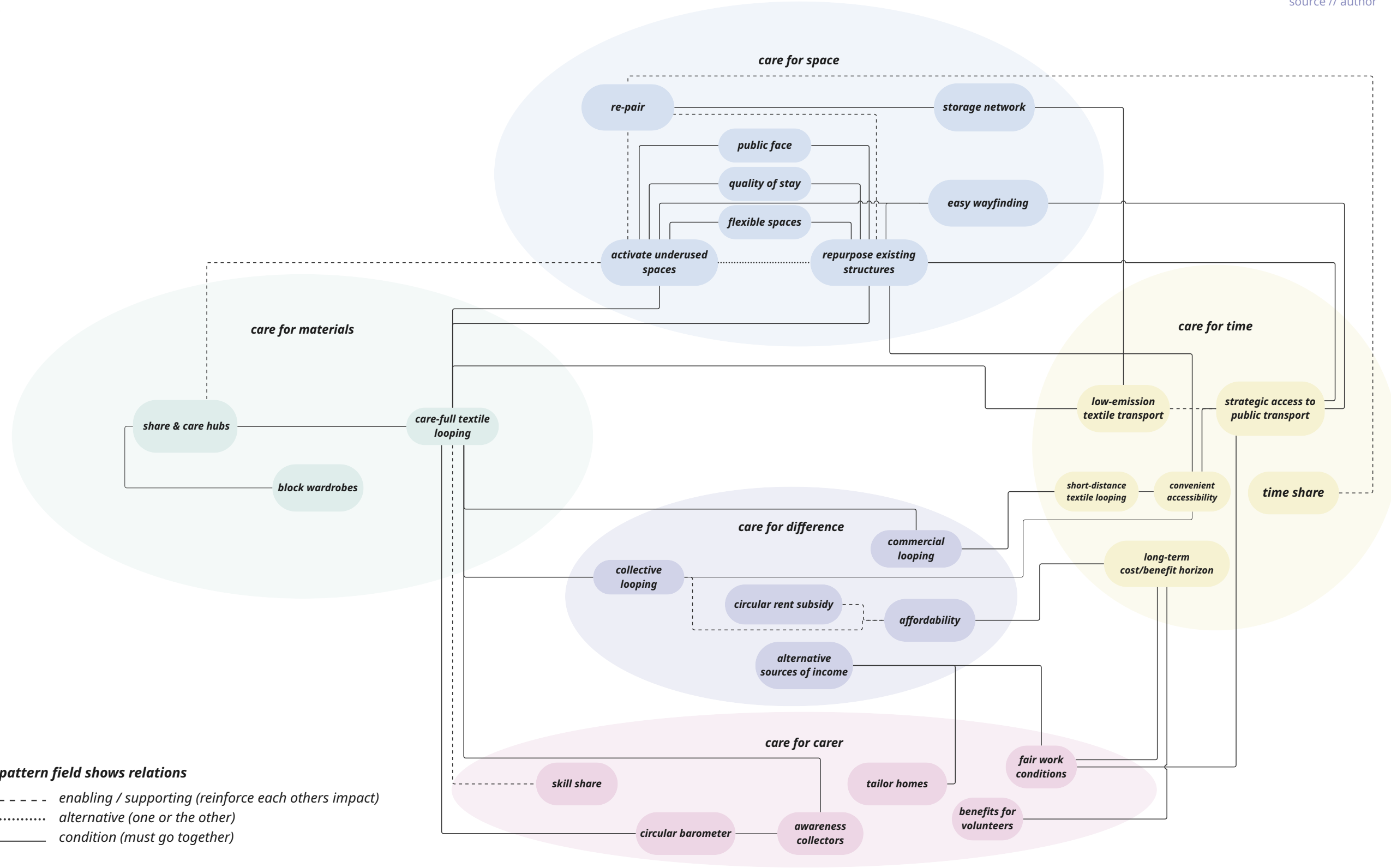
6

7

	regional	city	neighbourhood	block/building	product
care for materials	P01: care-full textile looping				
	S01: soil repair through textile crops				P02: pure textiles
	P04: bio-regional textiles				P03: spare parts
care for space	S02: multi-scalar textile looping infrastructure				
	S03: repurpose existing structures				
	S04: activate underused spaces				
		S05: drop & collect stations			
	S06: synergy cluster		S09: easy wayfinding		
	P07: conserve urban manufacturing sites			G01: re-pair	
	S08: link to zero-emission transport routes			S10: public face	
care for time	S13: short-distance textile looping		S14: convenient accessibility	S11: quality of stay	
	S15: strategic access to public transport			S12: flexible spaces	
	P06: long-term cost/benefit horizon			G02: time share	P07: durable design
					P10: repairability & durability score
care for carer	P08: fair work conditions				
	G03: circular match-maker				
	P11: 'care-full' commercial looping				
	P12: benefits for volunteers				
	S16: circular barometer			P09: tailor home	
			S17: awareness collectors		
	S18: shared hybrid testing & learning hubs		G04: tool & skill share		
care for difference	P13: diverse circularity strategies				
	P14: alternative sources of income				
	P15: affordability				
	P16: local circular subsidy				
			G05: collective looping	S19: block wardrobes	
			S20: share & care cafés		

fig. 3 *Pattern field organised by care aspect and implementation scale*
source // author

patterns for a ‚care-full‘ textile ecosystem
at the city & neighbourhood scale

The pattern field, which shows the different links between the patterns at city, neighbourhood and block scales, was generated before and adapted throughout the design phase. The links have different values, as shown in the legend.
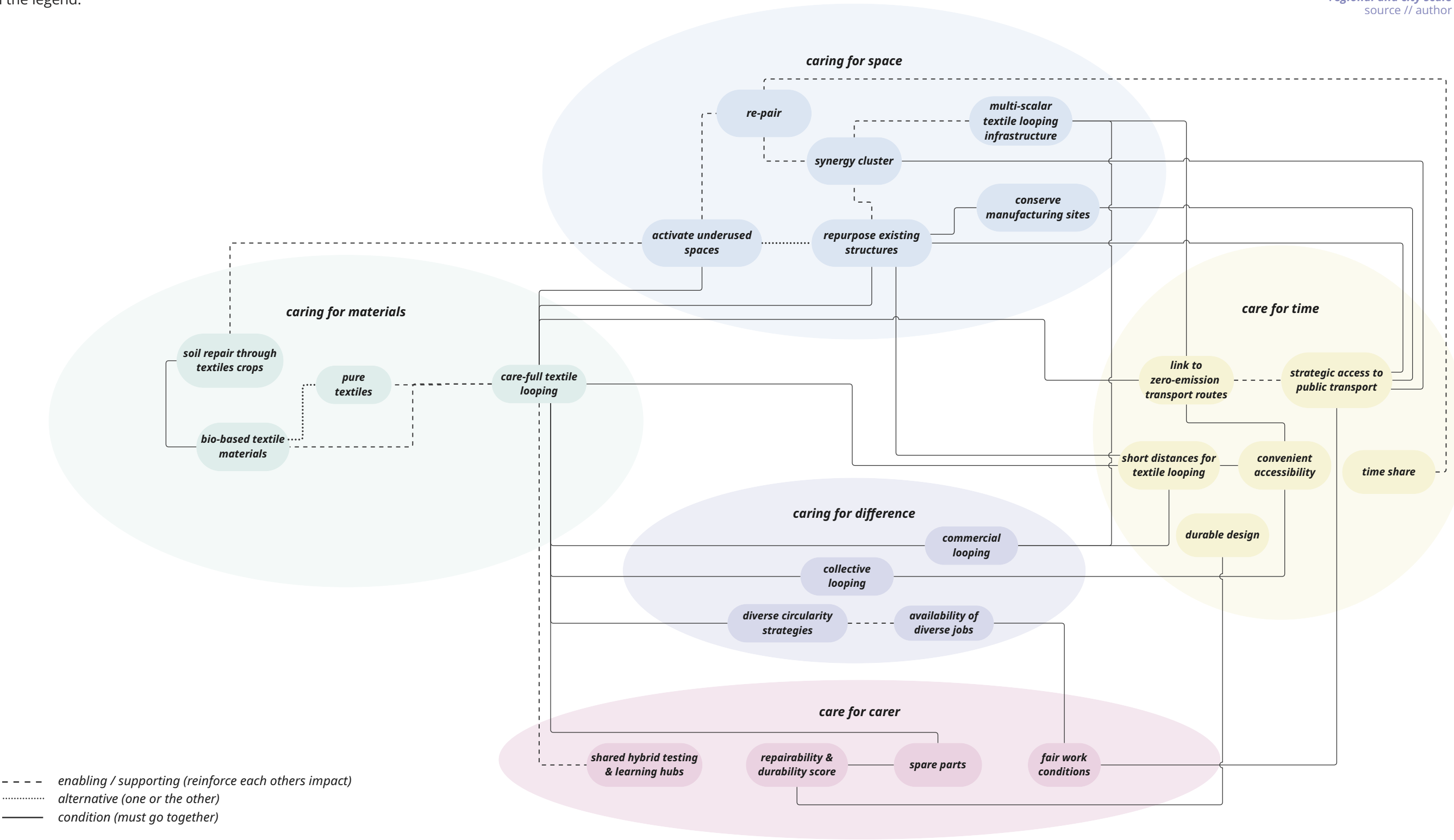
fig. 4 *Pattern field for city, neighbourhood and block scale*
source // author

8

9

care for space

re-pair

storage network

public face

quality of stay

easy wayfinding

flexible spaces

activate underused spaces

repurpose existing structures

care for materials

care for time

share & care hubs

care-full textile looping

low-emission textile transport

strategic access to public transport

block wardrobes

short-distance textile looping

convenient accessibility

time share

care for difference

commercial looping

collective looping

long-term cost/benefit horizon

circular rent subsidy

affordability

alternative sources of income

care for carer

fair work conditions

skill share

tailor homes

benefits for volunteers

circular barometer

awareness collectors

pattern field shows relations

– – – – enabling / supporting (reinforce each others impact)

············· alternative (one or the other)

———— condition (must go together)

patterns for a ‚care-full' textile ecosystem
at the region & city scale

The pattern field, which shows the different links between the patterns at regional and city scales, was generated before and adapted throughout the design phase. The links have different values, as shown in the // legend.

fig. 5 *Pattern field for regional and city scale*
source // author

caring for space

re-pair

multi-scalar textile looping infrastructure

synergy cluster

conserve manufacturing sites

activate underused spaces

repurpose existing structures

care for time

caring for materials

soil repair through textiles crops

pure textiles

care-full textile looping

link to zero-emission transport routes

strategic access to public transport

bio-based textile materials

short distances for textile looping

convenient accessibility

time share

caring for difference

commercial looping

collective looping

durable design

diverse circularity strategies

availability of diverse jobs

care for carer

shared hybrid testing & learning hubs

repairability & durability score

spare parts

fair work conditions

Legend:
- – – – enabling / supporting (reinforce each others impact)
- ·········· alternative (one or the other)
- ──── condition (must go together)

one pattern explained
content & graphic

scale *at which the pattern is most effective*
- *transscalar*
- *region*
- *city*
- *neighbourhood*
- *block/building*

type *of the pattern*
- *G = governance*
- *P = policy*
- *S = spatial design*

source *of the pattern*

■ *theory*
- *cities of making (c)*
- *Savini, 2023 (s)*
- *Bono et al., 2024 (b)*
- *Williams, 2021 (w)*
- *McGlynn et al., 2012 (m)*

▲ *analysis*
- *interview (i)*
- *spatial analysis (s)*
- *material flow analysis (m)*
- *field work (f)*

● *design*

scheme *demonstrating the practical implication of the pattern*

title *of the pattern*

main objective *of the pattern and what aspects of care it addresses (based on Bono et al., 2024)*

indicators *for impacts on aspects of the social foundation of the Doughnut based on Raworth (2020) and circularity category based on the r-ladder*

circularity
- 🌱 regenerate
- 🔄 reduce
- ⏳ slow down
- 🔄 close

social foundation
- ✚ healthy
- ✊ empowering
- 🎓 enabling
- 🔗 connecting

(if symbol is lighter, the respective aspect is impacted indirectly)

Pattern card

S02

scale
neighbourhood - city - region

[c] [▲] [○]

neighbourhood
city
region

multi-scalar
textile looping infrastructure

A multi-scalar network of infrastructure for textile looping enables textiles to be effectively looped within the region.

circularity
🔄 ⏳ 🔄

social foundation
✚ ✊ 🎓 🔗

what is cared for?
space time materials

links
- P01, S08, P07, S05, S06,
+ S03, S04, P11, G05

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who cares?
local and regional governments, citizens, circular businesses for textile repair, sorting, storage and recycling

how is care distributed?
collaboration, (P11) commercial and (G05) collective looping

problem context
Regions typically lack in multi-scalar infrastructure that is coherently integrated at the regional, city and neighbourhood scales to manage the segregation, collection, and processing of textile flows. This fragmentation limits the potential to establish effective circular loops and keeping the value of used textiles within the region.

practical implications

region: (S03) repurpose existing structures in industrial areas, such as warehouses, linear factories for (P11) commercial looping such as sorting & storage, recycling, spinning, weaving & finishing

city: (S03) repurpose existing structures in industrial and commercial areas, such as retail stores for (G01) re-pair, and parking garages near (S08) public transport nodes (S05 drop & collect stations) for (P11) commercial looping such as repair, remaking, resale

neighbourhood: (S04) activate underused spaces for (G05) collective looping such as share, repair, re-make via (S19) block wardrobes and (S20) share & care cafés

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carers *who are either actively involved or indirectly effected by the pattern (based on Bono et al., 2024)*

the type *of organisation and extent to which care is distributed (based on Bono et al., 2024)*

problem context *that the pattern addresses, drawn from theory, analysis or design*

outline *of the solution the pattern offers with elaboration on relation to other patterns*

relation *to other patterns*
- **+** *enabling or supporting*
- **/** *alternating*
- **-** *conditioning*

aspect of care *the pattern addresses (based on Bono et al., 2024)*
- *space*
- *materials*
- *time*
- *carers*
- *difference*

12

13

fig. 6 *Pattern explanation*
source // author

care for materials

P01
scale
transscalar

b △ ○

'care-full' textile looping
Caring for space, time, materials, carers and differences when implementing textile looping practices enhances their environmental and social impacts

circularity

social foundation

what is cared for?
space time materials carer difference

links
- P02, P03, P06, P07, P11, G05, P13, P08,
+ P15, P16, P14, S02, P04, S01, G03

P03
scale
product

□ △ ○

spare parts
Standardising the provision of spare parts for every new piece of clothing that is bought enables easy and affordable repairs, while extending a textile's lifespan

circularity

social foundation

what is cared for?
time materials carer difference

links
- G04, P09, P08
+ G05, S20, S19, P15, G01

P04
scale
region

s △ ○

bio-regional textiles
Incentivising the use of agricultural residues for textile production closes bio-regional resourse cycles

circularity

what is cared for?
space time materials

links
- P01, P02, P11, S08
+ S01, S02, S06

who cares?
national government, regional authorities, regional farmers and growers

how is care distributed?
top-down regulation & incentives

problem context
Savini (2023) argues that resources should be looped at a regional scale shifting from global waste markets to bioregional waste economies (Savini, 2023). Therefore, bio-based textiles sourced from regional agricultural residues contribute to reducing reliance on finite fossil resources, lowering greenhouse gas emissions during production and transport and reducing waste through biodegradability (Shen et al., 2010). However, the EU's Renewable Energy Directive (RED) incentivises biomass use in biofuels and bioenergy, but there is a lack of support for biomass use in materials sectors. Bio-based products have to prove their environmental benefits, unlike fossil-based products, leading to higher costs (van den Oever et al., 2019).

practical implications
Policy plays a critical role in advancing the bio-based economy, requiring incentives and subsidies for competitiveness with fossil-based products. Create a new policy framework that balances the support for biomass use in textiles, aligning with goals for GHG reduction, circular economy, resource efficiency, and job creation (van den Oever et al., 2019).

S01
scale
city - region

■ △ ○

soil repair through textile crops
Cultivating textile crops, such as hemp, on polluted land can remediate the soil and reactivate these sites while producing bio-based textiles.

circularity

what is cared for?
materials space

links
- P02, P03, P06, P07, P11, G05, P13, P08,
+ P15, P16, P14, S02, P04, S01, G03

P02
scale
product

□ △ ○

pure textiles
Standardising the material purity of every new piece of clothing that is produced regionally enables low-emission recycling when it became unrepairable.

circularity

what is cared for?
time materials
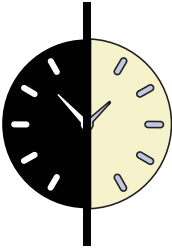
links
- P01, P04, S02, S06, P07, S13, P08, P11

care for time

G02
scale
building/block

☐ ⚠ ○

time-share

Sharing spatial facilities during different time periods via co-management utilises temporarily underused spaces, while providing textile looping functions in accessible locations and connecting local carers

circularity

social foundation

what is cared for?
space · time · materials · carer · difference

links
- P01, S04, S09, S10, S12, S14, P12
+ S02, S11, S13, G03, G04, G04, P11, S18, S20

P06
scale
neighbourhood - city - region

☐ ⚠ ○

long-term cost/benefit horizon

Prioritizing long-term benefits over short-term costs enables investments that unlock systemic, lasting economic, environmental, and social gains and accelerates circular transition efforts

circularity

social foundation

what is cared for?
space · time · materials · carer · difference
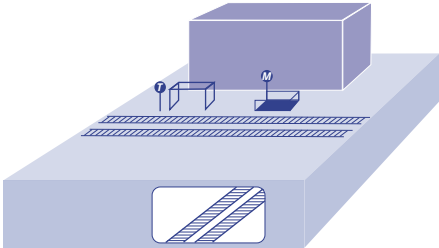
links
- P01, S01, G05, S20, S19, P16, S17, S16, S18, P12, G03, S02, S03, S04, S05

S15
scale
neighbourhood - city - region

Ⓒ △ ○

strategic access to public transport

Locating textile looping activities strategically near public transport stations enhances timely, affordable and sustainable access for carers.

circularity

social foundation

what is cared for?
space · difference · carer · time

links
- P01, P11, P07, P08, S06, S18, S05
+ S09, S03, S02, S14

S14
scale
neighbourhood

☐ ⚠ ○

convenient accessibility

Making circular textile options conveniently accessible near by public transport hubs or neighbourhood interest points promotes local textile looping

circularity

social foundation

what is cared for?
space · time · materials · carer

links
- G05, G01, G02, S20, S17, S19, P11, S15, S09, S05, G04
+ P16

S13
scale
city - region

☐ ⚠ ○

short-distance textile looping

Providing spaces regionally for textile looping reduces transport emissions, keeps resource values within the region, while keeping travels for workers short

circularity

social foundation

what is cared for?
space · time · materials · carer
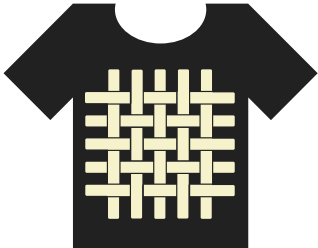
links
- P01, S02, S05, S15, S06, P07, P11
+ S03, S04, P16

P07
scale
product

☐ ⚠ ○

durable design

Standardising durable clothing design extends textile's lifespan, while reducing the need for frequent replacement and valueing material resources.

circularity

social foundation

what is cared for?
time · materials · carer · difference

links
- P01, P02, P03, P04, P06, P11, P15
+ P13, G05, S19, S20

care for space

S06

scale
region - city

c △ ○
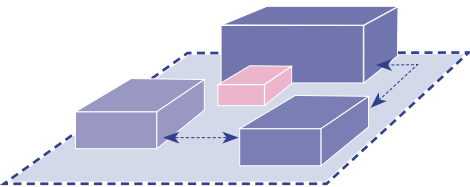
synergy cluster

Concentrating complementary textile activities promotes innovation and collaboration through sharing of resources, infrastructure, skills, and knowledge, while shortening supply chains.

circularity

social foundation

what is cared for?
space · time · materials · carer

links
- S08, S15
+ S18, S03, S04, S13, P04, G04, P01

who cares?
textile companies, companies from other sectors, skilled and unskilled workers

how is care distributed?
cross-sectoral and sectoral collaboration, sharing of resources and responsibilities

problem context
Traditional policy and planning approaches tend to separate manufacturing activities, overlooking the potentials for the circular economy through interconnections and mutual support between businesses.

practical implications
Concentrate complementary and similar textile businesses and services in one geographical area, to promote the exchange of material residues (P04) bio-regional textiles from agricultural residues), ensure (S13) short-distance textile looping, (G04) shared use of tools and infrastructure, and foster knowledge and innovation networks through cross- and sectoral collaboration. The latter is supported by developing a co-managed (S18) shared hybrid testing and learning hub.
Curate these clusters based on the existing networks and locations of suppliers and producers, with S08 access to zero-emission transport routes, and with potentials for (S03) repurposing existing structures to add synergistic manufacturing.

S03

scale
building - neighbourhood - city - region

■ △ ○
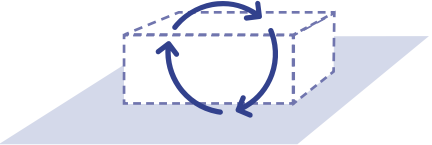
repurpose existing structures

Repurposing existing buildings and infrastructure that currently serve the linear economy enables regional textile looping while reducing the need for new land development

circularity

what is cared for?
space · time · materials

links
- P01, P07, S08, S12, P06, P15
+ P11, S02, S06, S13, G01, G05, S19, S20, S18
/S04

who cares?
local government, retail, logistical or industrial businesses (depending on current tenant), land owner

how is care distributed?
negotiation, financial incentives might be necessary

problem context
Repurposing existing buildings currently serving linear economic functions is essential for advancing circularity in the region, as it reduces the need for new construction and minimizes resource use and emissions (Pomponi & Moncaster, 2017). These structures often have locational and infrastructural benefits that can support circular activities such as repair, remanufacturing, and material exchange.

practical implications
Reprogram and if necessary adapt the physical structure of existing buildings with (S08) link to low-emission transport routes to fit for (P01) 'care-full' textile looping through (P11) commercial or G05 collective looping amenities such as (S20) share & care cafés or S02 multi-scalar sorting & storage facilities. Create (S12) flexible spaces to facilitate (G02) time-sharing for (P13) diverse circular strategies.
In residential areas repurpose car parking garages, in retail areas adapt big-scale car parking garages and shooping centres, in industrial areas reprogram warehouses and facilities that serve for example coal and oil industries.

S04

scale
neighbourhood - city - region

■ △ ○

1 commercial looping
2 collective looping
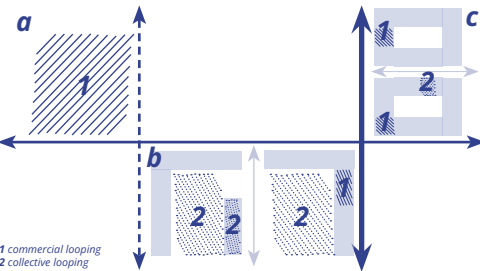
activate underused spaces

Activating underused spaces for looping activities through adaptive reuse enhances socio-ecological revitalisation based on local needs and spatial conditions, while minimising land conversion at urban fringes.

circularity

social foundation

what is cared for?
space · difference · materials

links
- P01, S12, P06, S08
+ G05, P11, G01, S06, S01, S13
/ S03

who cares?
local/regional government, land owner, tenant, local residents, citizen council, volunteers

how is care distributed?
collaboration, P06 long-term cost/benefit horizon, co-financing, community building, shared responsibilities

problem context
Urbanisation is transforming landscapes rapidly, often resulting in underutilised spaces that lack functional, social, or ecological purpose. These urban voids can exacerbate environmental degradation, hinder social cohesion, and reflect inefficient land use practices (Kailash & Chitra, 2025).

practical implications
Activate abandoned or underused spaces through context-specific and versatile temporary or permanent use for (P01) 'care-full' textile looping, depending on the following spatial typologies:
a. At regional/city scale *develop brownfields, so called wastelands, which include drosscapes and land without destination with (S08) link to zero-emission transport routes to host (P11) commercial looping activities creating (S06) synergy clusters. Polluted land can be activated through (S01) soil repair through textile crops.* ***b. In low-density residential neighbourhoods*** *utilise more introvert and neglected communal courtyards, low-rise buildings, and parking garages for (G05) collective looping in (S20) share & care cafés with (S12) flexible spaces, and more extrovert spaces along main streets for (P11) commercial looping through (G01) re-pair.* ***c. In more dense and mixed neighbourhoods*** *implement P11 commercial looping through (G01) re-pair in public and private commercial amenities along main streets during unused times of the day or month, and (G05) collective looping through (G01) re-pair more more introvert along side streets serving the local community.*

P07

scale
city - region

■ △ ○

conserve urban manufacturing sites

Conserving industrial land use ensures that spaces are available locally for textile looping activities.

circularity

what is cared for?
space · time · materials

links
- P01, S13
+ S03, S06, S08, S02

who cares?
national government, local government

how is care distributed?
top-down regulation, or bottom-up movement, negotiation of trade-offs

problem context
Two trends are driving the conversion and consequent shrinkage of industrial land. On the one hand, less land is needed due to the de-industrialisation of heavy industries (e.g. coal); on the other hand, space is sought to combat the worsening housing crisis. However, for de-coupling resource dependency of the region on global value and supply chains will require industrial land for circular activities. Land is a central resource and contested means for circularity transitions (Baumgartner et al., 2024).

practical implications
Create a policy that regulates land use conversion of industrial areas. It should conserve existing industrial land use especially in the urban fabric to enable (S13) short-distance textile looping and the development of a (S02) multi-scalar storage & sorting network and other circular activities such as re-manufacturing and recycling in strategic locations with (S08) link to zero-emission transport routes.
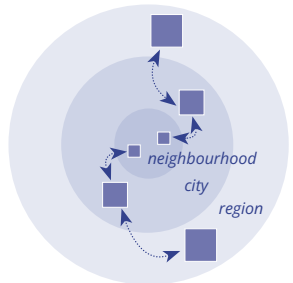
S02

scale
neighbourhood - city - region

ⓒ ⓢ ○

neighbourhood
city
region

multi-scalar
textile looping infrastructure

A multi-scalar network of infrastructure for textile looping enables textiles to be effectively looped within the region.

circularity

social foundation

what is cared for?
space   time   materials

links
- P01, S08, P07, S05, S06,
+ S03, S04, P11, G05

who cares?
local and regional governments, citizens, circular businesses for textile repair, sorting, storage and recycling

how is care distributed?
collaboration, (P11) commercial and (G05) collective looping

problem context
Regions typically lack in multi-scalar infrastructure that is coherently integrated at the regional, city and neighbourhood scales to manage the segregation, collection, and processing of textile flows. This fragmentation limits the potential to establish effective circular loops and keeping the value of used textiles within the region.

practical implications

region: *(S03) repurpose existing structures in industrial areas, such as warehouses, linear factories for (P11) commercial looping such as sorting & storage, recycling, spinning, weaving & finishing*

city: *(S03) repurpose existing structures in industrial and commercial areas, such as retail stores for (G01) re-pair, and parking garages near (S08) public transport nodes (S05 drop & collect stations) for (P11) commercial looping such as repair, remaking, resale*

neighbourhood: *(S04) activate underused spaces for (G05) collective looping such as share, repair, re-make via (S19) block wardrobes and (S20) share & care cafés*

S05

scale
neighbourhood - city

□ △ ●

drop & collect stations

A network of stations for dropping & collecting repaired clothing enables convenient textile repair and remaking for citizens through local (home) tailors and raises awareness.

circularity

social foundation

what is cared for?
space   time   materials   carer

links
- S14, S13, P14, S08
+ P01, P09

who cares?
tailors, home tailors, citizens, public transport provider

how is care distributed?
enables home tailors with an (P14) alternative source of income

problem context
The spatial analysis showed that there is a lack of tailoring services, especially outside the centre of Amsterdam. This makes it difficult for citizens to repair or alter their clothes before buying new ones, since the services are not (S14) conveniently accessible. In addition to expanding the number of tailoring service locations through (P11) commercial (looping) tailors and (P09) home tailors, infrastructure should be developed to exchange clothing and therefore connecting (home) tailors with clients in convenient locations to promote local clothing repair.

practical implications
Provide automated drop & collect stations similar to parcel lockers. Ensure that they are recognisable through a (S10) public face, (S14) conveniently accessible and (S09) easy to find through placing them at waiting areas at transport hubs, such as metro and tram stations across the city. In contrast to existing parcel lockers make sure they add to the (S11) quality of stay in waiting areas by integrating seating options, water dispenser and information on circular textile options in the area and throughout the city to raise awareness.
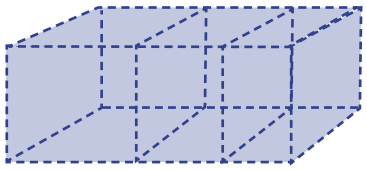
S12

scale
building/block

ⓦ ⓒ △ ○

flexible spaces

Spaces that are flexible enable their reuse for different circular and community functions over time, while saving resources and enhancing resilience.

circularity

social foundation

what is cared for?
space   difference   time   materials

links
- P01, S20, S18, G05
+ S03, S04, G01, G02, G04, P11

who cares?
tenant, land owner, local communities

how is care distributed?
strengthens local resilience, connects different communities through sharing one space

problem context
Joanna Williams (2021) emphasizes adaptability as a fundamental component of circular development in urban environments, since it enables urban communities to respond effectively to shocks and long-term changes, thereby increasing urban resilience. The provision of scalable, movable, and refit-able infrastructure allows for quick adaptation to changing contexts and support the development of circular systems of provision.

practical implications
In the case of (S03) repurposing existing structures for circular textile functions, design flexible interior spaces by integrating movable furniture, walls to enable (G01) re-pair in a (G02) time-share model. For the development of new infrastructure, such as (S20) share & care cafés, (S04) activate underused spaces by designing a demountable building structure and flexible outdoor furniture.

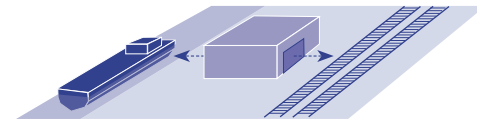## S08

scale
neighbourhood - city - region

■ △ ○

link to zero-emission
transport routes

Linking circular textile functions to water or railways ensures a zero-emission circular transition within the region.

circularity

social foundation

what is cared for?
space   time   materials

links
- P01, P04, S02, S13, S13, P06, P11
+ S03, S04, S05, P07, S06

who cares?
local, regional and national governments, circular businesses

**how is care distributed?**
top-down

context
In the Netherlands, road freight transport is a dominant mode for moving goods, accounting for 45% of the nation's total freight movement (CBS, 2022). While specific data for the Amsterdam region is limited, the city's role as a major logistics hub suggests a significant share of this freight activity occurs there. The European Green Deal underscores the importance of sustainable mobility as a key area for achieving the EU's climate goals. Regional circular textile value chains should therefore be facilitated by zero-emission transportation modes.

practical implications
At regional and city scale circular functions should be linked to water and railways. At neighbourhood scale they benefit from being linked to tram ways for cargo-tram transport, or linking (S17) awareness collectors to roads for collections via cargo-bikes. In addition to further developing zero-emission transport routes within the region, it is essential to incentivise the establishment of (S06) synergy clusters near these routes by offering subsidies for the use of low-emission textile transport. Furthermore, indicating circular functions to respective locations in municipal spatial plans is important.

G01

scale
block/building

☐ ⚠ ○
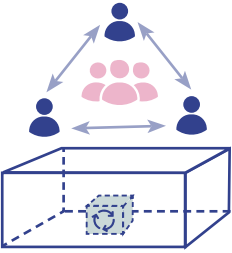
re-pair

Co-locating repair, reuse & rental of textiles with other functions enables the shared use of space, while fostering community building, and making circular initiatives more accessible and integrated into daily urban life.

circularity

social foundation

who cares?
social organisations, volunteers, citizens, amenity manager, retail businesses, clients

how is care distributed?
co-management/collaborative governance: shared responsibilities in operation, maintenance and use of space, builds trust, inclusiveness, and long-term engagement; or temporary use governance: short- to medium-term use of spaces through informal or semi-formal agreements, tests new functions with low financial risk

problem context
In central high-density areas, spatial potentials for circular textile practices are often constrained due to limited available space. Therefore, co-locating circular activities with other urban functions - through governance models, such as those currently practiced in local repair cafés - can offer a viable solution.

practical implications
(S04) Underused spaces in existing communal (e.g. schools) or commercial amenities (e.g. cafés, retail stores) can be shared through different governance models, depending on whether it is shared by the different functions simultaneously or during different times of the day or month (G02 time-share), wherein (S12) flexibility of the space is essential. Subsidising this practice with the (P16) local circular subsidy promotes widespread re-pair and (S04) activation of underused spaces.

what is cared for?
space   time   materials   carer   difference

links
- S04, S09, S10, S12
+ G05, P11, G02, S11, S20, P16, S03

S09

scale
block/building - neighbourhood

m △ ○

easy wayfinding

Strategic placement and clear way leading improves wayfinding to promote the use of circular textile amenities by citizens.

circularity

social foundation

who cares?
local municipality, circular textile businesses and organisations

how is care distributed?
public-private/civic partnership: encourages experimentation, integrates civic or private innovation into public strategy

problem context
The spatial analysis showed that circular textile amenities are typically situated in less visible or accessible locations than their linear counterparts, limiting their visibility and ease of use for citizens.

practical implications
To improve wayfinding, enable (P11) 'care-full' commercial looping functions to settle strategically in more expensive prominent locations along main streets and on corners of street crossings through a (P16) local circular subsidy. (G05) Collective looping functions should be located more introvert within neighbourhoods, and placed well accessible according to their target user group. (S19) Block wardrobes should be placed in courtyards, (S20) share & care cafés should be located connecting to public neighbourhood streets or neighbourhood squares. Additionally, lead the way for target user groups through signage or highlighting ground pathways leading to circular textile amenities through routes. Mapping circular functions and advertising them via an app or at (S05) drop & collect stations also enhances wayfinding.

what is cared for?
space   time   materials

links
- G05, P11, S10, S20
+ P16, S03, S04

S11

scale
building/block

☐ ⚠ ○

quality of stay

An inviting atmosphere in circular textile amenities enhances spatial quality and fosters community building, while promoting textile looping.

circularity

social foundation

who cares?
citizens, circular initiatives

how is care distributed?
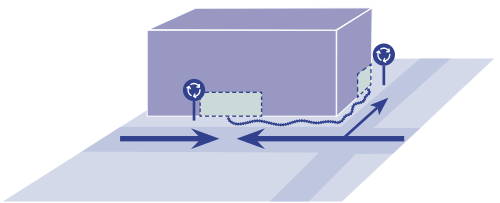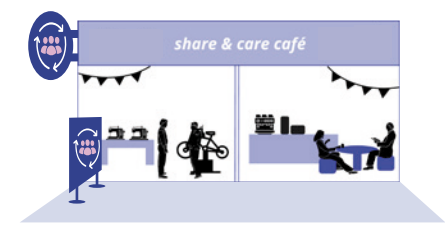community building, creates inclusive spaces

problem context
The current practice of repair café initiatives in Amsterdam shows that an inviting atmosphere with options to linger and hang out fosters community building.

practical implications
Equip (G05) collective and optionally (P11) commercial looping amenities with (S12) flexible furniture that facilitates lingering and interaction among users for and beyond textile looping activities such as repair, remaking and sharing. Additionally, the integration of a bar and kitchen to provide food and drinks promote a quality of stay.

what is cared for?
space   difference   time   materials

links
- G05, S20, P15
+ S12, P11, S18, S19, G01, S10, S05

S10

scale
block/building

c m △

public face

Visually permeable facades and standardised signage of circular facilities enhance the legibility of their function to promote textile looping, while raising awareness.

circularity

social foundation

who cares?
citizens, local government, circular businesses and organisations

how is care distributed?
spatial legibility, public awareness, fostering inclusivity by ensuring that diverse urban citizens can recognise, access, and engage with circular textile functions

problem context
The spatial analysis showed that circular textile amenities outside the core retail area in the centre are generally less legible, visually permeable and advertised than their linear counterparts limiting their visibility and ease of use for diverse citizens.

practical implications
Provide (G05) collective and (P11) commercial textile looping amenities with a recognisable public identity by implementing standardised city-wide signage, thereby enhancing their spatial legibility and improving S09 wayfinding for citizens.

what is cared for?
space   materials   carer

links
- P01, G05, P11, G02, S18,
+ S09, P15,

care for difference

G05
scale
block/building - neighbourhood

s △ ○

collective looping

*Promoting circular practices based on **collective approaches** encourages higher r-strategies like reduce and reuse, while strengthening community bonds.*

circularity

social foundation

who cares?
citizens, volunteers, cooperatives, civic organisations, local government

how is care distributed?
bottom-up operation: citizen groups or cooperatives govern and use public space collectively, high degree of user control, democratic decision-making, encourages experimentation, empowers citizens, ensures local relevance; top-down provision of funding and infrastructure

problem context
Policies often focus on technocentric strategies ambracing the economic value of textile waste to achieve circularity. Savini argues that a shift from monetary to socio-ecological value and from individual to collective responsibility of waste is needed to achieve the main goal of reducing waste through circular principles. This includes building local networks that foster collaborative textile waste reduction practices that benefit both society and environment.

practical implications
Provide physical infrastructure to promote collective looping practices for textiles. At block scale implement (S19) block wardrobes. At neighbourhood scale integrate (S20) share & care cafés. Furthermore, funding from public and private sponsors with (P06) long-term cost/benefit horizon is crucial. To promote collective looping it should be (S14) conveniently accessible within 5 minute walking distance to citizens housing.

what is cared for?
difference materials carer

links
- P01, P06, P12, P15, S19, S20, S16, S17, S12, S10, S11, S14, G03, G04
+ G01, G02, S02, S13, P03, P07, P10

S20

scale
neighbourhood

c s △ ○

share & care café

Providing spaces centrally in neighbourhoods where clothes can be exchanged and repaired collectively encourages local textile looping and skill & knowledge sharing, while strengthening community bonds.

circularity

social foundation

who cares?
local community, volunteers, fairly paid workers

how is care distributed?
commons-based governance: shared spaces as collectively managed resources governed by users themselves - empowers users, ensures local relevance and integration, high degree of user control, democratic decision-making or public–civic partnerships: encourages experimentation, integrates civic innovation into public strategy

problem context
The analysis showed that current repair café initiatives are not conveniently accessible due to the fact that they are often only temporary events. A widespread network of permanent infrastructure is needed to encourage looping practices such as circulair ambachtscentra, which are part of a national program driven by public and civic actors.

practical implications
Make sure to locate the share & care café in the heart of a neighbourhood (S14) conveniently accessible and (S09) easy to find nearby to a local point of interest, such as a neighbourhood square, sports field, weekly market, playground or similar. In low-density neighbourhoods (S04) activate underused communal courtyards or top-up existing low-rise buildings, in high-density neighbourhoods consider (S03) repurposing existing structures or (G01) re-pair. They should always be constructed as (S12) flexible spaces to accomodate changing community needs.

what is cared for?
difference space carer materials

links
- S14, G05, S09, S11, S12, P12, P08, G04, P15
+ S04, S03

P13

scale
country - region - city

b △ ○

diverse circular strategies

Implementing a diversity of circular strategies promotes material looping while addressing differences in local communities and spatial conditions and capacities.

circularity

social foundation

who cares?
policymakers, citizens, civic and private circular initiatives

how is care distributed?
top-down provision of funding and physical infrastructure bottom-up operation: encourages experimentation, empowers citizens, ensures local relevance

problem context
Circular policies often focus on technocentric end-of-pipe strategies, neglecting the potentials of combining circularity approaches with addressing local socio-ecological pressures such as poverty, loneliness and low social cohesion through collective practices that foster community building while slowing down textile loops. A combination of diverse strategies targeting higher r-principles (refuse, rethink, reduce, reuse and repair) with supportive lower r-principles (remake, recycle) creates a more resilient and thriving local circular ecosystem.

practical implications
Integrate more diverse circular strategies from the r-ladder into policies at national and local scale, including both (G05) collective and (P11) commercial looping strategies. To support this develop (S02) multi-scalar textile looping infrastructures, such as (S06) synergy clusters within the region, (S05) drop & collect stations across the city, and (S20) share & care cafés in neighbourhoods.

what is cared for?
difference space materials carer

links
- P01, G05, P11, S02, P06, P15, S13
+ P16, S19, S20, P14, S16, S17, G04, S05, P07, S01, P04, S06, S03, S04, P10, P07, P03, P02

S19

scale
block

s △ ○

block wardrobe

Shared wardrobes in residential blocks promote collective textile reuse, while addressing financial insecurity, raising awareness and improving neglected public spaces.

circularity

social foundation

who cares?
local residents of a residential block, local government

how is care distributed?
commons-based governance: shared spaces as collectively managed resources governed by users themselves - empowers users, ensures local relevance and integration, community building

context
Unwanted textiles often end up in residual waste, which is incinerated. In order to encourage the local sharing of reusable and repairable clothes, the necessary infrastructure must be in place to ensure the items are protected from the rain and to prevent public spaces from becoming littered with discarded textiles.

practical implications
*Implement wardrobes in shared private or semi-private courtyards to ensure (S14) convenient access for citizens in the immediate surrounding area and promoting their appropriation, while thereby protecting it against vandalism. If there are no shared courtyards, install the wardrobes in shared indoor communal areas, such as the entrance hall of the multi-dwelling complex.
Encourage a commons-based governance model, with monthly changing carers for the wardrobe from the respective residential block.
Ensure that wardrobes are flexible infrastructures and provide a (S11) quality of stay. The wardrobes should have dedicated shelves for both reusable and repairable clothes.*

what is cared for?
difference space carer materials

links
- G05, S04, S14, S09, S11, P15, S12, S10
+ P06, P07

P15

scale
block - neighbourhood - city

□ ⚠ ○

€

affordability

Ensuring affordable textile looping practices and services promotes material circularity, ensures equal distribution of options in the city, while addressing socio-economic inequalities.

circularity

social foundation

who cares?
economically disadvantaged households, national and local government, circular businesses

how is care distributed?
top-down funding, inclusivity

problem context
Economic inequalities are increasing. To facilitate a socially just transition, circular clothing and related practices and services must be more affordable than linear alternatives to achieve political circularity goals while supporting the social foundation and protecting ecological limits.

practical implications
Ensure that (G05) collective and (P11) commercial looping initiatives can afford (S14) conveniently accessible locations across the city with providing a (P16) local circular subsidy.

what is cared for?
difference | space | materials | carer

links
- P01, P16, G05, P11, P06
+ S20, S19, G04, P09

P14

scale
neighbourhood - city - region

□ ⚠ ○

+ €

alternative sources of income

Providing alternative sources of income for carers that drive textile circularity with their actions addresses economic inequalities and promotes textile circularity.

circularity

social foundation

what is cared for?
difference | materials | carer

links
- P01, P09, P15, P11

P16

scale
neighbourhood

□ ⚠ ○

+€

local circular subsidy

Subsidising initiatives that provide circular textile practices locally promotes closing textile loops in short distances reducing transport-related emissions.
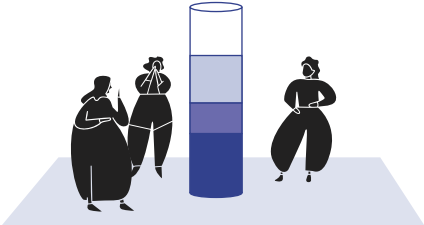
circularity

social foundation

what is cared for?
difference | space | materials | carer

links
- P01, P06, G05, P11, S13, S14, S10, G01, P09, G03, G04, S20, P15

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care for carer

S17

scale
neighbourhood

□ △ ●

awareness collectors

Providing interactive collection points in neighbourhoods promotes responsible disposal habits and fosters community engagement and a sense of shared responsibility.

circularity

social foundation

what is cared for?
materials | carer

links
- P01, S14, S09, S10, S11
+ P11

P09

scale
block/building

c △ ○

tailor home

Encouraging tailoring and repair services for clothes in homes extends the lifespan of textiles, while offering an alternative income and affordable tailoring.

circularity

social foundation

what is cared for?
materials | carer | difference

links
- P14, P16, S05, S12
+ G04, S20, P03

S16

scale
neighbourhood - city

□ △ ●

circular barometer

Placing circular barometers showing the progress of texile circularity of the city in busy public spaces raises awareness about textile circularity and creates a feeling of collective respoinsibility.

circularity

social foundation

what is cared for?
materials | carer

links
- P01, G05, S14, S09, S10

G04

scale
neighbourhood

□ ⚠ ○

tool & skill share

Support tool & skill sharing models to boost individual and collective capacity for repairing and re-making clothes, while strengthening community bonds.

circularity

social foundation

what is cared for?
materials | carer

links
- S20, P15, S18, P12
+ P09

P08
scale
transscalar

c △

fair work conditions

Ensuring decent work conditions for circular workers recognises their essential contribution to achieving broader societal goals and is fundamental to a socially just circular transition.

circularity

what is cared for?
materials carer

social foundation

links
- P01, S15, S06, P06
+ S18, G04

P12
scale
transscalar

☐ ⚠

benefits for volunteers

Giving benefits to volunteers recognises their value, sustains motivation, and attracts a diverse range of participants, ensuring the long-term viability of volunteer-driven projects.

circularity

what is cared for?
difference time materials carer

social foundation
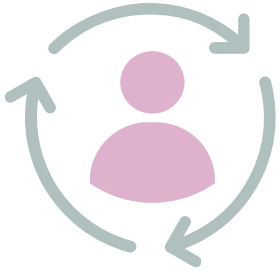
links
- P01, S20, P16, P15, P06
+ G05, G04

G03
scale
transscalar

c △

circular match-maker

The circular match-maker supports carers by aligning interests, fostering partnerships, identifying needs, sharing information, and safeguarding community priorities.

circularity

what is cared for?
materials carer

social foundation
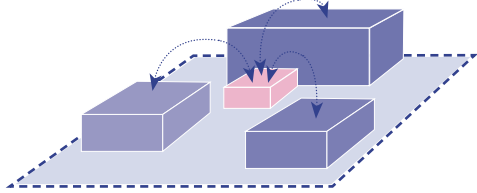
links
- P01, S02, S06, P07, S11, P08, G04, S18, P16

S18
scale
city - region

☐ △ ●

shared hybrid testing & learning hubs

These hubs serve as bridges between industry, academia, vocational schools, and local communities, accelerating innovation while training the next generation of textile care professionals.

circularity

what is cared for?
difference space materials carer

social foundation

links
- P01, S02, S06, P07, S11, S10, S12
+ S03, S04

P11
scale
transscalar

b △

'care-full' commercial looping

Strategically promoting circular businesses that follow higher r-strategies like reuse, repair & re-making, drives a zero-emission textile transition, while creating local jobs.

circularity

what is cared for?
materials carer

social foundation

links
- P01, P08, S10, S09, S12, S13, S15
+ S11, S04, S03
/ G05

P10
scale
product

☐ △

repairability & durability score

A score indicating the repairability and durability of a clothing item provides consumers with transparency and raises awareness about the expected lifespan, ease of maintenance, empowering to make more informed and sustainable purchasing decisions.

circularity

what is cared for?
materials carer

social foundation

links
- P01, P02, P03, P07

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