circularsummit fryslân2025

ACR+

Provinsje Fryslân

EUROPEAN WEEK FOR WASTE REDUCTION

Circulair Friesland

Province of Fryslân

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- Circular economy
- Biobased construction as a solution for regional challenges
- Role province:
  - Facilitate cooperation
  - Ensure supporting and aligned policies
  - Develop and finance projects
- 2025: Year of the Circular Economy
- Circular Friesland Association

Agenda

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10:45-12:00 Introduction
- Opening | Charlotte Strijbos, provincie Fryslân
- European Policy Framework for biobased construction | Serena Lisai, ACR+
- European funding opportunities | Bas van den Barg, Europapact Fryslân

12:00-13:00 Lunch & networking

13:00-14:00 Get inspired by cities and regions: making plans real
- Regional biobased strategy | Nick Boersma, Circulair Friesland (NL)
- Empowering the circular construction network | Arianne Acke, OVAM (BE)
- Use of sediments from rivers for building material | Igor Kos, Ezavod (SL)
- Urban mining projects | Katie Rowberry, Relondon (UK)

14:00 Matchmaking workshop
14:25 Wrap up & closing remarks

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Discuss with your neighbour: What circular success have you been working on the past period?

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Serena Lisai
ACR+

Eu Policy framework for Circular and Biobased Construction

Serena LISAI

Project Manager | ACR+

www.acrplus.org

ACR+ STORY

As an international network, ACR+ has been supporting the transition to the circular economy in cities and regions for 30 years

- \+ 90 members
- \+ 23 countries in EU and Med area
- \+ More than 1 100 municipalities represented
- \+ Strong team of 17 experts
- \+ Brussels-based
- \+ Diverse portfolio

Representing local and regional authorities, ACR+ also welcomes public utilities, NGOs, academics, private sector actors.

ACR+ VISION

CITIES AND REGIONS WHERE **NO CONFLICTS EXIST BETWEEN THE ECONOMIC AND THE ECO-LOGICAL SYSTEMS**, THROUGH POLICIES AIMED AT A **FAIR DISTRIBUTION OF WEALTH AND RESOURCES**, A **FAIR ACCESS TO PUBLIC SERVICES**, WHILE GUARANTEEING **POSITIVE EFFECTS ON THE ENVIRONMENT**

Thematic Area
Built Environment

Policy and Governance

Sustainable Food Systems

Waste and Material Flows

Circular Lifestyles

FROM VISION TO REALITY: 3 CONDITIONS

1

No green ambitions will be achieved without circular economy

2

The transition we need is a just transition driven by the sufficiency principle

3

Cities and regions are at the heart of sustainability action

ACR+

INTRODUCTION

- Circular
  - Minimize and prevent waste
  - Maximize reuse
  - Boost sustainable material resource use
- Biobased
  - Use of renewable biological origins
  - Use of by-products and biowaste of (plant/animal) biomass
  - Reduce dependency on fossil-based resources
- Circular biobased materials:
  - circular bio-based insulation materials
  - new concrete or binder/filler for concrete or mortar
  - materials for indoor applications such as ceiling, flooring, and furniture

https://www.sciencedirect.com/science/article/abs/pii/S0360132323008016?via%3Dihub&trk=public_post_comment-text

EU POLICY FRAMEWORK

The European Green Deal

- Launched in 2019
- Reduce net greenhouse gas emissions by at least 55% by 2030 (cfr. 1990)
- The first climate neutral continent by 2050
- New growth model based on a clean and circular economy
- Emphasis on sustainable industry and buildings.

EU POLICY FRAMEWORK

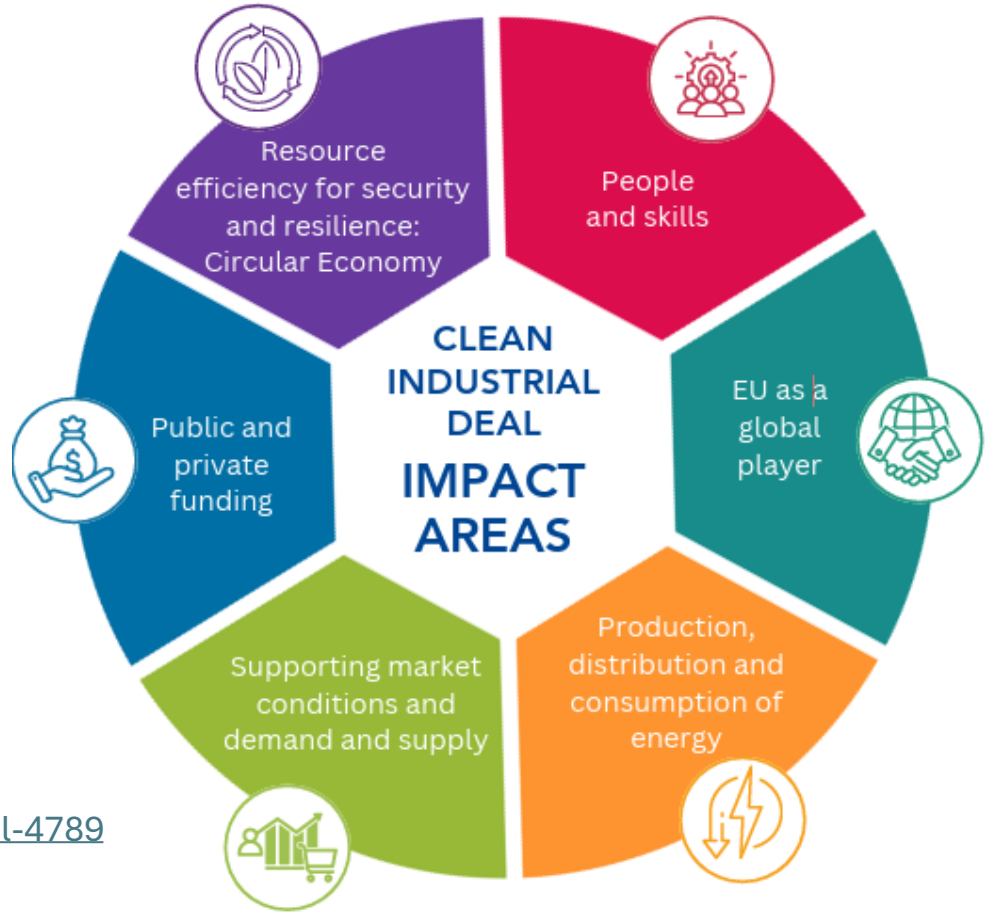
The Clean Industrial Deal is a strategic initiative unveiled by the European Commission to guide Europe's most polluting industries toward a net-zero emissions future and bolster the clean technology sector. Announced in late February 2025, the plan aims to reduce emissions by 90% by 2040 through several key measures.

PRIORITY SECTORS

- Industrial Action Plan for an Automotive Sector
- Sustainable Transport Investment Plan
- Steel and Metals Action Plan
- Chenical Industry Package
- Bioeconomy Strategy

https://www.acrplus.org/en/news/understanding-the-eu-clean-industrial-deal-4789

The European Clean Industrial Deal



EU POLICY FRAMEWORK

Circular Economy Action Plan (2020)

- One of the main block of the Green Deal
- Construction sector as one of the 8 sectors with high potential for circularity
- Target design of products
- Promote circular economy processes
- Encourage sustainable consumption
- Ensure tha waste is prevented and resources reused as long as possible

Circular Economy Act set for 2026: scaling up circular materials, products, and services. The CEA aims to level the playing field for secondary raw materials and waste, enhance supply and demand, and integrate circularity into Europe's broader Clean Industrial Deal.

EU POLICY FRAMEWORK

Waste Framework Directive (WFD) 2008/98

- Introduces the « waste hierarchy »
- Binding target for MS to prepare for reuse, recycle and recover 70% of non-hazardous CDW by 2020 - including backfilling operations using waste to substitute other materials.
- Tools for implementation:
  - EU Construction and Demolition Waste Protocol and Guidelines
  - Level(s) – voluntary reporting framework to improve the sustainability of buildings. A common Eu approach to the assessment of environmental performance in the built environment, throughout the whole lifecycle. Key for public procurement!

EU POLICY FRAMEWORK

Energy Performance of Buildings Directive (EPBD)

- 85% of EU buildings were built before 2000 and amongst those, 75% have a poor energy performance.
- Directive revised in May 2024 to increase the rate of renovation in Europe.
- It allows governments to decide on the renovation measures best-suited to their specific national context.
- Encourages use of sustainable materials in building renovations so indirectly supporting bio-based materials (similar point with the Renewable Energy Directive and the Renovation Wave Initiative).

EU POLICY FRAMEWORK

Construction Products Regulation

- New Regulation became effective in January 2025
- establishes harmonised EU rules for the marketing of construction products
- Products place on EU market must be safe, reliable, and sustainable
- Requirements for the environmental performance of construction products.

TO KEEP AN EYE ON

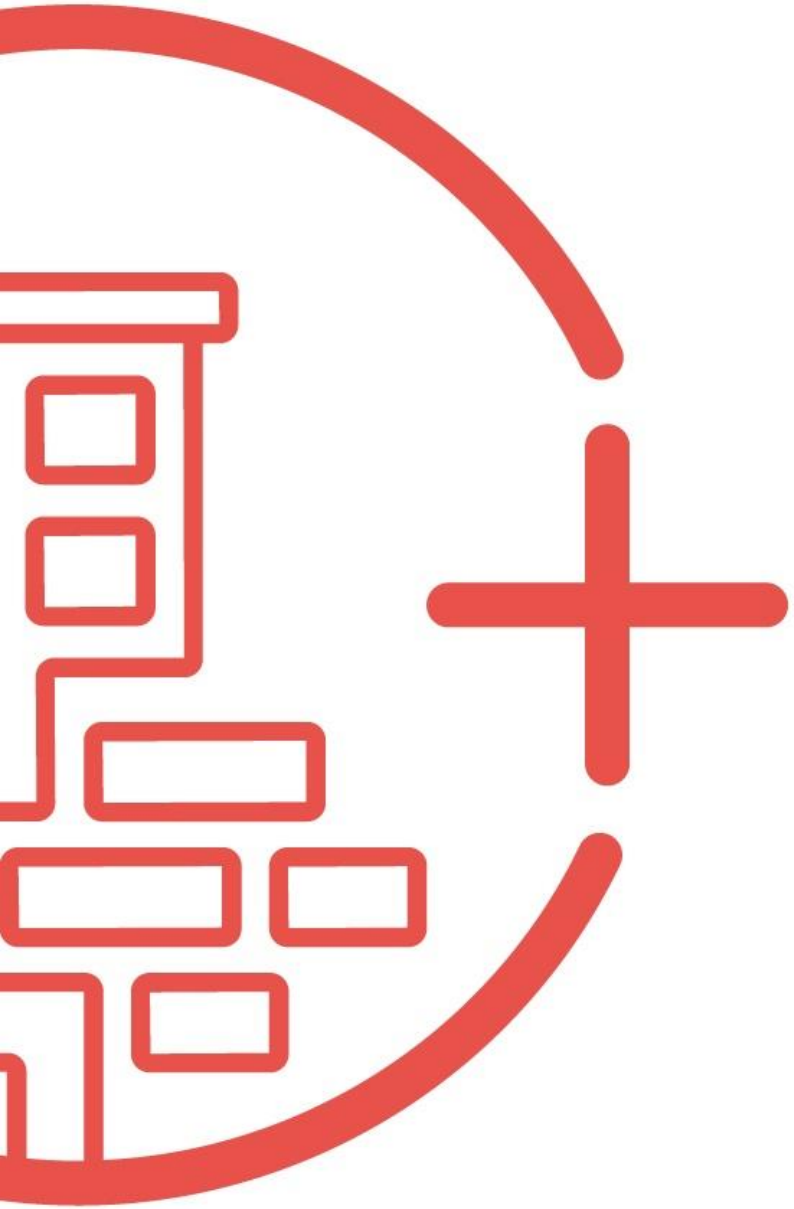
EU Bioeconomy Strategy

- To be adopted by the end of 2025
- It aims to advance innovation and maintain the EU's leadership in the bioeconomy.
- Actions to unlock the potential of bioeconomy innovations, so that they can reach the market, generating green jobs and growth.
- Reinforcing circularity and sustainability, while contributing to the decarbonisation of the EU economy.
- Public consultation open until 23 June

TO KEEP AN EYE ON

New European Bauhaus

- Initiative to connect 3 key values for built environment:
  - **sustainability**, from climate goals to circularity, zero pollution, and biodiversity
  - **aesthetics**, quality of experience and style beyond functionality
  - **inclusion**, from valuing diversity to securing accessibility and affordability
- New funding calls published: under HORIZON programme.



Thanks for the attention

Serena LISAI
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Bas van den Barg
Europapact Fryslân

Europa
Pact
Fryslân

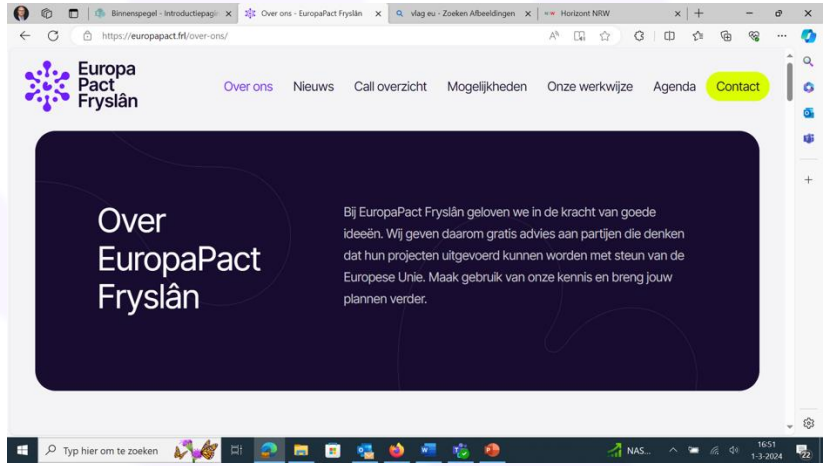
EuropaPact Fryslân
EU Funding For Circularity
2021-2027

European Circular Summit
Leeuwarden, 12-6-2025

Agenda

1. Introduction of EuropaPact Fryslân
2. EU funding opportunities for circularity 2021-2027

EuropaPact Fryslân



Launched in 2022.

Up to 2027 (last year current EU programming period).

This year decision about follow-up from 2028.

Objectives:

1) **Increasing awareness of Europe and its funding opportunities;**

2) **Facilitating and stimulating the development of European projects from Friesland (more and better EU projects with Frisian partners).**

EU Funding 2021-2027

Wide array of EU funding (2021-2027)

https://europadecentraal.nl/eu-fondsenwijzer/zoekennaarfonds

Interreg

EUROPEAN UNION

https://www.rijksoverheid.nl/onderwerpen/europese-subsidies/europese-structuur--en-investeringsfonds en/europese-subsidieregeling-interreg

New European Bauhaus

Erasmus+

URBACT

Driving change for better cities

Life

EUROPEAN URBAN INITIATIVE

Europese Unie
Europees Fonds voor Regionale Ontwikkeling

JTF Fonds voor rechtvaardige transitie

Two types of EU funding (2021-2027)

Allocated to 'Brussels'

- **Horizon Europe**
- **Erasmus+**
- **LIFE**
- **Digital Europe**
- **Innovation Fund**
- **Creative Europe**
- **Connecting Europe Facility (CEF)**
- **COSME**
- **I3**

Allocated on a national/regional level

- **European Fund for Regional Development (ERDF)**
- **European Social Fund (ESF+)**
- **Cohesion Fund**
- **Just Transition Fund (JTF)**
- **European Agricultural Fund for Rural Development (EAFRD) -> LEADER**
- **Interreg**
- **Recovery & Resilience Facility**

EU funding for circularity

Allocated on a national/regional level

- ERDF (innovation)
- EAFRD (innovation in agriculture)
- JTF (innovation, e.g. biobased chemicals)
- Interreg
  - A Cross-border cooperation (innovation, little investments, product development)
  - B Transnational cooperation (innovation, knowledge sharing)
- RFF (innovation, skills)

EU funding for circularity - Allocated to ‘Brussels’

Horizon Europe

- ➔ R&D and innovation projects
- ➔ 3 pillars and one horizontal theme
  - ➔ Pillar 1 Excellence science
  - ➔ *Pillar 2 Global challenges and European Industrial Competitiveness*
  - ➔ Pillar 3 Innovative Europe (European Innovation Council, European Institute of Innovation & Technology/EIT, etc.)
- ➔ Pillar 2 -> 6 clusters
- ➔ Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment
- ➔ It’s R&D, lower TRL levels

EU funding for circularity - Allocated to ‘Brussels’

Horizon Europe - Circular Bio-based Europe Joint Undertaking

- ➔ **€ 2 billion public-private partnership between the EU and the Bio-based Industries Consortium**
- ➔ **Main goal: competitive circular bio-based industries in Europe**
- ➔ **Innovative projects to develop sustainable products and solutions from wast and biomass.**
- ➔ **Today 13 calls open**

➔ **https://www.cbe.europa.eu/**

Circular Bio-based Europe Joint Undertaking

Bio-based Industries Consortium

Co-funded by the European Union

EU funding for circularity

Allocated to ‘Brussels’

1. LIFE

➔ Environment and climate action

➔ 4 subprogrammes:

- ➔ Nature & Biodiversity
- ➔ Circular Economy & Quality of Life
- ➔ Climate Change Mitigation and Adaptation
- ➔ Clean Energy Transition

➔ Objective Circular Economy & Quality of Life: facilitating the transition toward a sustainable, circular, toxic-free, energy-efficient and climate-resilient economy and at protecting, restoring and improving the quality of the environment

➔ Call 2025: Circular Economy & Waste; Zero pollution and sustainable management of natural resources

EU funding for circularity

Allocated to ‘Brussels’

I3

- ➔ Interregional Innovation Investments
- ➔ Supports interregional innovation projects in their scale-up and commercialisation phases. It helps overcome regulatory and market barriers, bringing projects to investment level => (inter)regional ecosystems
- ➔ 3 strands:
    - 1 supports consortia from regions with shared smart specialisation areas, ready to invest in interregional innovation projects.
    - 2a value chain development in less developed regions, integrating them into EU value chains.
    - 2b regional innovation ecosystems, building capacity for interregional business cases.

- ➔ TRL 6-9
- ➔ Green transition, digital transition, smart manufacturing

EU funding for circularity - Human Capital

No innovation without new skills

EU funding for skills:

- **Allocated on a national/regional level : ESF+**
- **Allocated to 'Brussels': Erasmus+ (Vocational education and training)**

Europa Pact Fryslân

Thank you for your attention

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Statements

Agree (hands up) or disagree (hands down)

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Circular construction is more expensive than traditional construction

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Stimulating circular and biobased construction should come from the government

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Regions should prioritize the use of circular materials above biobased materials in construction

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Break

Coffee and Lunch

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Nick Boersma
Circular Friesland Association

Practical Solutions for Circular Construction

Lessons Learned from Circulair Friesland

Building Balance

BBOBB | Interreg North Sea

Co-funded by the European Union

TOEKOMST BESTENDIGE LEEF OMGE VING

Circulair Friesland

Circulair Friesland Association

2015 Resource Analysis Friesland

2016 25 Frisian companies start Vereniging Circulair Friesland

2017 Development 7 Pillars of a Circular Economy

2018 Capital of Friesland is European Capital of Culture

2023 165+ members and growing, upscaling to NL and EU

2025 Friesland belongs to the circular frontrunners of Europe

10 years anniversary

2030 *55% reduction in CO2 emissions and 50% reduction in primary raw materials*

2050 *Friesland is 100% circular*


Over 180 members
Frisian businesses
All Frisian governmental bodies
All levels of education
Strong working relationships with other
regional and national networks

Circular clusters of Friesland

Construction

Plastics / Re-Use

Agriculture / Soil

Water-technology

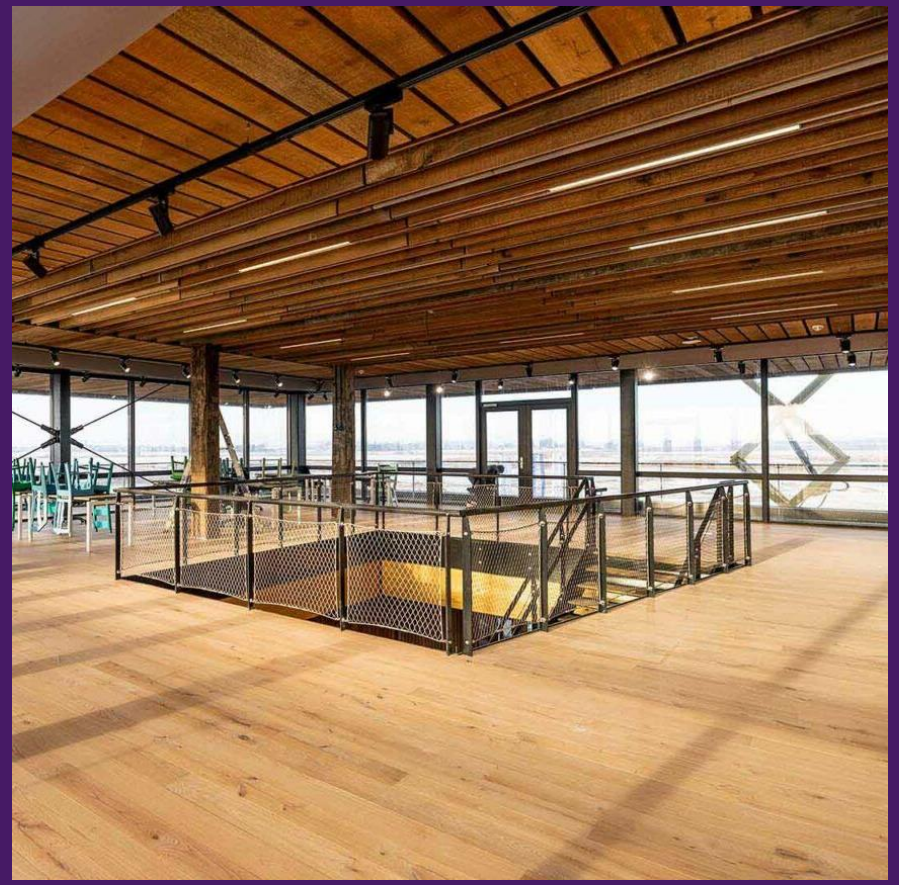
Tourism

Impact in the region

- 20.000 employees, >180 members
- > €1 billion in circular factories
- > 25% circular procurement
- 4.000 construction units circular
- 50% circular in 2030, 100% in 2050
- Horizon/Interreg projects

7 Pillars of the Circular Economy

Circular construction is ‘the new normal’



National Approach Biobased Building

Features of the plan

- Large scale approach of four ministries combined, to scale up the market for biobased construction materials
- The plan is created by a large group of companies and governments, led by the Building Balance foundation
- Budget is € 200 million (of which € 175 million is reserved)

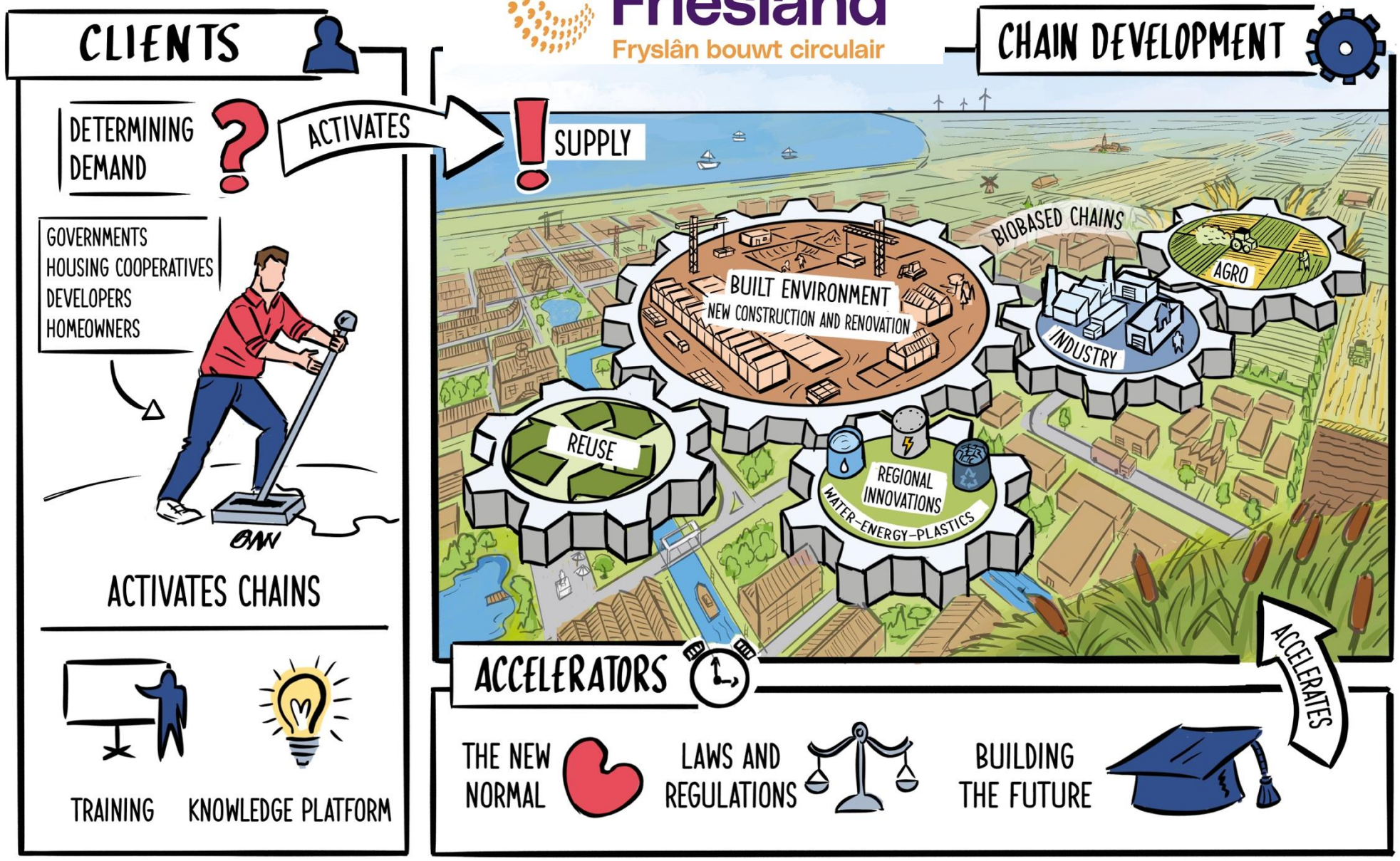
Focus

- Cultivation, processing and application of fiber crops
- Substantial market: significant CO2 reduction and contribution to other social objectives

Building Balance

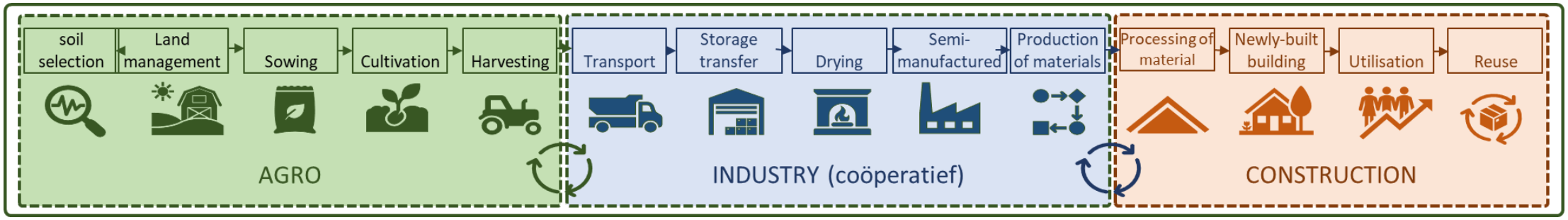
Circulair Friesland

Fryslân bouwt circulair



>40 construction projects in the Fryslân region

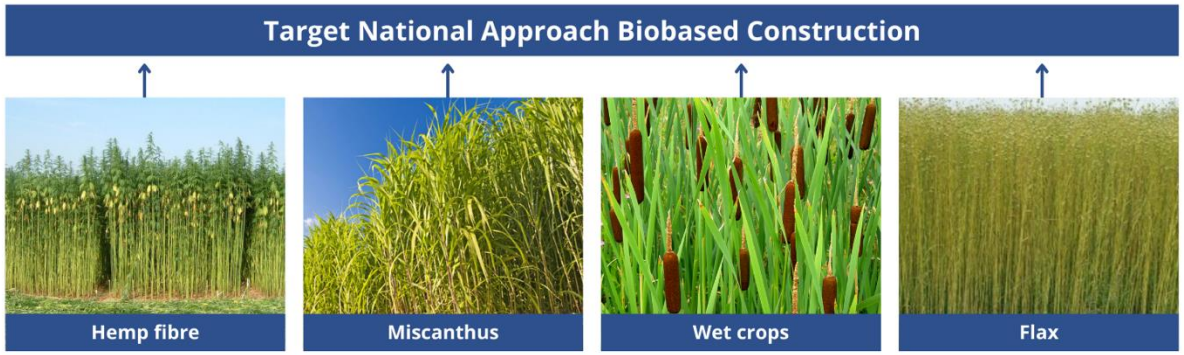
Building biobased (and urban mining) value chains



Supply
Crops/urban mining

Processing

Demand
Biobased/re-used



Building Balance

BBoBB
Building Based On BioBased

Interreg North Sea
Co-funded by the European Union
BBOBB

Frisian Hemp value chain

- 2021 – first declaration on cooperation
- 2022 – Biobased Insulation Pact Friesland
- 2023 – start of the NABB / launch of Carbon Credits
- 2024 – Frisian Hemp Deal (october)
- 2025 – opening of the regional factory & start of full regional value chain

Frisian Hemp value chain

Frisian Hemp Deal 2024-2027:

- 500 ha hemp in Friesland (2024) - GreenInclusive
- 5 social housing coops
- >15 construction companies
- >1.000 houses (400 in 2025)
- 1 factory!

- Goal 2030: 5.000ha biobased!

Value chain concrete – case of Leeuwarden (Heechterp)

elkien

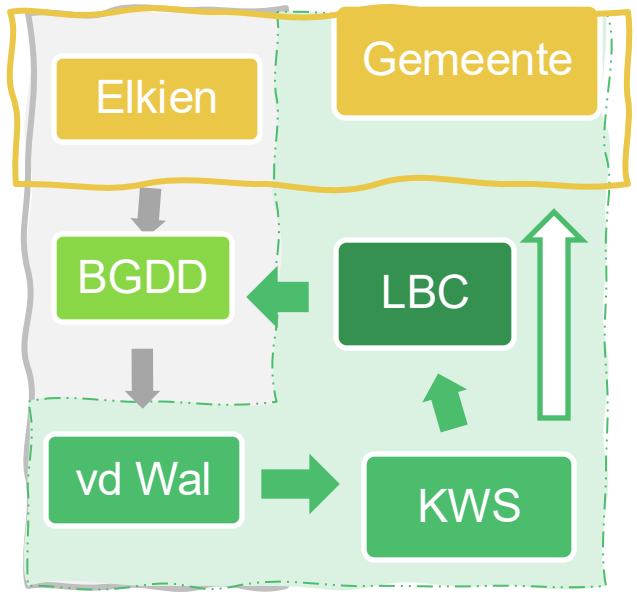
Gemeente Leeuwarden

BOUWGROEP DIJKSTRA DRAISMA

VAN DER WAL SLOOPWERKEN ASBESTSANERING RECYCLING

KWS

LBC LEEUWARDER BETON CENTRALE B.V.



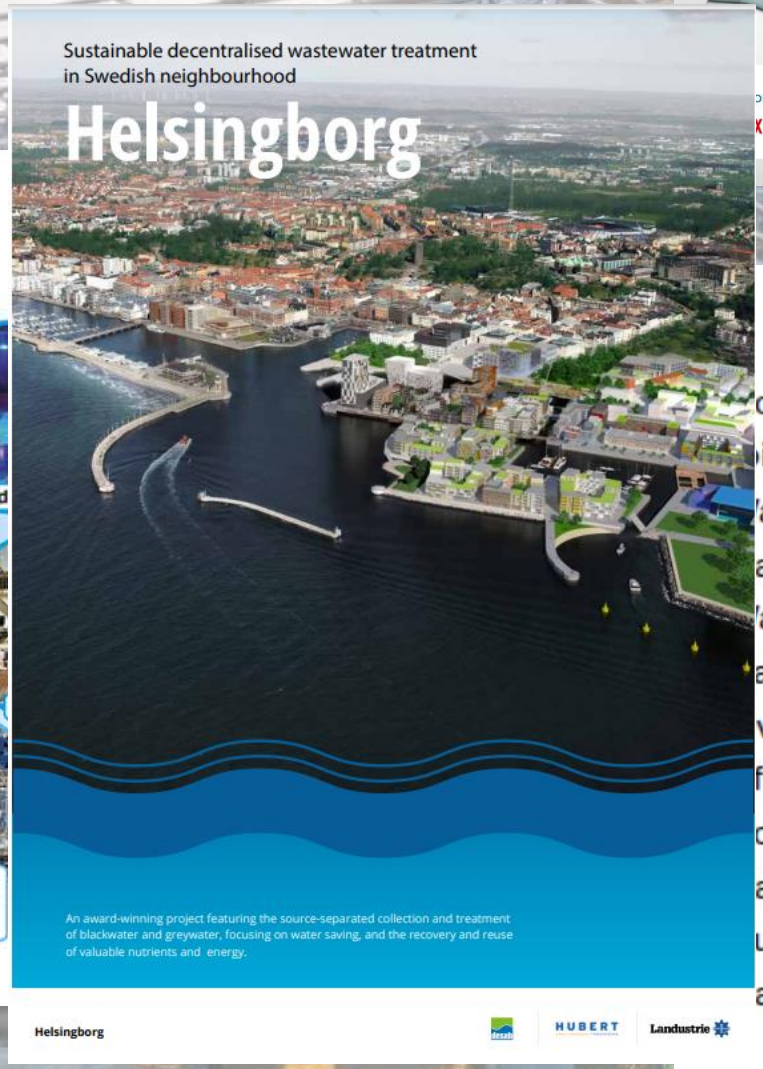
2.700 ton of concrete

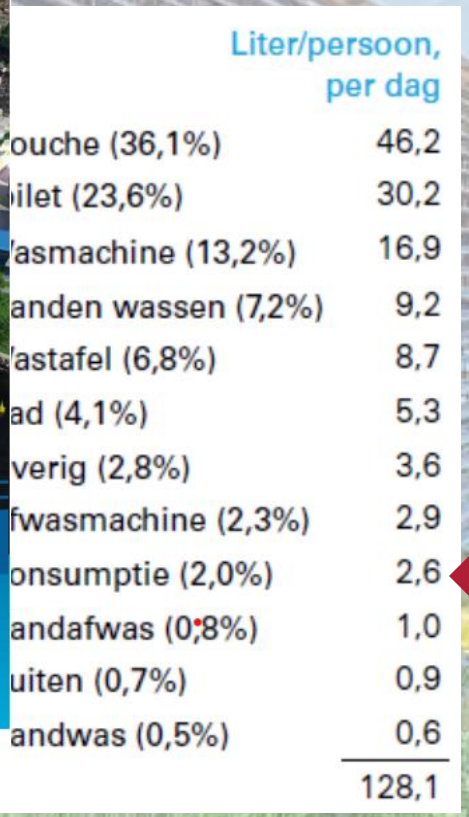
Demolition/development area of +/- 600 houses

All within the same urban area!

Ready to scale up!

Watercampus Friesland





CRAFT+ Frisian circular design

CRAFT+
ARCHITECTENCOLLECTIEF VOOR
CIRCULAIRE REGENERATIEVE ARCHITECTUUR

ALYNIA ARCHITECTEN

WAA. WIND ARCHITECTEN ADVISEURS

ZAANMAN ARCHITECTEN

ARCHITECTEN

inbo

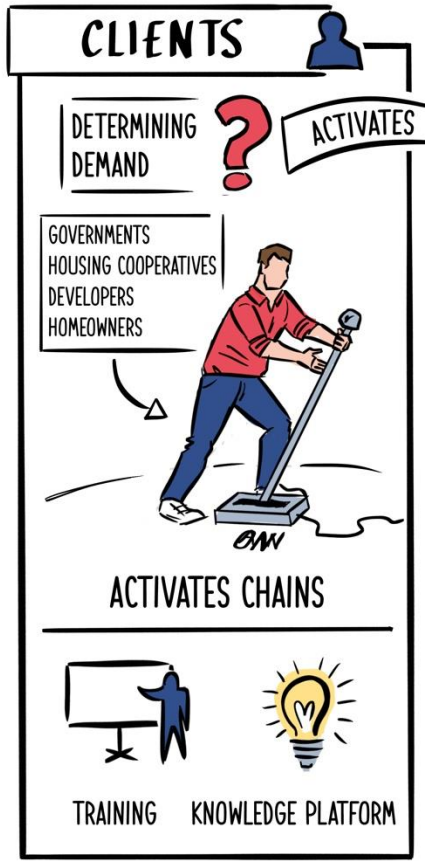
GEAR coöperatie

ACHTERBOSCH ARCHITECTEN

Made by Phi
Waardevolle architectuur

Support Demand-approach:

kick-off March 15th 2024

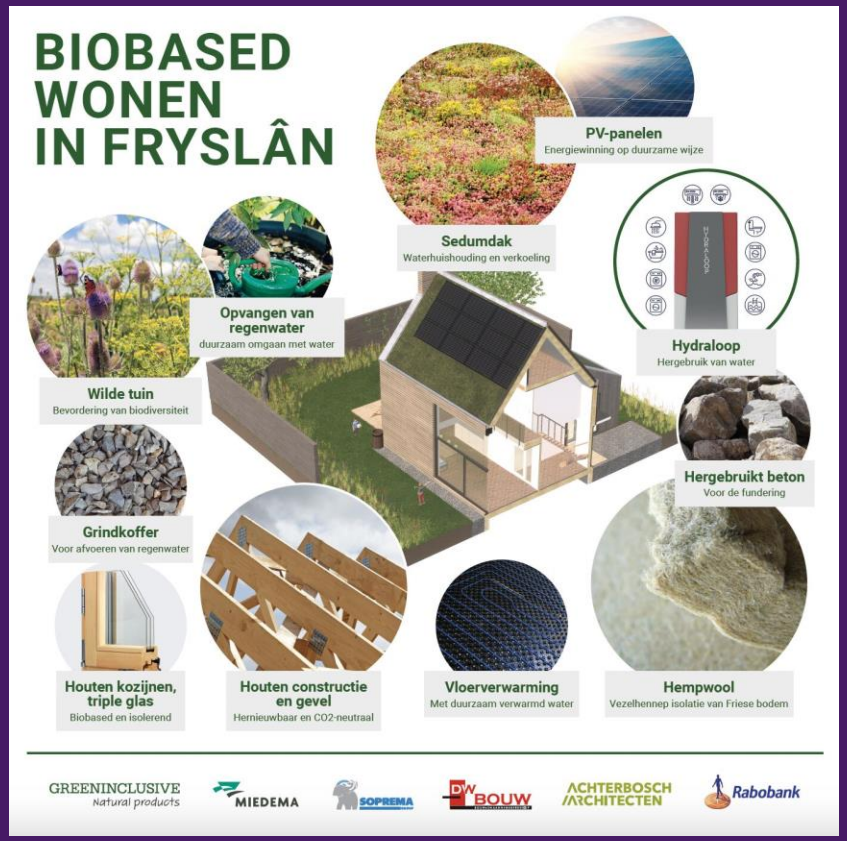


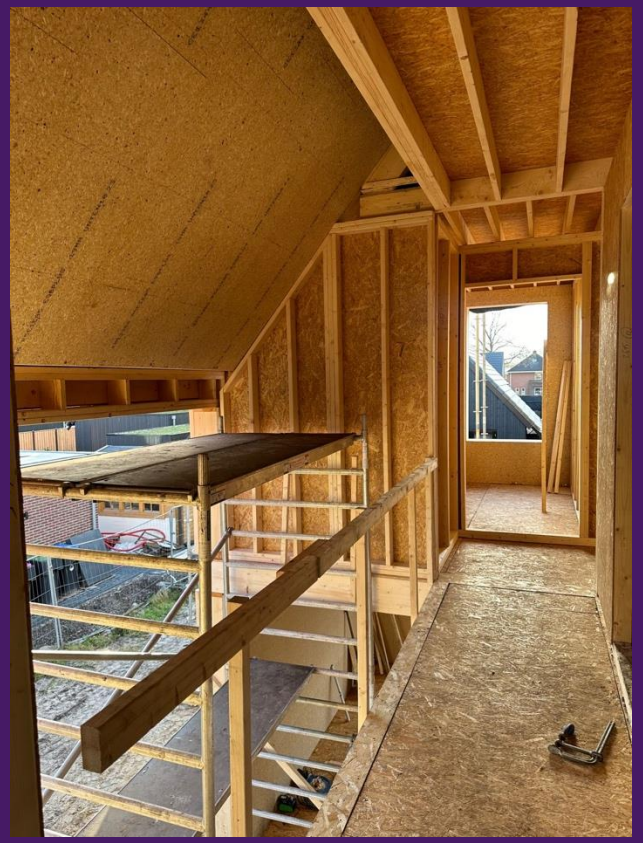
>40 construction projects

Criteria:

- Biobased
- Water
- Carbon Output /Storage
- Re-Used Materials
- Re-Use Potential
- Energy Neutral

Example: development Nieuwehorne





Vereniging Circulair Friesland

Beleidsaanbevelingen Bouw - juli 2024

Laws and Regulations: Consultations & Policy Recommendations

Versie 2.0 - september 2024:

- Water(savings)
- Norms, standards en certification
- BENG & MPG

Circulair Friesland

Program Fryslân builds Circular

Goal of the programme

Making circular and biobased construction the norm in the province of Fryslân for all new construction, demolition and renovation projects

The New Normal

Common language and ambitious performance for circular construction for the entire chain

- Setting up The New Normal in the Frisian context
- Compiling an expert group
- Frisian Design Approach with CRAFT+

Demand

Making demand for circular construction the norm by supporting clients

- Knowledge & Peer Supervision Process
- Knowledge Platform
- Policies and procedures
- Supervising >40 construction projects
- 5 Impact projects (>100 homes)

Suply

Setting up new chains and developing innovations, based on the strength of the region

- 4 Biobased Chains
- 4 Reuse Chains
- Developing 12 Regional Innovations
- 3 CIRCO tracks Building-related

Building the future

Developing knowledge and talent from regional education and connecting it to the construction sector

- Joint approach to Circular/Biobased Construction (secondary vocational education/higher professional education/university education)
- Connecting >30 challenges of Businesses /Education

Laws and regulations

Translating this to the region and developing a lobby for circular construction

- Translating national /European laws and regulations
- Lobby for circular construction (through SNN and national partners)
- Listing and cataloguing obstacles among members

How do we do this?

- Learning from each other
- Initiating collaboration
- Best Practices
- Website VCF
- Events and tours
- Development of communication tools

Circulair Friesland
Fryslân bouwt circulair

Opportunities for cooperation

- Exchange knowledge and experience (on triple helix cooperation)
- Connecting frontrunner regions/cooperations
- EU projects: Horizon, Interreg NSR / Europe (2027)
- Monitoring: CGR & barriers for change

Thank you!

Nick Boersma, program manager Circulair Friesland

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www.circulairfriesland.frl

Circulair Friesland
Fryslân bouwt circulair

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Arianne Acke
OVAM

Empowering the circulair construction network in Flanders

Flanders
State of the Art

WE MAKE TOMORROW BEAUTIFUL

OVAM

Strategic Agenda Circular Construction

Werkagenda circulair bouwen

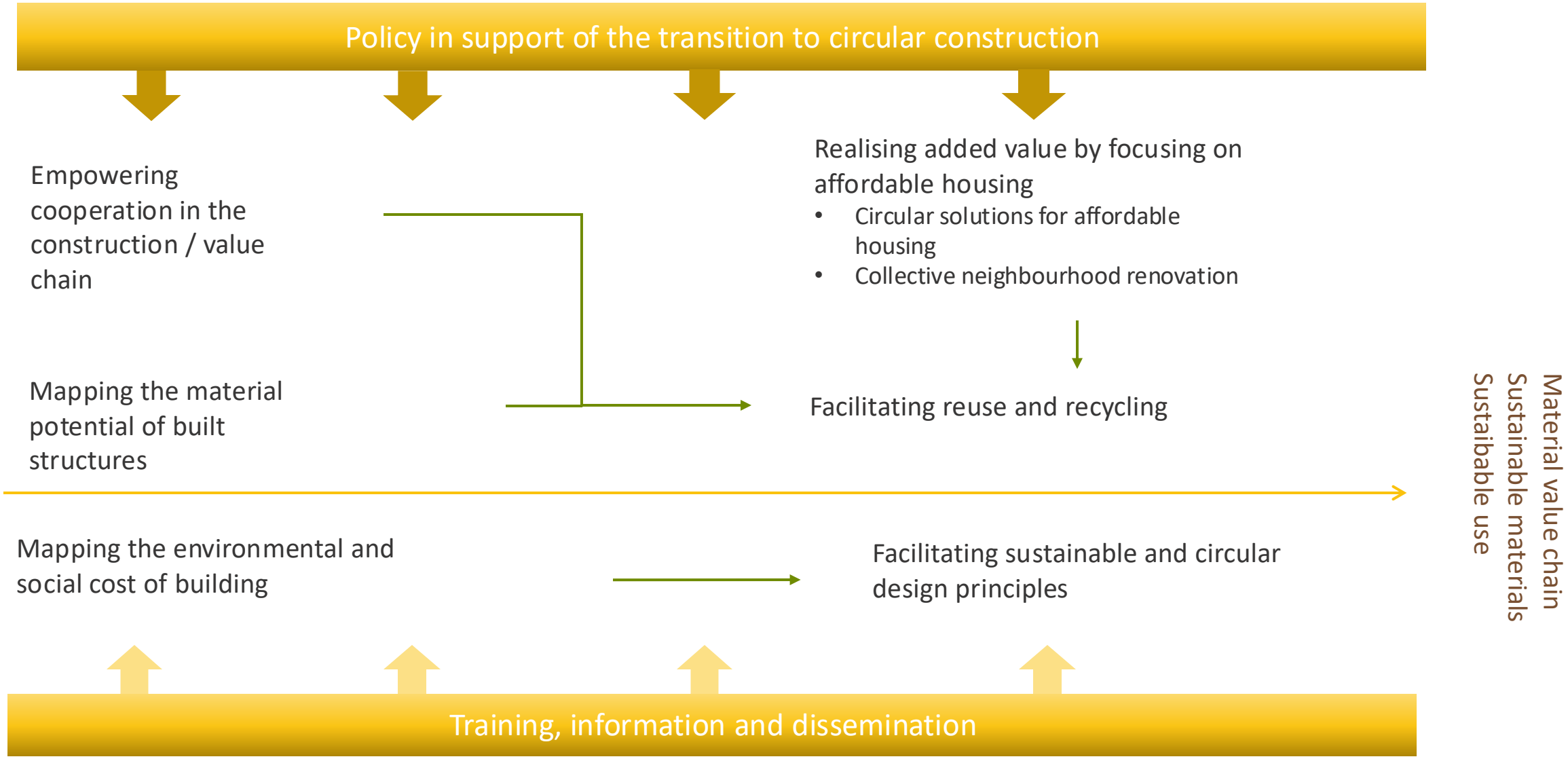
Flanders State of the Art

- Network
- Community
- Supported by research and policy

WE MAKE TOMORROW BEAUTIFUL

OVAM

Flanders
State of the Art



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Strategic Agenda Circular Construction

Ongoing actions

- Standards for a building passport
- Calculating the environmental impact of buildings with TOTEM
- Introducing Circular Construction in education and at the workplace
- Reuse inventory: good practises
- Framework for exchange of data in circular construction projects

Focus actions ’25-’26

- Reuse : role material hubs
- Challenges for future-oriented construction
- Innovative materials

Flanders
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APPROACH

6 strategic agendas

Public-private collaborations with specific dynamics, targets, lead partners and actions

- circular construction
- chemistry & plastics
- water loops
- bioeconomy
- food chain
- manufacturing

Roadmap Circular Economy

7 levers

Accelerators for overcoming barriers and spreading good practices

Policy and policy measures
Cities and municipalities
Regional policy
Intra-Belgian cooperation
Federal policy
European agenda

Circular procurement
European project ProCirc
Government leading by example
Innovative public procurement

Communication & Reporting
Raising awareness
Co-creation
Sharing knowledge
Sharing best practices
Monitoring, reporting

Research
Strategic research agenda
CE monitor
CE-Center for policy research

Innovation & entrepreneurship
I&E support & service
Partnerships
Experimentation

Financing
Incentive and investment policy
De-risking CE financing
CE Fund

Jobs & skills
Education and training
Starters en scalers
Employment
Social economy

collaboration of 30 organisations 100 coworkers

Challenges

- Positive attitude towards circular construction: important and necessary
- Knowledge gap about circular construction
- Finding tailored information requires a lot of time and effort.
- Tools to measure the environmental impact of buildings are known to a limited extent.
- Collaboration within the value chain remains a challenge.
- Resistance to change
- Sharing data: accessibility, exchangeability and security of available data.

General public

Importance

Effort

Knowledge

How is the circular economy netwerk organised in your region?

- What's its strength?

Flanders
State of the Art

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Igor Kos
Ezavod

Circular and Biobased Construction

Use of sediments from rivers and lakes for building material

E Zavod

Igor Kos

Leeuwarden, 12.06.2025

Hydro powerplants in Podravje, Slovenia

Sedimentation is a natural, complex process that allows solid particles in water bodies to settle from suspension to the bottom of the water body due to gravity.

Increased amounts of sedimentation affect the safety of hydroelectric dams, reducing electricity production, water storage capacity and discharge capacity, and therefore, must be regularly removed.

Dravske elektrarne Maribor d.o.o. (DEM) is looking for solutions for processing sediments into construction products that follow the circular economy policy.

Although the annual accumulation of sediment in DEM's water reservoirs is over 100,000 m3, it is possible to remove between 30,000 m3 and 50,000 m3 of it annually in partially dried form.

Production of bricks from sediment

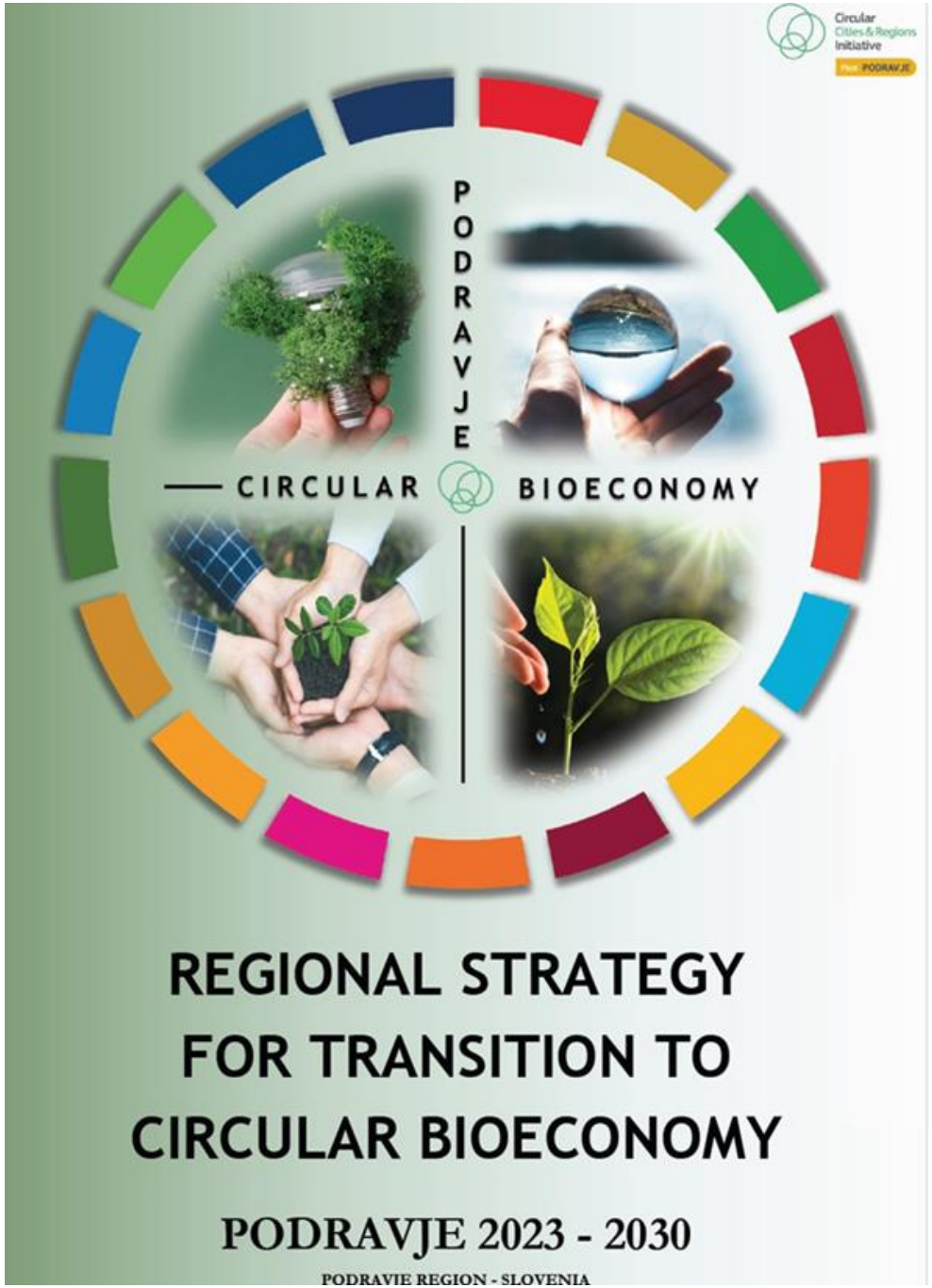
A pilot test was carried out at the Goriške Opekarne brick factory, using 20 tons of sediment sample for the industrial test. The pilot test was carried out with the addition of 20 percent by weight of sediment (dry mass) in the brick making material mixture.

Bricks with the addition of river sediment have a lower compressive strength compared to bricks from conventional production. This is a consequence of increased porosity or greater water absorption. Nevertheless, the average compressive strength of the brick (26 MPa) made with the addition of river sediment was still significantly above the declared value of 15 MPa.The pilot-produced brick is ready for use in the construction of a demonstration facility.

Sediment composite for installation in embankments

Sediments deposited on the shore of Lake Ptuj are not usable for further use in geotechnics due to their extremely high moisture content.

To verify the usability of the sediment composite, a test field was created, where geomechanical parameters of the installed sediment composite and environmental parameters were monitored. The suitability of installing the composite with a recycler was confirmed from a technical and also from a cost perspective.



Thank you for your attention

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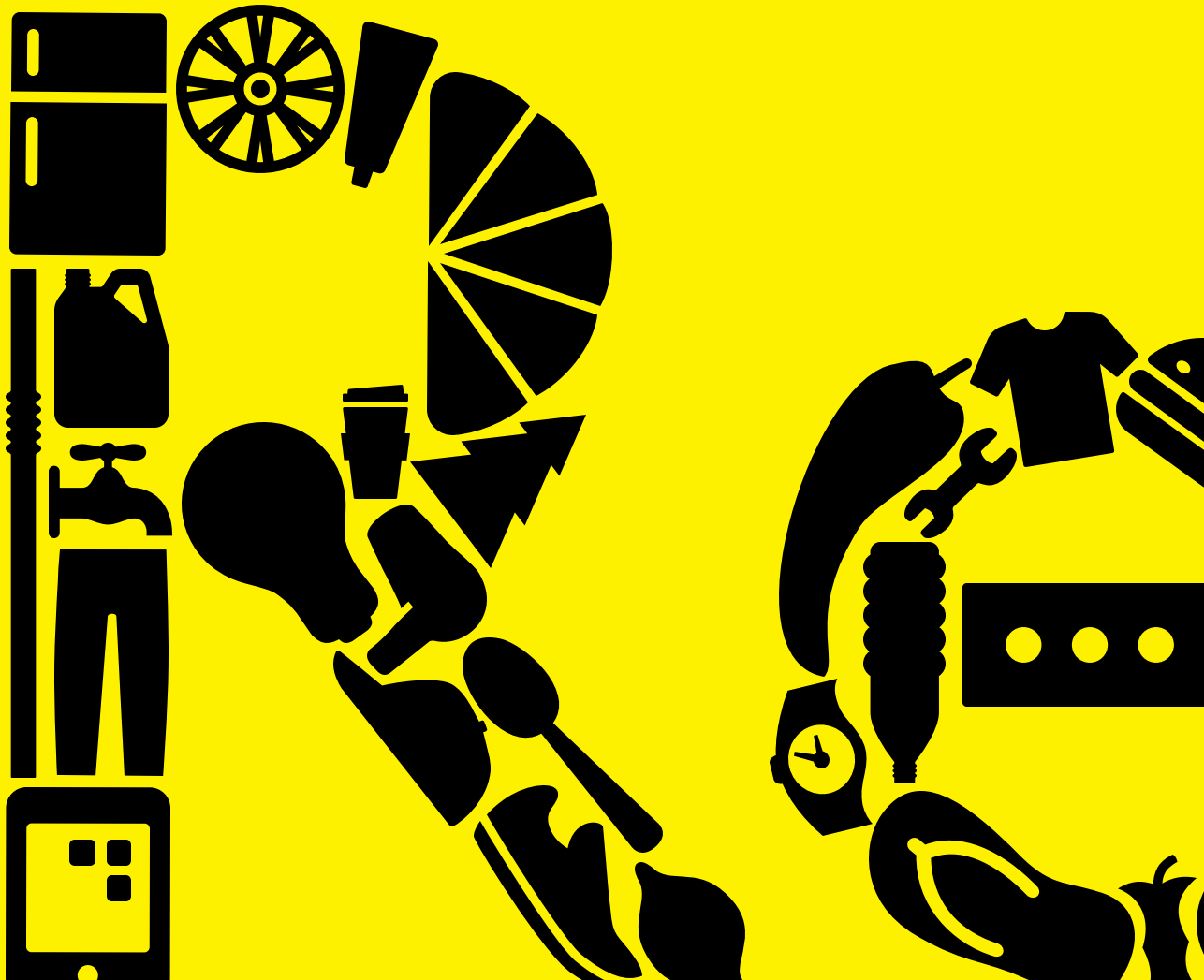
Katie Rowberry
ReLondon

ReLondon

Construction Material Reuse in London

Katie Rowberry

11/06/25

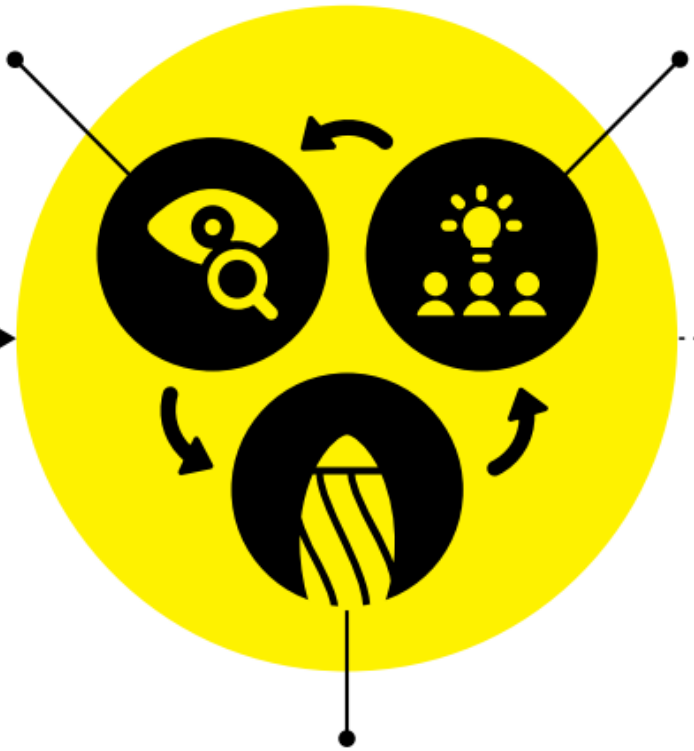


What do we do?

Bridge policy implementation gaps

Provide capacity and experience to overcome barriers

Act at the 'pinch point' in circular economy transition



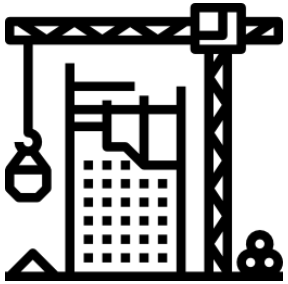
Unlock practical progress to low carbon CE

Core pillars of the Built Environment Programme

PLANNING

Extension and normalisation of the Circular Economy Statement policy

Supporting the development and implementation of the London Plan



PROCUREMENT

Supporting on best practice asks to embed circular economy principles in their own construction projects

Local authorities spend ***£6.8bn*** *annually on construction & renovation:* ***14%*** *of the sector's turnover in London*

INFRASTRUCTURE

Development of the necessary physical and digital infrastructure to facilitate circular supply chains.

Business support for circular London-based SMEs

London’s context

- 400 million tonnes of materials are consumed by the built environment sector in the UK annually.
- Over 50% of waste in London is generated by construction, demolition and excavation.
- Around 10% of London's carbon emissions are directly associated with construction.

The Planning Landscape

UK Central Government

Produce National Planning Policy Framework (NPPF)

Greater London Authority (GLA + Mayor of London)

Produce the London Plan

32 London Boroughs + Corporation of London

Produce local plans and spatial guidance

Urban Mining The process of recovering and reusing the raw materials that are already in the environment, cities or everyday products, in the resource cycle.

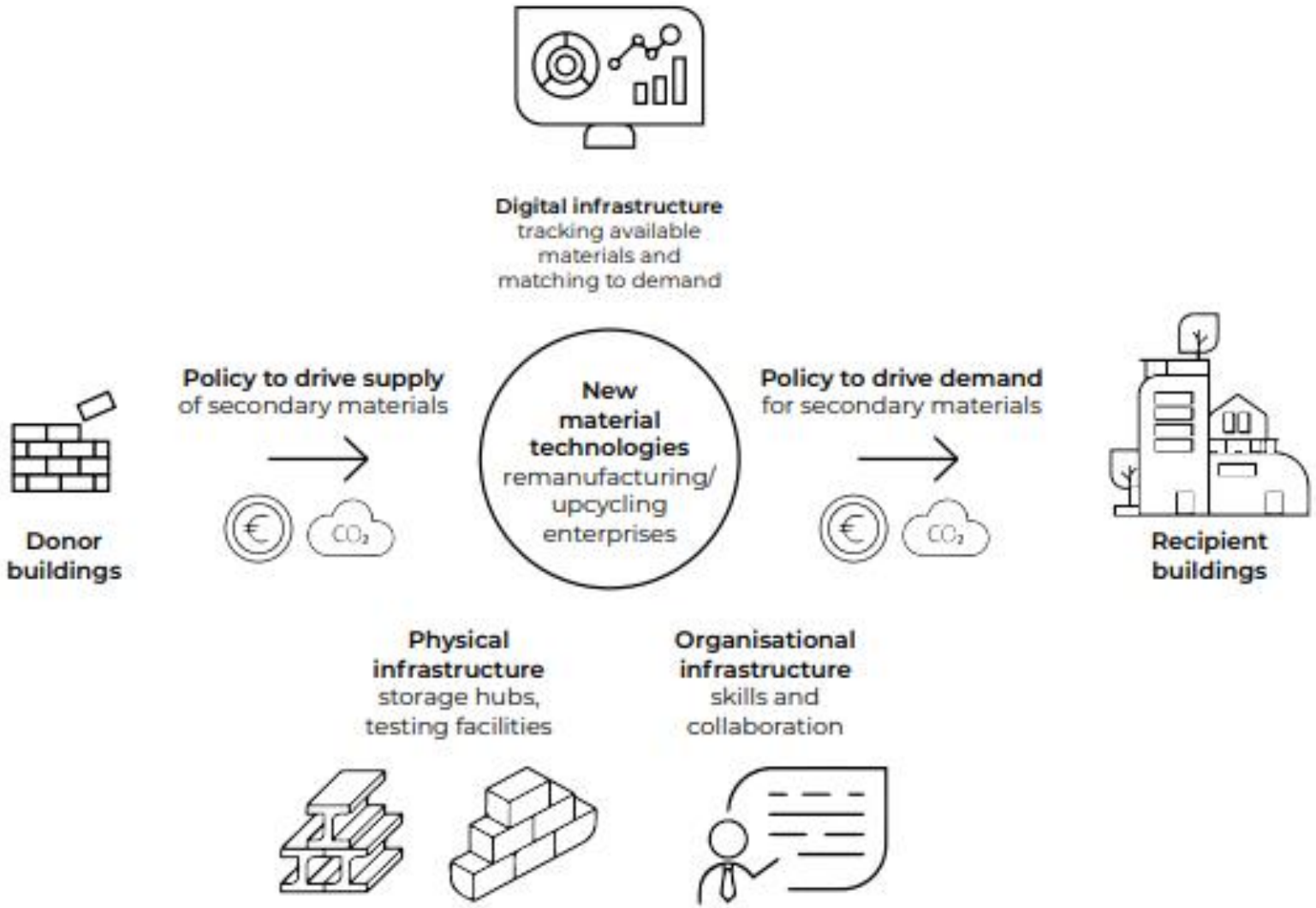


Figure 2.1: Material Reuse Landscape

CIRCuIT (2019 - 2023)

Read the full report here!

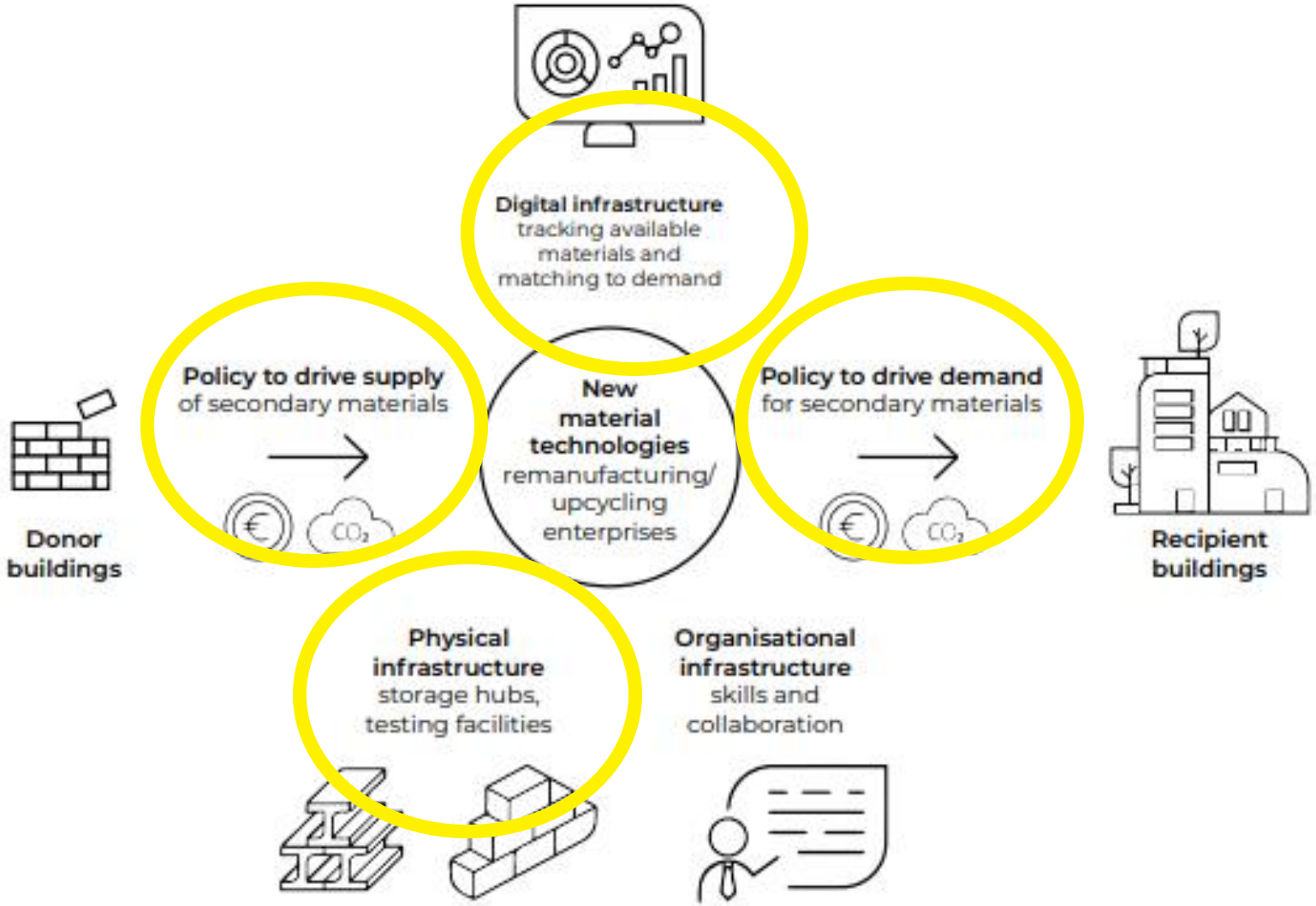
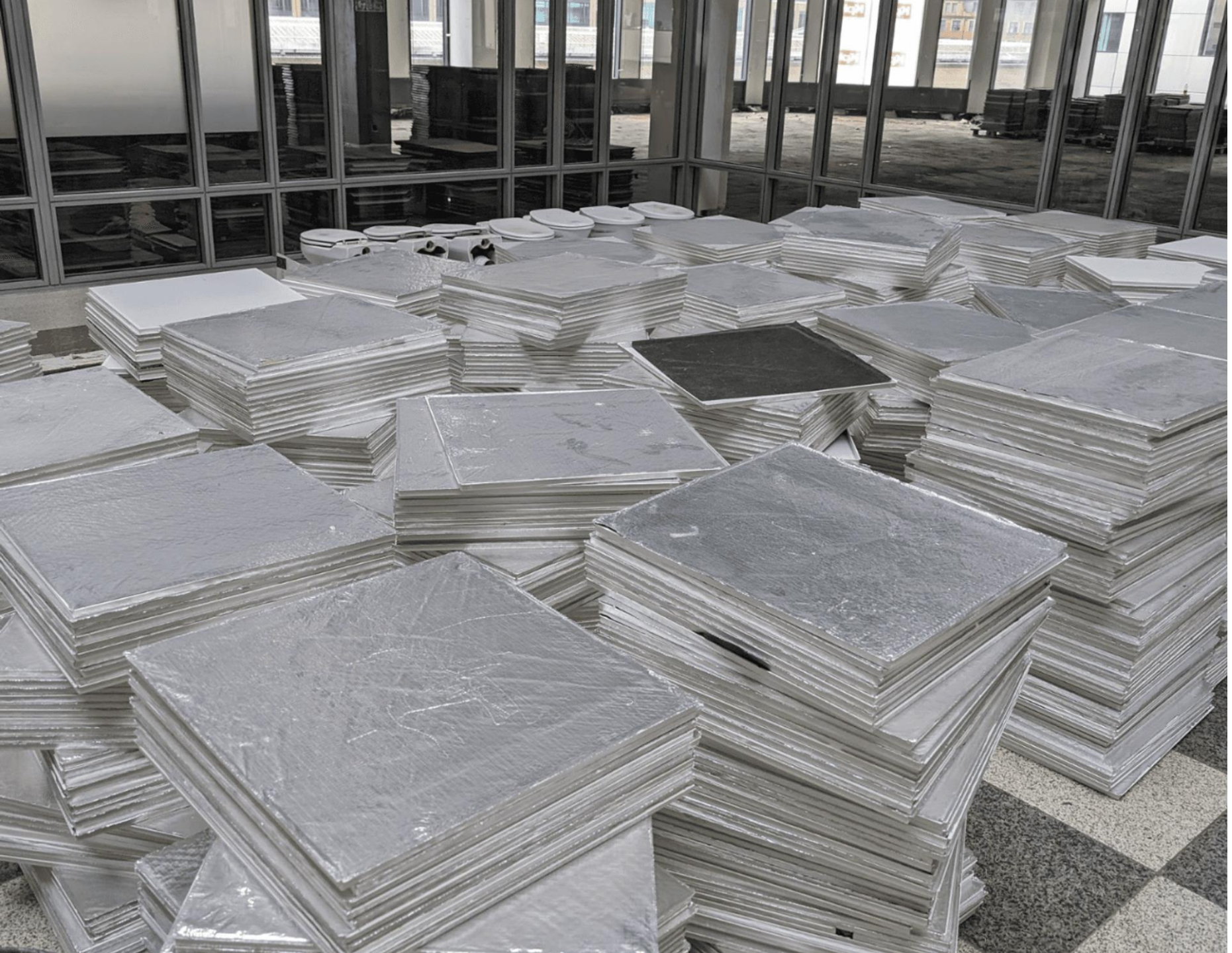


Figure 2.1: Material Reuse Landscape



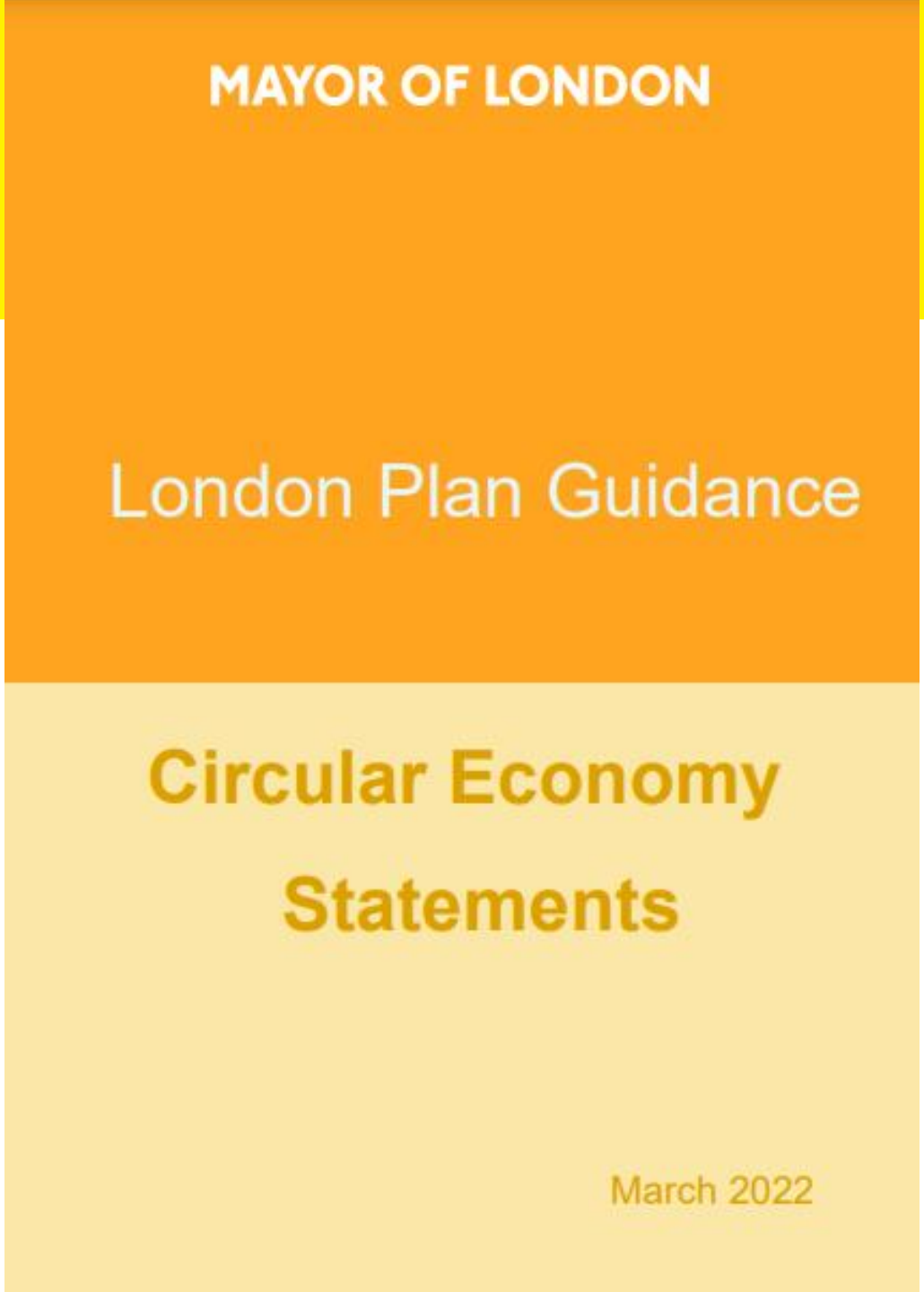
Material Index

- 1 Appold Street
- 38,000 floor tiles brokered

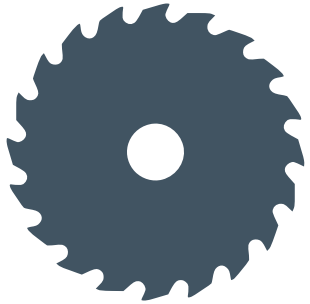
Romulus

Circular economy statement

- Required for large developments in London.
- Shifting the conversation between developers and clients.
- The data is the next step!



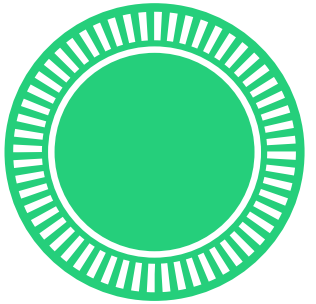
Key questions for our discussion



How can we mitigate the investment & political risks of strengthening policies and developing infrastructure for material reuse?

Can a stronger collaboration between European cities help with this?

Beyond material reuse, how can cities promote refurbishment instead of demolition and ensure an optimised used of existing buildings, avoiding vacancies?



What synergies can be found with other sectors?

ReLondon

Thank you

Katie Rowberry

Head of Partnerships & External Affairs

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Matchmaking workshop

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14.40 - 15.00
Closing of CSF25 (A0.63)

15.00 - 17.00
EWWR 2024 Award Show