

Final Network Product URGE – circular building cities

Circular economy in the construction sector

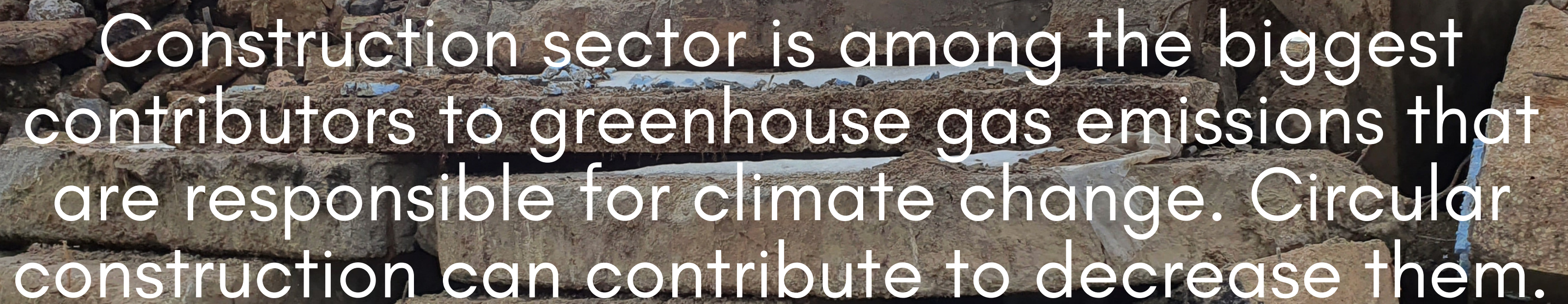
May 2022

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Our reference point

The overarching aim of the European Green Deal is for the European Union to become climate neutral by 2050. It has goals extending to different sectors, including construction.



Construction sector is among the biggest contributors to greenhouse gas emissions that are responsible for climate change. Circular construction can contribute to decrease them.

Our concerns:

- 40% of EU's total energy consumption
- 36% of EU's total greenhouse gas emissions from energy
- 50% of EU material demand
- 27% of EU waste



Our motto

Working together to
make the future of
circular building cities
possible, in a way
that's accessible to
everyone, and
sustainable above all.



Our definition

Circular economy is an economic system that targets zero waste and pollution throughout materials' lifecycles, applying to all involved sectors.



What? Why? How?

What?

Circular building cities – URGE, deriving from 'cirUlaR buildinG citiEs', is an Action Planning network on circular economy in the construction sector – a major consumer of raw materials.

Why?

There is a gap in circular economy principles' implementation in the building sector.

How?

Through participatory process, international exchange of knowledge and following an integrated approach.



Our process

STEP 0:
Baseline analysis

SEP 2019 - MAY 2020



STEP 1:
Activation

Roadmaps

MAY 2020 - DEC 2020



STEP 2
Action Plans'
preparation

Action Plans' preparation

DEC 2020- DEC 2021



STEP 3
Planning
Implementation

Small scales activities
implementation and
evaluation/ Planning
impementation - Update of the
Action Plans and finalisation

DEC 2021 - JUN 2022



STEP 4
Finalisation of
action plans

Finalisation of the
Action Plans,
communication and
promotion of results

JUN 2022 - AUG 2022



Our geographic presence

URGE has a presence in 9 European countries!

PARTNERS OF URGE:

UTRECHT (THE NETHERLANDS) (LEAD PARTNER)

COPENHAGEN (DENMARK)

MUNICH (GERMANY)

RIGA (LATVIA)

NIGRAD (MARIBOR) (SLOVENIA)

GRANADA (SPAIN)

PRATO (ITALY)

KAVALA (GREECE)

INTERMUNICIPAL COMMUNITY OF THE WEST (OESTE) (PORTUGAL)

Geographic presence



INTERMUNICIPAL
COMMUNITY
OF THE WEST (OESTE)
Population: 363,551
Level: regional



RIGA
Population: 614,618
Level: local



NIGRAD (MARIBOR)
Public utility company
Population Maribor:
113,000



PRATO
Population: 201,410
Level: local



GRANADA
Population: 231,775
Level: local



UTRECHT/LEAD PARTNER
Population: 361,742
Level: local



COPENHAGEN
Population: 638,147
Level: local



MUNICH
Population: 1,560,000
Level: local



KAVALA
Population: 70,501
Level: local

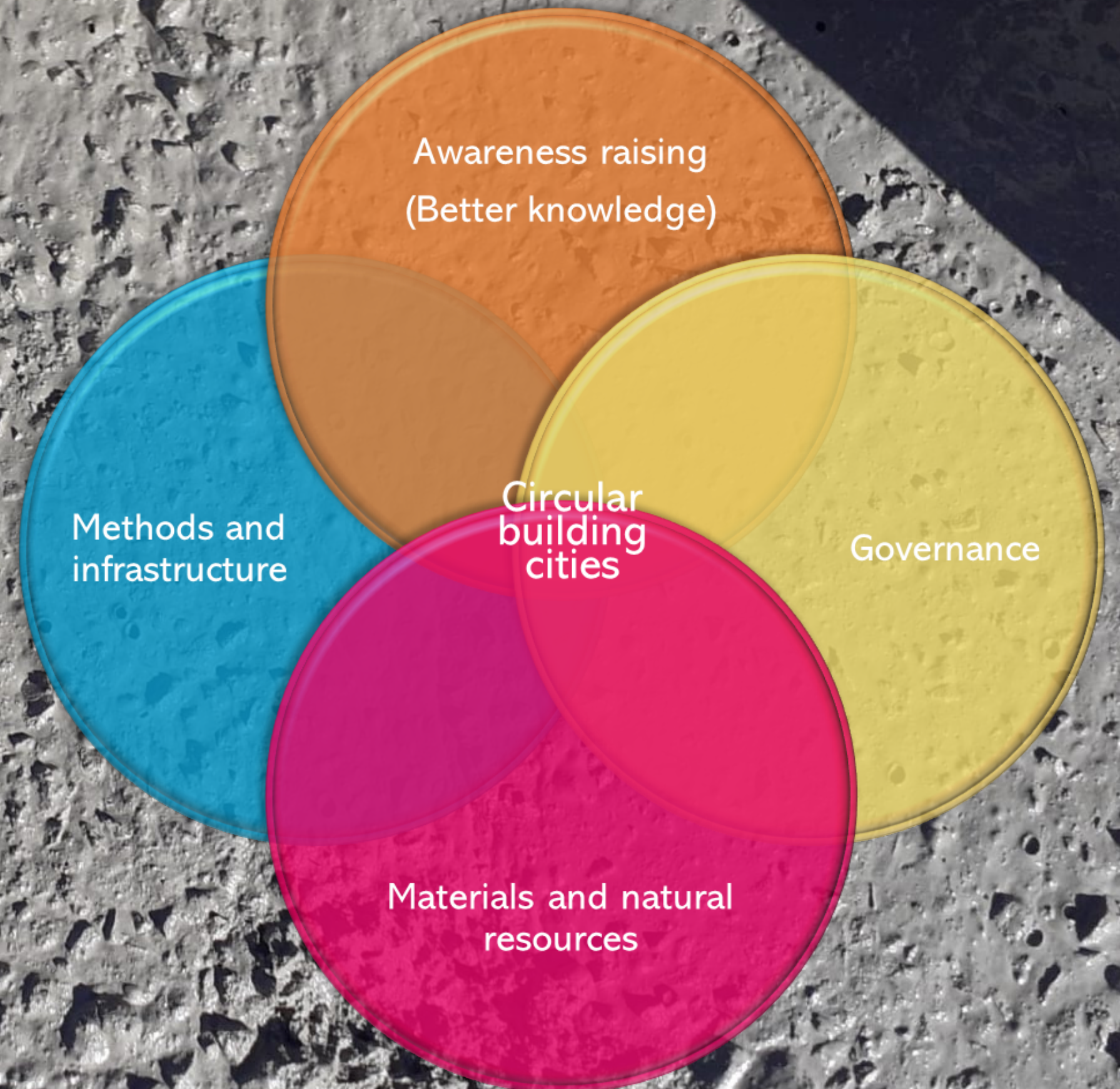
A photograph of a modern urban waterfront. In the foreground, a curved walkway with a bright orange surface and a metal railing runs along a body of water. In the background, several modern glass buildings are visible. One building has the logo 'BDO' and another has 'Handelsbanke'. The sky is clear and blue.

Challenge

Rapid urbanisation and need to build new houses, old building stock in need of renovation and deconstruction in a circular way.

URGE themes of focus

URGE partners prioritised four major themes of focus, together constituting the base needed for circular building cities



Main outputs



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- 1 Baseline study
- 4 Small Scale Actions
- 9 Integrated Action Plans
- 6 thematic reports
- 4 articles
- 14 digital site visits and 10 city videos
- 1 publication in Scientific Journal
- 9 case studies
- 10 interviews
- 10 city videos
- 1 Final Network Product

Recommendations

Awareness raising (better knowledge)

Awareness raising
(Better knowledge)

Build capacity on circular economy and circular constructions through collaborations with universities and associations of engineers

Engage citizens and stimulate behavioural change through visual, creative and positive communication

Collaborate with the private sector for building of trust and provision of incentives to boost demand of secondary materials



Case study from
Copenhagen





Recommendations

Methods and infrastructure

Raise the need for **regulations** and **technical standards** that promote circular economy to different levels of government

Use platforms to map flows and to link supply and demand

Planning and process: reserve enough time, keep track on progress, use multidisciplinary and integrated approach



Thematic article on mapping of flows, Oeste



Case study from Utrecht





Recommendations

Methods and infrastructure



Case study
from Riga

Raise the need for **material exchange points, recycling units and material banks** as a means for linking supply and demand



Case study
from Kavala

Develop of a set of circular economy criteria integrated in public procurements





Recommendations

Governance



Thematic article on governance, Prato

Put forward a **strategic vision**, also in collaboration with regional and national levels

Joint agreement of municipal departments on circular economy implementation – **breaking of silos**



Case study from Granada

Involve end-users, citizens, private companies and other stakeholders

Design integrated policies – fight fragmentation





Recommendations

Governance



Assign roles and responsibilities among actors of the value chain

Thematic article on roles and different perspectives, Copenhagen



Introduce a city resolution, agreeing to test practices, methods, materials through pilot projects

Thematic article on standardisation and legislation, Munich



Materials and natural
resources

Recommendations

Materials and natural resources

Put forward **selective demolition** and **design for disassembly**

Test and introduce technical specifications of **recycled concrete** in view of upcycling

Put forward **biobased** constructions

Circular reuse of **water and soil** in construction sector



Case study
from Maribor (Nigrad)



Annex I: Actions included in URGE Action Plans

Most common actions (more than 4 URGE cities developed them in their IAPs):

- Develop circular economy trainings for professionals or civil servants
- Facilitate taxes / regulations / incentives / policies for circular economy
- Include circular economy criteria in public tenders
- Develop a circular district / recycling hub / eco centre
- Establish a framework to promote the use of secondary materials (including construction and demolition waste) and other circular materials
- Establish a construction and demolition waste management system / (digital) infrastructure



Annex I: Actions included in URGE Action Plans

Other actions developed in URGE IAPs:

- Develop a circular economy catalogue / best practices manual
- Develop awareness campaigns for circular economy
- Map the flow of materials and waste
- Improve circular economy capacity / expertise of relevant stakeholders
- Develop circular economy (awareness) courses at universities
- Close the loop, linking supply and demand
- Establish a specific office related to circular economy
- Involve stakeholders early-on in process
- Nurture a strong network
- Incorporate circular economy principles in renovation and construction





Annex II: URGE outputs:
<https://urbact.eu/urge>

Annex II: Template for a City Resolution: *www.muenchen.de/urige*





Contact us

Would you like to learn more about URGE? Please check our website: <https://urbact.eu/urge> or QR code

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