CIRCULAR CITIES
For Climate Mitigation

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Circle Economy runs sector programmes

**BUILT ENVIRONMENT**
Identifying opportunities to foster a circular economy and aiding in the creation of practical and scalable solutions to implement circular systems throughout cities worldwide

**TEXTILES**
Creating a zero waste industry whereby textile products, fabrics, and fibres are infinitely cycled through connected loops and across industries

**FINANCE**
Realigning the current financial system with the real economy by identifying and overcoming financial barriers to circular business practices

**DESIGN**
Providing consulting services aimed to create implementable action plans for circular strategies
IMPLEMENTING CIRCULAR ECONOMY GLOBALLY MAKES PARIS TARGETS ACHIEVABLE

ON THE ROAD TO THE CIRCULAR CAR
How car component suppliers can become future-proof by applying circular economy principles

CIRCULAR RADIOLoGY
Radiology as a gateway to circular economy value creation in healthcare
9.1%

A 1.5°C world is a circular world.
THE CIRCULAR ECONOMY: A KEY LEVER IN BRIDGING THE EMISSIONS GAP TO A 1.5°C PATHWAY
The body of evidence that circular economy can **mitigate climate change** is growing

**67%** of global greenhouse gas emissions are related to material management (UNDP/Lao PDR)

While **67%** of climate finance goes to energy efficiency and renewables (UNFCCC)

**40%** reduction through CE compared to Business as Usual by 2030 in India (EMF)

**70%** reduction in GHG emissions in 5 EU countries when adding circular economy options (Club of Rome)

Sources:
UNFCCC (2016), Biennial Assessment and Overview of Climate Finance Flows.
...but not happening
The CIRCULARITY GAP report AUSTRIA
We have to make it happen!

Circular Cities: Economic, social and environmental resilience

- Value creation
- Job creation
- Better air quality
- Competitiveness in global markets
- Reduced CO2 emissions
- Reduced resource use
We help translate data into decisions

Our material flow analysis identifies the key leverage points where your city can have the largest impact; whether that be GHG reduction, job creation, or more livable environments for citizens.

Key impact area:
- 40,000 m³ Water
- 15,000 kt Biomass
- 75,000 kt Minerals
- 25,000 kt Metals
- 3,000 GWh Energy
- 20,000 kt Emissions
CIRCLE CITY SCAN
ACTION PLAN: 4A BUSINESS INNOVATION AMSTERDAM

1. Deconstruction
2. Separation
3. Reuse
4. Storage

VALUE CREATION
€25 MILLION

JOB GROWTH
200x

MATERIAL SAVINGS
0 KTONS
100 KTONS

CO₂ REDUCTION
100 KTONS
“The Doughnut Economics framework is one of the first and most powerful attempts to link socio-economic and environmental issues under a common umbrella and has inspired many to take action, start discussions, and think differently. This conceptual framework provides an excellent base to build upon and develop an integrated measurable framework that could demonstrate and quantify the link between resource use and social outcomes. Cities could greatly benefit from having an integrated practical and measurable framework that combines environmental, economic and social elements as a holistic approach to meeting their citizen's needs.”
Which countries are closest to living within the Doughnut?

Meeting the needs of all within the means of the planet

Social Thresholds Achieved

Biophysical Boundaries Transgressed

- Germany
- Netherlands
- Japan
- UK
- France
- USA
- S. Korea
- Brazil
- Mexico
- China
- Russia
- Iran
- Turkey
- South Africa
- India
- Lesotho
- Swaziland
- Pakistan
- Indonesia
- Jordan
- Algeria
- Sri Lanka
- B’desh
- Philippines
- Vietnam
What is our city’s global impact on the health and wellbeing of people and planet?

What are the **social impacts** of our global economic relations?

What **ecological impacts** of our global economic relations?
The Amsterdam City Doughnut Workshop, 5th Feb
HOUSEHOLDS:
EMISSIONS FROM CONSUMPTION

Total household emissions
2 min tonnes CO2-eq

Household emissions as % of total emissions Basel
24%

Largest sources of emissions
Housing & utilities: 28%
Mobility: 23%
Food and drinks: 16%
Multi stakeholder collaboration

- Local businesses
- Municipality
- Chamber of Commerce
- Process participating stakeholders
- Process facilitators
- Local sister organization
- Regional / provincial governments
- Local environmental/social organizations
THANKS

Reports can be downloaded:

- **Climate mitigation**: www.circle-economy.com/case/circular-economy-a-key-lever-in-bridging-the-emissions-gap-to-a-1.5-c-pathway/
- **Circular Jobs**: www.circle-economy.com/case/the-circular-economy-at-work/
- **Circular Amsterdam**: www.circle-economy.com/report/developing-a-roadmap-for-the-first-circular-city-amsterdam/
- **Circular Glasgow**: www.circle-economy.com/case/glasgow-embraces-pioneering-circle-city-scan-approach/
- **Circle Intro Dashboard**: www.circle-cities.com
Our local vision:
thriving people
in this thriving place

Our global impact:
respecting the wellbeing of all
people and the whole planet
What is our city’s global impact on the health and wellbeing of people and planet?

Our thriving city must respect the rights of people worldwide

- Ethical trade
- Living wages
- Political voice
- Fair taxes
- Rights to water, land, clean air, healthy oceans
What is our city’s global impact on the health and wellbeing of people and planet?

Our thriving city must live within its per capita fair shares of planetary boundaries:

City metabolism.
Footprint of:
Material use
$CO_2$ emissions
Water use
Fertilizer use
Land use