

The Circular Economy:

The Role of Cities in the Transition Towards a Sustainable Materials and Resources Management.



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WHAT IS C40? C40 Cities Climate Leadership Group



C40 CITIES CLIMATE LEADERSHIP GROUP

Created and led by cities, the C40 Cities Climate Leadership Group is focused on tackling climate change and driving urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing and economic opportunities of urban citizens.

WHAT IS C40? C40 Cities Climate Leadership Group





WHY CITIES

- 53% of the world's people live in cities.
- 70% of the world's energy is consumed in cities and 70% of global C02 emissions originate in cities.
- Over 80% of the world's economic activity happens in cities.
- 98% of cities report that climate change presents risks to their cities.

Read more about our achievements at: www.c40.org

C40 INITIATIVES & NETWORKS C40 Networks



C40 Initiatives and Networks

Adaptation & Water Initiative	Energy Initiative	Finance & Economic Development Initiative
Climate Change Risk Assessment Connecting Delta Cities Cool Cities	Private Building Efficiency Municipal Building Efficiency District Energy	Sustainable Infrastructure Finance Green Growth
Solid Waste Initiative	Transportation Initiative	Urban Planning & Development Initiative
Sustainable Solid Waste Systems Waste to Resources	Mobility Management Bus Rapid Transit Low Emission Vehicles	Land Use Planning Transit Oriented Development Low-Carbon Districts Food Systems

C40 NETWORKS

- CONNECT
- INSPIRE
- ADVISE
- INFLUENCE

WHY WASTE? C40 Solid Waste Initiative





WHY WASTE? WASTE AND GHG





WHY WASTE? SYSTEM BOUNDARIES





WHY WASTE? WASTE AND GHG





Resource Savings and CO2 Reduction Potentia in waste management; Prognos, 2008. Climate Protection Potential in the Waste management sector; Umweltbundesamt, 2010.



WHY WASTE? WASTE AND RESOURCES







The Next Efficiency Revolution: Creating a Sustainable Materials Economy

SUSTAINABLE MATERIALS MANAGEMENT RESOURCE SCARCITY



Tears remaining Gone by



Ecosystems

Fossil fuels

Minerals

Sources: UN TEEB, US Geological Survey, BP, Worm et al (2006), London Metal Exchange. Figures are worldwide. Living natural resources dates are worst-case based on published estimates. Minerals and fossil fuel data based on known reserves currently economical to extract, assuming fixed % increase in usage per year. No provision made for changes in demand caused by new technologies, discoveries of new reserves or market forces. Agricultural land means land suitable for rainfed cultivation net of other land usage. Thirty year historic agricultural expansion rates are applied.

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Climate tipping point



CITIES AND THE CIRCULAR ECONOMY





Nations Unles



Conférence sur les Changements Climatiques

SECRETARE EXECUTIVE CONUCC

COP21/CMP11

Paris France

PRESIDENT



SUSTAINABLE MATERIALS MANAGEMENT THE CIRCULAR ECONOMY AND GHG



THE SITUATION

Under a business as usual scenario. the global temperature by 2100 will be more than 4°C above pre-industrial levels

THE END GOAL

To limit temperature rise to 1.5°C, we need to cut greenhouse gas emissions from 65 to 39 billion tonnes CO₂e per annum by 2030

THE SOLUTION

Current national commitments achieve about half of the required emissions cuts. Circular economy may fill about half of the remaining gap





FOOD

OTHERS

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C4C

Recycling is a precondition for a circular economy – resources and materials can be recycled, returned back to the economy and used again. What was once considered as waste can become a valuable resource.



In a progressively urban world, cities are the hotbed for innovation and for circular business models.

Cities are increasingly embracing circular economy principles; updating and adapting policies, sharing knowledge, and encouraging innovation for less wasteful systems.



CITIES IN ACTION





THE CIRCULAR ECONOMY C40 DELIVERY





THE CIRCULAR ECONOMY HOW TO START?

Elevate waste management to Sustainable Materials Management

Implement a Lifecycle Assessment of current system

Eliminate inefficiencies and incompatibilities

Measure performance by how much residual waste is being generated, not how much is landfilled

Look for smart incentives and combinations

ead by example

Take action. Errors can be fixed. Inaction cannot.





"Presidents and Prime Ministers set the aspiration in Paris, but it is city leaders that will be the first to step up and commit their share of the action necessary to achieve it."

–Mark Watts, C40 Cities Executive Director



THANK YOU!





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