

# What does it mean to become a circular city or municipality?

Speakers:

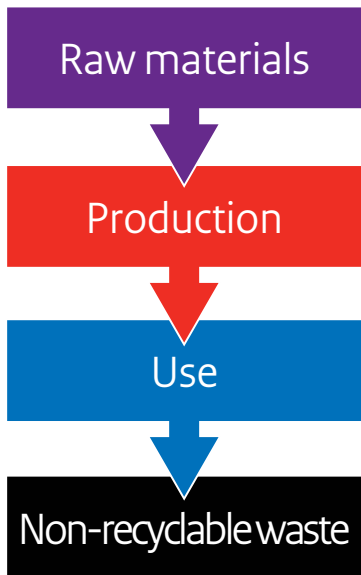
André van de Nadort, mayor of the municipality of Weststellingwerf

Tamara Streefland fra Metabolic

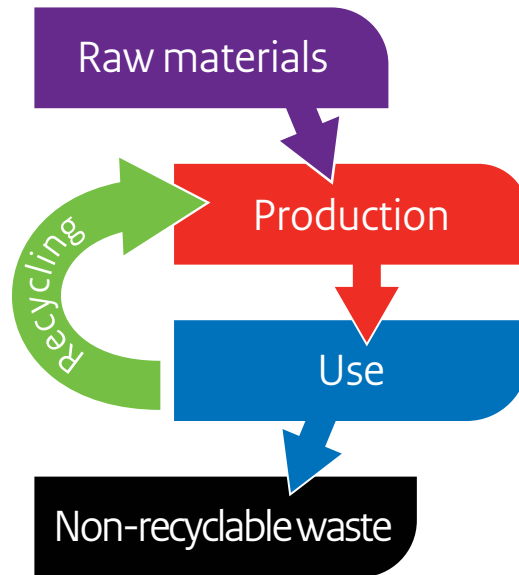
Moderator: Anne Solgaard

Head of Competency, the Norwegian Green Building Council

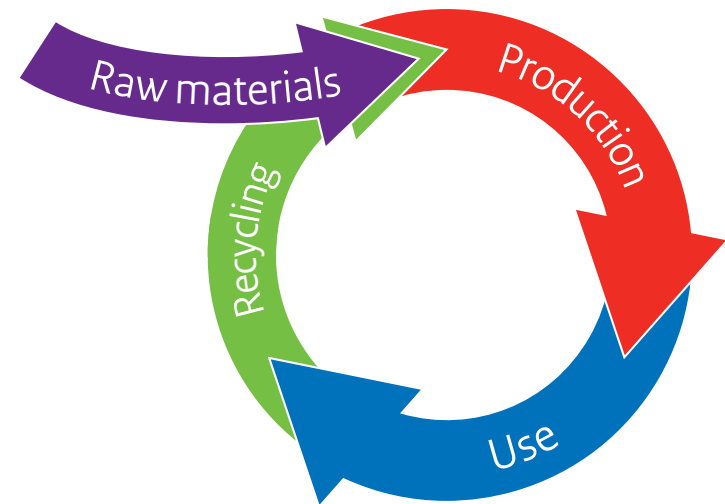
### Linear economy



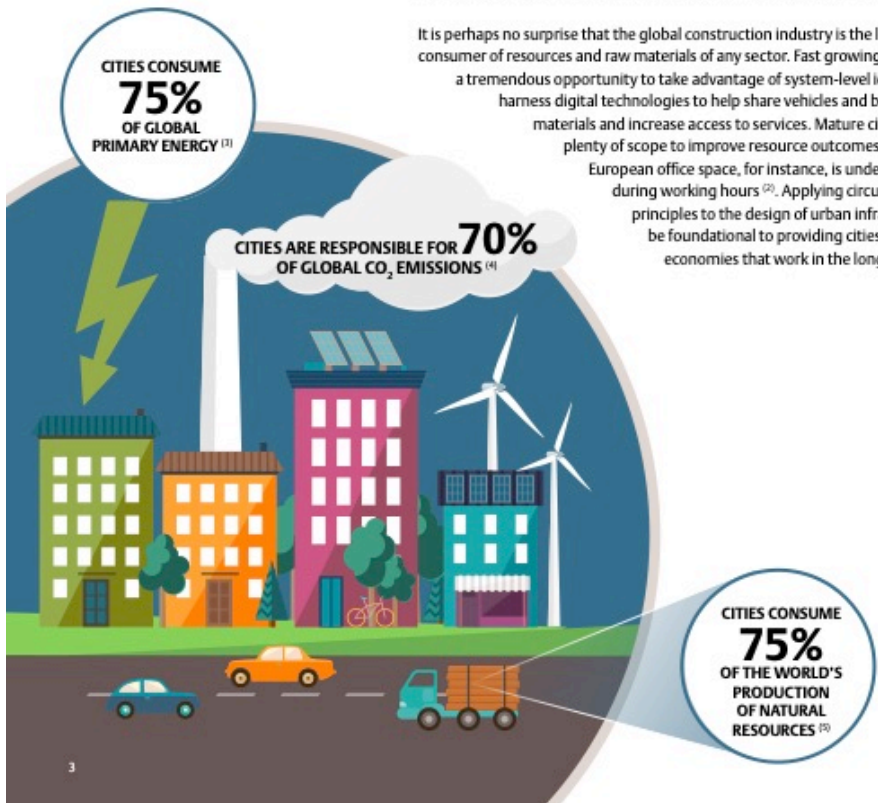
### Reuse economy



### Circular economy



Source: A Circular Economy in the Netherlands by 2050  
– a government wide programme for a circular economy



Due to their density and network effects, cities have an enormous potential to decouple high-quality lifestyles from material consumption and negative externalities. These challenges and opportunities will only grow: by 2050, 66% of the global population is expected to live in urban areas, up from 54% in 2014 (1).

It is perhaps no surprise that the global construction industry is the largest consumer of resources and raw materials of any sector. Fast growing cities have a tremendous opportunity to take advantage of system-level ideas that harness digital technologies to help share vehicles and buildings, track materials and increase access to services. Mature cities also have plenty of scope to improve resource outcomes: 60–65% of European office space, for instance, is under-utilised even during working hours (2). Applying circular economy principles to the design of urban infrastructure can be foundational to providing cities with inclusive economies that work in the long term.

## RESLOVE Activity pathways for circularity

- Regenerate
- Share
- Optimise
- Loop
- Virtualise
- Exchange



## Regenerate

Regenerating and restoring natural capital

Safeguarding, restoring and increasing the resilience of ecosystems

Returning valuable biological nutrients safely to the biosphere



## Share

Maximising asset utilisation

Pooling the usage of assets

Reusing assets



## Optimise

Optimising system performance

Prolonging an asset's life

Decreasing resource usage

Implementing reverse logistics



## Loop

Keeping products and materials in cycles, prioritising inner loops

Remanufacturing and refurbishing products and components

Recycling materials



## Virtualise

Displacing resource use with virtual use

Replacing physical products and services with virtual services

Replacing physical with virtual locations

Delivering services remotely



## Exchange

Selecting resources and technology wisely

Replacing with renewable energy and material sources

Using alternative material inputs

Replacing traditional solutions with advanced technology

Replacing product-centric delivery models with new service-centric ones

# What does it mean to become a circular city or municipality?

- What are some circular activities already underway in the Oslo Region? (ref. RESOLVE)
- Identify possible synergies of circular activities
- Moving forward - what are key elements of a Circular Oslo region?