



**Regional  
Innovation  
Hub  
Heerlen-Parkstad**

Yanick Dols  
*Brightlands Smart Services Campus*

## DDC: Digital Deconstruction



“An innovative digital decision support system, integrating various digital tools (3D scanning, Building Information Modelling, a digital materials & buildings database, blockchain technology) that helps to define the most sustainable and economical deconstruction and reuse strategy for building”

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15-06-2022





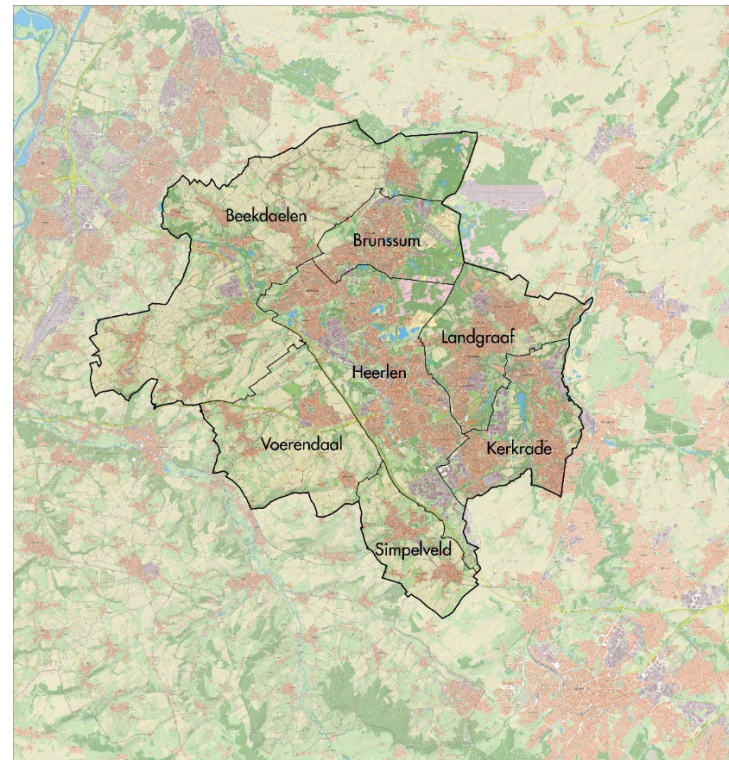
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## PARKSTAD LIMBURG

7 municipalities

Beekdaelen  
Brunssum  
Heerlen  
Kerkrade  
Landgraaf  
Simpelveld  
Voerendaal

Approximately 245.000 inhabitants



## PARKSTAD LIMBURG AND DEMOGRAPHIC CHANGE

Parkstad population shrinks

- 1997: 275.000 inhabitants
- 2012: 250.000 inhabitants
- 2020: 244.000 inhabitants
- 2030: 230.000 inhabitants
- 2040: 210.000 inhabitants

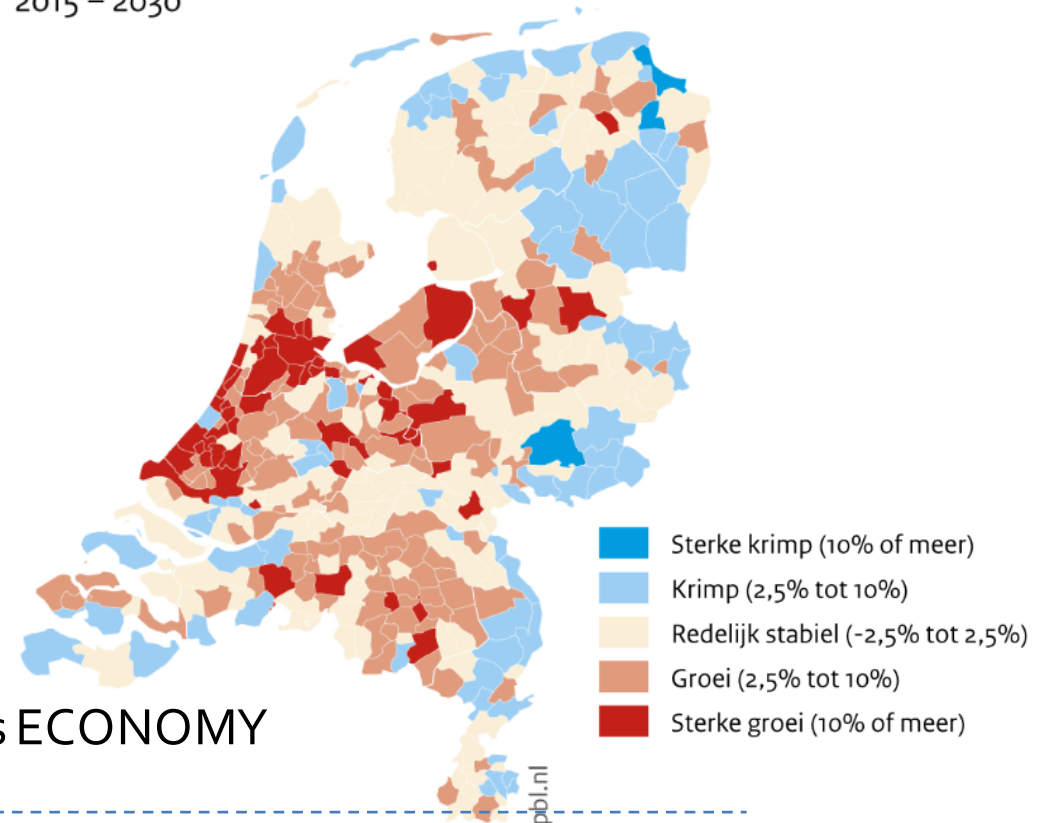
Big transformation task

- Physical
- Economic
- Social

RESTRUCTURING central challenge besides ECONOMY



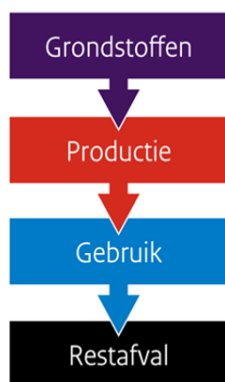
2015 – 2030



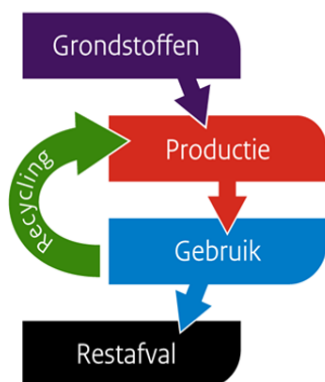
# 100% CIRCULAR in 2050 50% in 2030

# Circular Economy Region Parkstad Limburg

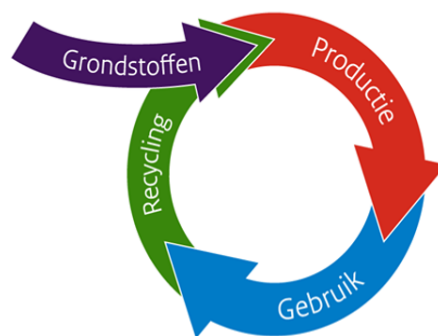
Lineaire economie



Economie met recycling



Circulaire economie

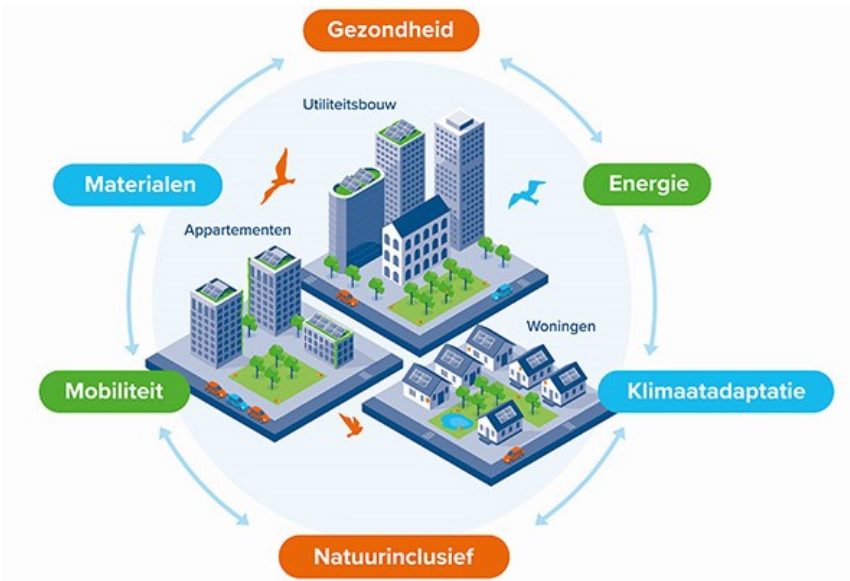


## How to realize?

- Use less resources
- Use resources longer
- Reuse resources
- Regenerate resources

## Circular Economy as Opportunity for Parkstad

- Employment opportunities
- Broad prosperity
- Better health
- Social cohesion
- Accelerated energy transition
- Sustainable mobility
- Sustainable agricultural sector
- Smart demolition and construction



→ Circular Economy needs an integral approach



## CIRCULAR CONSTRUCTION IN PARKSTAD

Transformation challenge - physical restructuring:

- 8.000 dwellings abundant
- 130.000 m2 retail abundant
- 2.000 new qualitative dwellings

Opportunities!

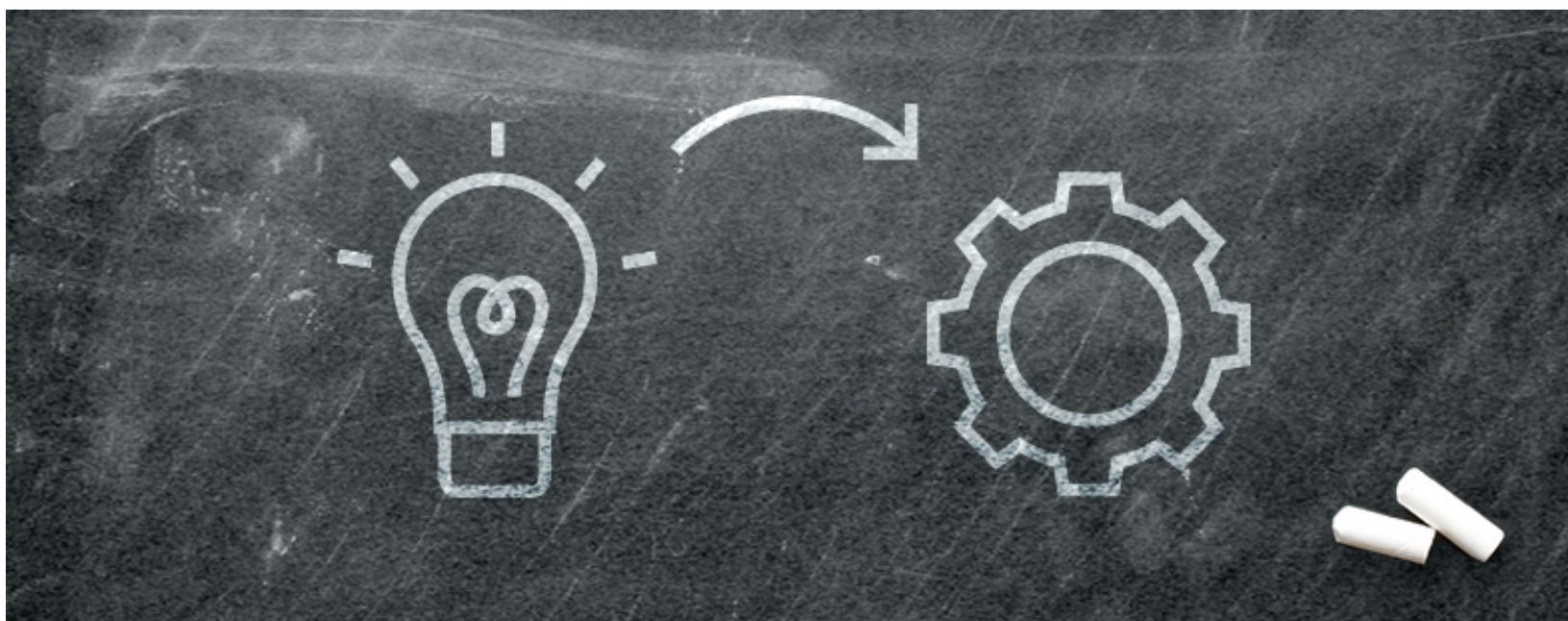
- ✓ Sustainable Parkstad
- ✓ Example in NL & Europa
- ✓ (Socio)Economic opportunities

## CIRCULAR CONSTRUCTION PROJECTS IN PARKSTAD

- SUPERLOCAL
- DRIVE o
- Digital Deconstruction
- Re Use Materials
- GTB-Lab
- Resourcehouse



## FROM PILOT TO CIRCULAR PARKSTAD

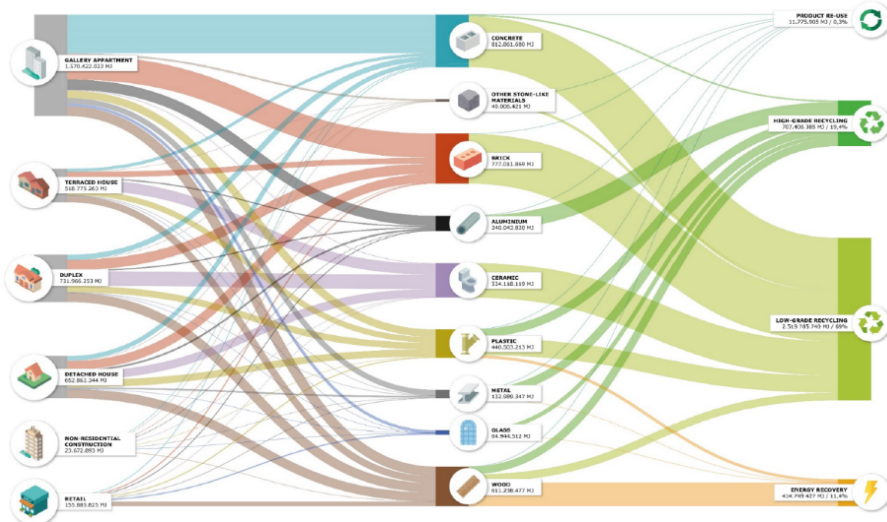


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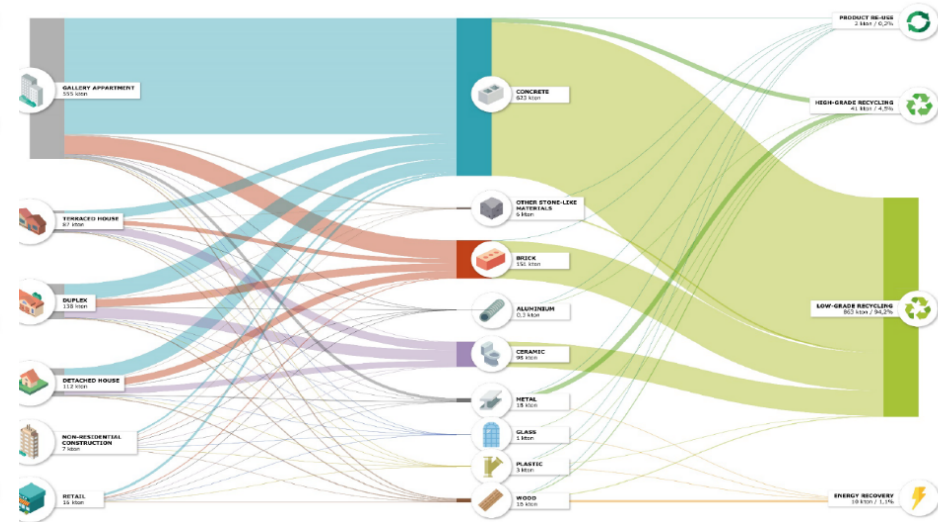
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# Materialflow Parkstad Limburg – Urban Mining

**Embodied Energy in materials from the building demolition stock in Parkstad**



**Material flow potential from the building demolition stock in Parkstad**



# Regional Innovation Hubs





**Interreg**   
North-West Europe  
Digital Deconstruction

INVITATION  
GTB Lab Symposium & DDC  
Regional Innovation Hub NL  
Wednesday June 22, 2022  
Heerlen  
12H - 17H



**Interreg**   
North-West Europe  
Digital Deconstruction

European Regional Development Fund

15-02-2022



## Contact us!



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## Project Partners

