



**Regional
Innovation
Hub
Heerlen-Parkstad**

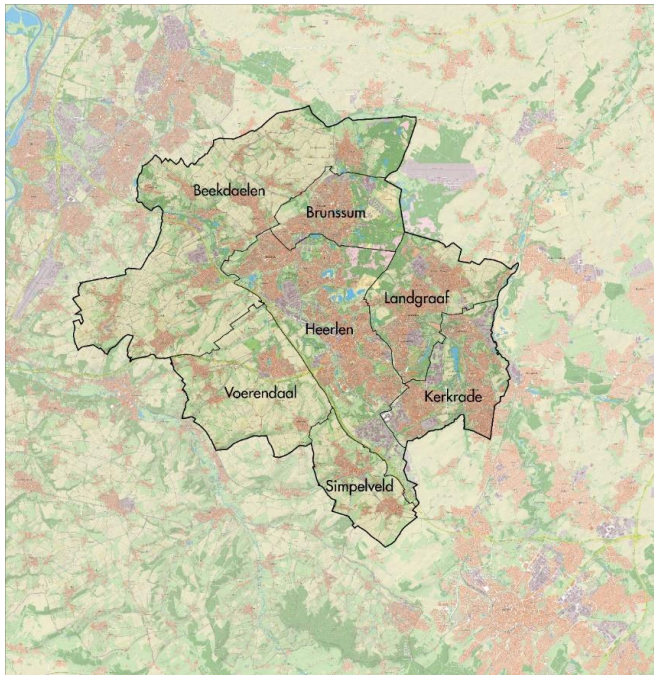
Paul Consten
Stadsregio Parkstad Limburg

PARKSTAD LIMBURG

7 municipalities

- Beekdaelen
- Brunssum
- Heerlen
- Kerkrade
- Landgraaf
- Simpelveld
- Voerendaal

Approximately 245.000 inhabitants



PARKSTAD LIMBURG AND DEMOGRAPHIC CHANGE

Parkstad population shrinks

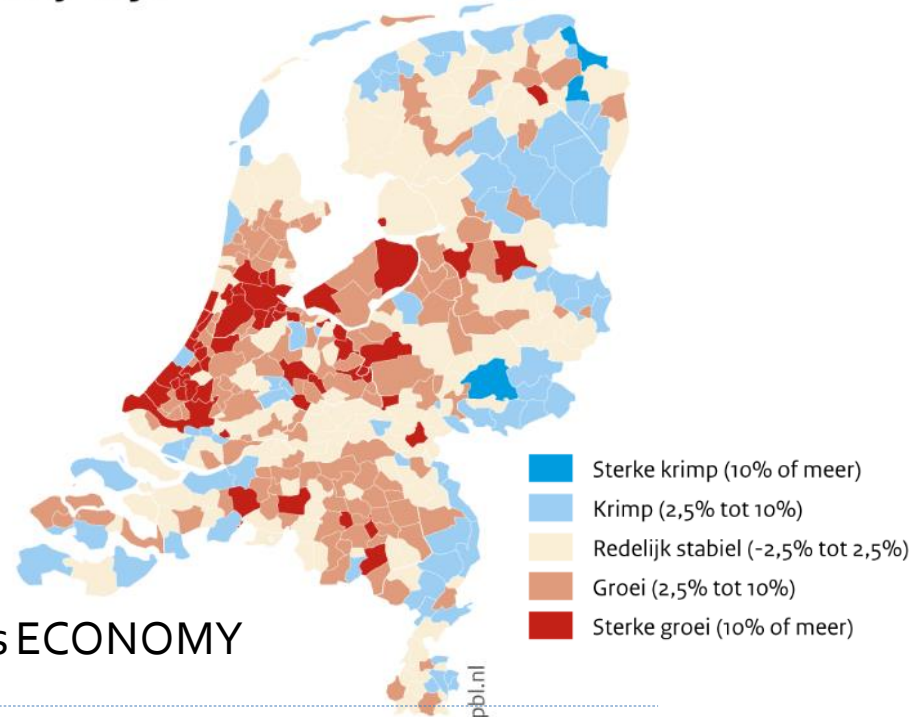
- 1997: 275.000 inhabitants
- 2012: 250.000 inhabitants
- 2020: 244.000 inhabitants
- 2030: 230.000 inhabitants
- 2040: 210.000 inhabitants

Big transformation task

- Physical
- Economic
- Social

RESTRUCTURING central challenge besides ECONOMY

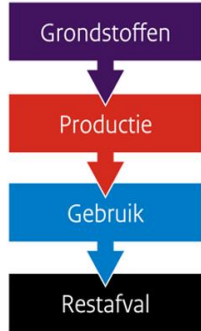
2015 – 2030



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



**Biomass &
Food**



Plastics



**Manufacturing
Industry**



Construction



**Consumer
goods**



Biomass &
Food



Plastics



Manufacturing
Industry



Construction



Consumer
goods

CIRCULAR CONSTRUCTION IN PARKSTAD

Transformation challenge - physical restructuring:

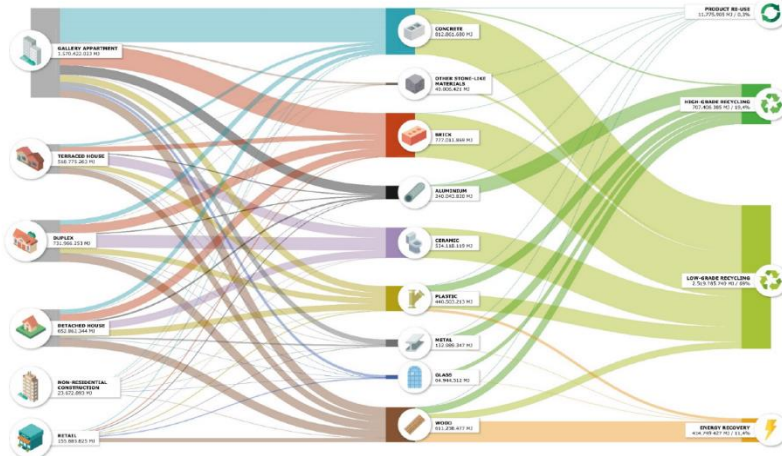
- 8.000 dwellings too much
- 130.000 m2 retail too much
- 2.000 new qualitative dwellings

Opportunities!

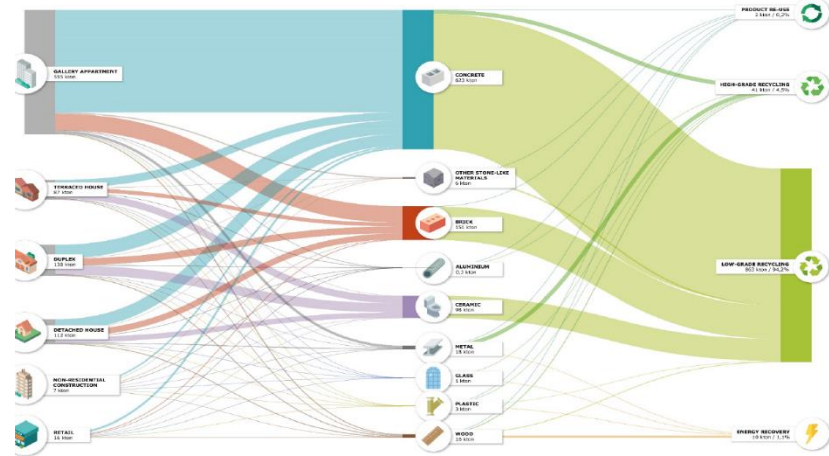
- ✓ Sustainable Parkstad
 - ✓ Example in NL & Europa
 - ✓ (Socio)Economic opportunities
-

Materialflow Parkstad Limburg

Embodied Energy in materials from the building demolition stock in Parkstad



Material flow potential from the building demolition stock in Parkstad

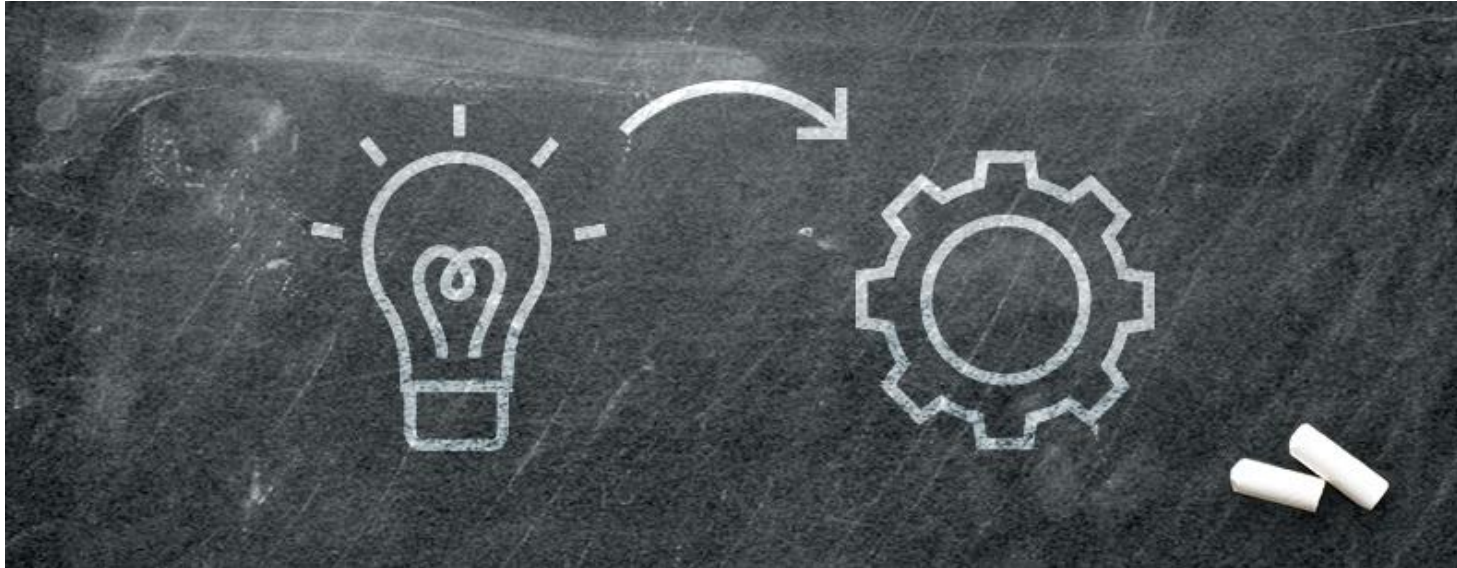


CIRCULAR CONSTRUCTION PROJECTS IN PARKSTAD

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



FROM PILOT TO CIRCULAIR PARKSTAD



ABCD 10 jaar plan voor de transitie naar circulair bouwen

E.Durmisevic





Module A Standardising inventory & decision making protocol



GIRDAX

Code	Category	GroupType	Type	Quantity (kg)	Responsible	Material	Incoming	Documentation
00000000	Material	Laminated	Wood	0				
00000001	Material	Structural	Steel	0				
00000002	Material	Structural	Steel	0				
00000003	Other	Other-glass	Glass	10				
00000004	Other	Other-glass	Glass	10				
00000005	Other	Other-glass	Glass	0				
00000006	Change distribution	Aluminum	Aluminum	10				
00000007	Material	Laminated	Wood	0				

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”

Regional Innovation Hubs



Project Partners



AMBITION REGION PARKSTAD

The National Centre for Circular Building *For the reuse of resources (Urban Mining 2.0)*





Thank you for your attention

More information on
<https://www.nweurope.eu/projects/project-search/digital-deconstruction/>