



Land take objectives and strategies in Flanders (Belgium)

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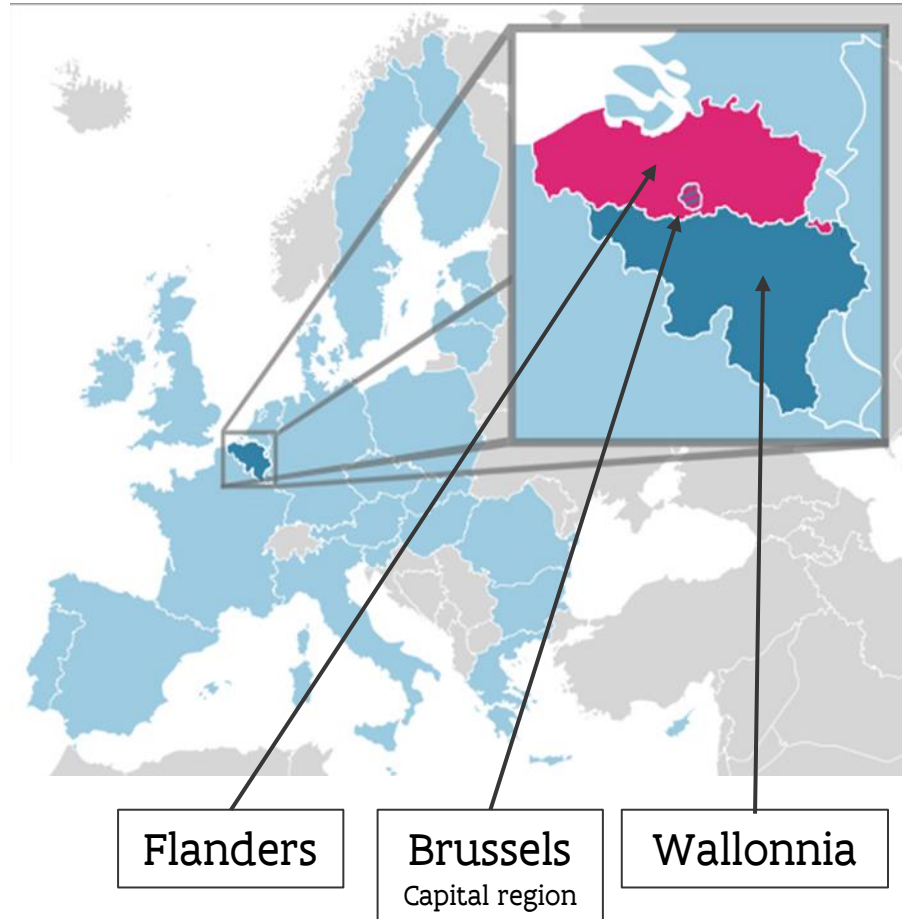
- (1) Department of Environment & Spatial Development
- (2) Public Waste Agency of Flanders - OVAM

DEPARTMENT OF
ENVIRONMENT
& SPATIAL
DEVELOPMENT

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The region of Flanders (Belgium)



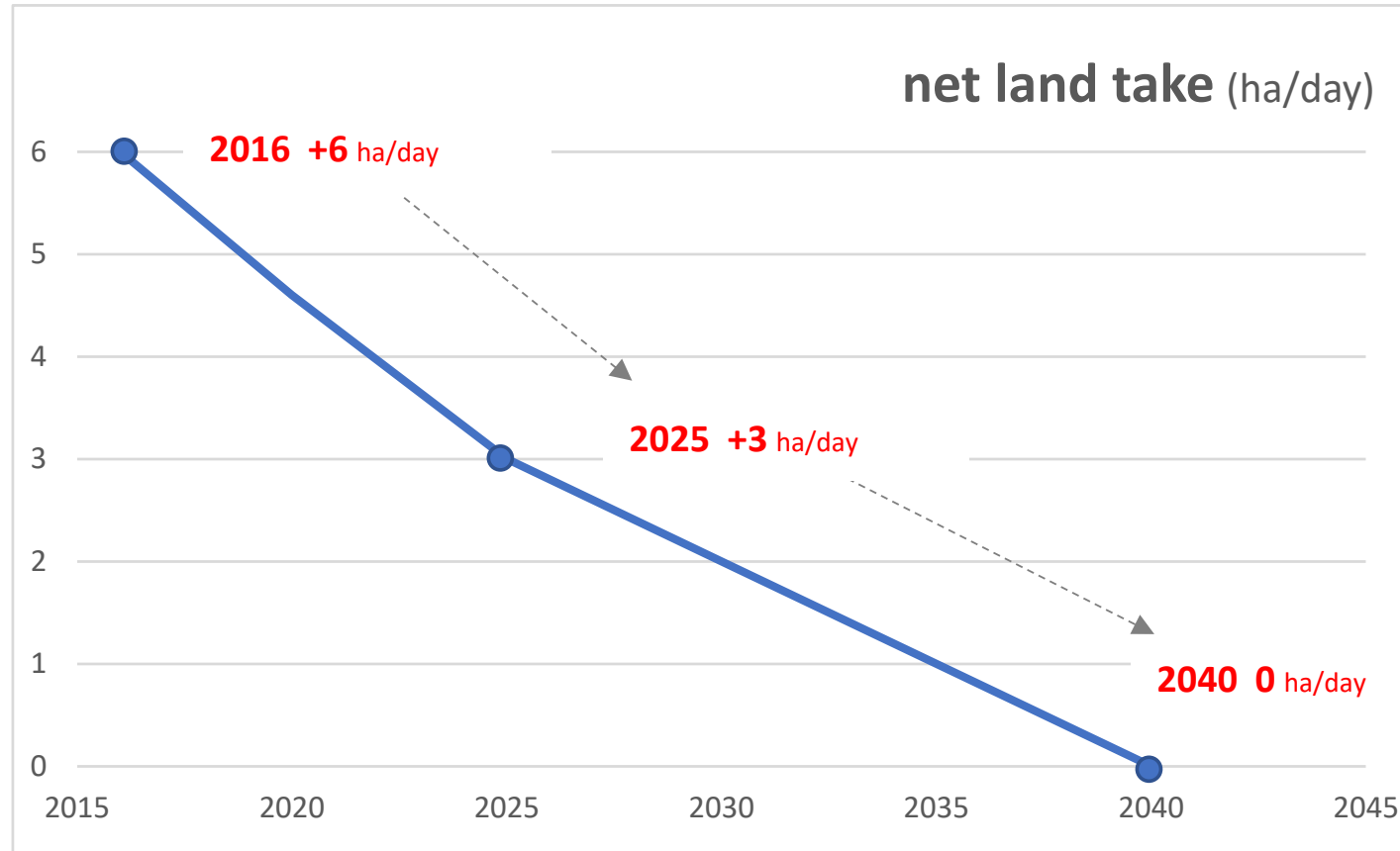
General information :

- Population : 6,4 M inhabitants
- Surface : 13.599 Km²
- Densely populated : 472 inhab./Km²
- Industrialisation started 1st half 19th century
- Petrochemical cluster since 1950
- Economy changed to mainly service-oriented businesses
- Regional policies on environment, economy, infrastructure, education,...
- Important harbours linked to North sea and gateway to the East
- Limited natural resources (coal mines closed in 1992)

Targets Flemish Government

Strategic vision policy plan on spatial development (2018)

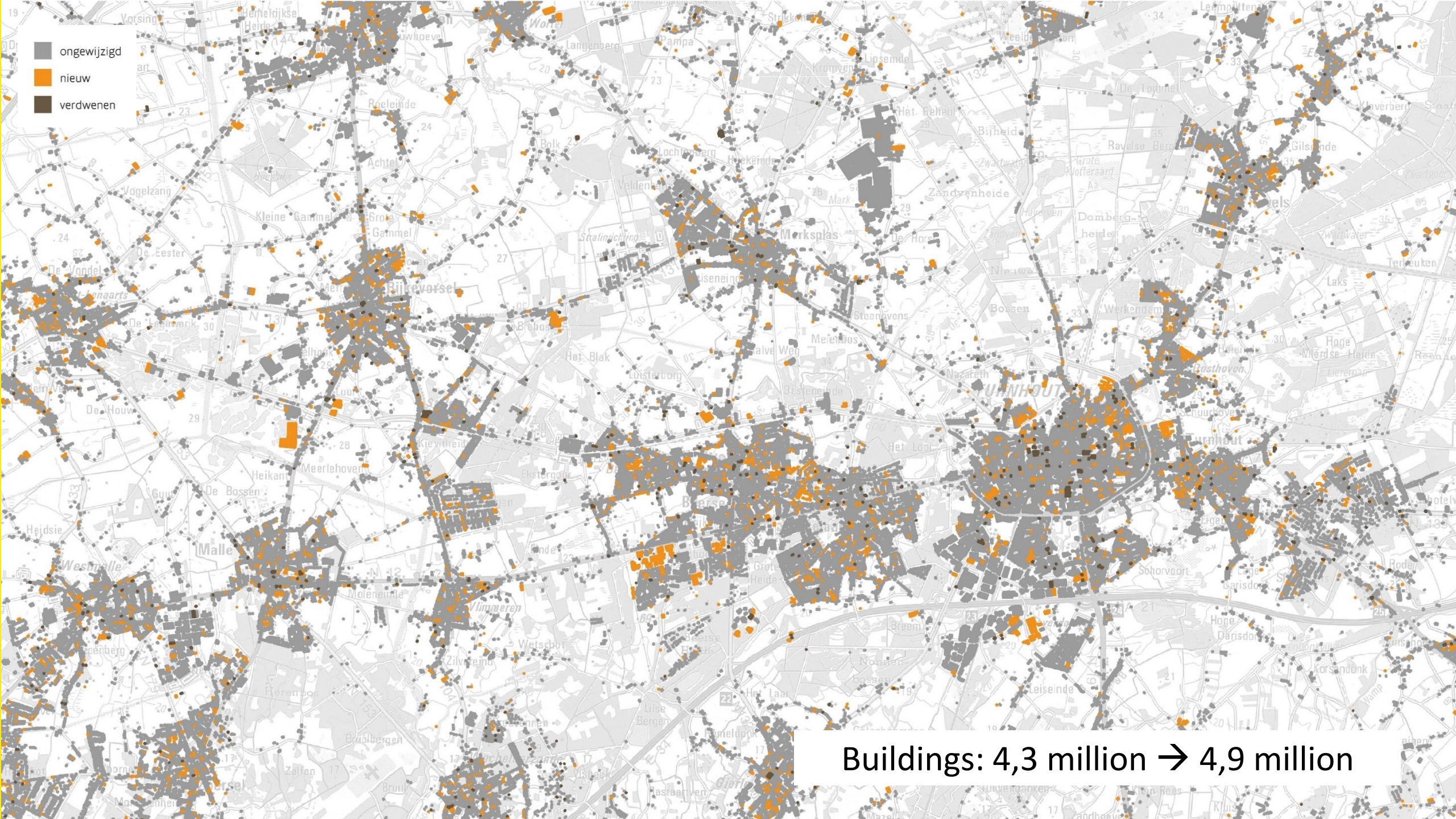
Settlement area:



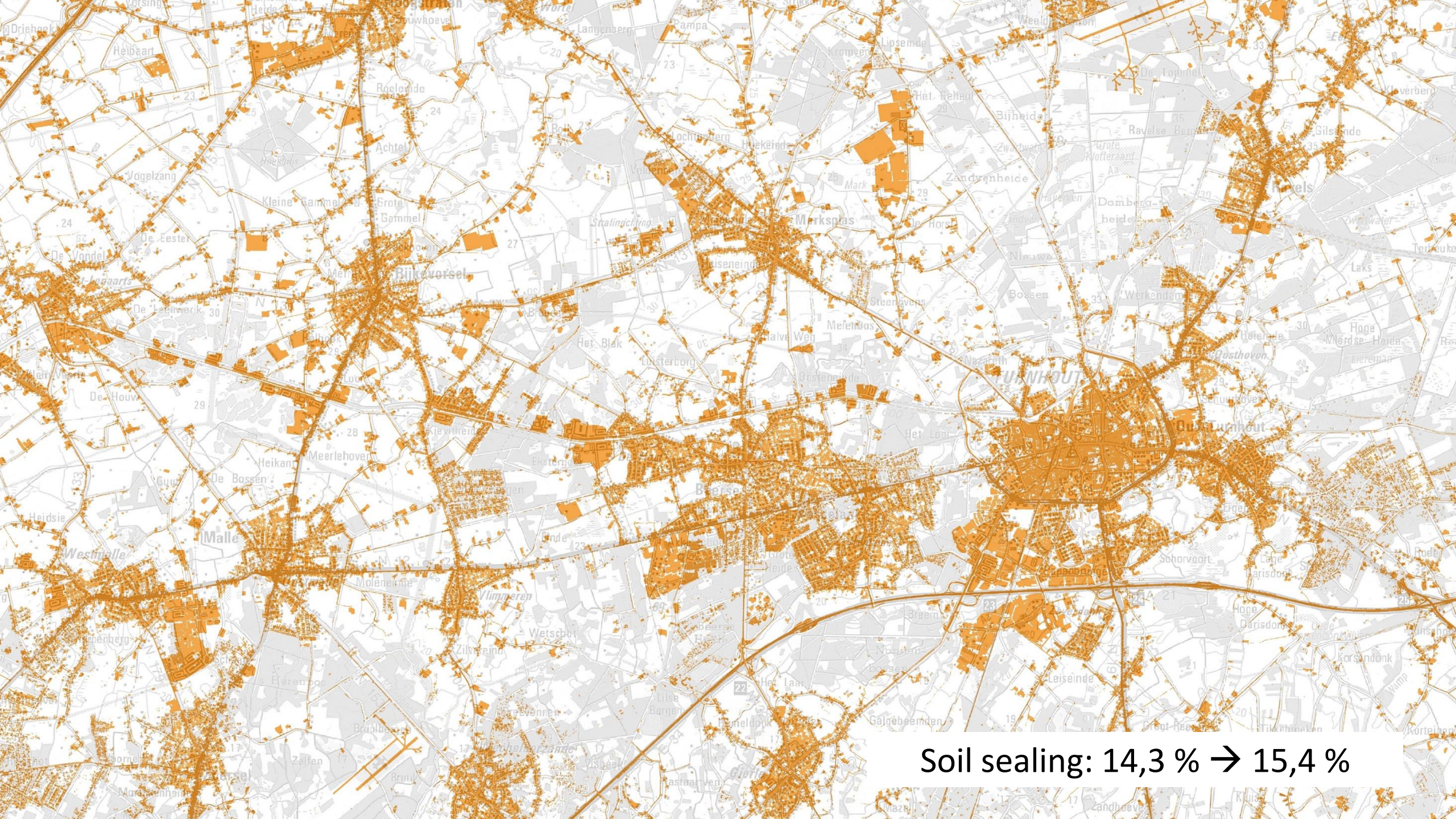
Non-settlement area: 20% reduction of soil sealing in 2050 compared to 2016

Status report on spatial development in Flanders

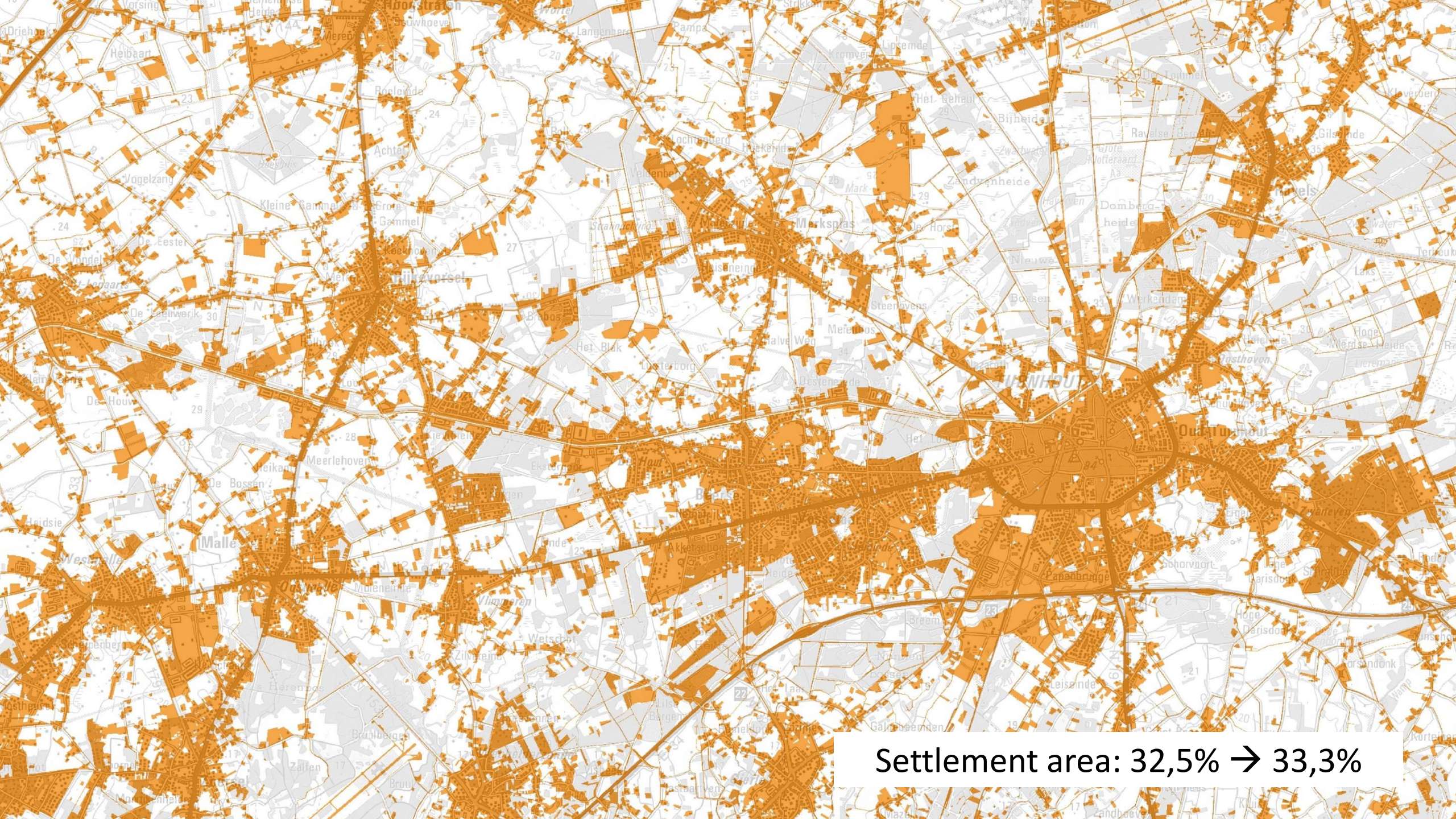




Buildings: 4,3 million → 4,9 million

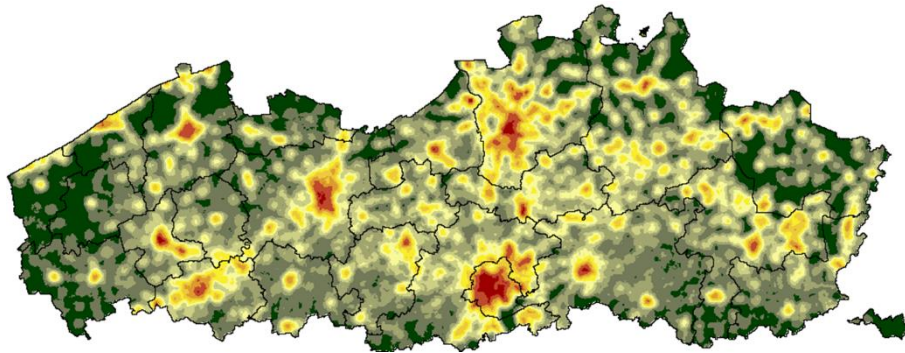


Soil sealing: 14,3 % → 15,4 %

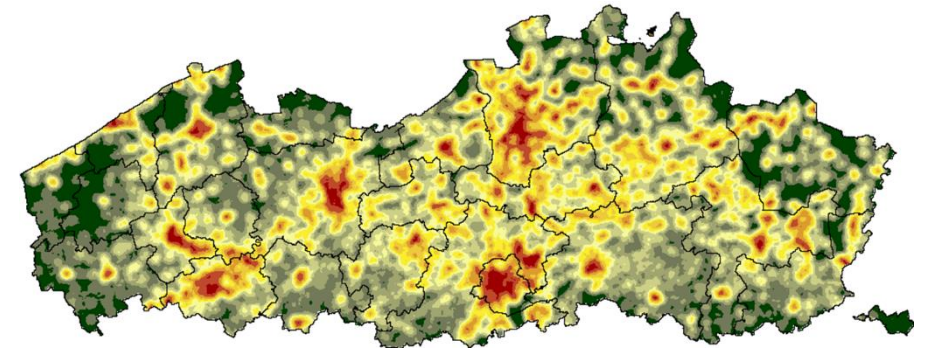


Settlement area: 32,5% → 33,3%

Status report on spatial development in Flanders



2010

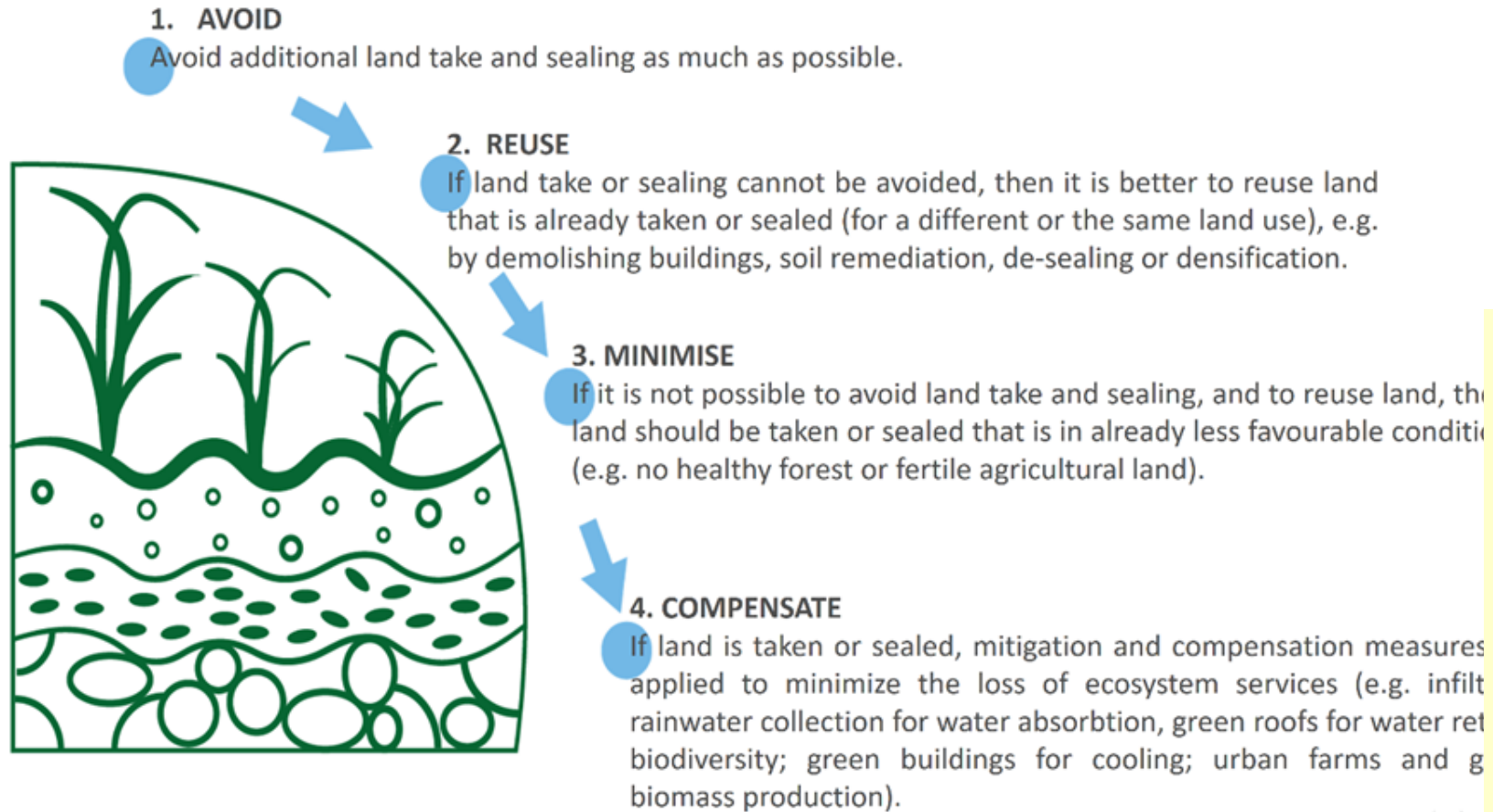


2050

- Increase of urban areas and settlement areas* in Flanders: 5,1 ha/day (2013-2019); 32,5 % -> 33,3%.
- Simulation 2010 – 2050 shows the impact of land take in Flanders. According to the Planning Agency: population will rise significantly and assessments indicate the need of over 630.000 new dwellings by 2050.
- ‘Ageing cities’ is not limited to its inhabitants; infrastructure also requires retrofitting to become more sustainable and ready for the future.

(*) ‘settlement area’ or ‘artificial land’: “the area of land used for housing, industrial and commercial purposes, health care, education, nursing infrastructure, roads and rail networks, recreation (parks and sports grounds), etc. In land use planning, it usually corresponds to all land uses beyond agriculture, semi-natural areas, forestry, and water bodies.”(EC, 2012)

Strategies in reducing land take

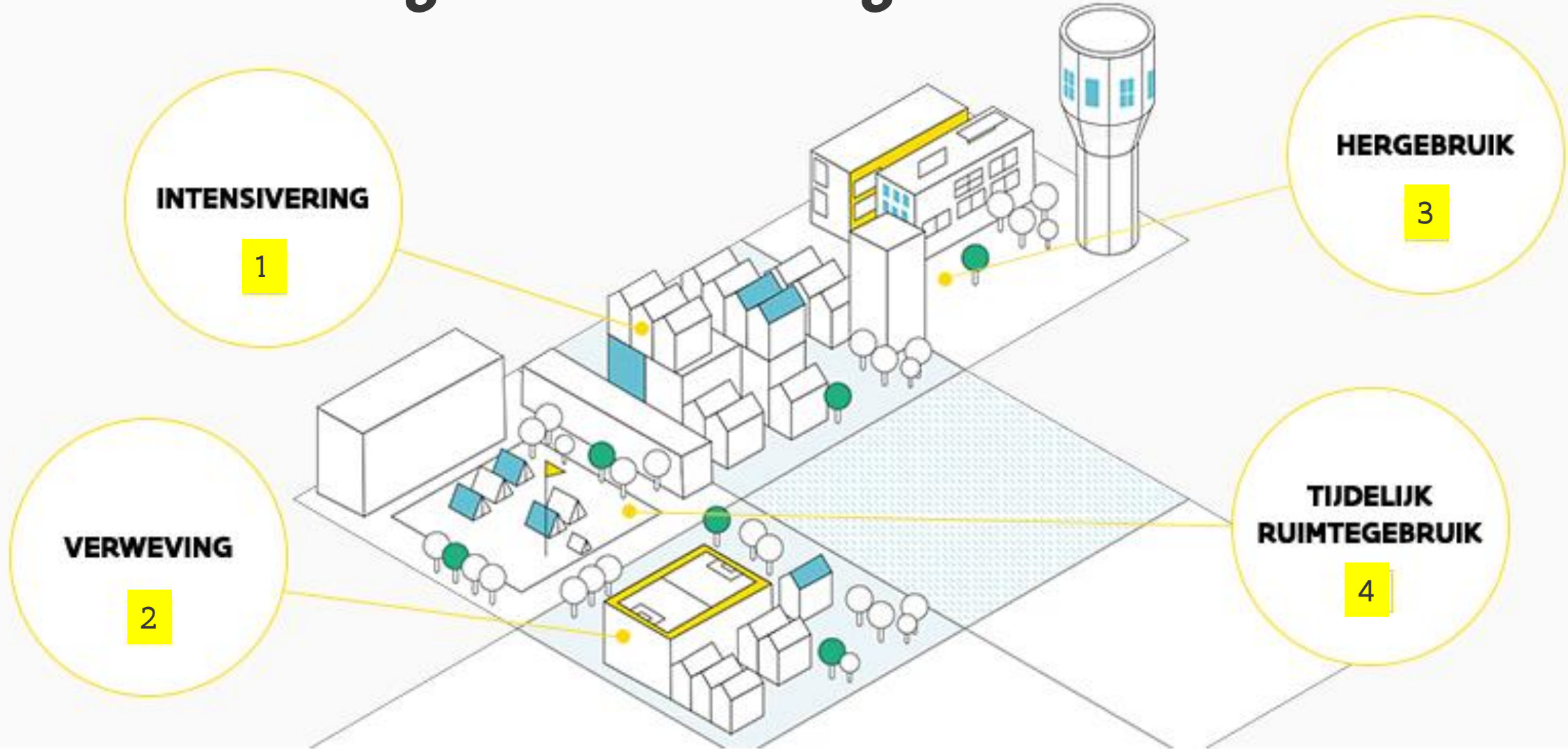


Supported by analytical tools

--> Opportunity mapping e.g.

- increasing spatial efficiency
- land take in well-located areas
- elimination of soil sealing
- reuse of landfill sites

Strategies in reducing land take

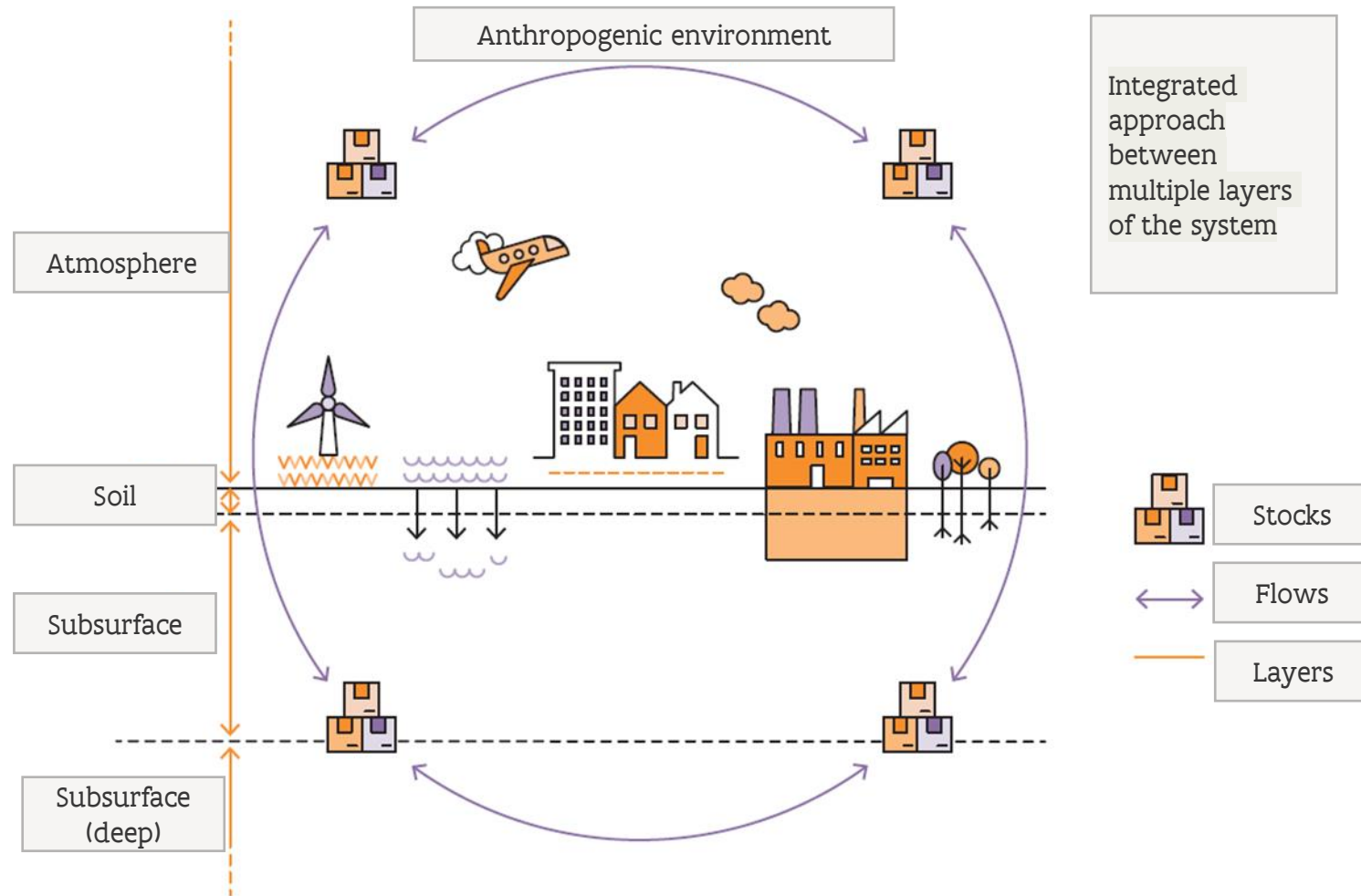


Increasing the spatial efficiency means that we will do more with the space already taken.

1: Intensivierung – 2: Verflechtung – 3: Wiederverwendung – 4: Interim Raumnutzung

A broader view is necessary

'omgeving' 'umwelt' 'environment'



Land and soil recycling ?

- ▶ Needs ? - Status and evolution described in Ruimterapport 2021
 - High soil sealing degree
 - High demand of land

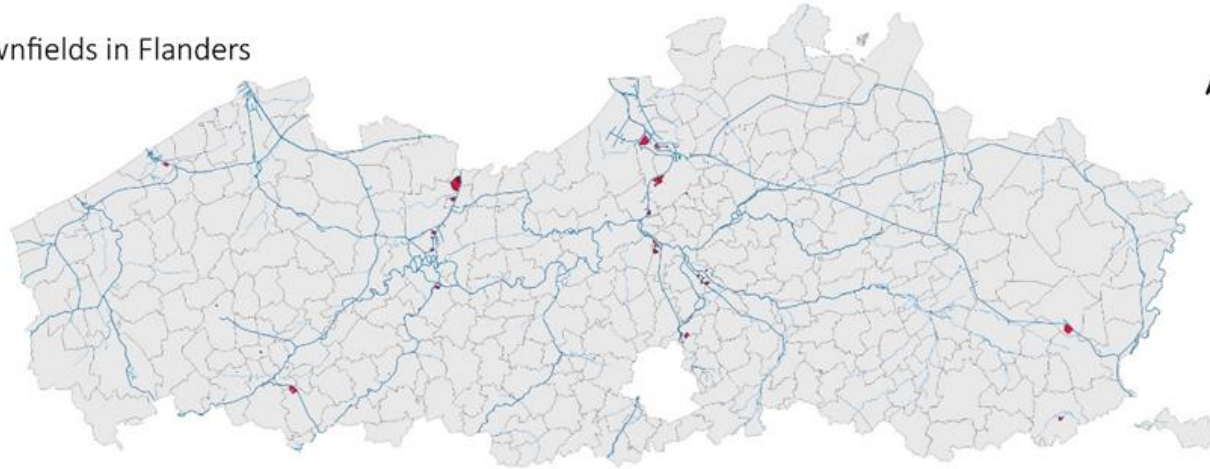
- ▶ Constraints, threats & opportunities of contaminated land redevelopment
 - Adverse health and environmental impacts
 - High remediation costs
 - Aftercare and restricted use
 - Integrated approach creates added value
 - Siting often close to city centers
 - Multi-connectivity (mobility, energy supply, data connections)

Land and soil recycling ?

- ▶ Contaminated sites:
 - Estimation of high risks activities : 84.000 sites
 - Approx. 45.000 sites investigated (high potentials)
 - Moreover 6.000 sites remediated
 - Specific Brownfield policy: rehabilitation > 2.000 ha

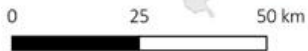
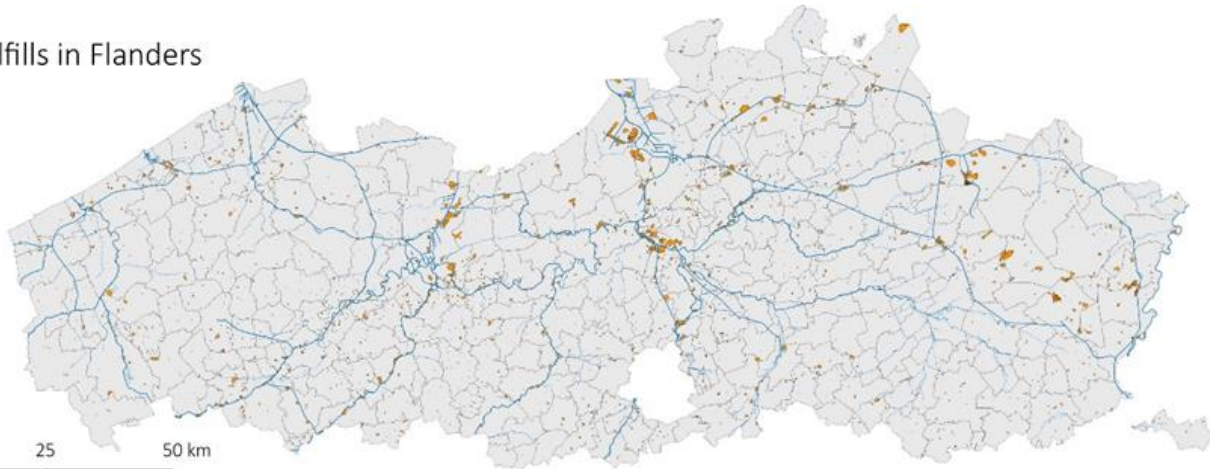
Land and soil recycling ?

Brownfields in Flanders



- ▶ Brownfield covenants:
 - 57 sites redeveloped
 - 1 934 ha
- ▶ Former landfills:
 - 4.385 sites identified (2022)
 - 19 500 ha
 - Last decade: < 2% waste landfilled

Landfills in Flanders



Number of landfills		
	1985	2021
Cat 1 (Hazardous waste)	11	3
Cat 2 (Non-hazardous waste)	34	4
Cat 3 (Inert waste)	73	1

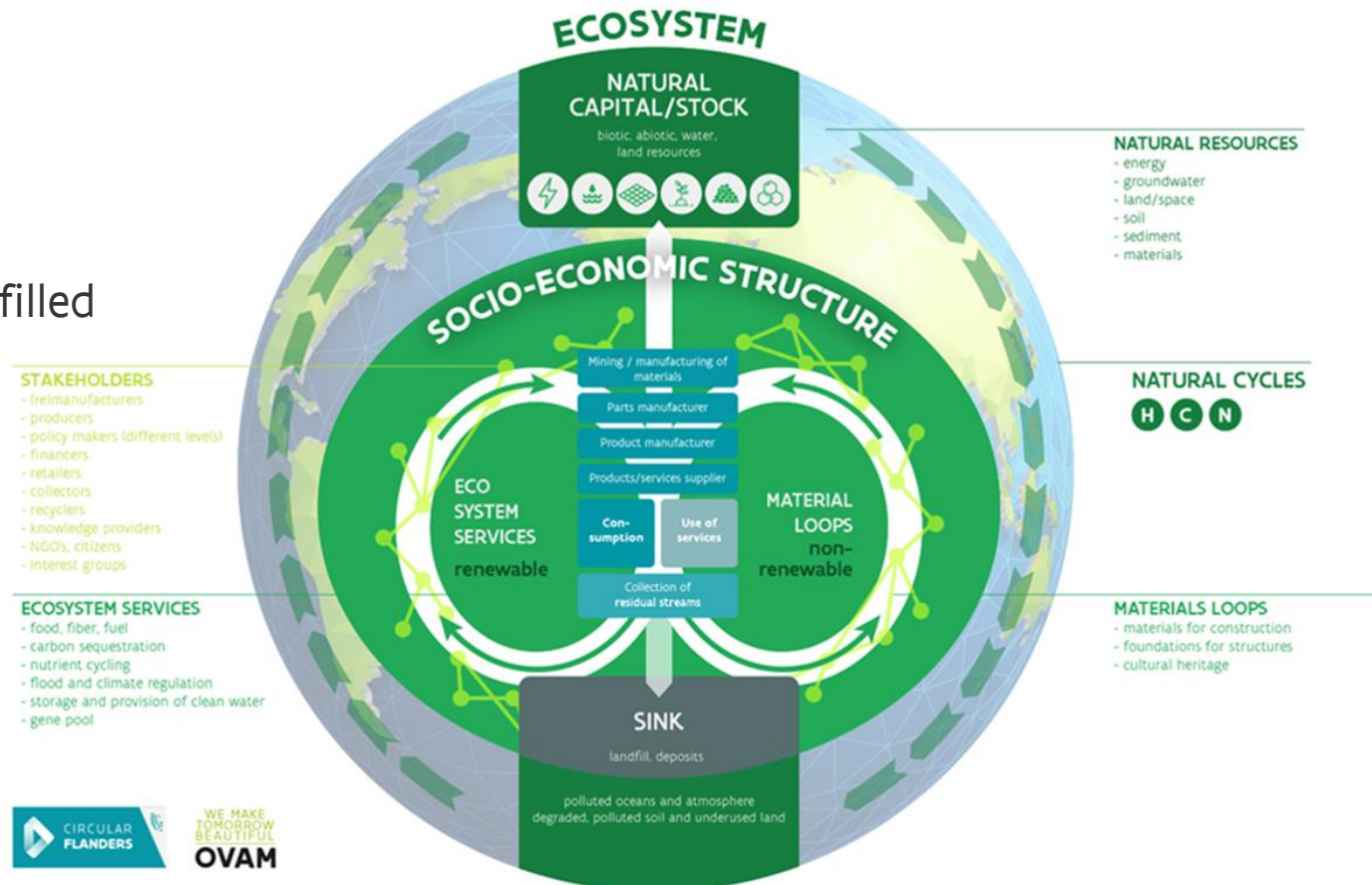


Linking linear and circular economy?

- ▶ Avoid sinks:
 - landfills
 - incinerators
- ▶ Reuse landfill sites:
 - 4.385 sites identified (2022)
 - 19 500 ha
 - Last decade: < 2% waste landfilled

SOIL AND LAND

IN THE NATURAL AND SOCIO-ECONOMIC CYCLES

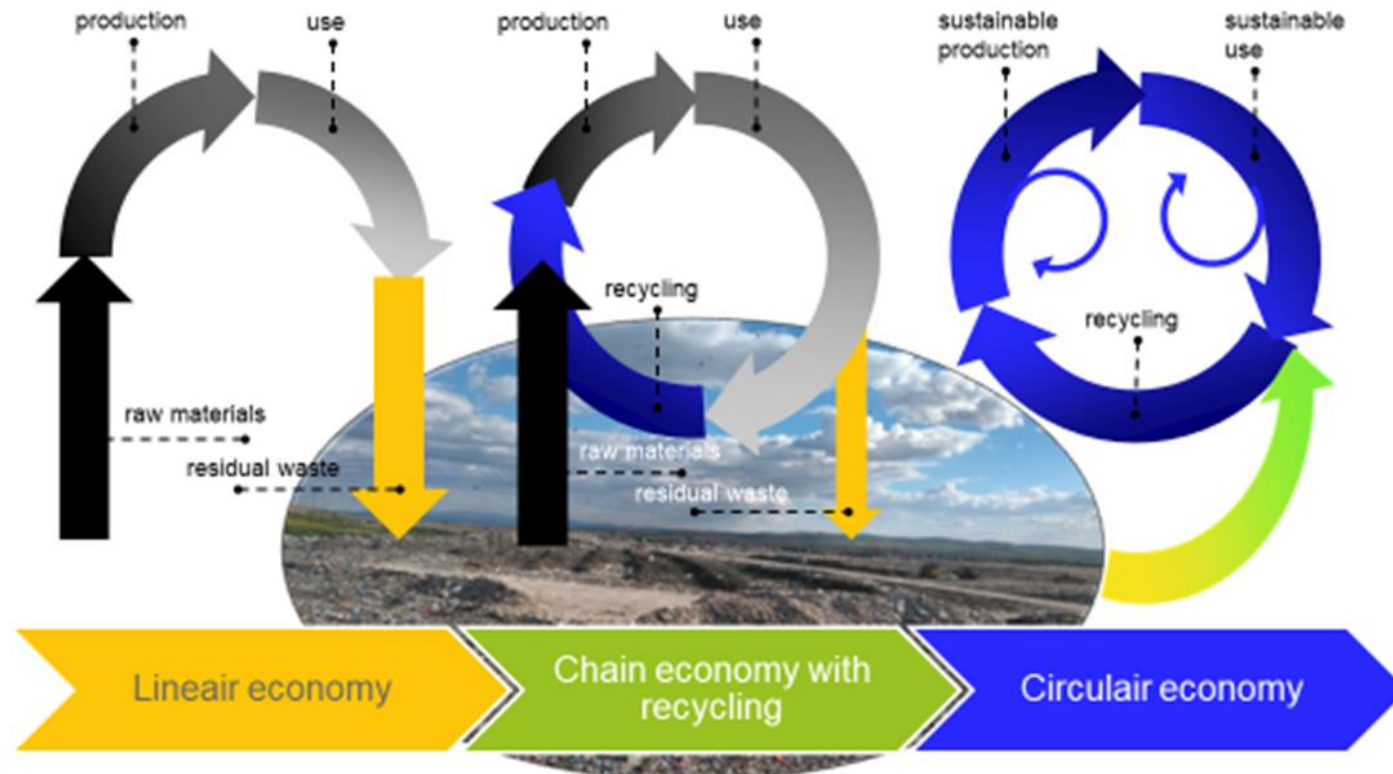


Linking linear and circular economy?

Transition of Landfills : Dynamic Landfill Management from waste to resources

Keep in mind :

- Content
- Context
- ▶ Waste to Material
- ▶ Waste to Energy
- ▶ Waste to Land



Linking linear and circular economy?



a



b



d



c



e



f



- a. Residential area (containment, processing landfilled waste);
- b. Industrial area (removal, processing, relandfilling);
- c. Landfill mining project (mono waste disposal site)
- d. Creating void space for storm water basin (processing, reshaping)
- e. Nature conservation project (removal)
- f. Interim use (recreation, nature redevelopment, solar panel parc)

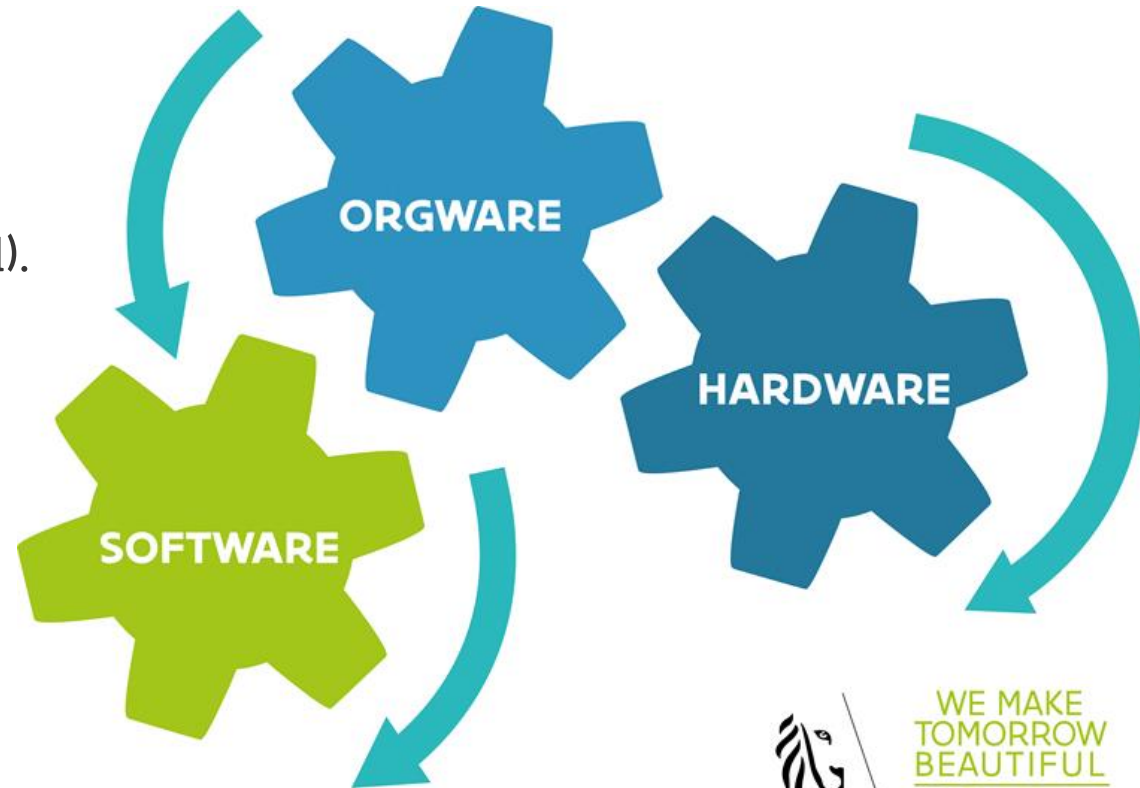
Dynamic Land(fill) Management

Contributing to no net land take by :

- Contaminated site management
- Brownfield redevelopment
- Dynamic Landfill Management

Setting up collaborative platforms

Buy land(fills), they ain't making it anymore (1).



(1) After Mark Twain: 'Buy land, they ain't making it anymore.



Flanders
State of the Art



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Thanks for your attention

More information:

<https://omgeving.vlaanderen.be/>

<https://ovam.be/>