

BRUSSELS SOIL QUALITY INDEX

How to develop the Brussels territory taking into account the quality of the soil and its ecosystem services?

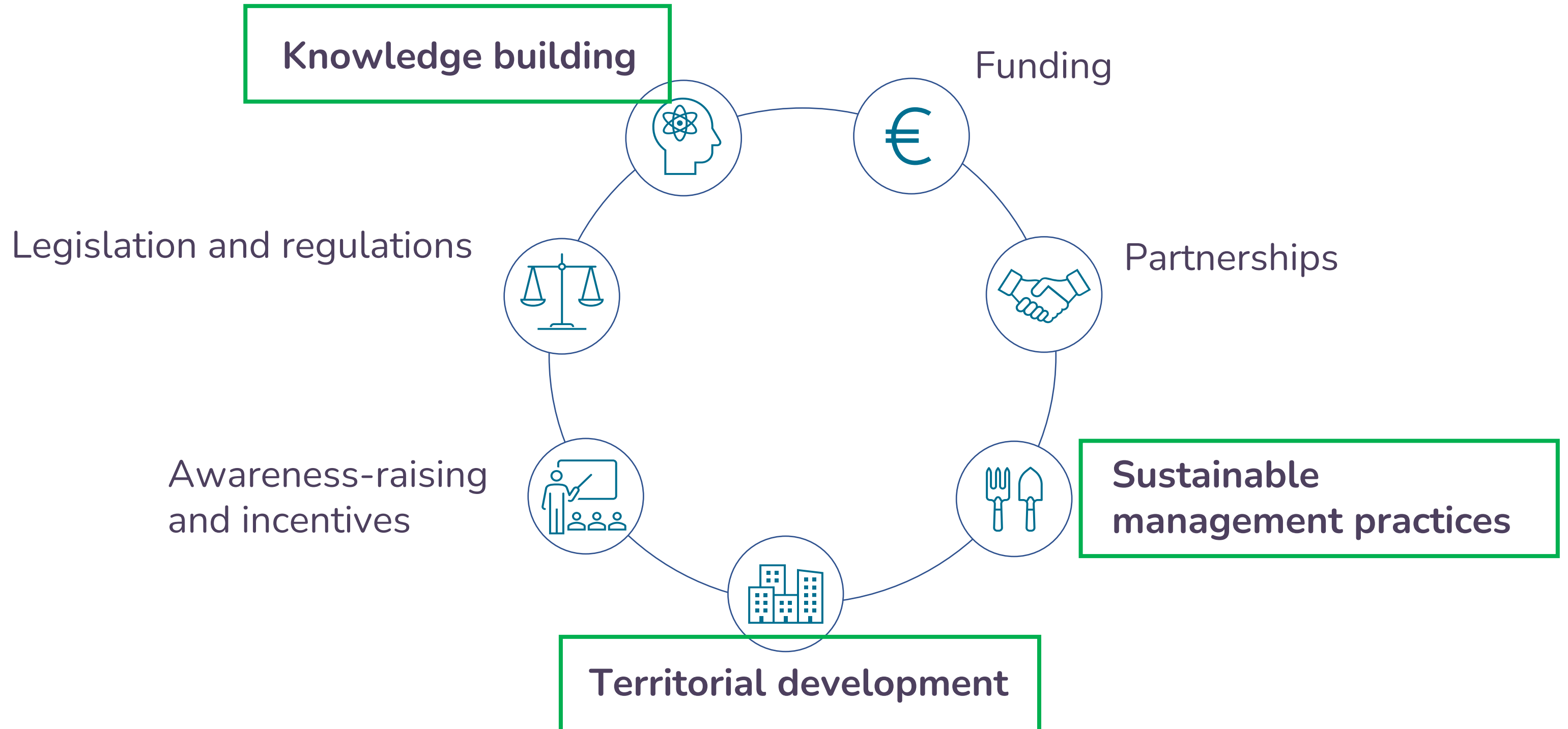


LYDIE SOMBRÉ - FRANÇOIS HENRY – 05/12/2024

CONTEXT



CONTEXT THE GOOD SOIL STRATEGY



CONTEXT

BRUSSELS HISTORICAL SITUATION

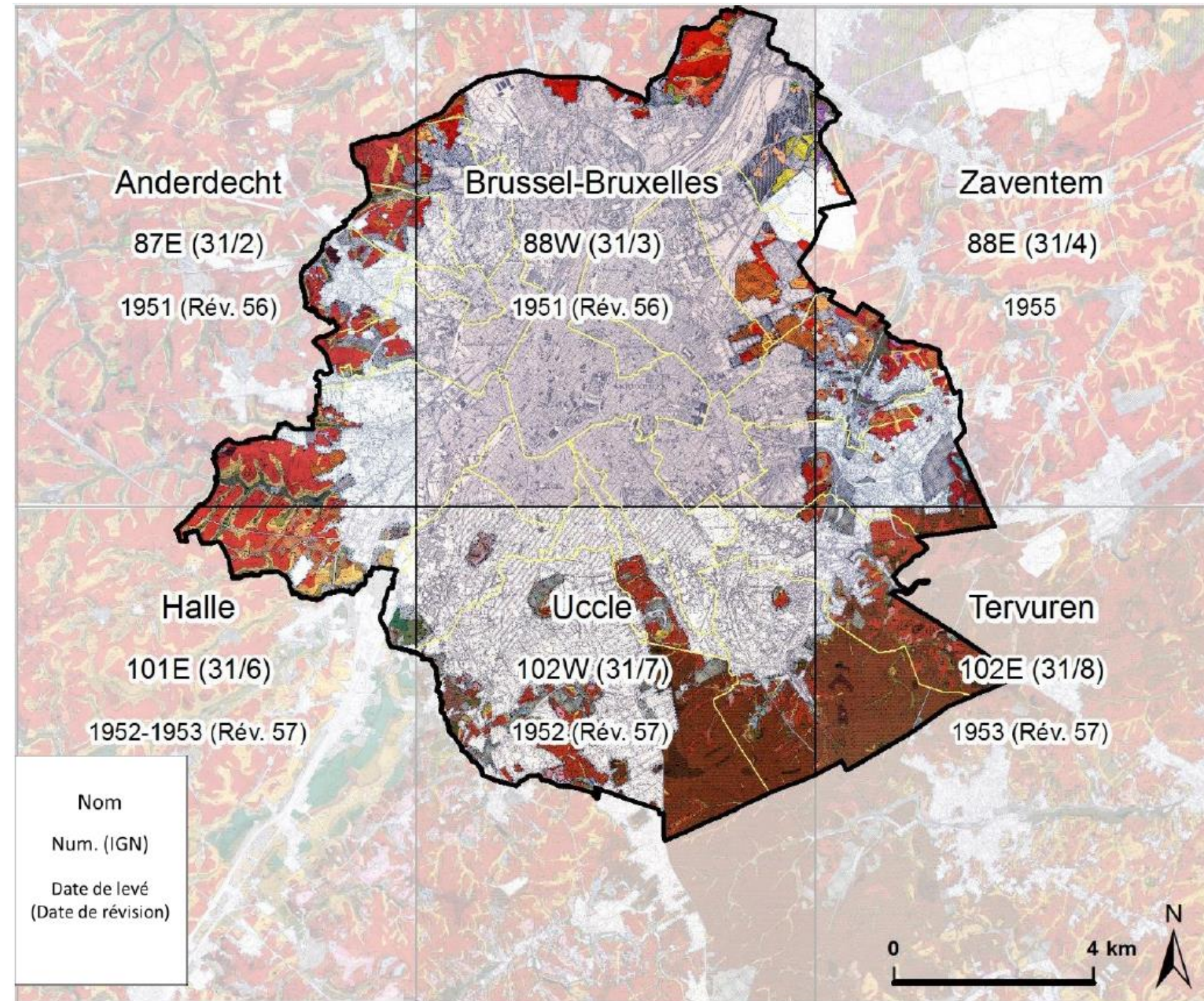


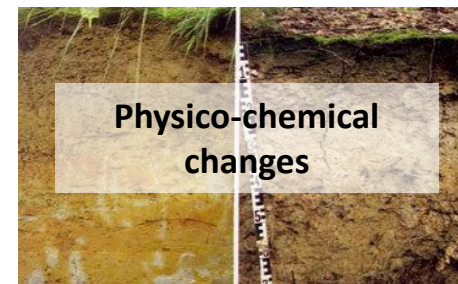
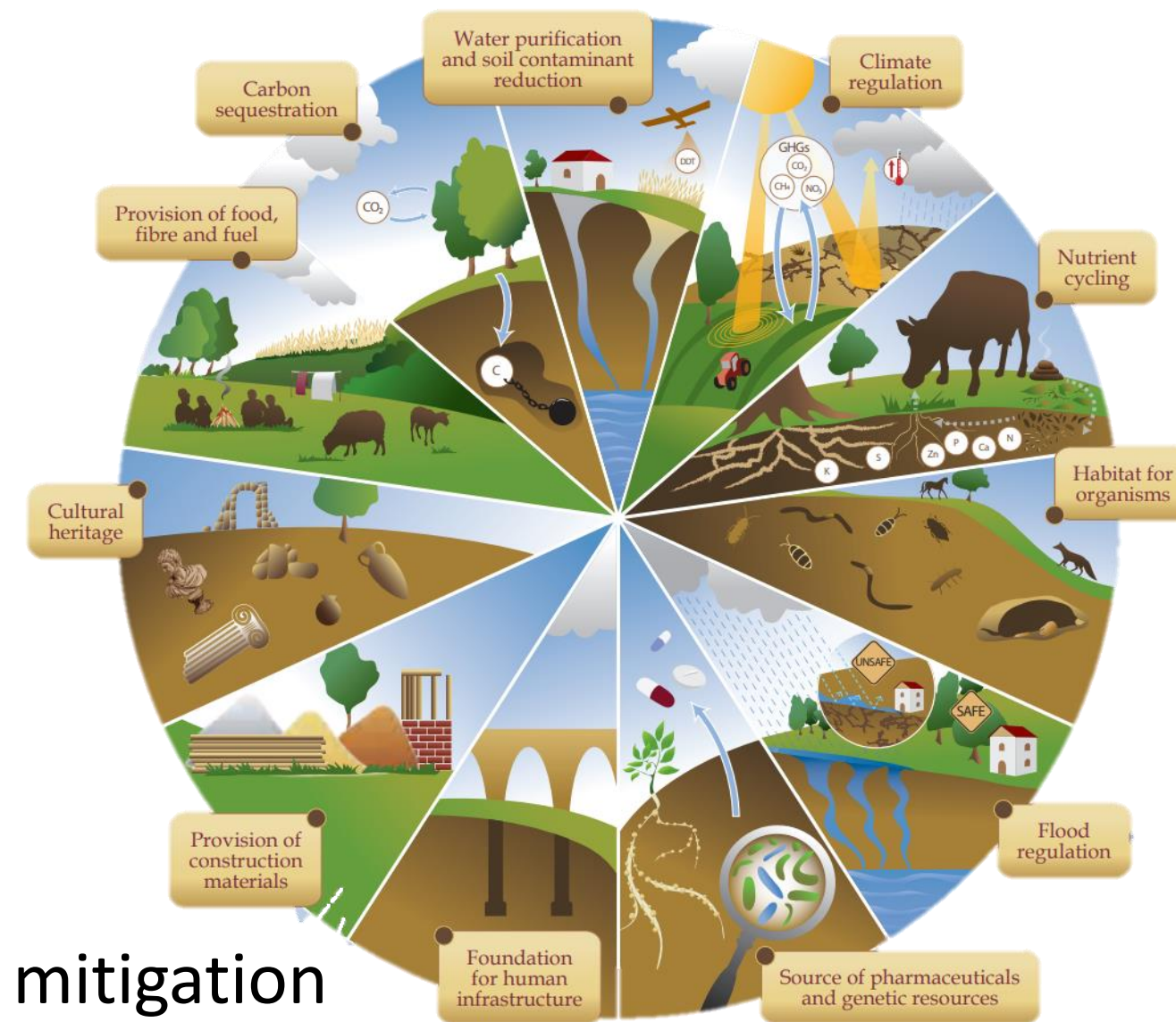
Figure 7 : Planchettes de la carte des sols de la Belgique couvrant le territoire de la RBC.



CONTEXT

A NEED FOR KNOWLEDGE AND ACTION

- Growing international consensus:
 - 60 to 70% of EU soils are degraded
 - EU soil Strategy for 2030 (**Green Deal**)
 - Sustainable development goals (**SDG 15** especially)
- Soils = resource
healthy soils are essential for climate adaptation and mitigation

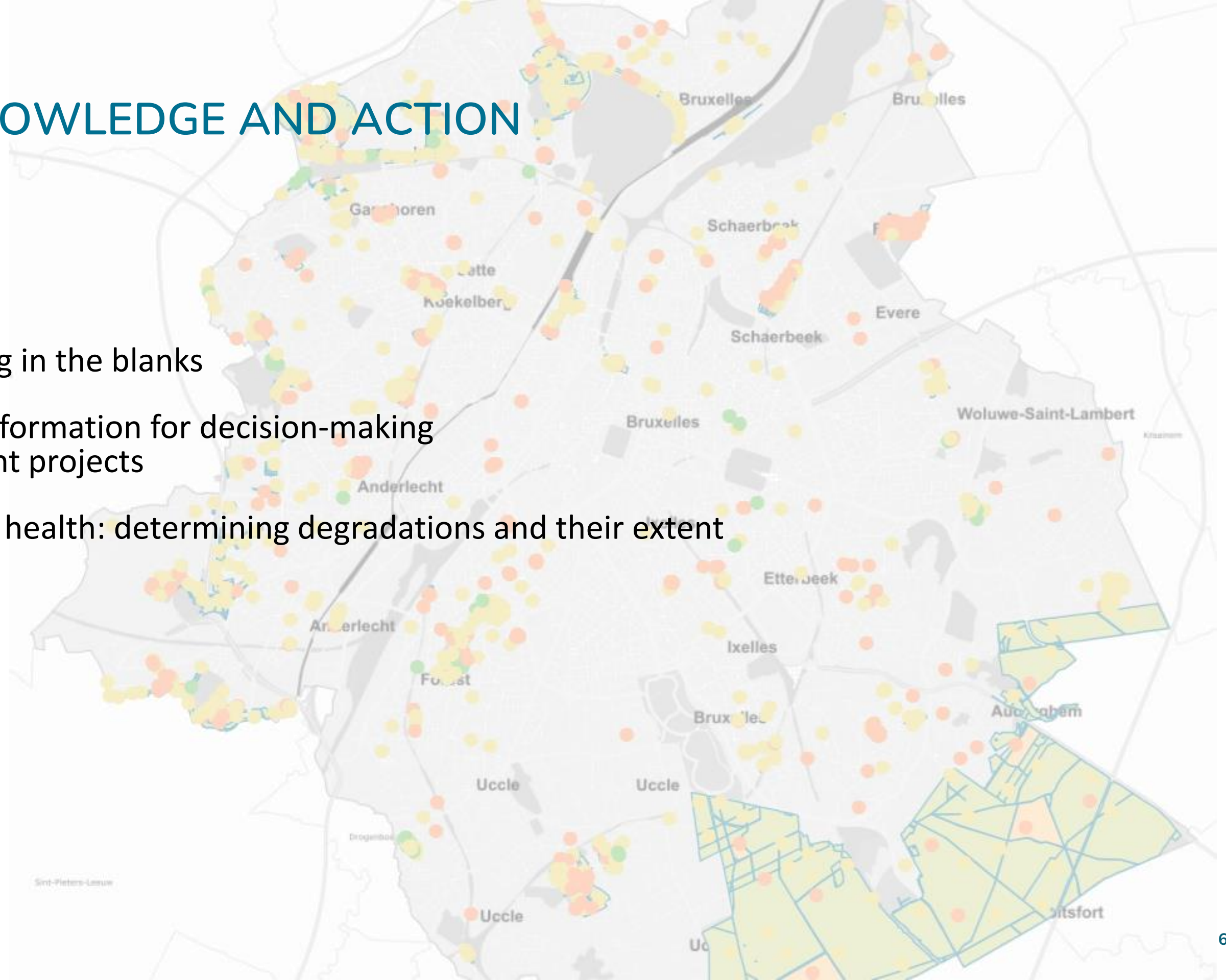


CONTEXT

A NEED FOR KNOWLEDGE AND ACTION

- **Need for a tool**

- Data collection: filling in the blanks
- Guidance: provide information for decision-making in urban development projects
- Rehabilitation of soil health: determining degradations and their extent



BRUSSELS SOIL QUALITY INDEX



THE BRUSSELS SOIL QUALITY INDEX GENERALITIES

Objectives

- Data collection, diagnostic and public awareness-raising tool
- Help with decision-making in urban development projects
- Choosing the best use for the soil depending on its quality
 - How healthy is the soil in various parts of the project
 - Which use and function for which soil quality
 - Which actions to take to help soil recover



THE BRUSSELS SOIL QUALITY INDEX PROCESS

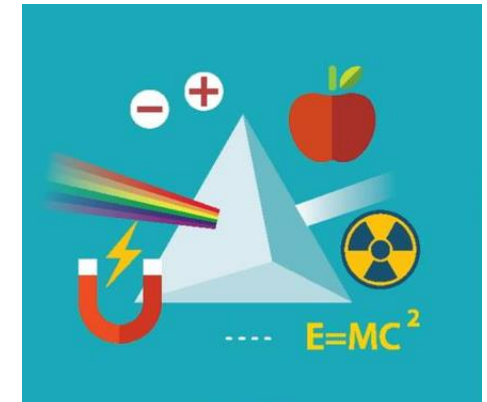
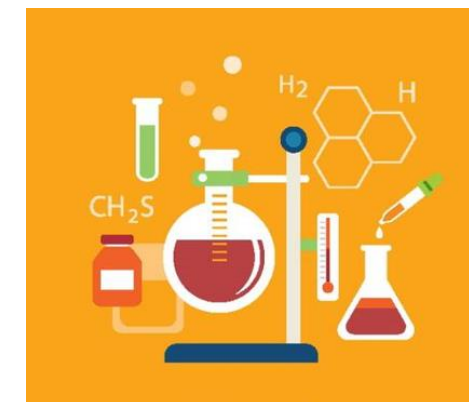
Division of the sites in “homogeneous” zones



Soil sampling and observations



Laboratory tests



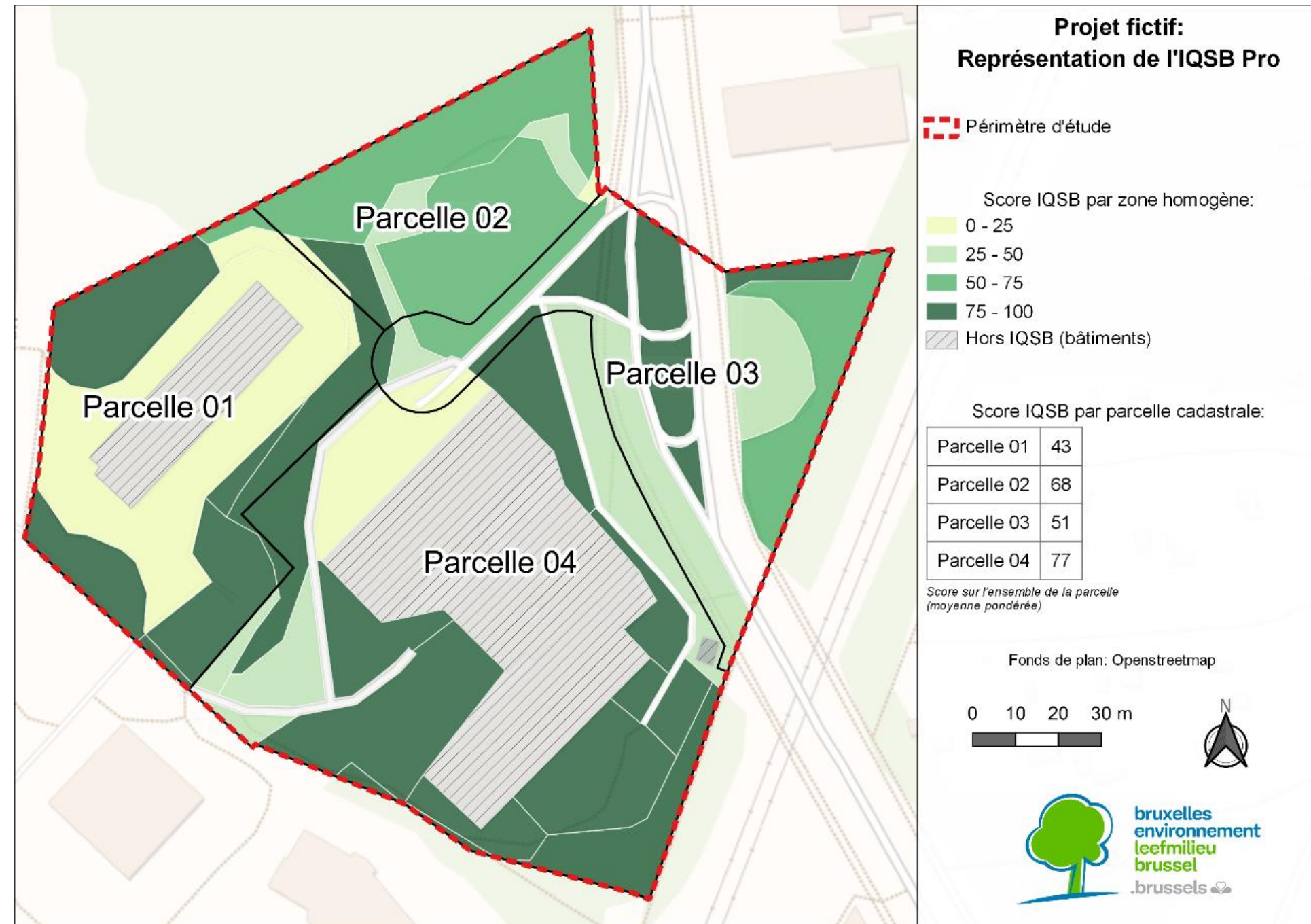
THE BRUSSELS SOIL QUALITY INDEX RESULTS AND RECOMMENDATIONS

For each zone:

- General **soil quality « score »** for comparison
- Soil deficiencies and strengths per **parameter**
- **Ecosystem services** provided by the soil of the zone
- **Soil degradations** measured in the zone
- **Recommendations** by the soil expert on what function/use to give to which soil

For the project:

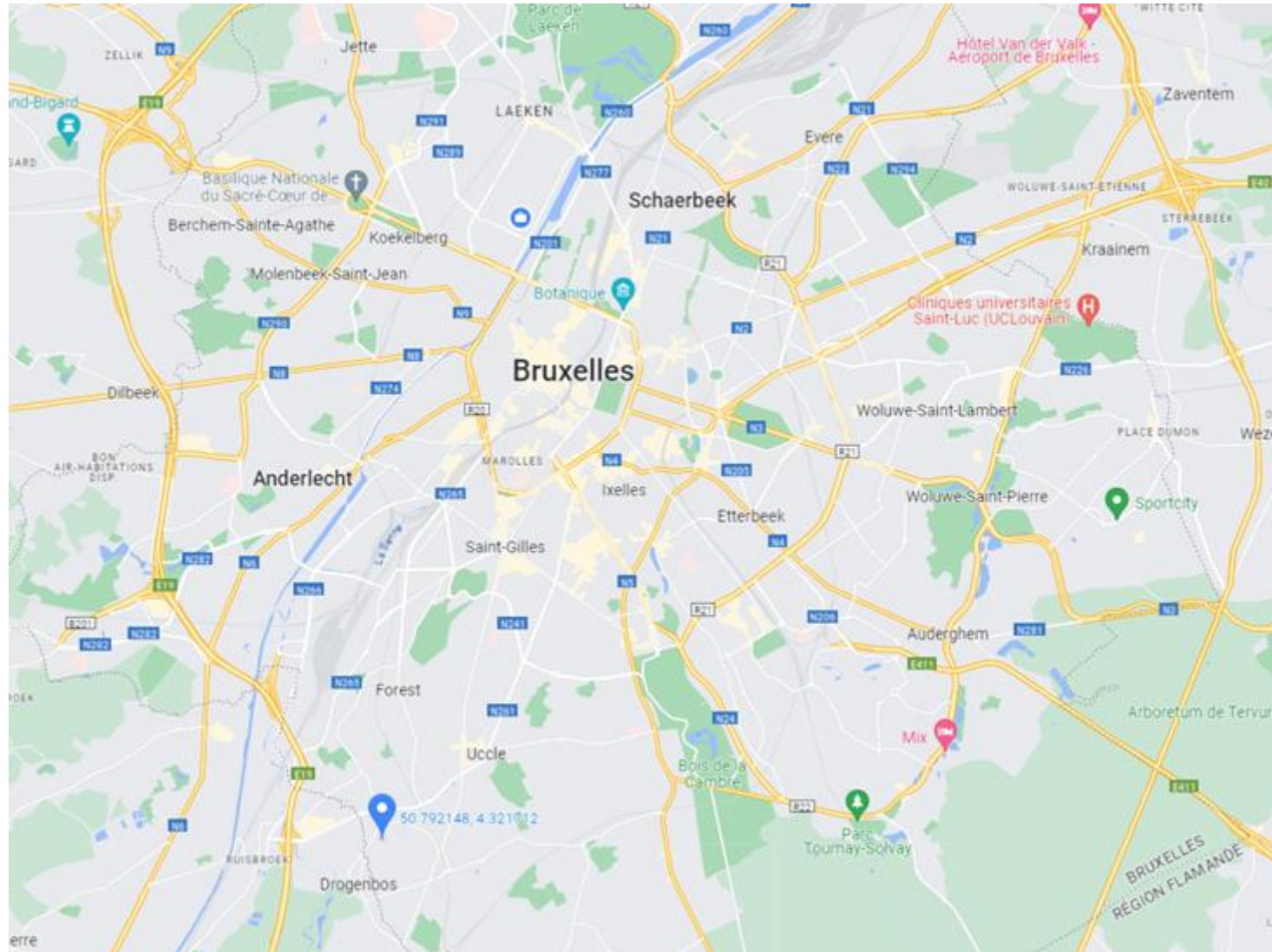
- **General summary** of soil health, SES and degradations on each parcel



CONCRETE APPLICATIONS

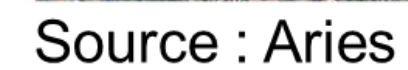


BSQI PRO KEYENBEMPT CONTEXT AND HISTORY



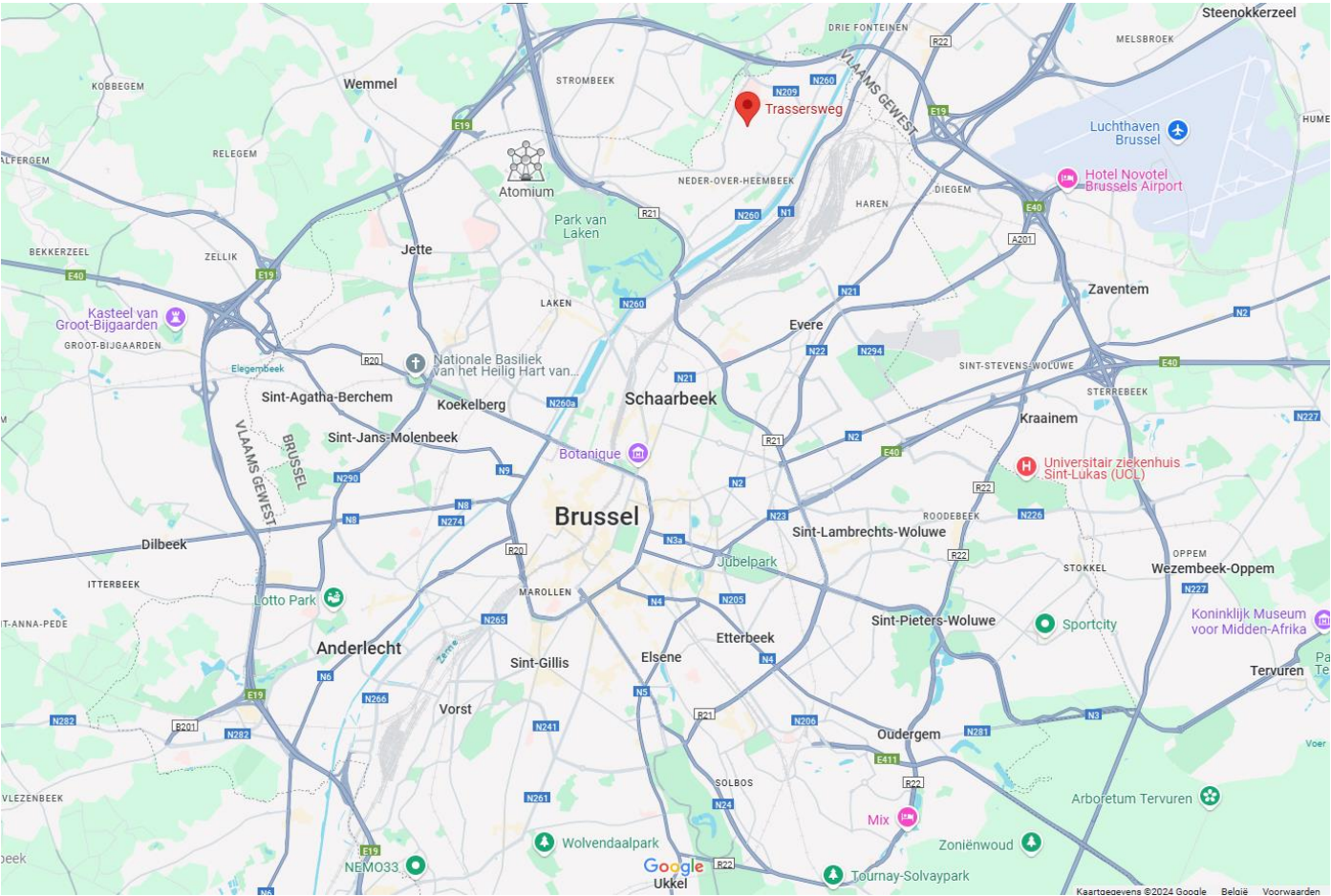
Source: Aries







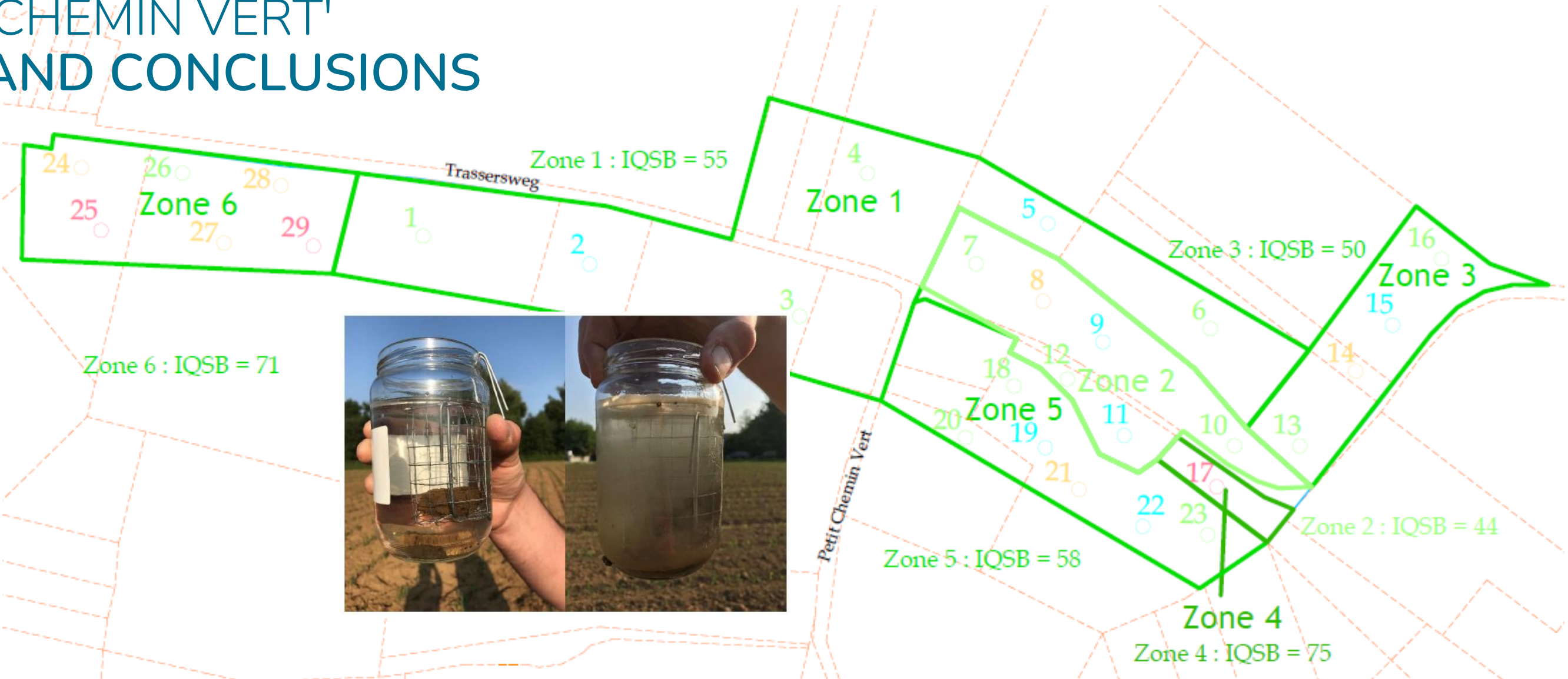
BSQI PRO 'CHEMIN VERT' CONTEXT AND HISTORY



Source: Recosol



BSQI PRO 'CHEMIN VERT' RESULTS AND CONCLUSIONS



Zone	Indice de dégradation - ID				
	Manque de matière organique	Perte de biodiversité	Erosion	Perte de nutriment	Compaction
1	40	42	54	32	68
2	20	38	46	36	40
3	80	46	39	48	70
4	20	22	29	24	20
5	20	39	32	48	20
6	0	15	14	24	10
7	20	43	50	48	40
8	20	47	42	52	53
9	0	24	44	16	43



Source: Recosol

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