



THE ROLE OF REGIONAL AUTHORITIES IN THE CLIMATE TRANSITION

Context and challenges

Impacts

Solutions

Actors in Brussels

Action Plan

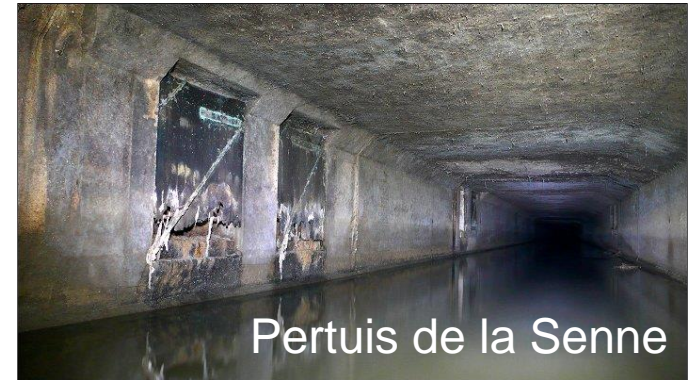
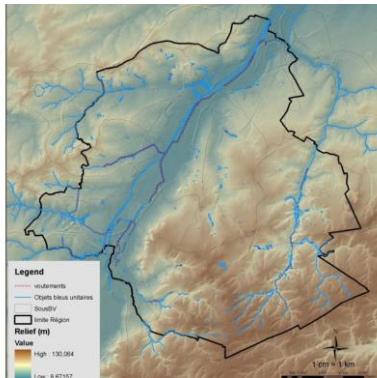
Emilie Lavender
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NOVEMBER 2021

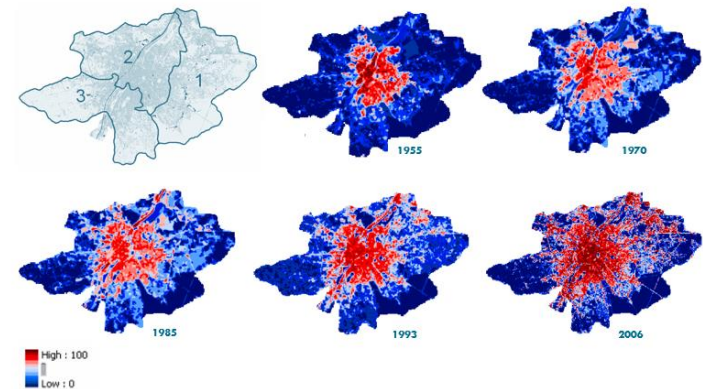
Context and challenges



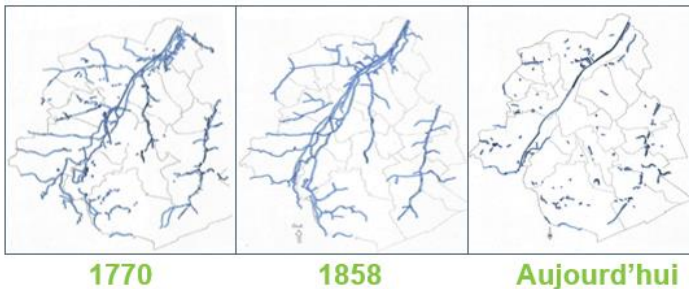
- 1) Disappearance of the natural water cycle
- 2) Disappearance of the hydrographic network
- 3) Increase in the rate of impermeability
- 4) The natural landform
- 5) Uniform and outdated sewage system



Le taux d'imperméabilisation a doublé en 50 ans



Etude de l'évolution de l'imperméabilisation du sol en RBC
Réalisée par l'ULB-IGEAT (2006)



Assèchement des étangs,
transformation des rivières en égouts à ciel ouvert,
puis voûtement





Val des Seigneurs WSP
2018



Anderlecht 2018

Impacts

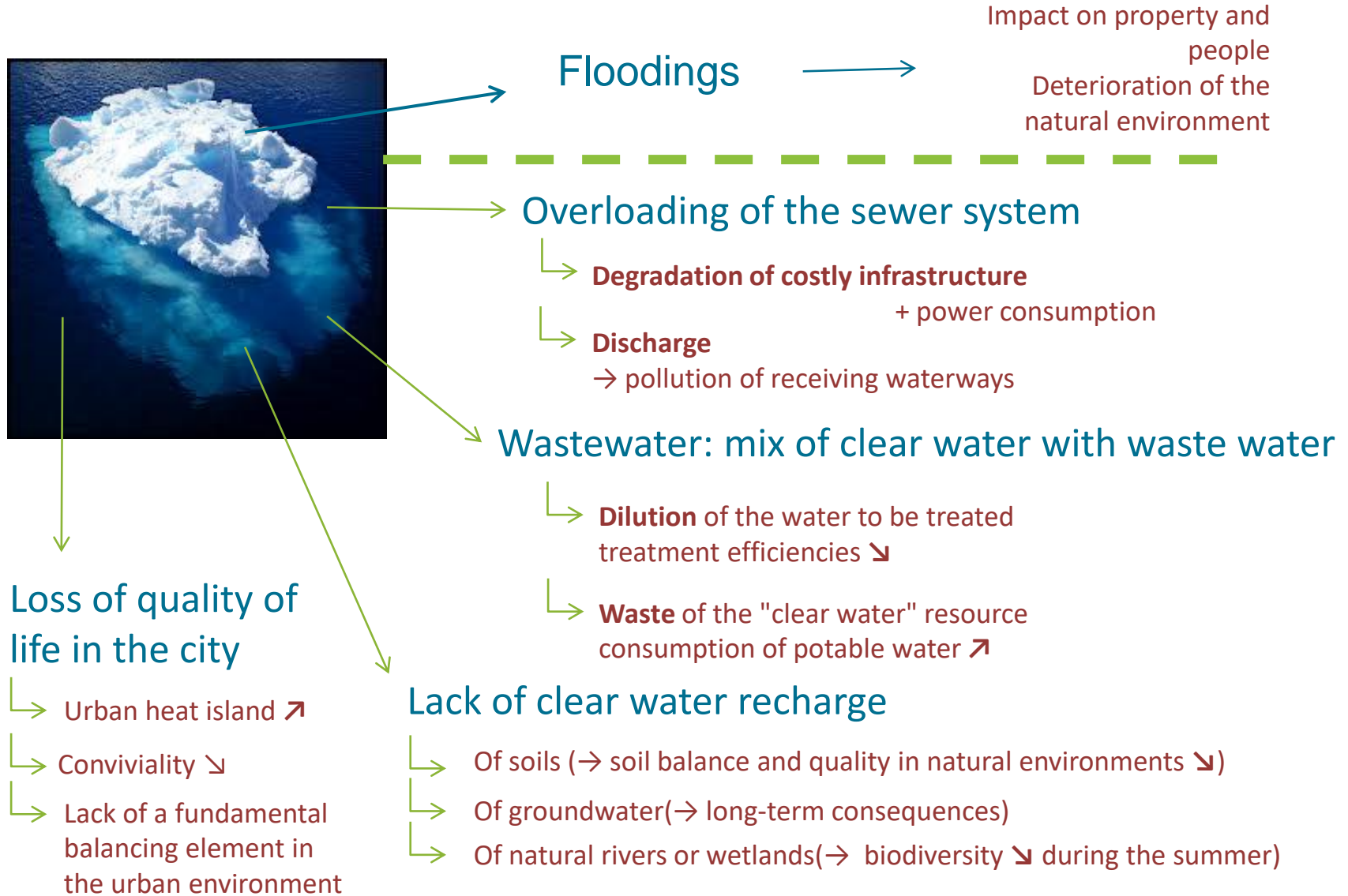


Molenbeek 2021



IMPACTS

Without nature based solutions



UNDERGROUND STRUCTURES

- 11. The reservoir pavement structure
- 12. The infiltration trench
- 13. The infiltration pit
- 14. The underground basin

NATURE BASED SOLUTIONS

- 1. Swale
- Urban parks and green spaces
- 2. Raingarden
- 3. Trench
- 4. Green roof
- 5. Green wall
- 6. Green wall

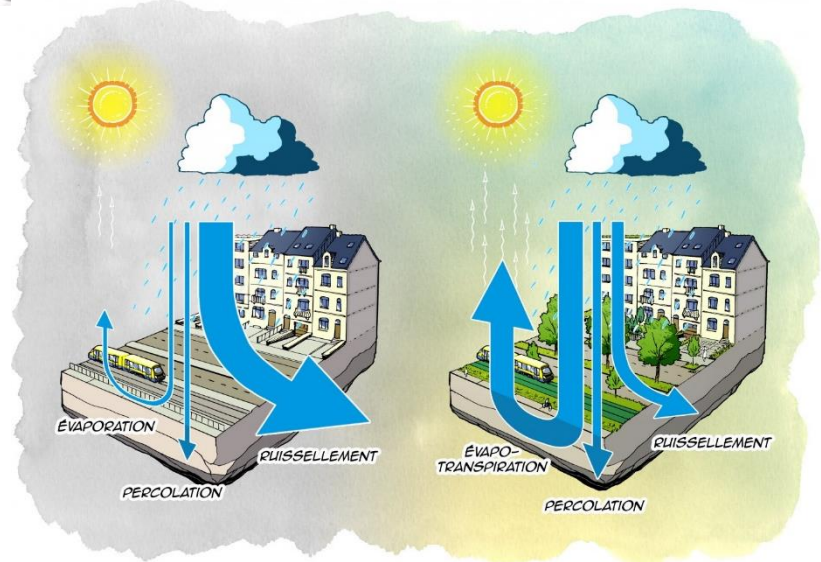


PERMABLE FLOORINGS

- 7. Grassed or paved slabs...
- 8. The soil-stone mix
- 9. Granular materials (porous paving stones, porous cement).
- 10. Porous asphalt

RENDRE LES VILLES PERMEABLES – JOUIR DE BÉNÉFICES

Solutions



INTEGRATED RAINWATER MANAGEMENT, AN ELEMENT OF THE RAIN NETWORK.

Rain Network: Any sustainable rainwater management

1st choice : meets all challenges



INTEGRATED RAINWATER MANAGEMENT

- In Situ
- Infiltration
- Greening
- Integrated/Multifonctional

outflow

Sponge soil
+
Atmosphere

Swale



Raingarden



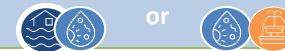
Green Roof



Permeable floorings



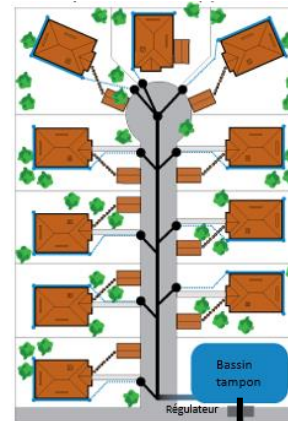
2nd choice : meets few challenges



- Separate
- Collection of runoff
- Limited flow, buffering

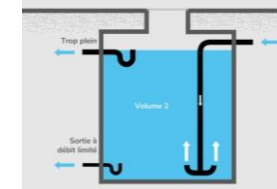
outflow

a **network**
of rivers
of rainwater
of sewage



Rivers, lake, ...

Individual storm water tank



Waterway

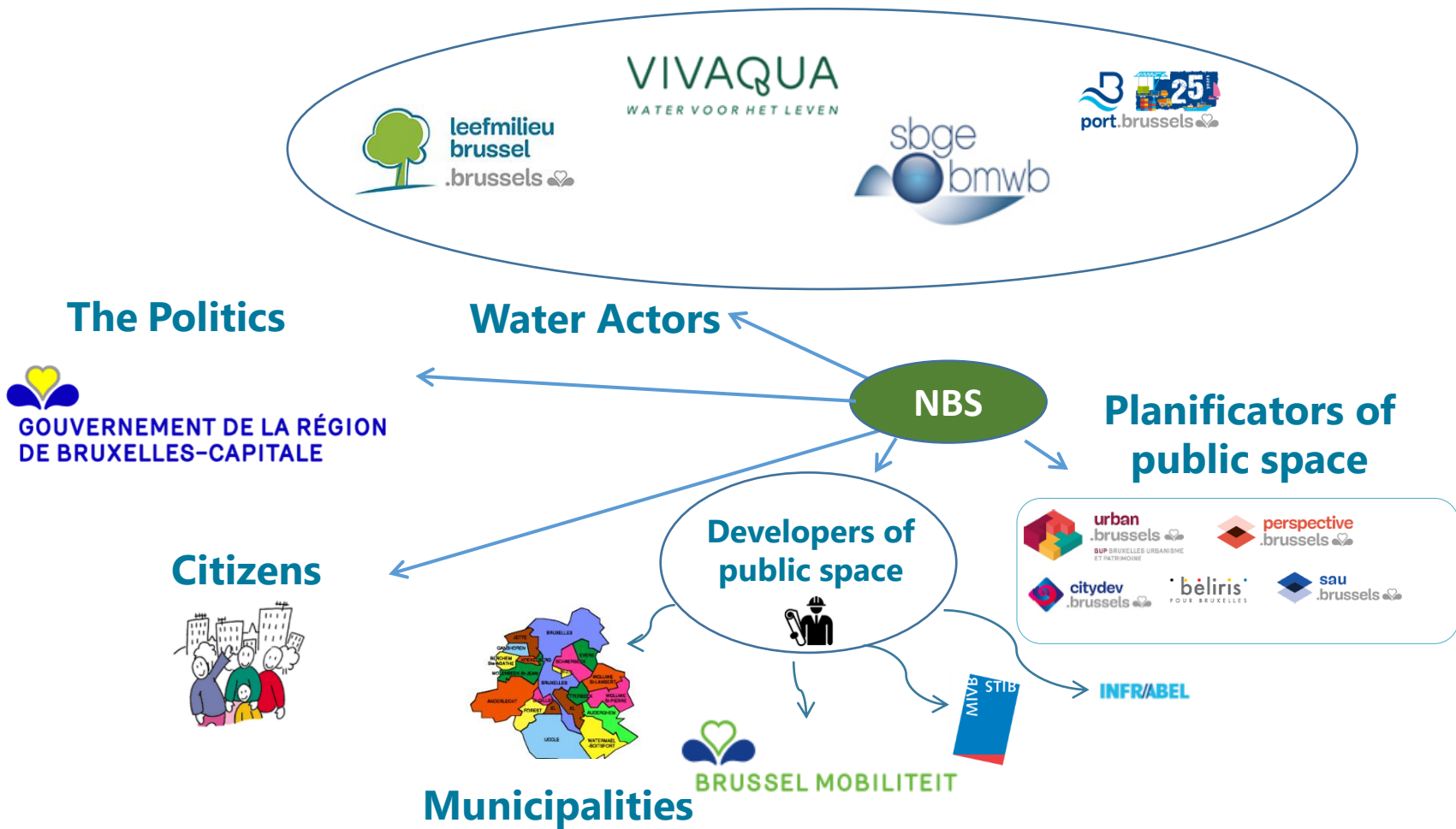


Actors in Brussels



NATURE BASED SOLUTIONS, IMPLEMENTATION OF THE WATER MANAGEMENT PLAN

AND TRANSVERSALITY IN ALL LEVELS



Action Plan





- Definition of the role of the actors
- Legislation
- Professional guidance
- Financial mechanisms, subsidies,...

Guidance for the implementation

- Integration of NBS into the acts of building, renovating and maintaining
 - Private and public spaces
 - Existing and new buildings

Operational implementation



Innovation

- Follow-up on quality issues
- Impacts et opportunities
- Capitalisation of experiences, virtuous circle

Sustainability

- Inventory of equipment and facilities
- Functional check
- Maintenance
- Indicators



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Thank you for your attention!

