

Developing a societal acceptable remedial action plan for an important PFAS hotspot in Flanders : challenges and lessons learned?

Presented by:

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The business of sustainability



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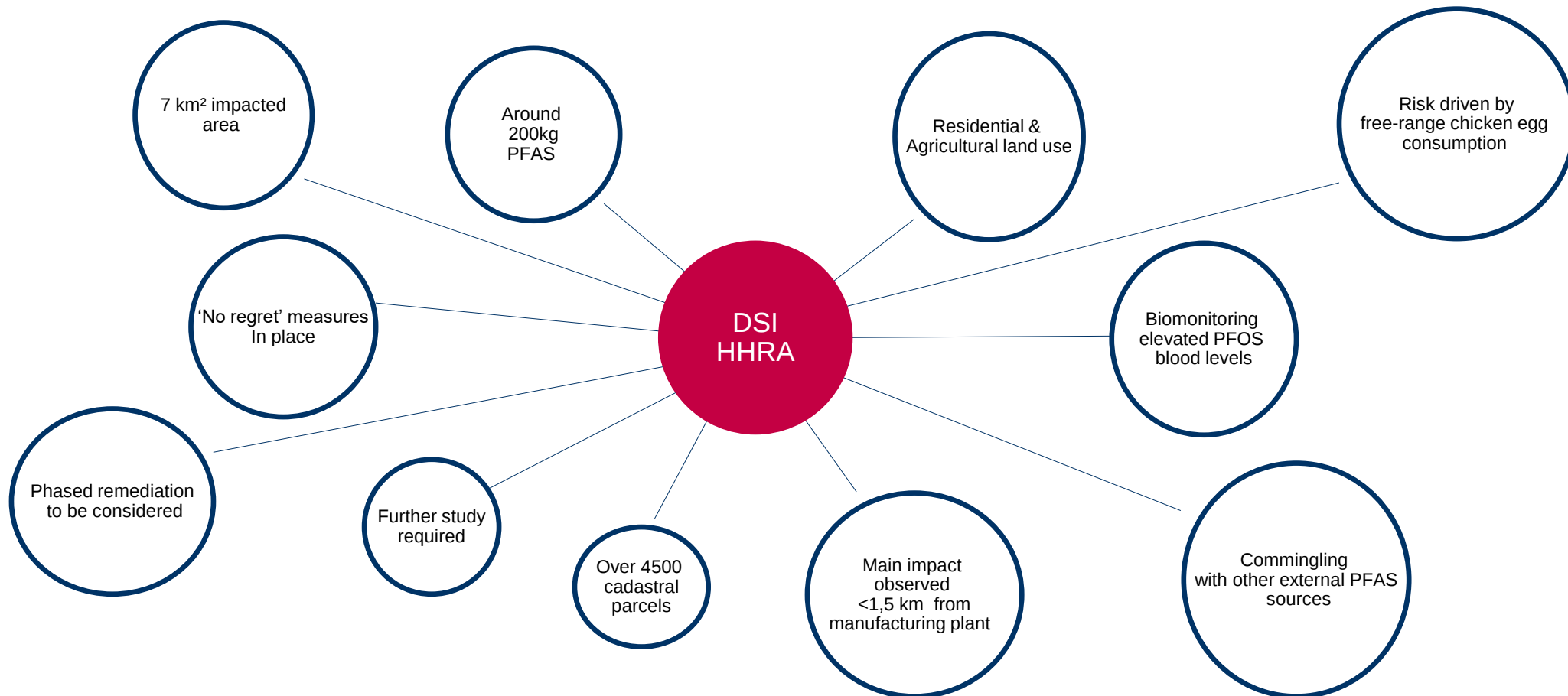
The 'Project'

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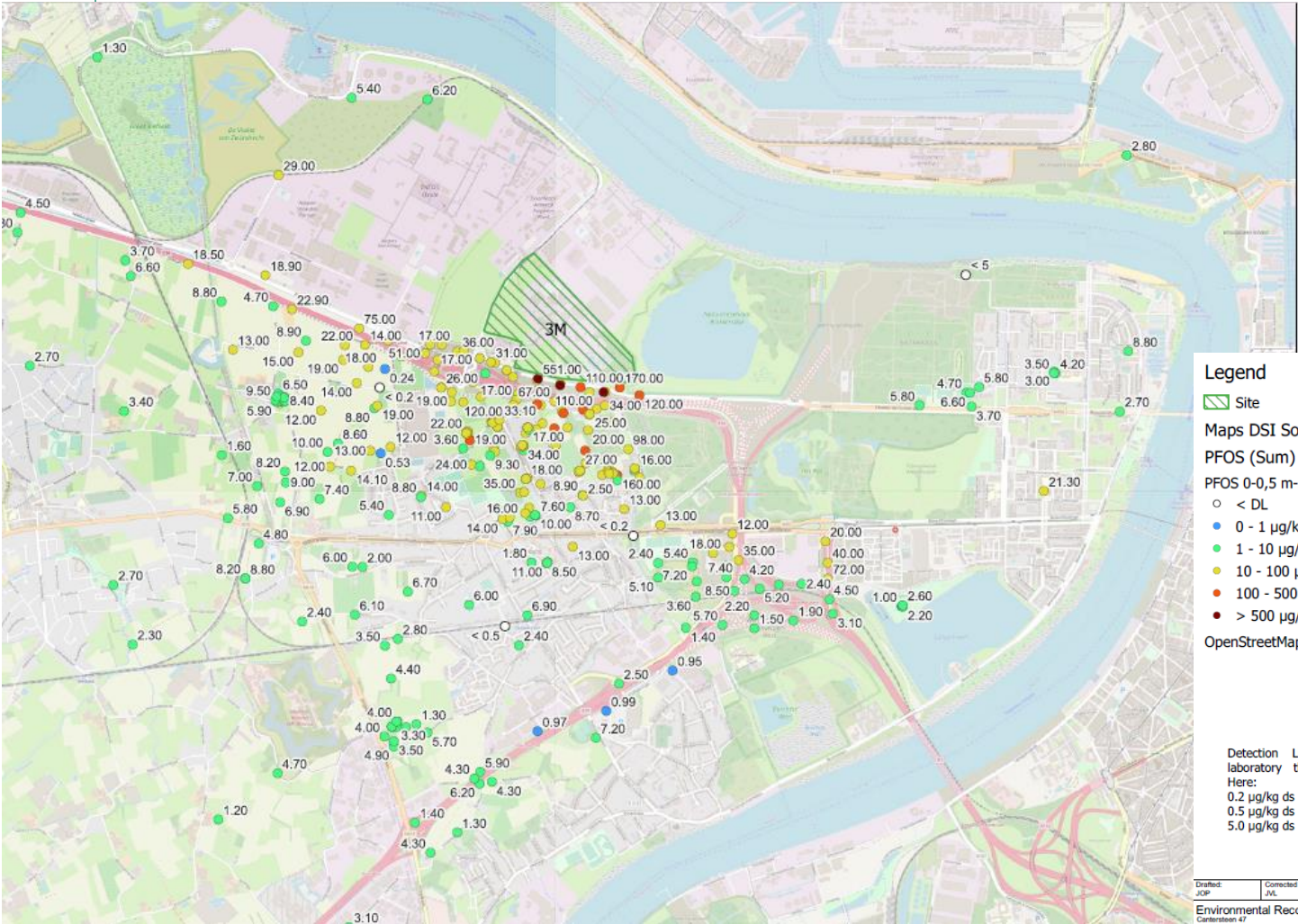
- PFAS manufacturing plant situated in the Antwerp harbour cluster, a major mobility infrastructure project called 'Oosterweel' underway in its direct vicinity;
- Historical C8-PFAS production (mainly PFOS) thru Electrofluorination (ECF) process, stopped in 2002;
- Onsite remediation ongoing since 2010 thru pump & treat, after the completion of the regulatory site investigation studies and remedial action plan, approved by the environmental agencies;
- Recent new scientific insights and stakeholder observations made generated a catalyst effect pushing for new offsite sampling and risk assessment with a initial focus on human health;
- The 'project' went thru a media and political storm in the last 18 months; and
- Within this complex and rapidly evolving context a 1st offsite remedial action plan (RAP) upon completion of a descriptive site investigation (DSI, done within 6 months), addressing the (potential) human risk via soil, has been developed for the area of concern with the highest priority.



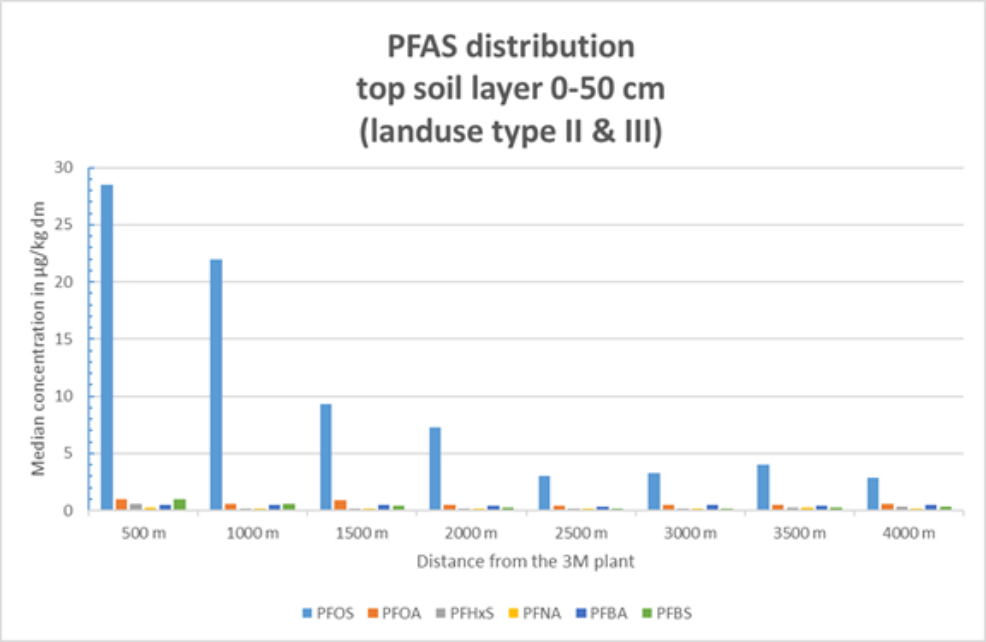
Key findings of the initial offsite DSI - soil (including human health risk assessment or HHRA)



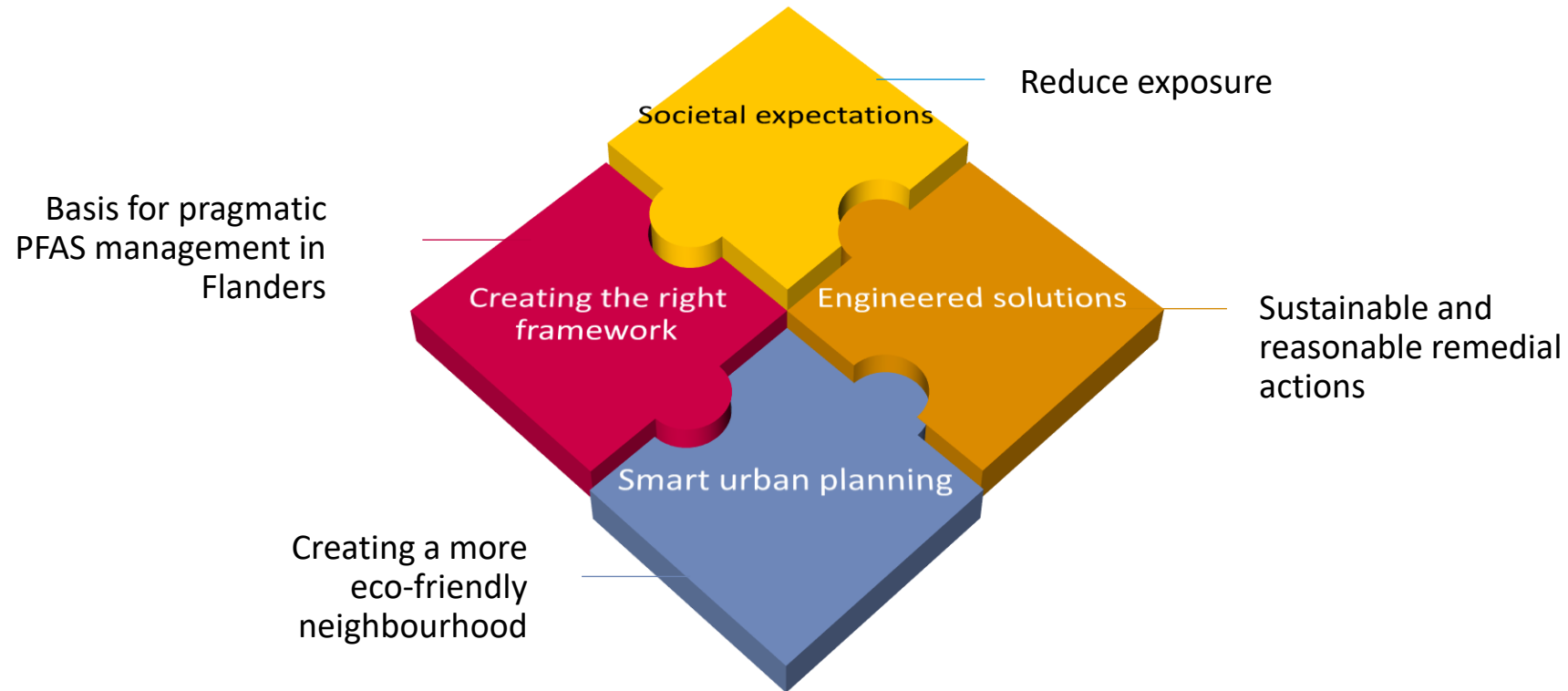
PFOS distribution topsoil



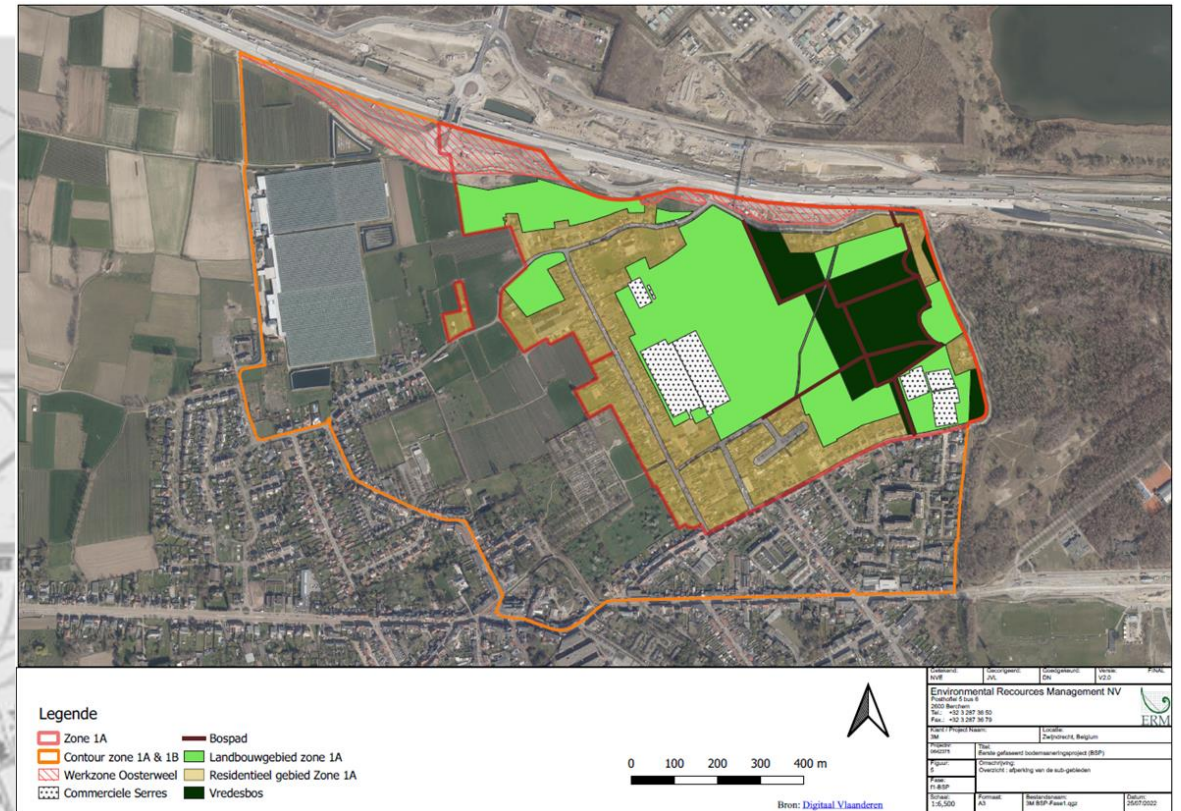
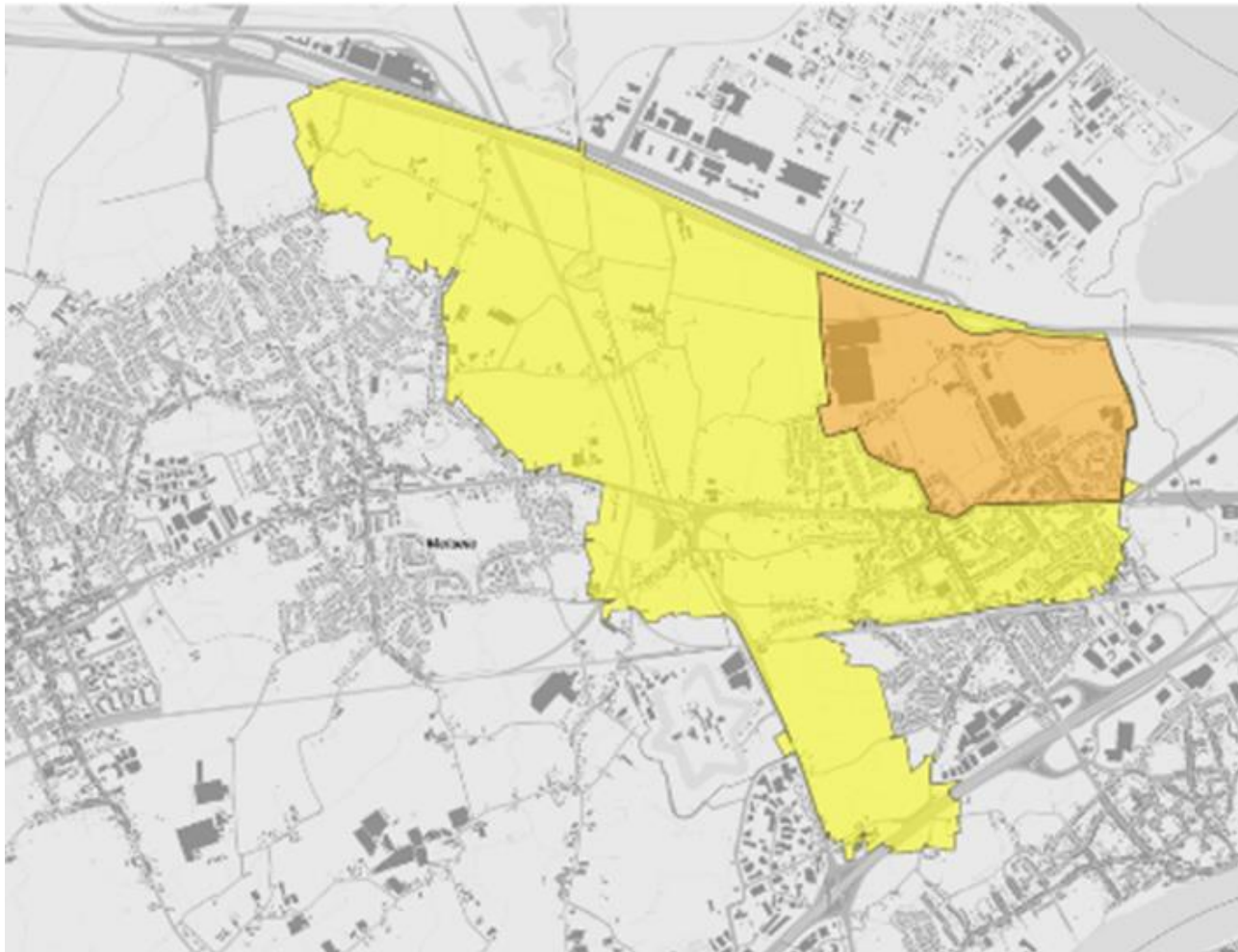
Source ERM DSI, Jan 2022



Need for an integrated holistic PFAS approach needed



RAP zoning (zones 1A & B, and 2)



**Developing a societal acceptable
remedial action plan**

Challenges to overcome

1. Evolving policy & regulatory framework
2. Biomonitoring results (blood serum) had to be integrated
3. EFSA opinion 2020
4. Human risk mainly driven by consumption of free-range chicken eggs
5. Extremely short RAP development time imposed <6 months
6. Remedial works will be intrusive for the involved people
7. Many stakeholders involved with different interests



Seeking societal approval : *What the stakeholders were saying when starting the RAP development*



Final Proposed Remedial Plan – main actions

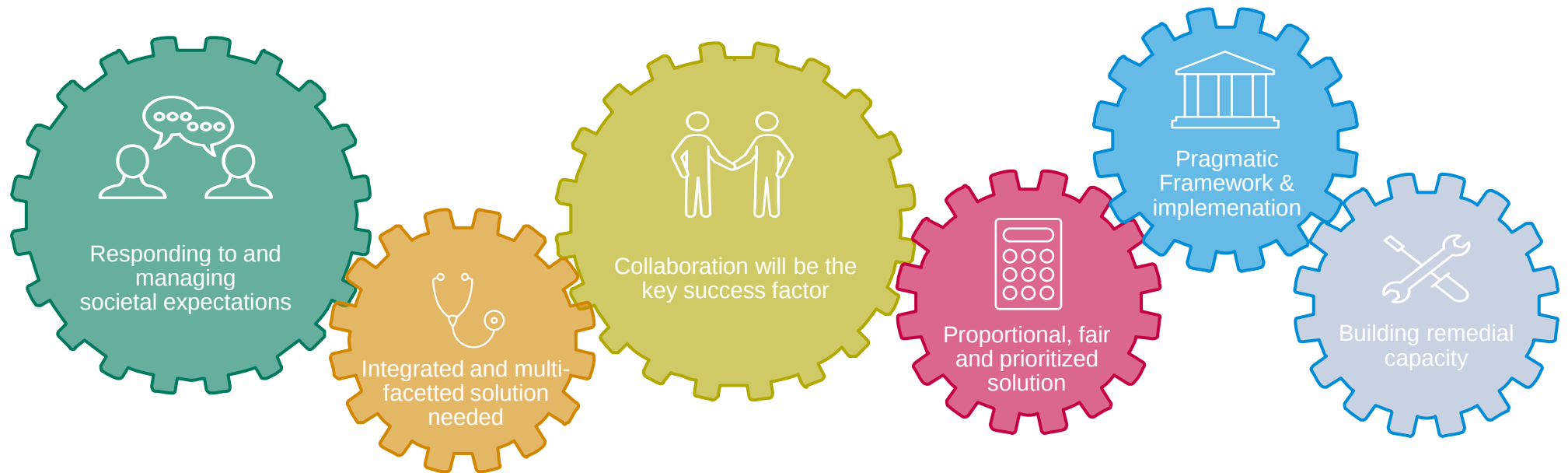
(currently subject to approval process)

1. 70 cm soil exchange residential/agricultural area;
2. Treatment/disposal of the excavated PFAS containing soils;
3. Backfill with good quality soils, fertile top layer;
4. Restoration of the residential gardens; and
5. Anticipated duration of the works 3 to 4 yrs, subject to backfill material/treatment capacity and agreements with the property owners.

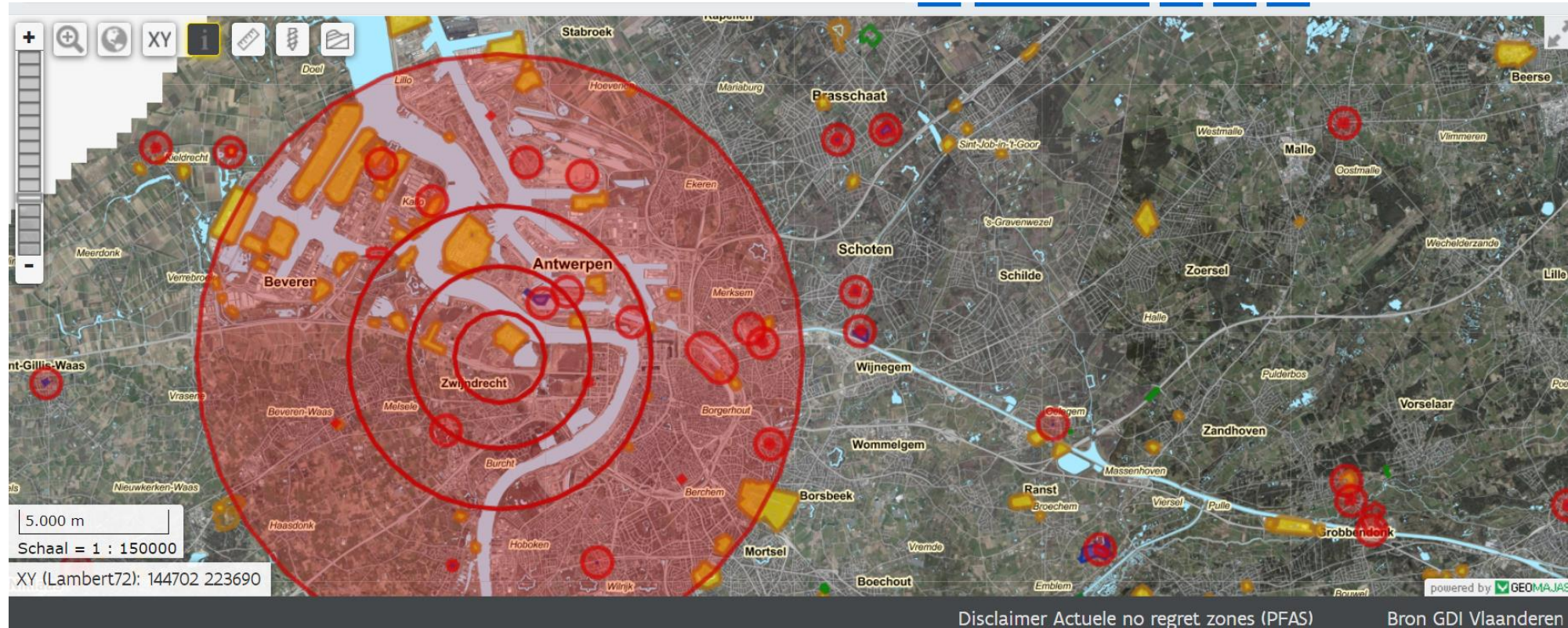


Lessons learned to date

Co-creation is the only way to go



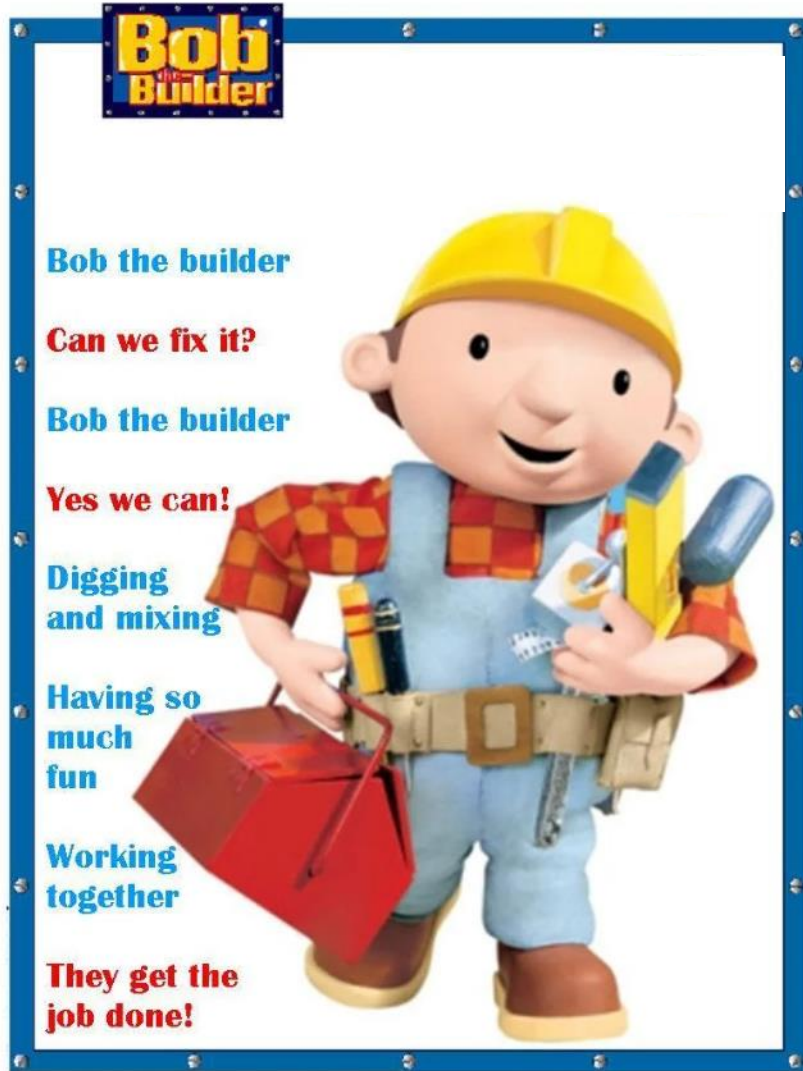
The PFAS problem is far more complex!



Source website
PFAS verkenner

- Widespread use of AFFF and other PFAS containing products & applications
- Comingling of PFAS sources
- Background elevation

Questions & Answers



Antwerp/Brussels, Belgium

Thank you