

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

Presented by:

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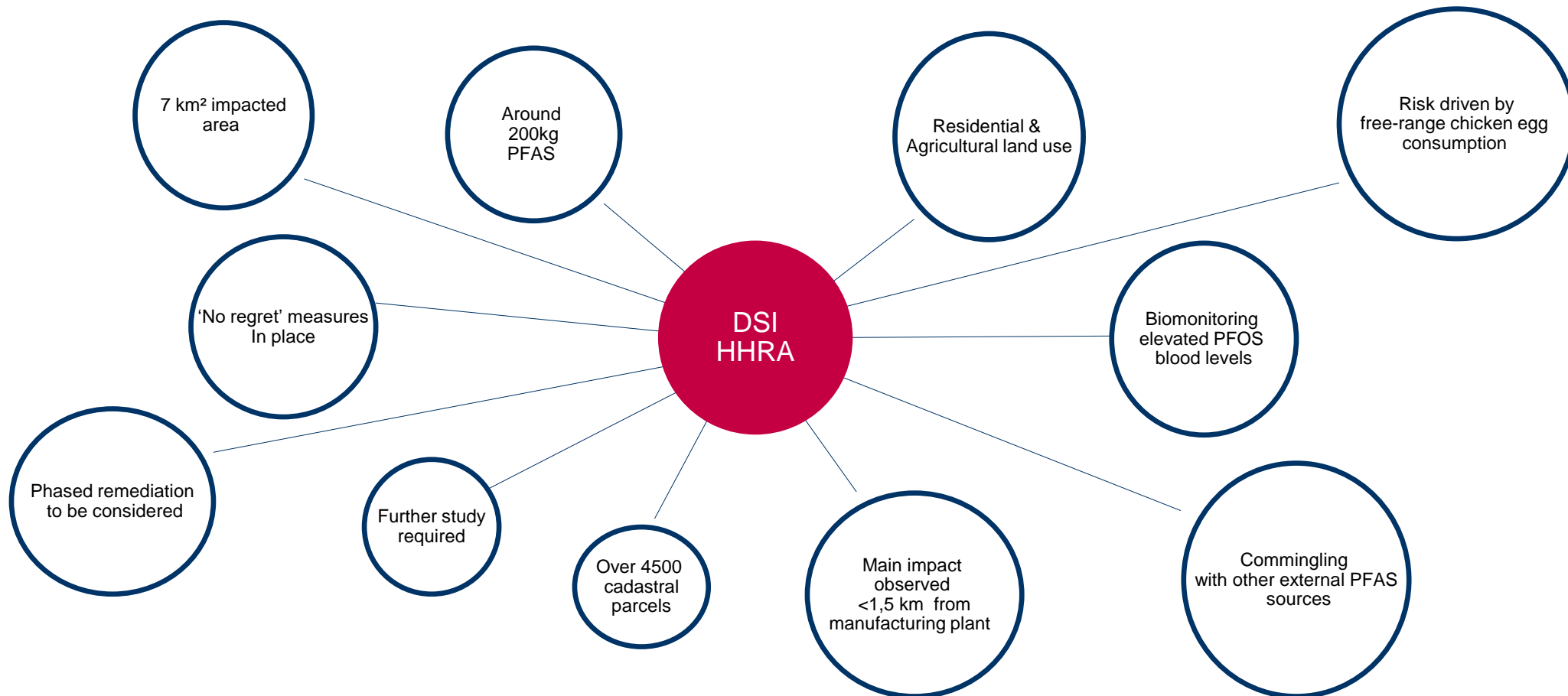
The 'Project'

The 'Project'

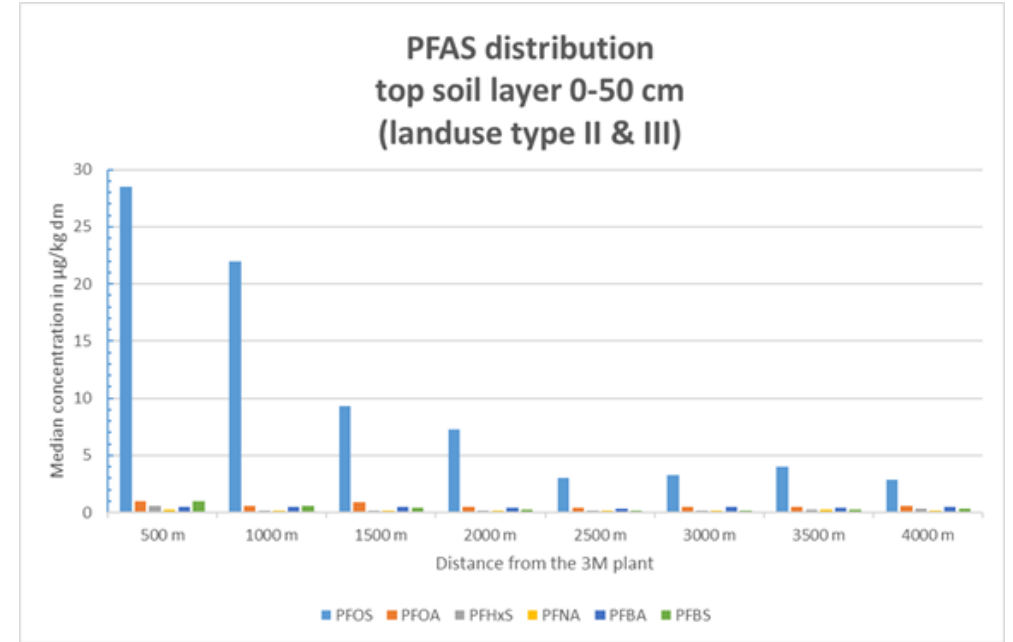
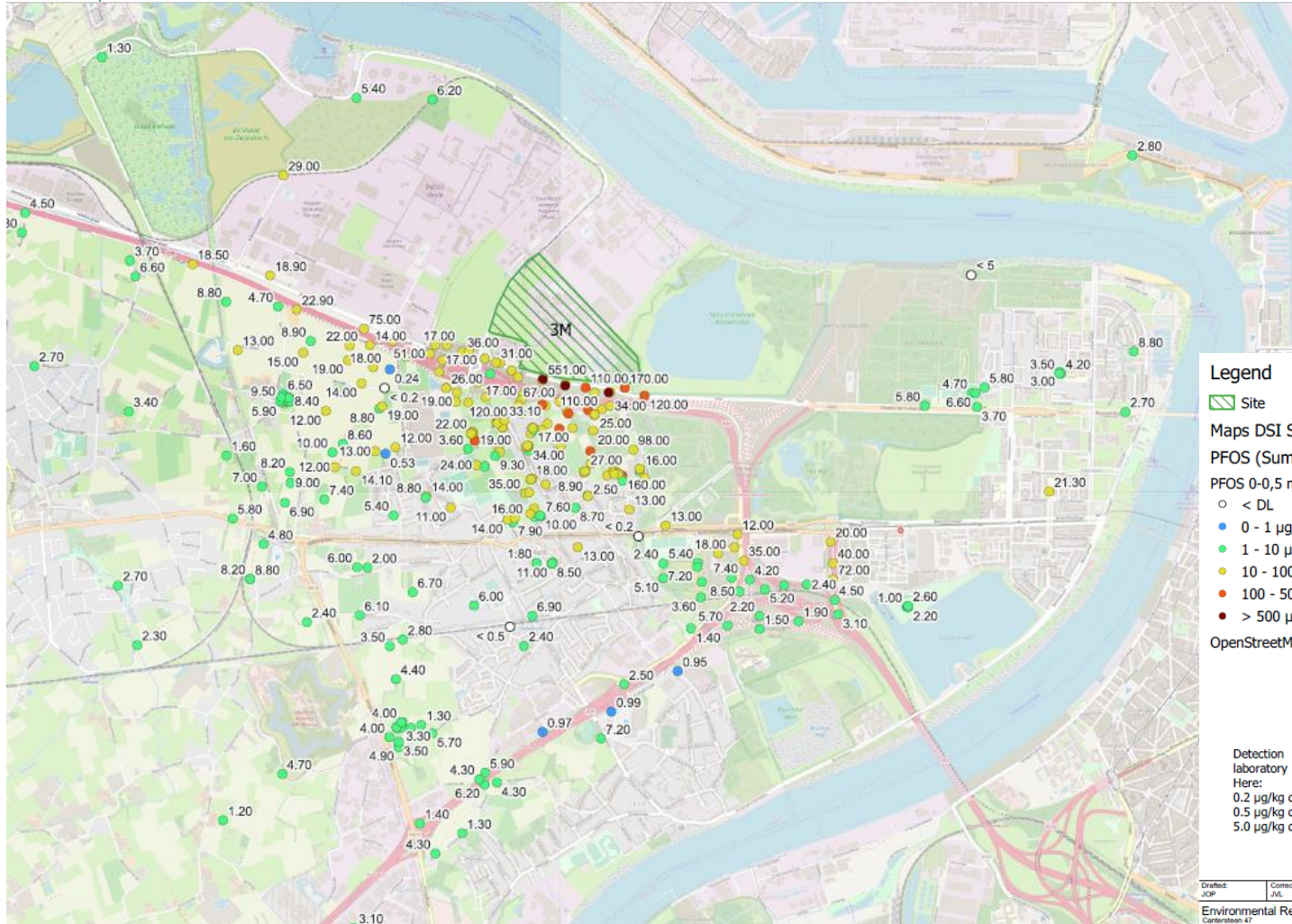
- PFAS manufacturing plant situated in the Antwerp harbour cluster, a major mobility infrastructure project called 'Oosterweel' underway in its direct vicinity;
- Historical C8-PFAS production (mainly PFOS) thru Electrofluorination (ECF) process, stopped in 2002;
- Onsite remediation ongoing since 2010 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



Legend

Site

Maps DSI Soil

PFOS (Sum)

PFOS 0-0,5 m-mv - Land use II, III, IV & V

- < DL
- 0 - 1 µg/kg ds
- 1 - 10 µg/kg ds
- 10 - 100 µg/kg ds
- 100 - 500 µg/kg ds
- > 500 µg/kg ds

OpenStreetMap

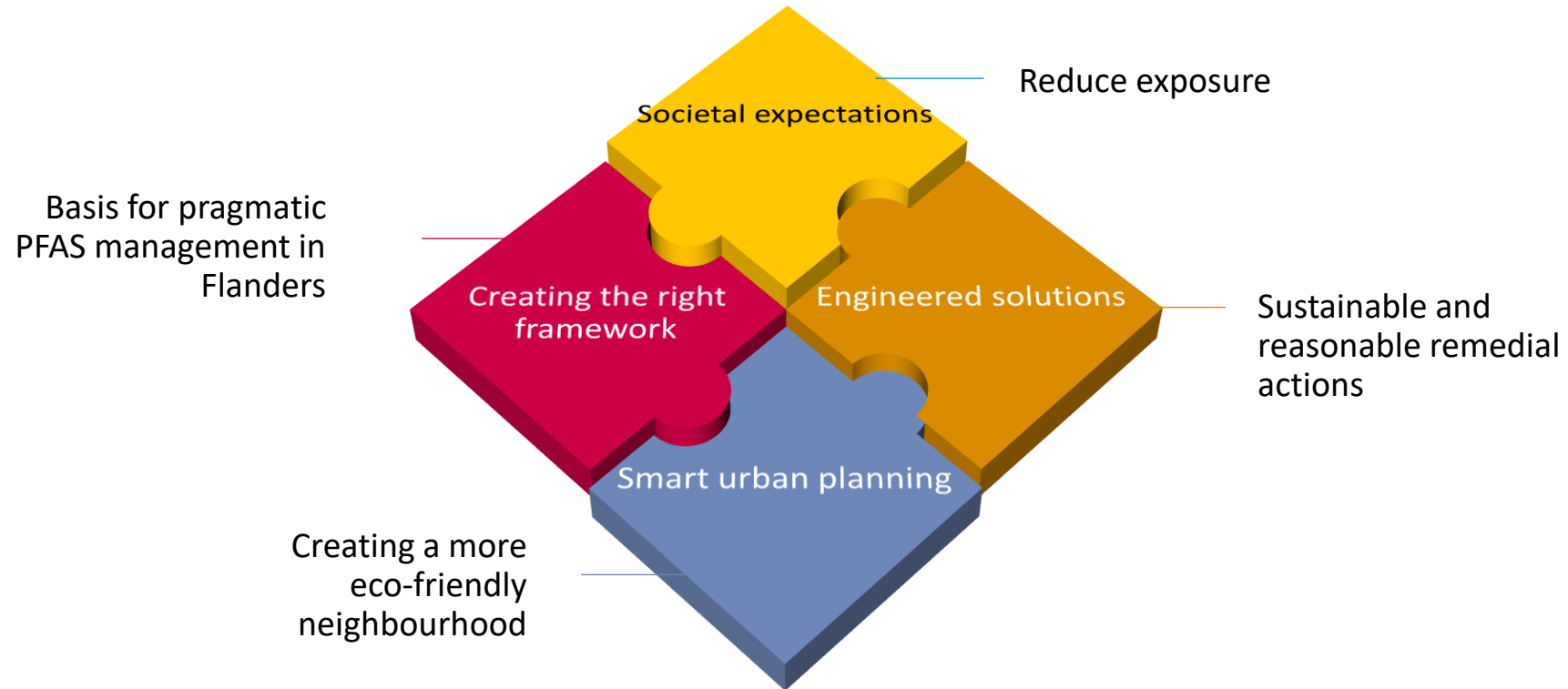
Detection Limit (DL) depends on the laboratory that performed the analyses.
Here:
0.2 µg/kg ds
0.5 µg/kg ds
5.0 µg/kg ds

Drafted: JGP
 Corrected by: JML
 Approved by: DM
 Version: V1
 FINAL DRAFT

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Source ERM DSI, Jan 2022

Need for an integrated holistic PFAS approach needed



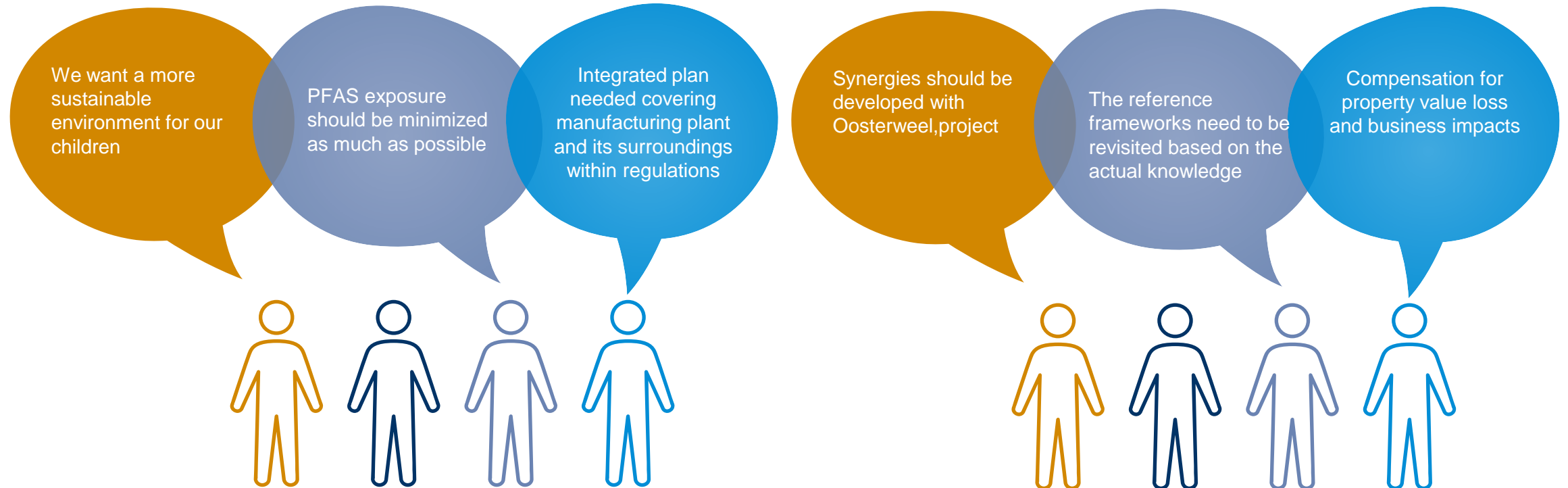
**Developing a societal acceptable
remedial action plan**

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

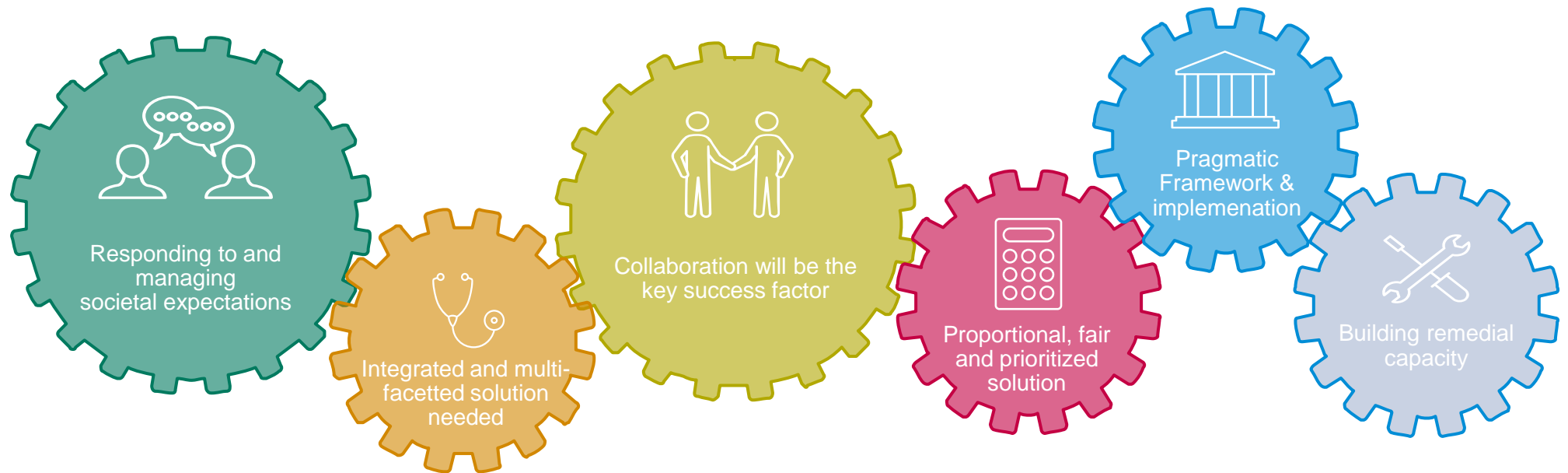


Seeking societal approval : *What the stakeholders were saying when starting the RAP development*

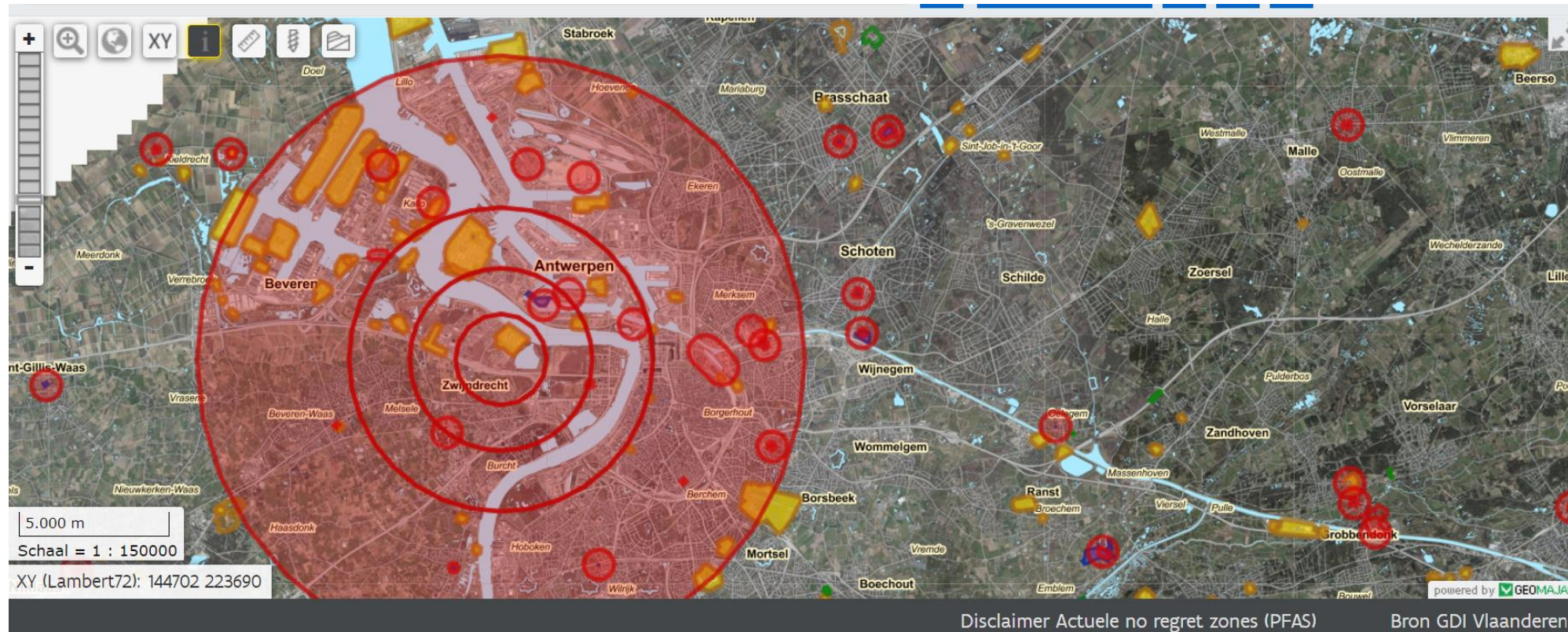


Lessons learned to date

Co-creation is the only way to go



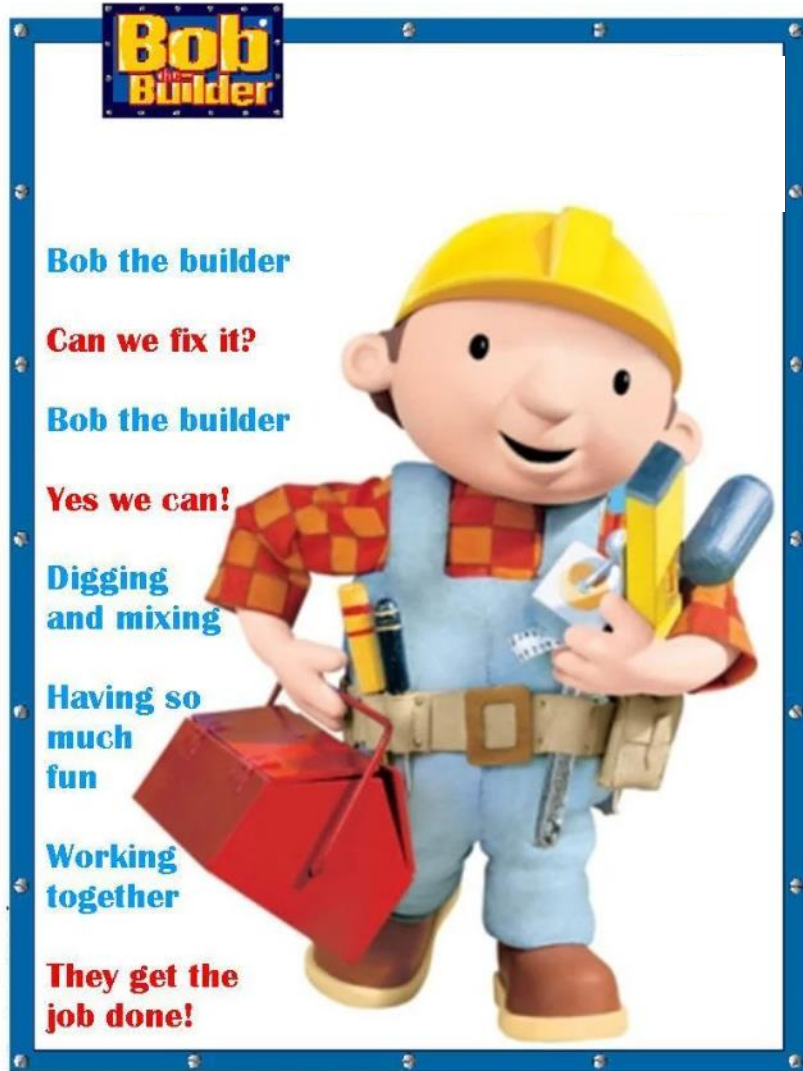
The PFAS problem is far more complex!



Source website
PFAS verkenner

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

Questions & Answers



**Bob
the
Builder**

Bob the builder

Can we fix it?

Bob the builder

Yes we can!

**Digging
and mixing**

**Having so
much
fun**

**Working
together**

**They get the
job done!**

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Thank you