



Lessons learned after 20 years of soil remediation policy in Flanders

Contaminated sites 2016

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TOGETHER WE MAKE TOMORROW MORE BEAUTIFUL



Program of this presentation

- Development and aims of the legislation
- Land information register and soil certificate
- ▶ Procedure for investigation and remediation
- Transfer of land
- Results since 1996
- ▶ Success factors of our legislation
- Lessons learned red, orange or green

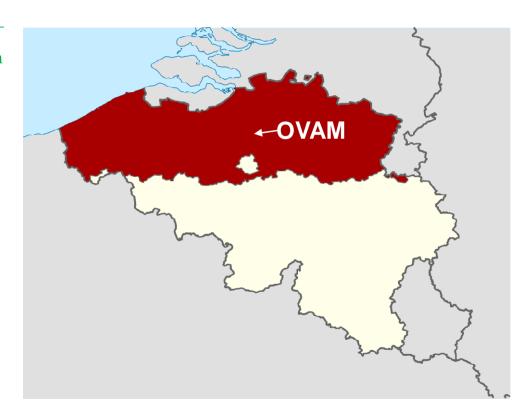




Jurisdiction of OVAM - Flanders in Belgium

Centralised competence of OVAM – policy and decisions on investigation and remediation

Competence for inventarisation of potentially contaminated sites is decentralised - communities







Development of the legislation

- Decree on Waste Management: 2nd of July 1981
- Decree on Soil Remediation: 22nd of February 1995
- Decree on Soil Remediation and Soil Protection: 27th of October 2006
 - → Executory order "VLAREBO": 14th of December 2007
 - → Into force: 1st of June 2008

New decree: fitting of soil remediation within the plans for land management by the individual owner





Aims of the legislation

- Remediate **historical** soil contamination
 - → Has taken place before 1995
 - → Remediate over a period of 40 years, starting in 1996
 - → Remediate in case of risk
 - → Clear planning and deadline
- Prevent and clean up **new** soil contamination
 - → Soil contamination taken place after 1995
 - → Immediate remediation when concentrations are higher than soil remediation values
 - → Prevention of new contamination
 - → Still a lot of new contamination





Land Information Register

Goal

- Making existing information on soil quality available to purchasers and (!) to every interested party
- All information on soil quality is known to the OVAM and the public
- Need of good database and qualified administration
- Unit of land is the parcel but size of the parcel can change

Content

- All parcels with relevant information on soil quality
- Information is based on qualified soil investigation or other qualified data

Output

Soil certificate as information tool (retribution 50 EUR)





Soil certificate

- Inform purchasers or other parties on
 - → Quality of the soil
 - → Obligations to remediate
 - → Executed soil investigations
 - → Soil remediation projects
- For policy makers: base decisions on soil quality
- ▶ Since 1996 more nearly 4 million soil certificates were issued
- Income for the OVAM in 2015: more than 12 million euro

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SERVICE Soil surveys and remediation We

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OUR REFERENCED-99 R-0000001

1 Cadastral data

situation on: 01.01.2011 division: 12403 POLDERMOL street + no.: POLDEMOLSTRAAT 115 section: 0 number: 0078 E 002 surface area: 0 ha 05 a 26 ca

Hereinafter called 'this land'.

2 Content of the soil certificate

This land has been included in the land information register.

2.1 Declaration on the soil quality

2.1.1 Historical contamination

According to the Soil Decree no soil remediation is required on this land. For this conclusion OVAM bases itself on the descriptive soil survey of 18.01.2002 and on the characteristics of the soil and the use of the la

According to the Soil Becree no descriptive soil survey is required on this land. For this conclusion OVAM bases itself on the exploratory soil survey of 11.12.2003 and on the characteristics of the soil and the use of the land included therein.





Preliminary soil investigation

- Indication of the presence of contaminating substances
- Execution and supervision by qualified experts
 - → Type 1: only for investigating activities
 - → Type 2: also for risk evaluation and remediation
 - → Guarantee of quality: 1/experts 2/procedures 3/control by the OVAM
- Risk activities: relatively higher risk for soil contamination
- ▶ When is preliminary soil investigation needed?
 - → Transfer of 'risk land'
 - → Before start (for certain) and after closure of risk activities
 - → Periodically for existing risk activities
 - → Bankruptcy of owner of 'risk land'
 - → Industrial Émissions Directive: baseline report before start of activities





Descriptive soil investigation

- ▶ Soil = fixed part of the ground + groundwater
- Investigation of the seriousness of the soil contamination
 - → Extent and spreading of the contamination in the soil
 - → Risk evaluation
- ▶ Simple and flexible administrative procedures
 - → Phased method of working
 - → Combination of both investigations possible





Obligation to remediate

- Obligation to remediate vs. liability
- Derator, user or owner of the land has the duty to clean up
- Multi-stage approach (operator, user and owner)
- Possibility for exemption:
 - → Operator and user: not caused and did not come to existence in period of use or operation
 - → Owner: + not known at purchase
 - → Need of exemptions to keep it fair and reasonable
- Final burden for liable party





Ex officio investigation and remediation

- OVAM takes its responsibility when
 - → Investigation or remediation obligations are not fulfilled
 - → Operator, user and owner have been exempted
 - → Blackfields and contaminated sites from bankrupt companies
 - → Asbestos and zinc ashes programme
 - → So OVAM offers the final solution
 - → Relatively high budget is needed
- ▶ Budget: every year between 30 and 35 million euro
- ▶ Reclamation of costs if possible





Soil remediation (1)

- Soil remediation project: evaluation and selection of remediation technique based on BATNEEC-principle
 - Multicriteria analysis was developed
 - → Remediation technique can be different depending on sitespecific conditions
- Remediation objectives
 - → New contamination: guide values
 - → Historical contamination: remove the risk
- ▶ Approval of the soil remediation project = permit
- Soil remediation works
- End statement





Soil remediation (2)

- ▶ Phased method of remediation
- Limited soil remediation project
 - → Limited action and administration
 - → Remediation in less than 180 days
- Possibility to choose for risk management
 - → Temporary measure
 - → Fitting of soil remediation within the plans for land management by the individual owner
 - → Risk management was nearly not used





Transfer of land (1)

- Deptimal protection of the new owner
- ▶ Soil certificate is always needed
- Preliminary soil investigation is needed for land with risk activities (= riskland)
- Approved soil remediation project, commitment and financial guarantee is needed before transfer can take place in case a remediation is necessary
 - → Very powerfull instrument for investigation and remediation
 - → Soil value depends on degree of soil contamination
 - → Real estate gets blocked when remediation cost is high(er) than the value of the property blackfields solution: OVAM acquires the land for 1 euro
 - → The inventory of 'riskland' is still not complete





Transfer of land (2)

- Accelerated transfer is possible
 - → After descriptive soil investigation
 - → Current owner and purchaser agree on results and on the way of handling the contamination
 - → Purchaser will remediate
 - → Purchaser signs commitment and brings up the financial guarantee
 - → Instrument was introduced in 2008 and is succesfull
- ▶ Special acceleration with agreement minister





Results since 1996

- >230.000 parcels in the land information register
- ▶ Nearly 4 million soil certificates delivered
- >38.000 exploratory soil investigations evaluated
- >11.000 descriptive soil investigations evaluated
- >4.700 soil remediation projects approved
- >4.500 soil remediation works have been started and about 3.200 have already been finished





Succes factors of our legislation

- Link with transfer of land: market guarantees the investigations and remediation
- ▶ Soil certificate as main information tool
- Pragmatism and open for new ideas to assure the positive stimuli
- Innovation and sustainablility





Thanks for your attention

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