
A cumbersome journey over obstacles
and pitfalls

Site Closure and Redevelopment



Contents

Paint factories in Belgium

Paint factory in Denmark

Paint factory in Germany

Paint factory in Spain close to beach

Viscose plant with landfill in France

Common issues

Lessons learned



Belgium: Paint factory 1

Historical wetland close to Brussels in a river valley

Production of fertilizers until ~1925

Gypsum waste stockpiled

1992 AN took over as part of Nobel industries

1994 Activities stopped, plant closed

OBO en BBO revealed presence of mineral oils, heavy metals, chlorinated solvents, cyanides



Belgium: Paint factory 1 cont'd

Between 1995 and 2007 dispute with OVAM about responsibility for cyanide

AkzoNobel could prove that cyanides are historic waste deposits from gas works

Flanders province accepts remediation obligation, but wishes to excavate

Brussels is satisfied with control of cross boundary migration



Belgium: Paint factory 1 cont'd

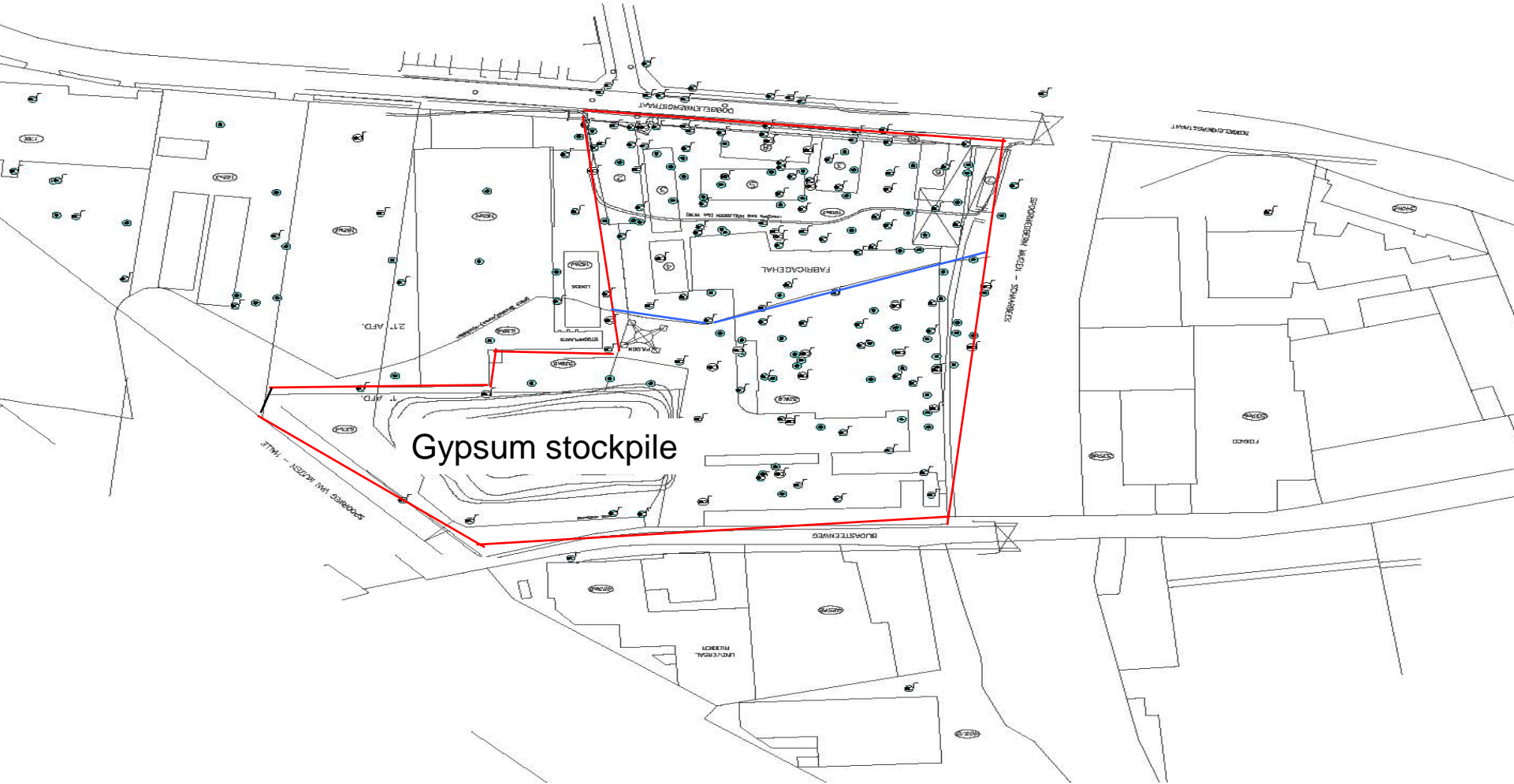
2007 AN received order to pay a non utilization tax for their buildings

Sales/purchase negotiations going on since nearly 10 years

Current status: Uncertainty about the timing of cyanide excavation in flemish part



Brussels



Vlanders

Belgium: Paint factory 2

1911 - 1970 South part of area: Gelatin and phosphate production

1924 in North part start of paint and varnish production

1926 - 1956 Animal bones processing for raw materials in the gelatin and phosphate industry

1970 Paint factory bought South area for expansion through all 70ies, mainly waterborne products



Belgium: Paint factory 2 cont'd

1985 AkzoNobel bought the Paint company

Mid 90ies restructuring led to land transactions. These required soil certificates. AN started OBO, BBO, Remediation investigations, Remediation plans, Remediation.

BTEX remediation close to finalization; new spills from new owner mix with old spills



Belgium: Paint factory 2 cont'd

2 CHC plumes migrating off site. Origin of the South one is probably the ancient bankrupt animal bones factory

North factory partly surrounded by residential area

Nuisance and damage claim issues with neighborhood during demolition of buildings and excavations

Vilvoorde.JPG

Major communication efforts put in place





Denmark: Paint factory

Factory for industrial coatings in industrial area

~30 USTs of different age

EA issued warning notice

AN accepted to excavate tanks

2009: Rezoning plans of city postponed

Remediation targets unclear

All activities interrupted due to future use unclarities





Abandoned Paint plant in Germany

Former paint plant in industrial area divested to automotive OEM supplier in mid 1980ies

Indemnification in sales contract to buyer

Insured case

BTEX contamination on site mixes with CHC plume from adjacent areas

>20 years legal dispute between authorities and insurance

After >2 years agreement reached for choice of ChemOx approach for free phase treatment





Frankfurt, Friesstraße 21



Spain Paint plant closure

Paint factory close to beach at Mediterranean sea

Area redevelopment for residential purpose

Selling contract agreed before Spanish S&GW legislation came into force

Buyer indemnification agreed to a fictive remediation scenario

Uncertainty how to deal with off site effects

Stringent criteria for groundwater quality





France: abandoned Fibres site

1980ies Plant for Viscose/Rayon closed in France

Industrial part divested, onsite landfill kept in purpose created legal entity

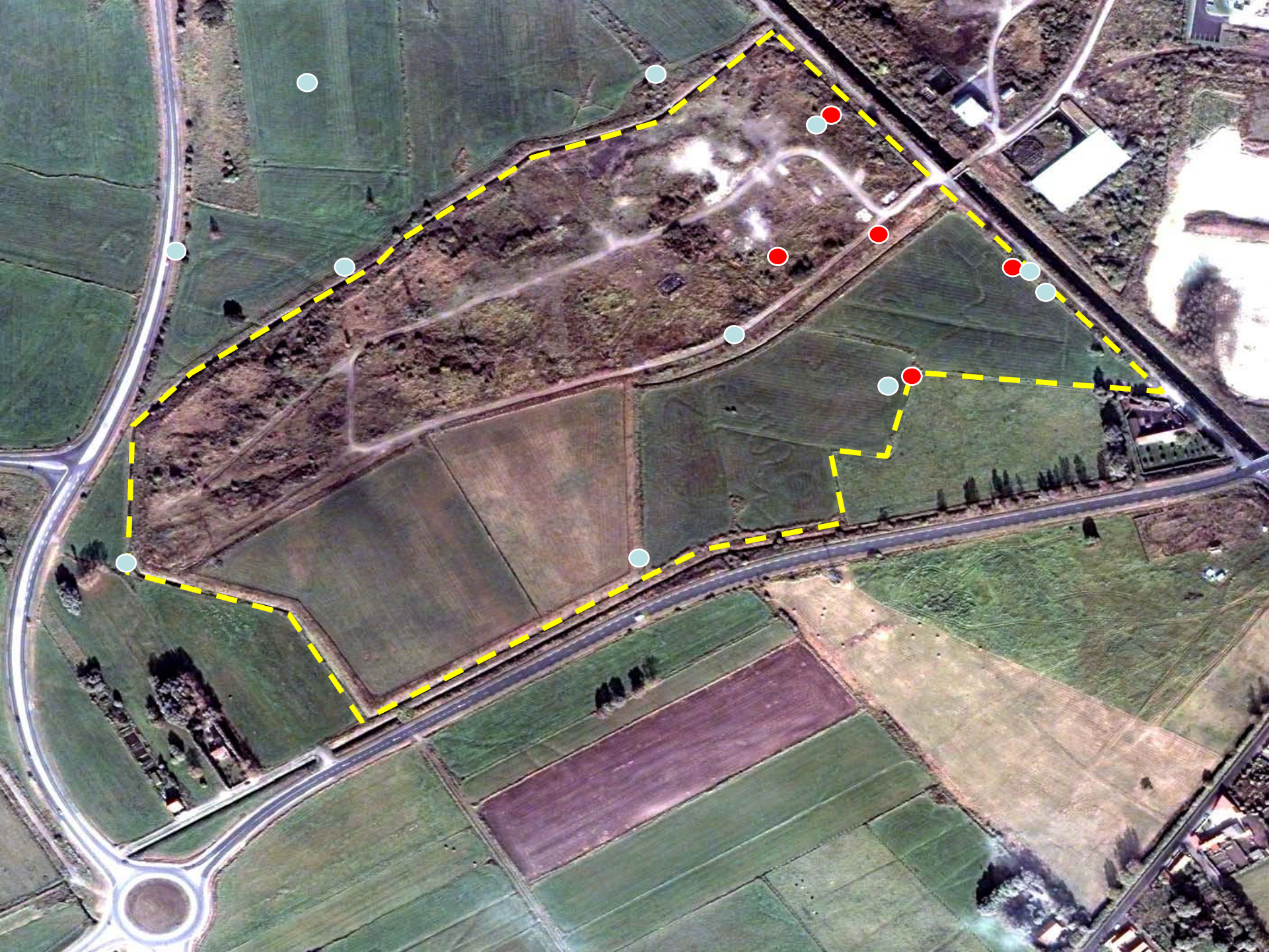
Landfill partly capped to standards applicable in early 1990ies

Dispute pending with authorities about scope and targets for remediation/containment

Land redevelopment highly unlikely in foreseeable future

Security issues problematic





General trends

Industry concentration

Site closures

Spatial development plans require upgrading of former industrial areas to light industrial/commercial/residential

Paint factories traditionally built in close vicinity of residential areas



Common problems 1

Situation close to residences:

- **Nuisance during redevelopment**
- **Contamination of soil, groundwater, building substance**
- **Employment loss in vicinity of sites**

Unorganized pre-closure phase: loss of

- **documentation (drawings, historic files)**
- **site specific knowledge/information**



Common problems 2

Lack of Company routines

Lack of dedicated staff

**Sometimes hostile environment
(administrative, social)**

Interest divergence inside company

**Need to involve and coordinate external
resources from abroad**



Economic issues

Realize maximum value at minimum expenditures

Real estate valuation: Scenario?

Decommissioning and demolition

Tax issues (VAT deductibility...)

Market knowledge

Investor interests

Valuation of uncertainties

Local constraints

Resource constraints



Legal issues

Uncertainties concerning extent of liabilities

Lack of trust of potential buyers

Difficulties to formulate clear indemnities

**Adequate knowledge and experience of
involved lawyers and other internal experts**



Environmental issues

Difficulties to predict project duration and cost

Surprises during process

Moving targets set by regulators

Difficult decision processes within regulatory body

Difficult decision processes within company

Involvement of Local management, Legal, Corporate management, Financial/ Tax dept, PR dept



Major learning

Many problems were created in the past by inadequate site closure and divestment management

Benefit from central/corporate specialized involvement in remediation planning and negotiation with authorities recognized

Next step is integral site closure management at corporate level



Conclusions

Importance of multidisciplinary involvement, internal and external is crucial

Sale/purchase agreements need careful consideration

Unclear indemnifications and hypothetical scenarios should be avoided.

Time horizons for expiration of seller's obligations should be clearly identified.

Insurance not always attractive.

