



COCOON
Interreg Europe



European Union
European Regional
Development Fund

6th International Exchange of Experiences

**Brownfield redevelopment and Landfills,
Eddy Wille**

Larnaka-Nicosia (Cyprus) 25-26/9/2018

Outline of this presentation

- **Brownfields from historical perspective**
- **Soil remediation : part of the solution**
- **Integration as beter performing solution**
- **Brownfield covenant and landfills**

Brownfield redevelopment

Dealing with the problems of waste and contaminated soil ...



a dynamic job ? !
5/10/18

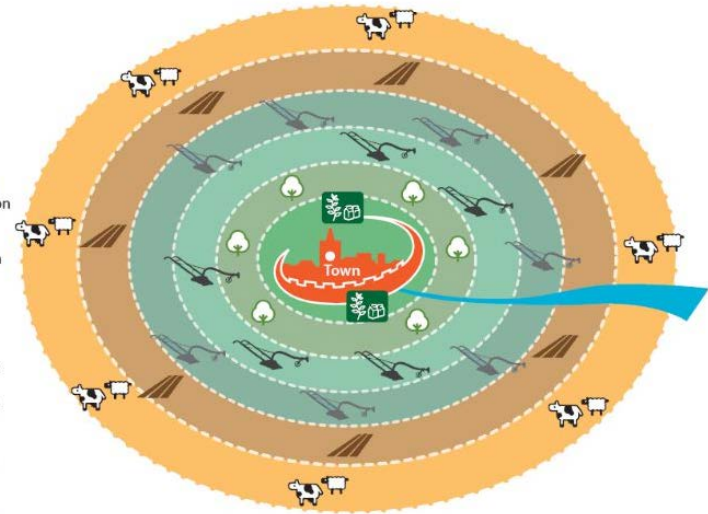


End 18th century: urbanization



"Agropolis"

-  Town
-  Navigable river
-  Market gardening and milk production
-  Firewood and lumber production
-  Crop farming without fallow
-  Crop farming, fallow and pasture
-  Three-field system
-  Livestock farming



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Mid 19th century: industrialization



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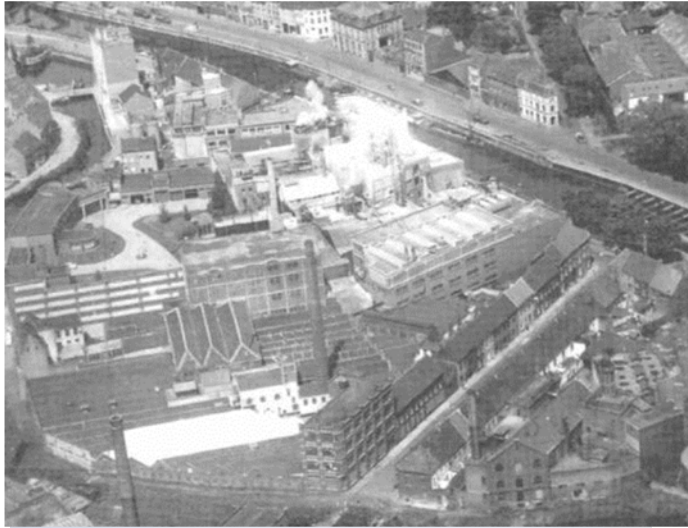
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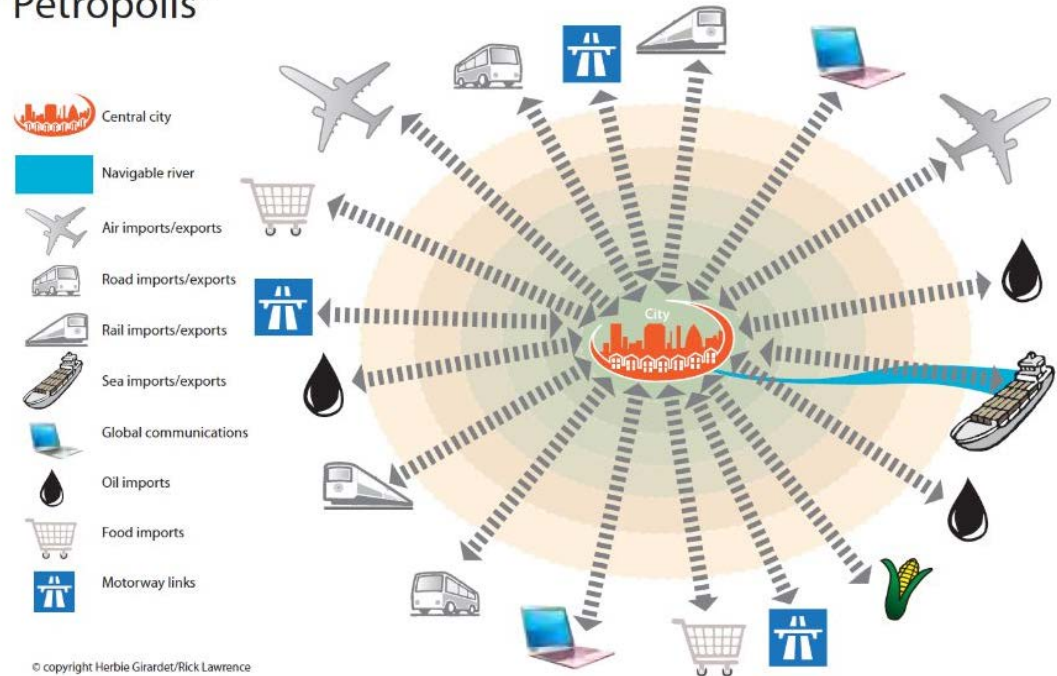
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Mid 20th century: consumer society

"Petropolis"



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1649

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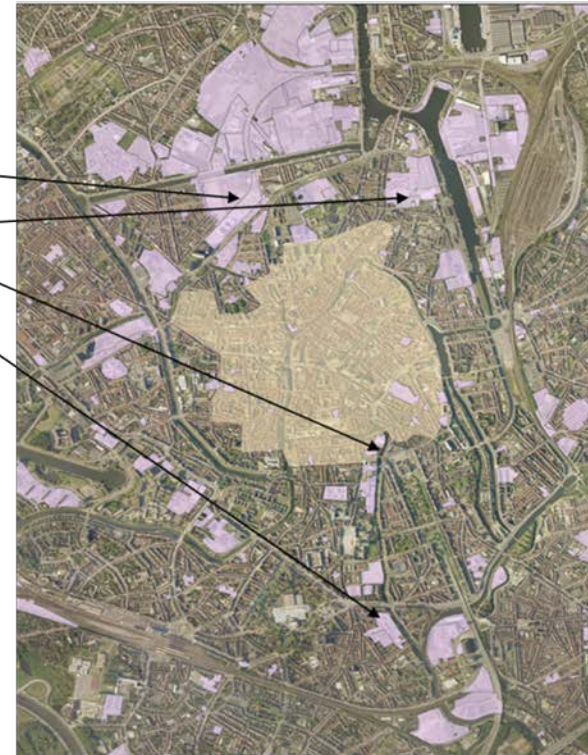
Industrial activities and heritage (Ghent)

Mapping historical activities.

Ferraris map 1776



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Industrial activities are situated nearby the historical city center. E.g. former gasworks are close to the border of the center of 1776 and in the vicinity of waterways. Currently embedded in residential areas.



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Soil remediation

Introduction

Legislation :

- Soil Remediation Act of 22 February 1995
- Soil Act of 27 October 2006

Aims of the Soil remediation Act

- To deal with soil contamination that has taken place in the past, over a period of 40 years, starting in 1996
- To prevent or immediately remedy new soil pollution

USA: RCRA 1976, CERCLA - Superfund 1980

EU : no Soil Directive nor Soil Framework

Brownfieldcovenant Act

March 22, 2007

Definition of brownfield :

A Brownfield is the whole of neglected and underused grounds, which have been affected in a way, that they only can be reused by means of structural measures.

a facilitating framework for the redevelopment of Brownfield sites.

- former **abandoned or under-used industrial** site
- (perceived) soil contamination
- redevelopment is a complex process
- active potential for reuse



Brownfieldcovenant Act

March 22, 2007

Advantages :

- single contact point (Agency for Entrepreneurship)
- negotiator appointed by the Government
- guided participation process
- **integrating multiple governmental permits**
- follow-up and monitoring by steering committee
- tax reduction (10%) at land acquisition
- no financial guarantee on soil remediation
- **covenant : signed agreement**

Results (June 2018) :

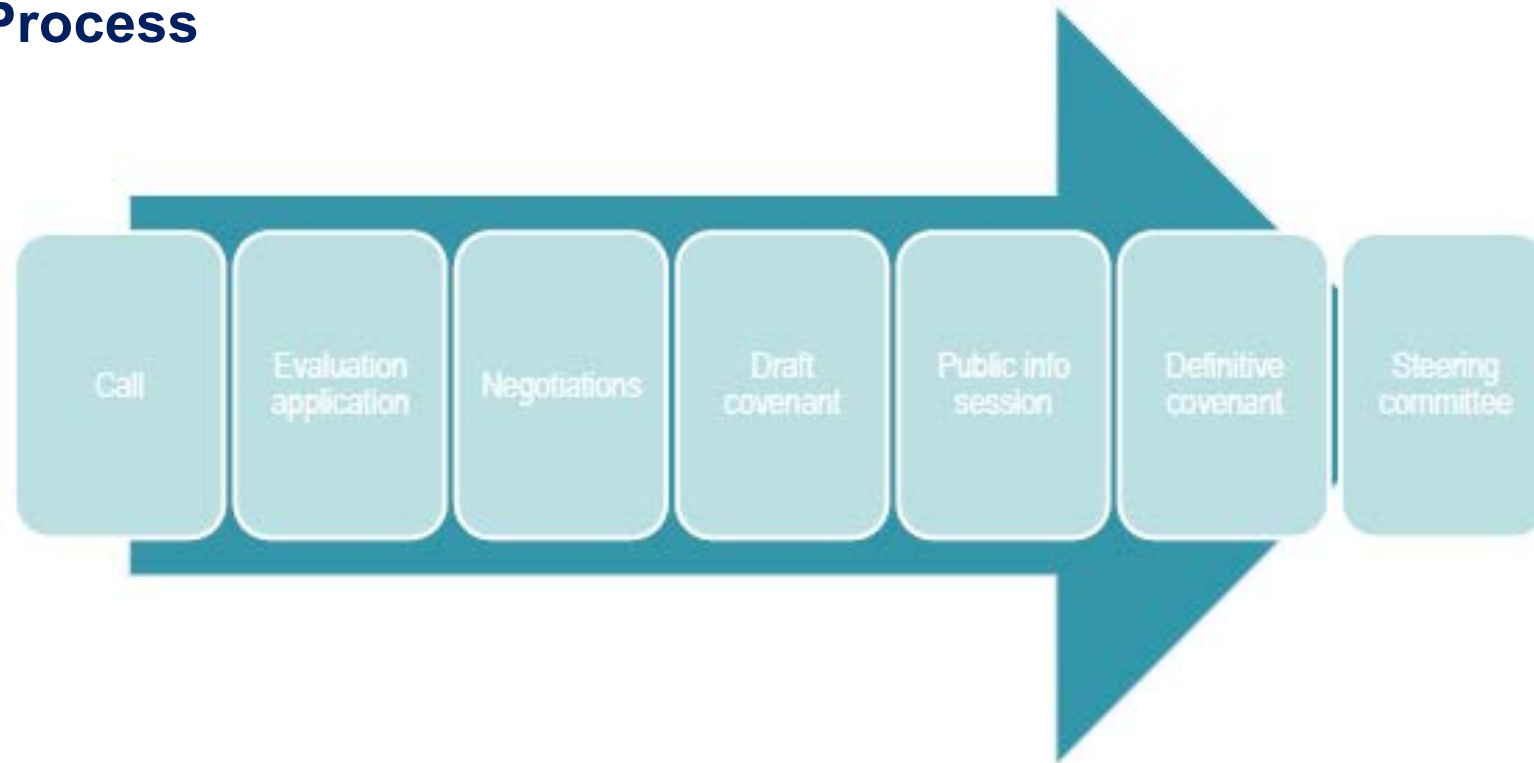
- **8** calls -> 190 proposals introduced
- 82 signed covenants
- 1.500 ha redeveloped



Brownfieldcovenant Act

March 22, 2007

Process



Policy initiatives 2017

7th call on brownfield projects

Specific emphasis on :

- brownfield project includes redevelopment of former landfills;
- landfill is at least 75% of project area;
- take into account : waste volume, surface conditions, environment and policy:
 - ELFM²;
 - valorisation of landfilled waste (WtM, WtE);
 - remediate landfill to sustainable valuable land use;
 - define protection measures;
 - exchange of experiences;

8^{ste} Oproep (8th call)

Decision of Flemish government of 23 December 2016.

19400

BELGISCH STAATSBLAD — 08.03.2018 — MONITEUR BELGE

VLAAMSE OVERHEID

Economie, Wetenschap en Innovatie

[C – 2018/11195]

Agentschap Innoveren en Ondernemen. — Oproep inzake het indienen van een aanvraag tot onderhandelingen omtrent de totstandkoming van een brownfieldconvenant

Specific attention for revitalization/redevelopment of former landfills.

Integrated approach on a site and regional scale (Ghent region)



Brownfieldproject Eiland - Ghent



Former landfill site
Remediation method: containment

Redevelopment opportunities:
- vicinity city centre of Ghent;
- multimodal access;
- motorways E40 and E17;
- Scheldt river, canal Ringvaart;
- connection with harbour of Ghent

Redevelopment as research park
and logistic facilities (35 ha)
combined with new park area (12
ha)

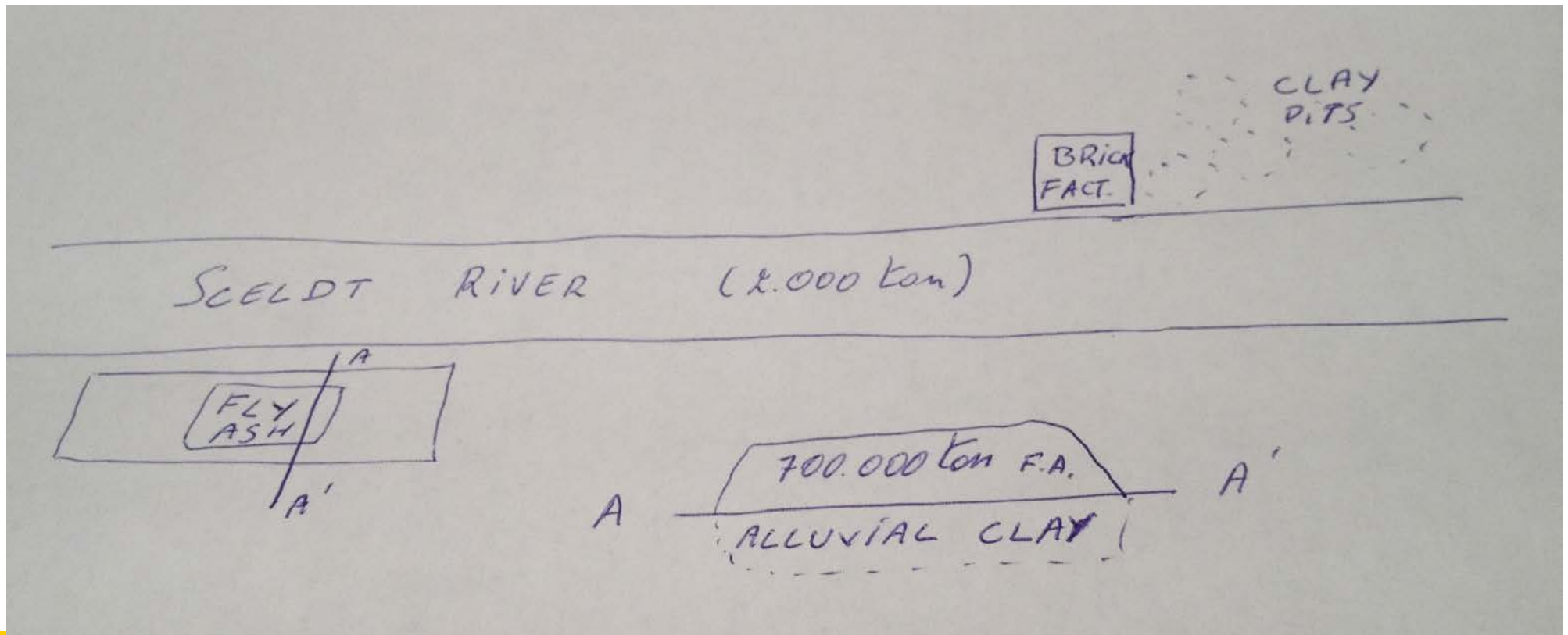


Brownfieldproject Power station

Former electric power plant
Remediation method: containment

Redevelopment opportunities:

- Valorization of fly ash
- Mining clay
- Restoration and redevelopment



5. Remedial actions - portfields

La Floridienne - Harbour of Ghent



5. Remedial actions - portfields

La Floridienne - Harbour of Ghent



5. Remedial actions - portfields

La Floridienne - Harbour of Ghent



Communicatie en brownfields

Aandachtspunten bij de communicatie rond complexe projecten zoals Brownfield herontwikkeling:

- Timing (langdurig proces, interim gebruik)
- Diversiteit van het publiek accepteren (Nimby, Banana, Cave)
- Juiste verwachtingen scheppen (Expectations)
- Onduidelijkheden vermijden (avoid ambiguity / Risk management)
- Complexe zaken niet uit weg gaan maar toch verstaanbaar maken



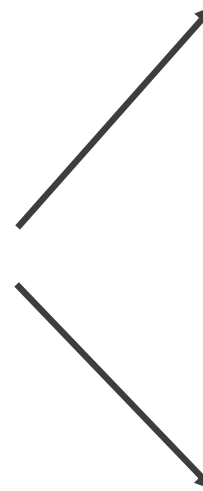
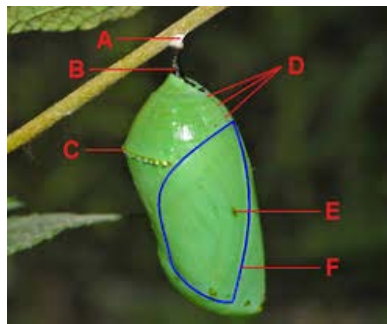
Nimby : Not in my backyard

Banana : Build Absolutely Nothing Anywhere Near Anyone

Cave : Citizens Against Virtually Everything

Communicatie en brownfields

Het herontwikkelingstraject mag niet louter een verhaal zijn van te mooie verwachtingen waarbij een onaantrekkelijke overgangperiode wordt verzwegen.



Thanks for your attention

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