

***Deciding on soil-remediation***

**Approaches and trends**

Arthur de Groof

4 October 2005

***1980s: a strong case for  
multifunctionality***

USA, Austria, Denmark, Flanders r., Walloon r.,  
Netherlands: major incidents of soil pollution

- ⇒ quick decisions with widespread impact  
needed
- ⇒ simple and clear decision-making models,  
ruling out as many risks as possible
  
- ⇒ a strong case for multifunctionality

### ***1990s: revising strategies***

- multifunctionality noble, but costly
- high soil remediation cost deters developers
- perception that soil contamination was frustrating development plans

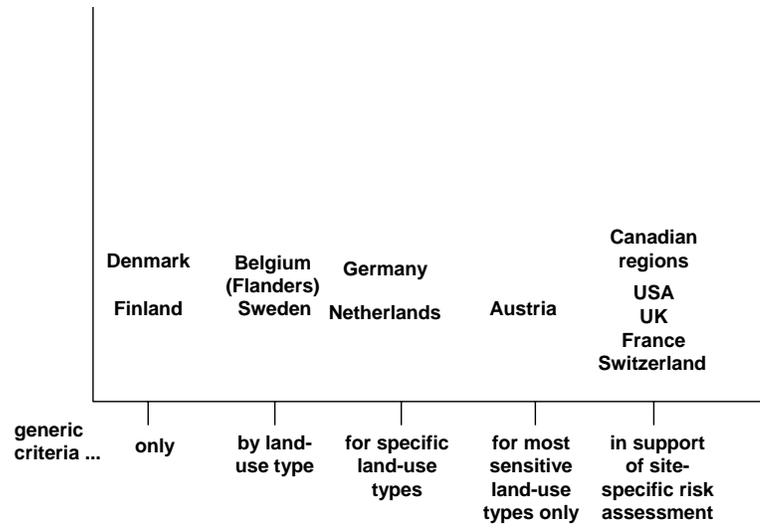
⇒ need to revise strategies

## ***Starting points for decision-making approaches***

- generic criteria
  - + simple, clear and efficient
  - rigid
- site specific risk assessment
  - more complex
  - + more flexible

mix can combine efficiency and flexibility

## One-step approaches



## Two-step approaches

	<b>TWO-STEP APPROACHES: SITE-SPECIFIC RISK ASSESSMENT AFTER A FIRST TEST AGAINST ...</b>				<b>ONE-STEP APPROACHES</b>
	Ireland Spain	Illinois	Italy	Norway	Canadian regions USA UK France Switzerland
generic criteria ...	only	by land-use type	for specific land-use types	for most sensitive land-use types only	in support of site-specific risk assessment

## ***A two-step approach singled out***

State of Illinois (USA):

- 1<sup>st</sup> tier : generic criteria by land-use type
- 2<sup>nd</sup> tier : site-specific criteria

Developer has the choice:

- whether or not to use this tiered approach
- which of the tier(s) to apply

## ***Issues for the future (1)***

More site-specific risk assessment leads to:

(1) a broader range of remediation options

⇒ more complex

⇒ more consultancy

## ***Issues for the future (2)***

More site-specific risk assessment leads to:

(2) more sites with contamination left behind

⇒ more sites to be monitored and  
more sites to be registered

### ***Issues for the future (3)***

More site-specific risk assessment leads to:

(3) lower expected remediation cost

⇒ lower direct financial risk, but  
higher liability risk

⇒ higher acceptance by the general public

### ***Meeting increasing pressure for Brownfield development***

- measures reducing costs and risks for developers
- public and private sector partnerships
- creative solutions:
  - technological
  - administrative
  - financial
  - judicial

⇒ always with site-specific elements

## ***Tips and tricks***

Setting up or revising a decision-making process:

- think about ratio generic / site specific
  - always include site-specific elements
- think about one, two or more step approach
  - clear-cut or more flexible?
  - simple or complex?
  - cost- or risk based?
  - can contamination be left behind?
  - what does the public favour most?