



Ministry of Infrastructure and the  
Environment

# Vision and policy on soil and groundwater quality

Co Molenaar

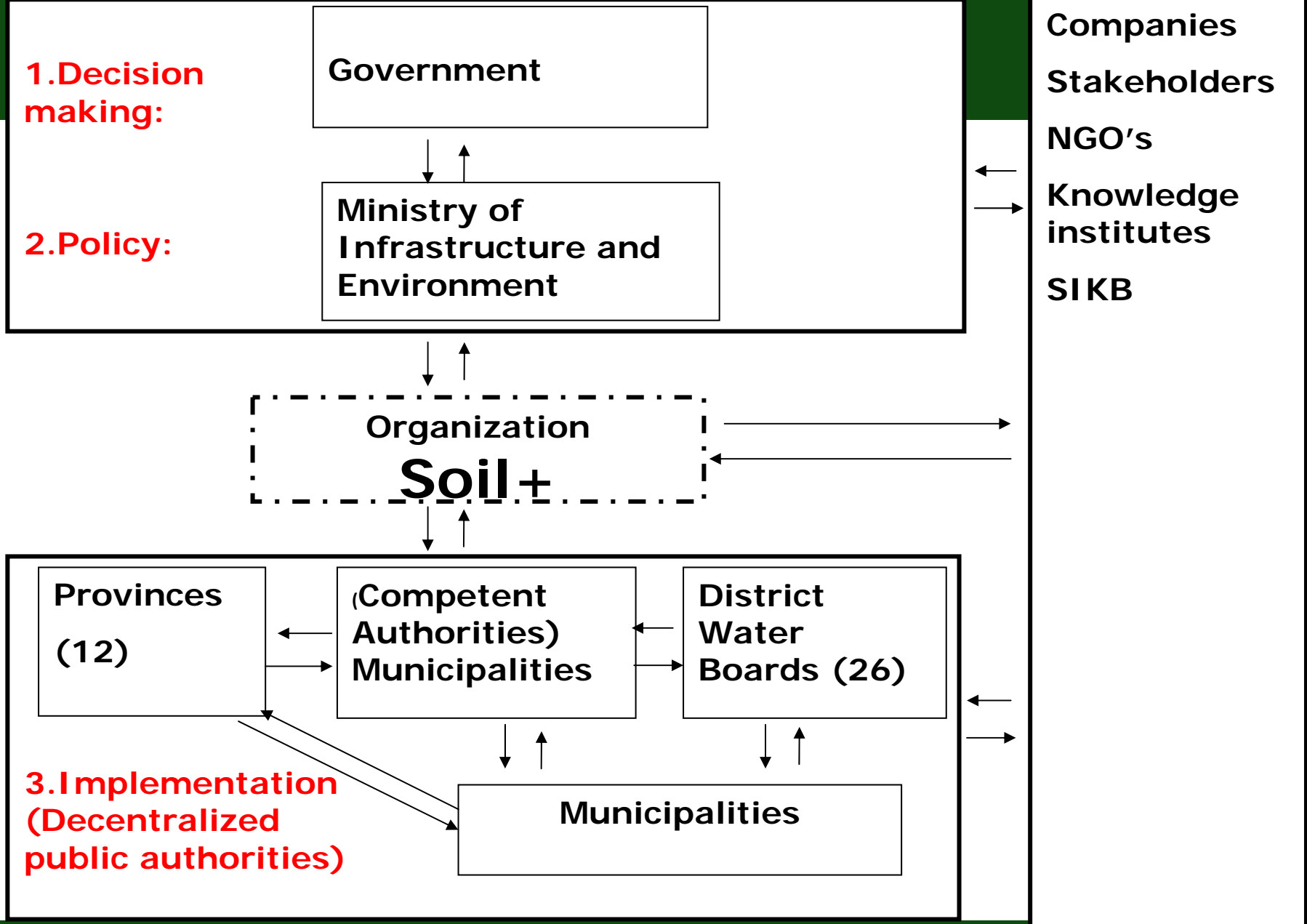
Senior policy advisor Soil and  
Groundwater

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## The menu:

- **Organizations soil policy Netherlands**
- **Soil management policy goals**
- **Instrumentation: Soil quality decree**
  - **Objectives**
  - **Basic principles**
  - **Tasks for local competent authorities**
  - **Monitoring**
- **Lessons learned**





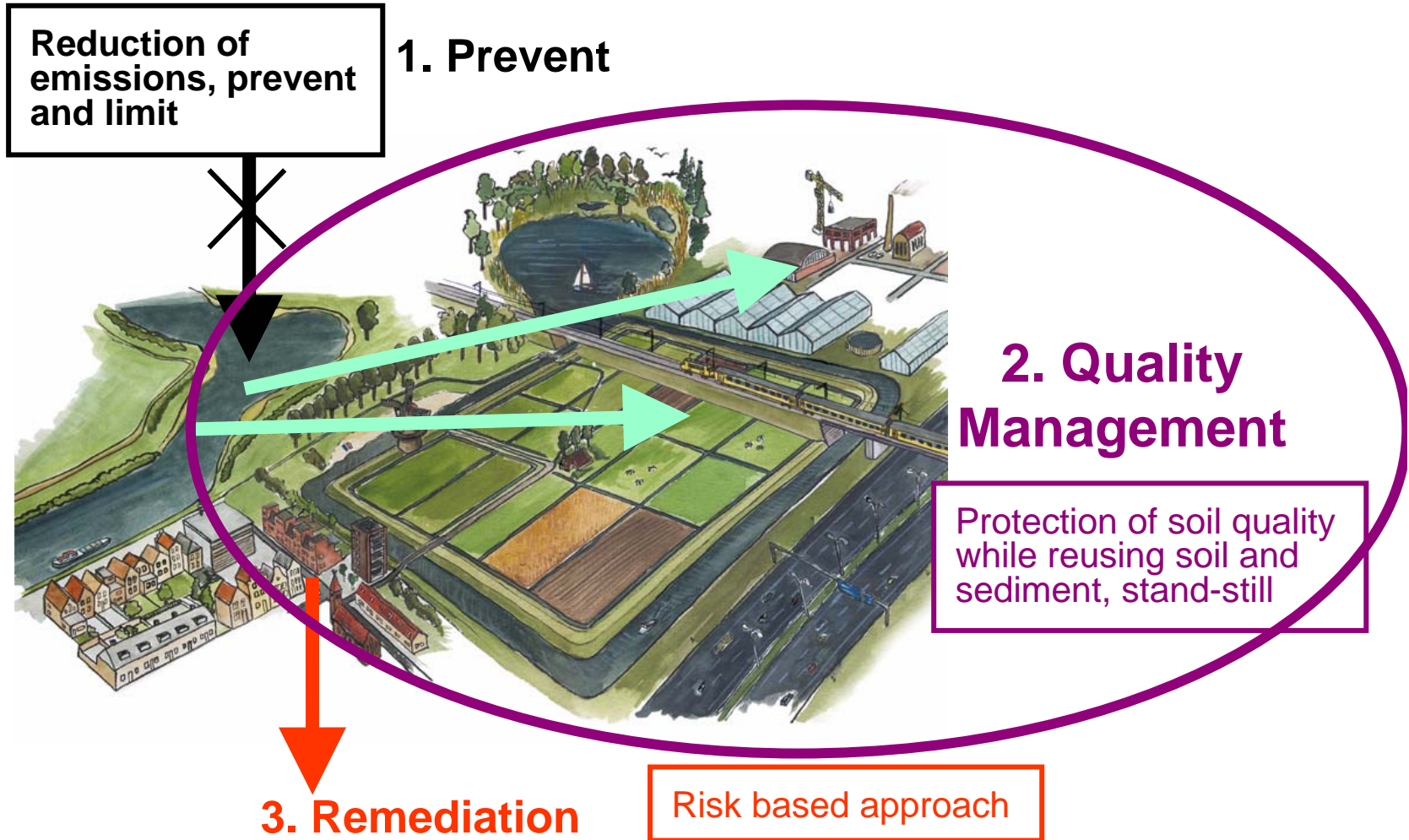
# Soil management policy goals

1. **Increased** and responsible **reuse** of soil and sediment, and reduced use of primary materials
2. **Protection** of the soil, with a realistic risk approach and by maintaining the standstill principle
3. **Improved implementation** of the soil legislation, including solving practical bottlenecks and simplification
4. **Reduced costs** for parties operating on the soil market
5. **Improved enforceability**

Choice: local authorities are part of legislative process

## Facilitation instead of restriction

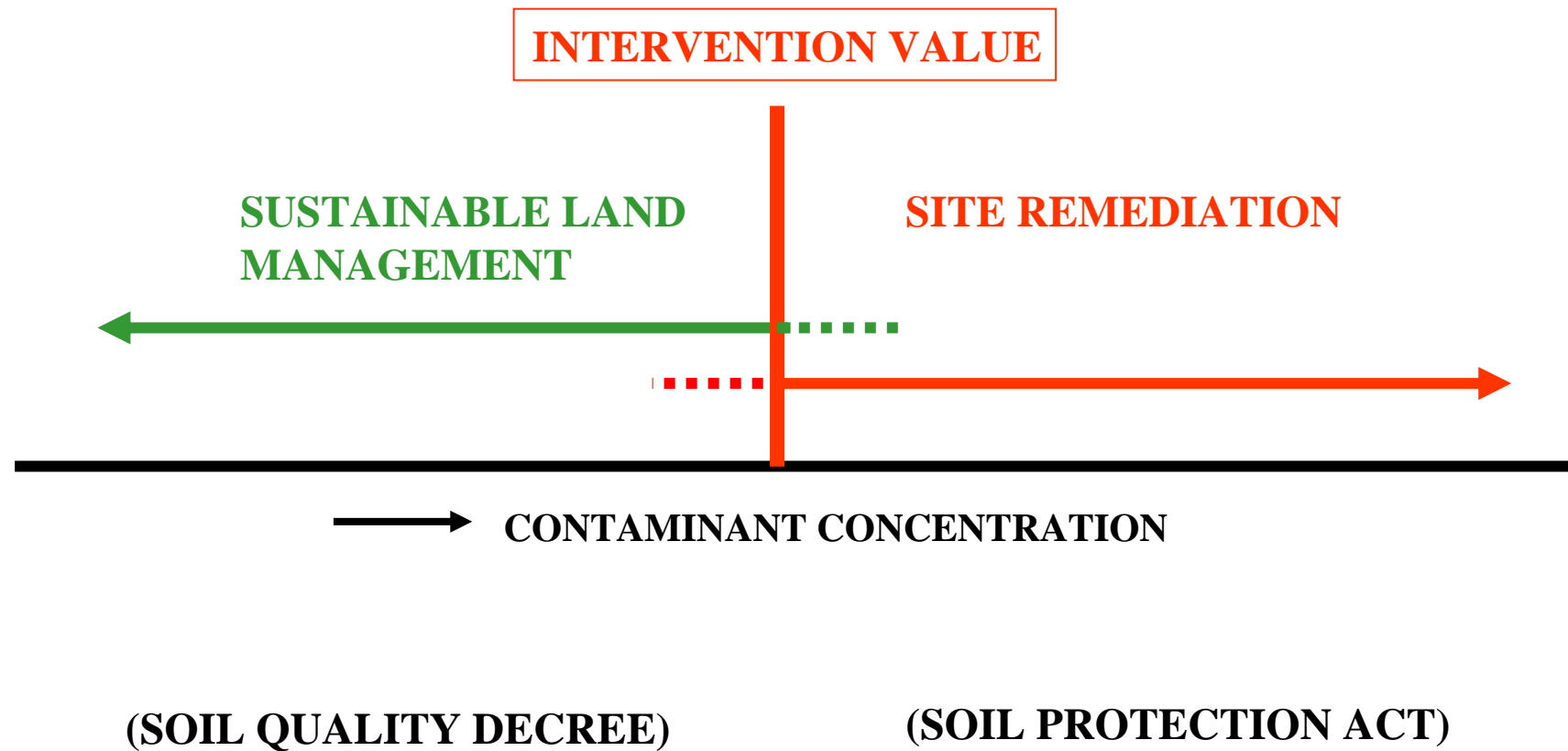
# Dutch soil policy



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# THE DUTCH SYSTEM FOR SUSTAINABLE LANDMANAGEMENT AND SITE REMEDIATION





# Soil quality decree - objectives

1. Sustainable reuse of soil, sediment and building materials in order to limit the use of primary materials
2. Soil protection (incl. exposure human)
3. Fewer impediments for developments
4. Fewer administrative costs
5. Improve environmental enforcement
6. Improve quality of contractors, consultants, laboratories, etc.
7. Simplified legislation



## **Soil Quality Decree – basic principles**

- 1. Useful application under general rules**
- 2. Fit for use**
- 3. Stand still (like to like)**
- 4. National or local soil policy**
- 5. Liability aspects**
- 6. Traceability and registration**





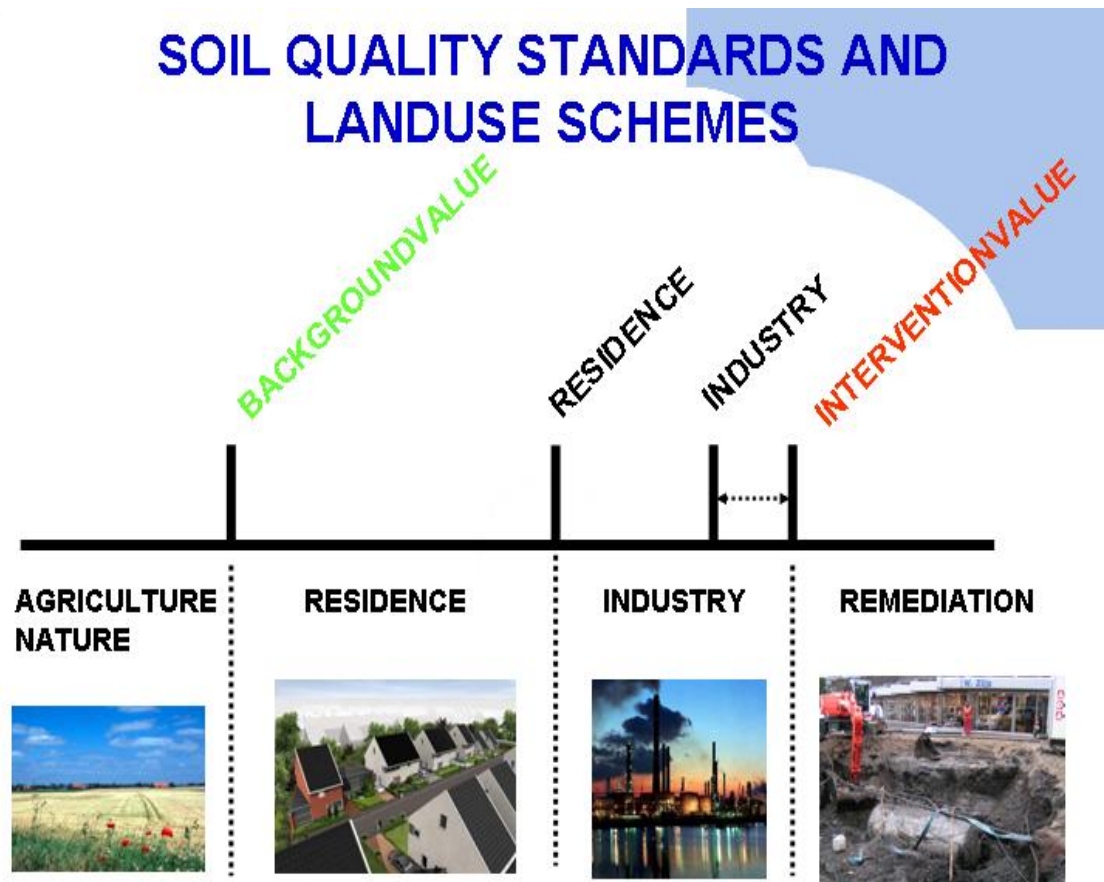
## 1. Useful application

- Construction works (dikes, roads, sound barriers, railroads)
- Elevation of agricultural, residential or industrial areas in order to improve soil and water system “characteristics”
- Application on contaminated sites to manage risks on the site
  
- Shallow former sand mining sites in order to improve water quality and nature development
- Restore sediments in the aquatic system
- Application of sediments on landside



## 2. Fit for use

- **Background values**
  - ❖ Measured
- **Other values based on (modelled) risks for:**
  - ❖ Ecology
  - ❖ Human
  - ❖ Agriculture





## 3. Stand-still

SOIL QUALITY



INDUSTRY

YES



SOIL QUALITY AT APPLICATION SITE



INDUSTRY



INDUSTRY

NO



RESIDENCE



NATURE

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# BASIC PRINCIPLES



## 3. Stand-still

SOIL QUALITY



RESIDENCE

YES



SOIL QUALITY AT APPLICATION SITE



RESIDENCE



INDUSTRY



RESIDENCE

NO



NATURE



# BASIC PRINCIPLES

## 3. Stand-still



SOIL QUALITY



CLEAN



CLEAN



SOIL QUALITY AT APPLICATION SITE



YES (NOT PREFERRED)



YES



YES (PREFERRED)

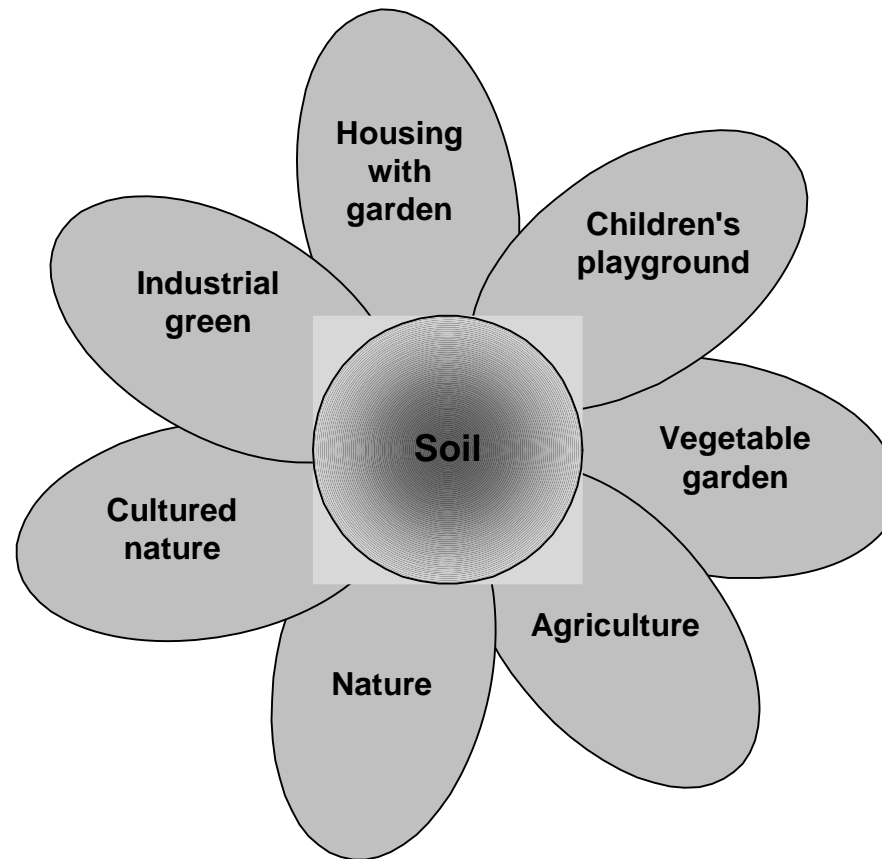


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## 4. National - local policy

# Soil use functions in relation to quality





## 5. Liability aspects

- **Owner of excavated soil**
  - **Proper handling on location**
  - **Quality testing and assurance**
- **Owner of reuse site**
  - **Acceptance**
  - **Transfer of liability from excavator to owner reuse location after application**



## 6. Traceability and registration (1)

- **Private persons: no registration**
- **< 50 m<sup>3</sup>: no registration**
- **Every single batch of soil needs to be reported to a national register**
- **The national register informs the competent authority and the national environmental guard.**



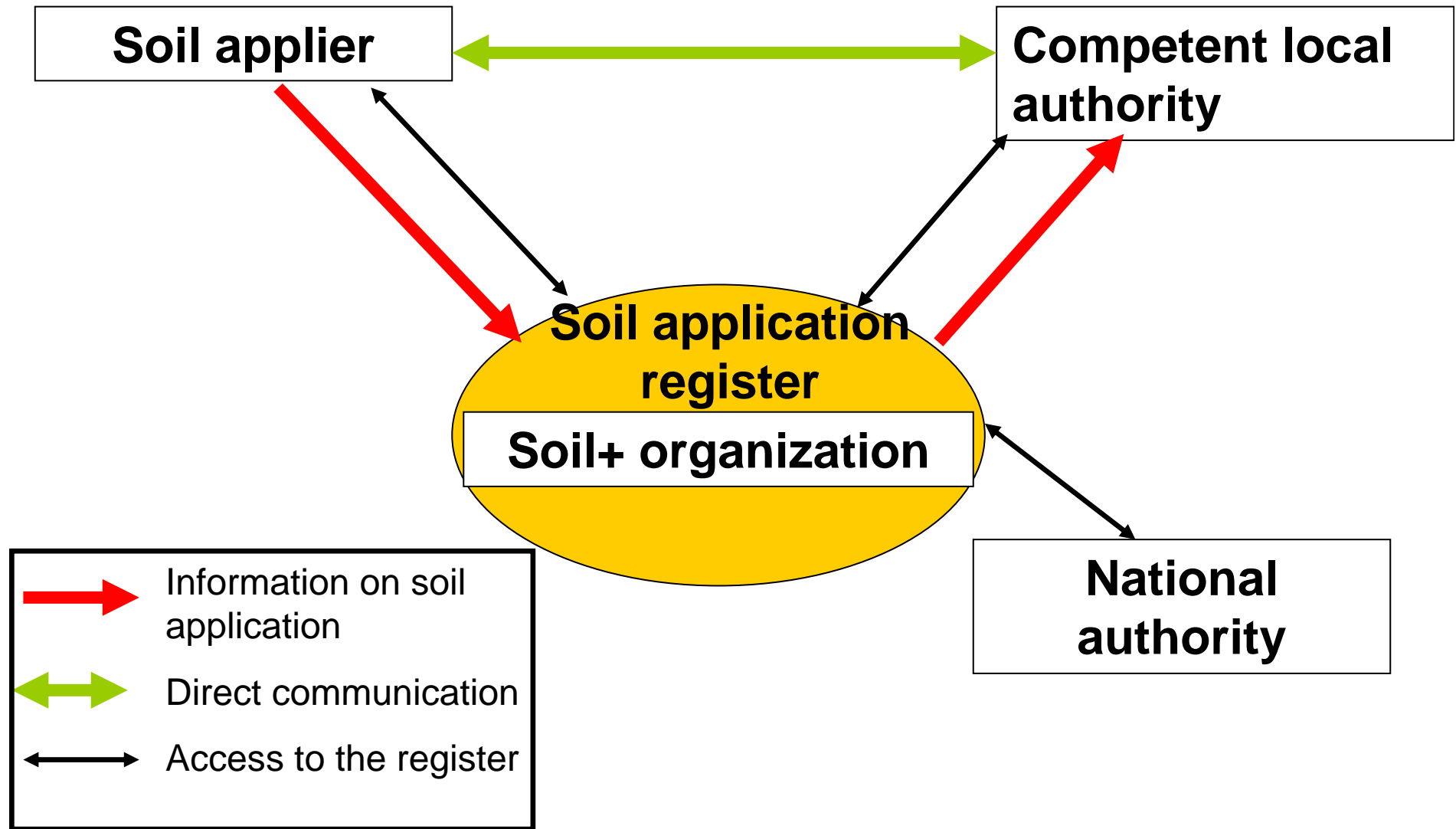


## 6. Register - Information (2)

- **Ownership**
- **Excavation site**
- **Application site**
- **Quantity**
- **Soil quality**
- **Site investigation report**

# Basic principle

## 6. Register (3)





## **Task competent local authorities**

- **Implement local soil management policy (national or local soil standards)**
- **Spatial planning (creating smart useful applications)**
- **Administration and acceptance of soil reuse and application of stony building materials**
- **Environmental enforcement (incl. field inspection)**



## Monitoring

- **Monitoring continuously: annual report**
- **Guided implementation is successful:**
  - **Enhanced stakeholder knowledge**
  - **Local authorities assume responsible by developing Soil management plans**
  - **National helpdesk is helpful in putting policy into practice**
  - **Environmental enforcement is essential**
  - **Create a level playing field**



## Lessons learned (1)

- ❖ **Sustainable soil management:**  
finding the proper balance between:
  - **land management and remediation**
  - **soil protection and reuse of soil and sediment**
  - **centralised and decentralised operation**
- ❖ **Hardly any discussion about standards**
- ❖ **Public-private cooperation (trust)**



## Lessons learned (2)

- ❖ **Sufficient room for local tailor-made solutions**
- ❖ **Soil banks are instruments to reach the policy goals**
- ❖ **Guided implementation is proven to be successful in reaching the policy goals**



**Further info:**

[www.nsp-soil.nl](http://www.nsp-soil.nl)

**or**

[www.cgtoronto.org](http://www.cgtoronto.org)