

# The Swedish EPA

## Contaminated sites

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ICCL

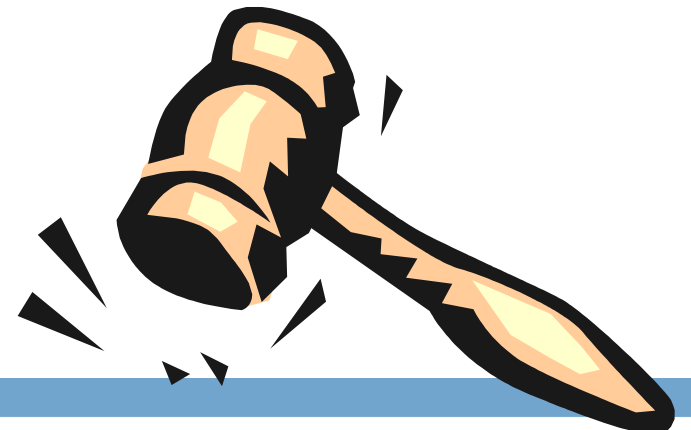
Paris 29 september 2005



## 4. Environmental Quality Objective: A Non-Toxic Environment

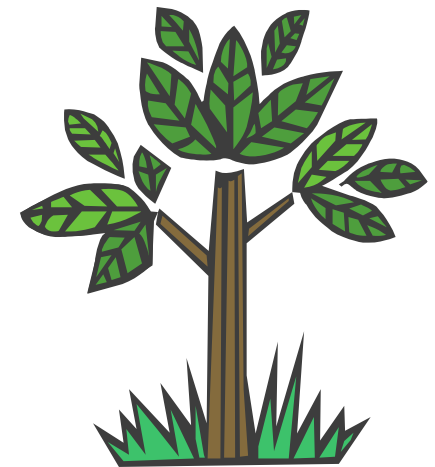
”The environment must be free from man-made or extracted compounds and metals that represent a threat to human health or biological diversity.”

This objective is intended to be achieved within one generation (2000-2030).



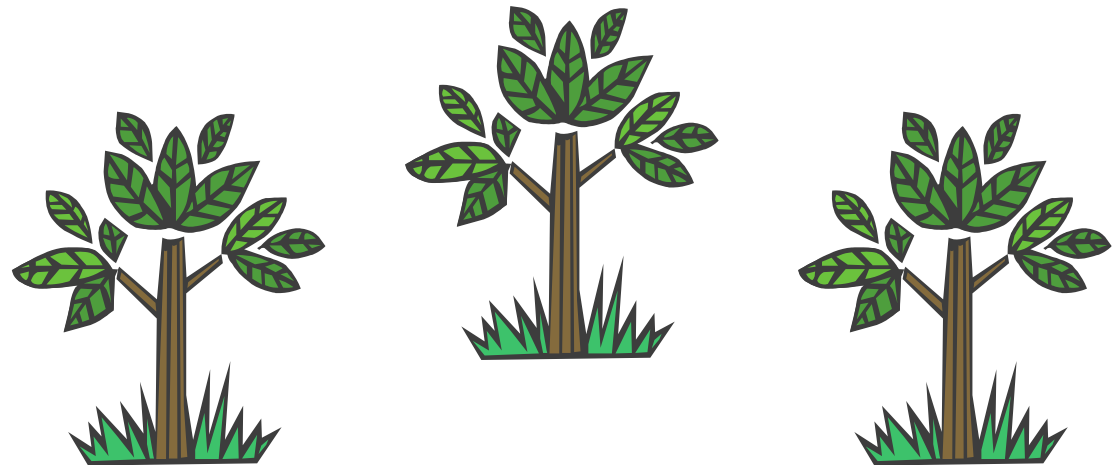
## 6. Interim Target – Contaminated Areas

“All polluted areas that are considered an acute risk through direct exposure and such polluted areas that today or within a near future threatens important water resources or valuable natural habitats will be investigated and if needed remediated by the end of 2010.”



## 7. Interim Target – Contaminated Areas

“Remediation measures will be undertaken to such an extent during the period 2005-2010 that the main environmental problem can be solved at the latest 2050.”



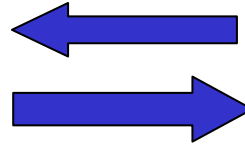
# Organisation

## Swedish EPA

Guidelines  
International work  
Management of state fund  
for remediation;  
- distribution  
- follow ups and reports

## Regional councils (21)

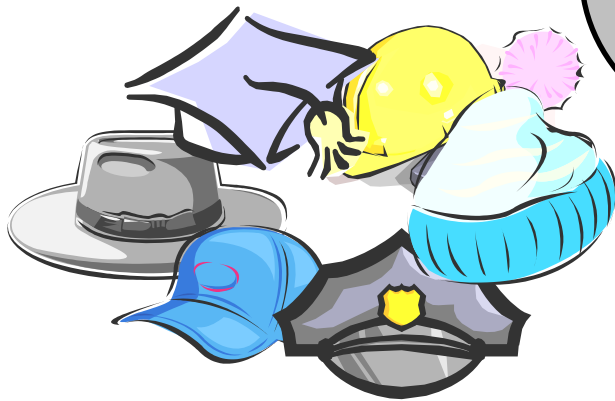
Responsible for supervision  
Managing licenses  
MIFO-investigations  
Regional prioritization  
Enforcement of measures



SGU, SGI  
ITM

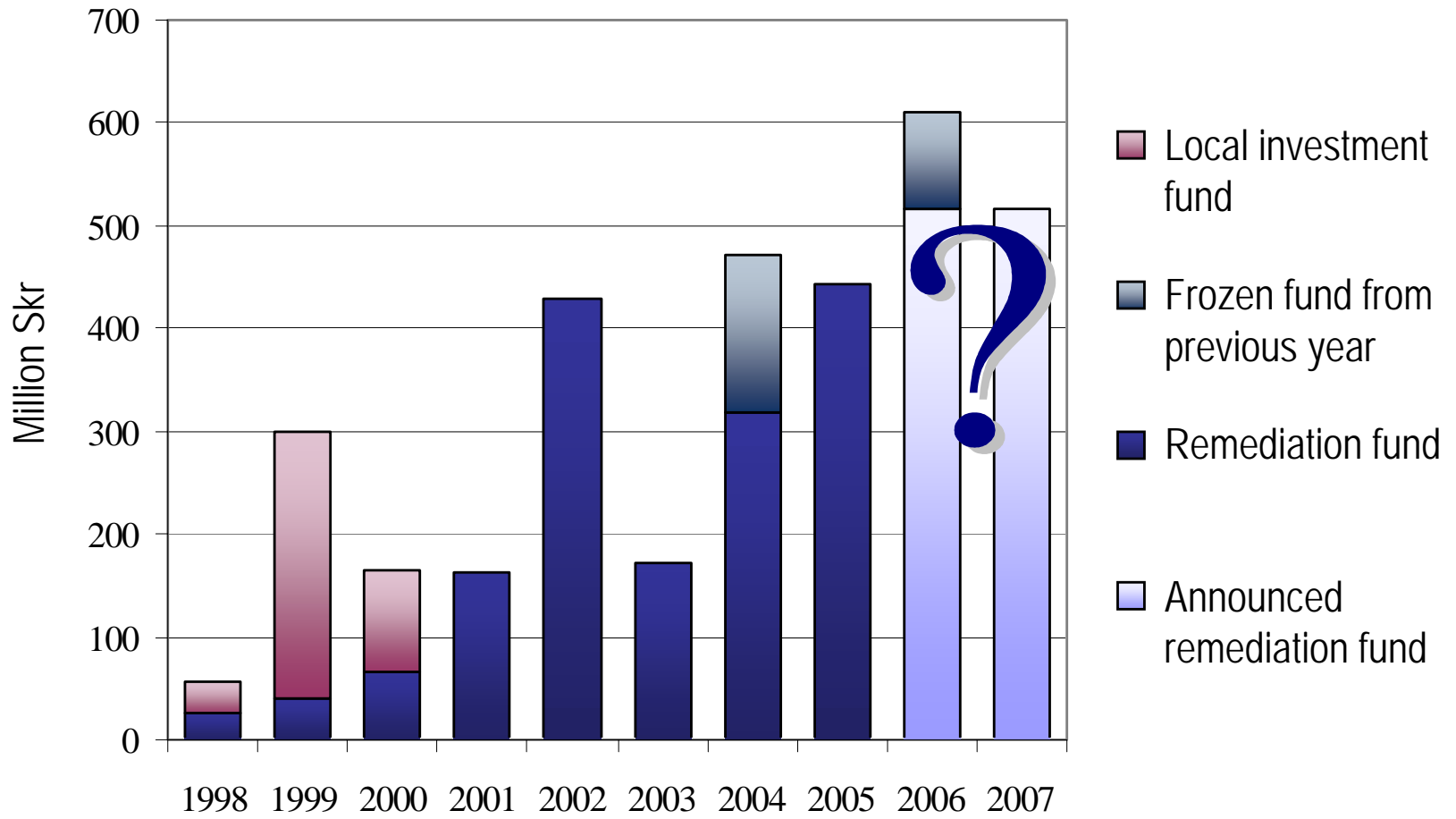
## Municipalities (289)

Responsible for supervision  
Participate in inventories  
Main responsibility for  
remediation by state funding



# State Funding

(1 Euro = 9,3 Skr)



# Responsibility – State Funding

★ **No responsible party**



*State funding*

★ **Limited responsibility**



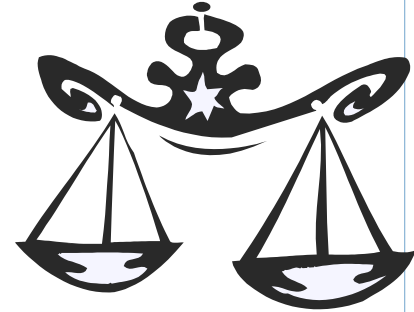
*State funding* +  
Negotiation/judgement

★ **Responsible party**



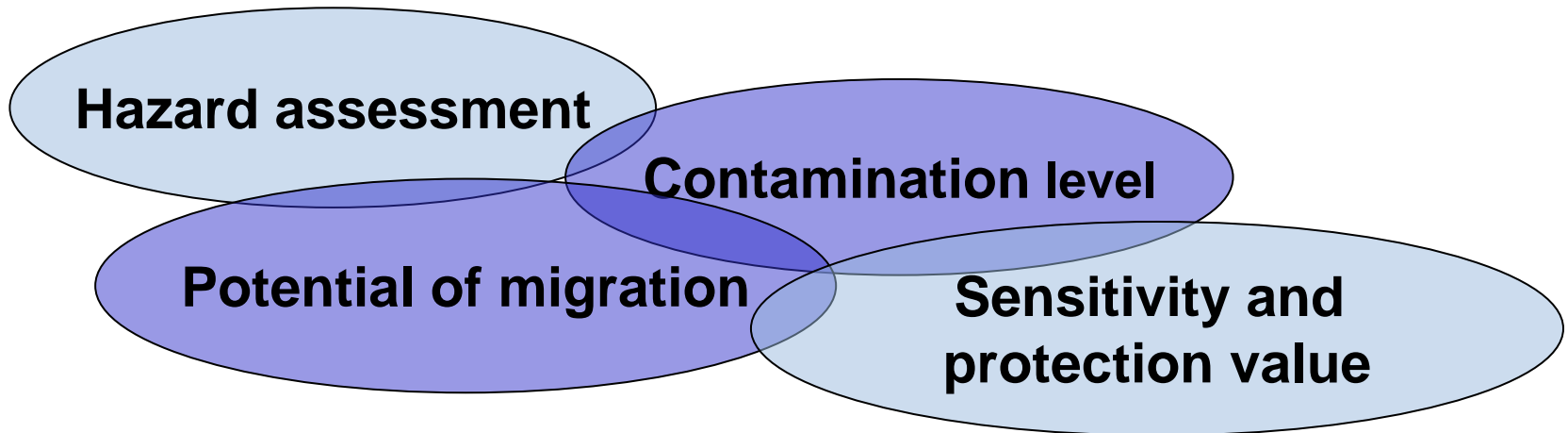
Environmental code or  
voluntarily agreements

## § Assessment of Reasonability



- ▶ **Time since the contamination occurred**
  - Responsibility decrease with time
  
- ▶ **Were the responsibilities accomplished at that time?**
  - Are there any permissions? Have they been followed? Was this the common practice?
  
- ▶ **Are there several operators involved?**
  - What is the contribution to the contamination from each liable party?

# Method for Inventories and Risk Classification of Contaminated Sites (MIFO)



***Class 1 : Very large risk for humans and environment***

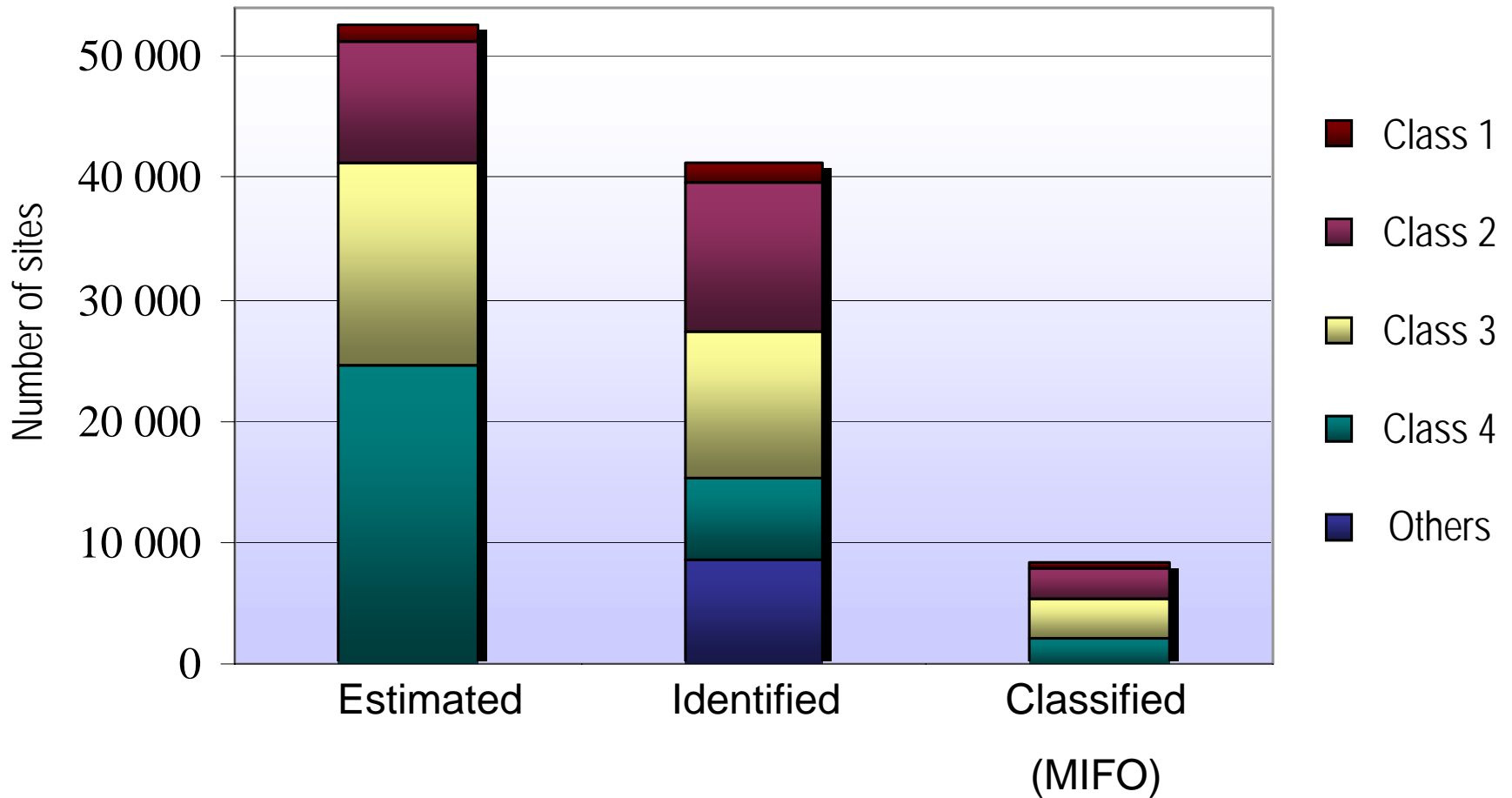
***Class 2 : Large risk***

***Class 3 : Reasonable risk***

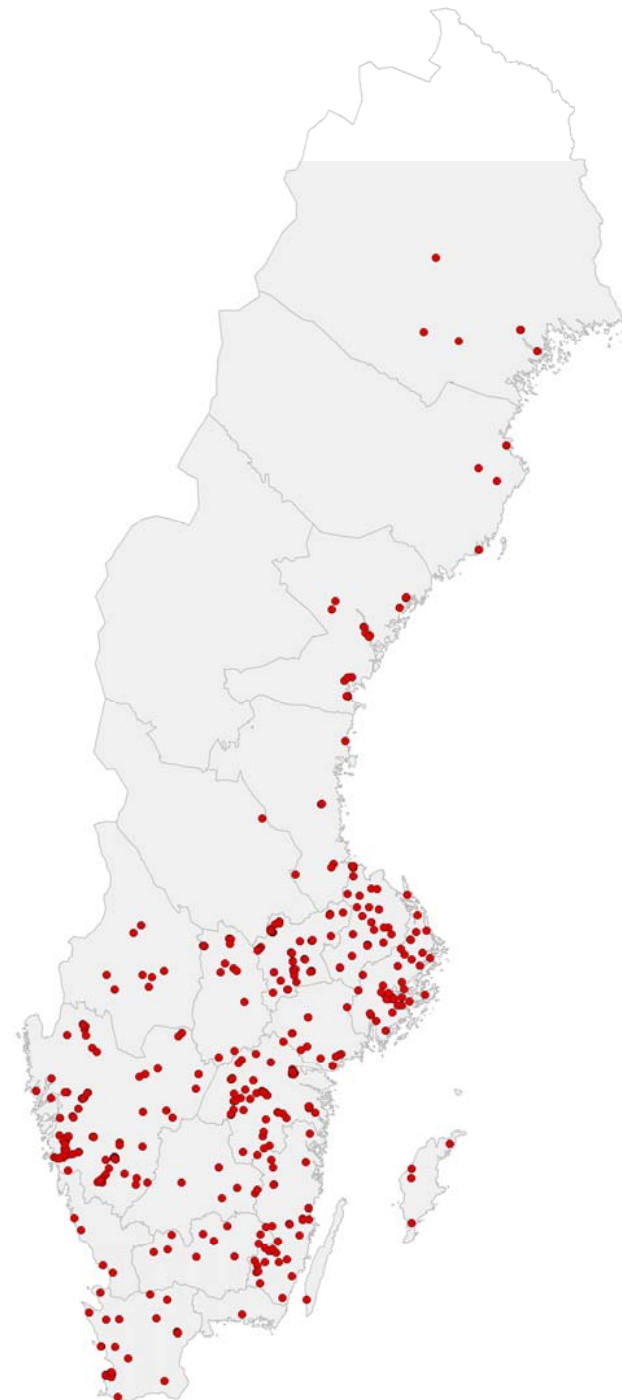
***Class 4 : Small risk***

***Class 1 and 2 are given priority for further investigations  
by state funding if no liable party can be found***

# Key Figures for Identification and Classification



# Reported Class 1 Sites Year 2004



# Definitions of Risk and Remediation Terms

## Risk assessment

Scientific assessment of health, and environmental risks.  
Simplified or deeper studies.

## Risk evaluation

Evaluation of risks versus measures and costs

## Goals for remediation

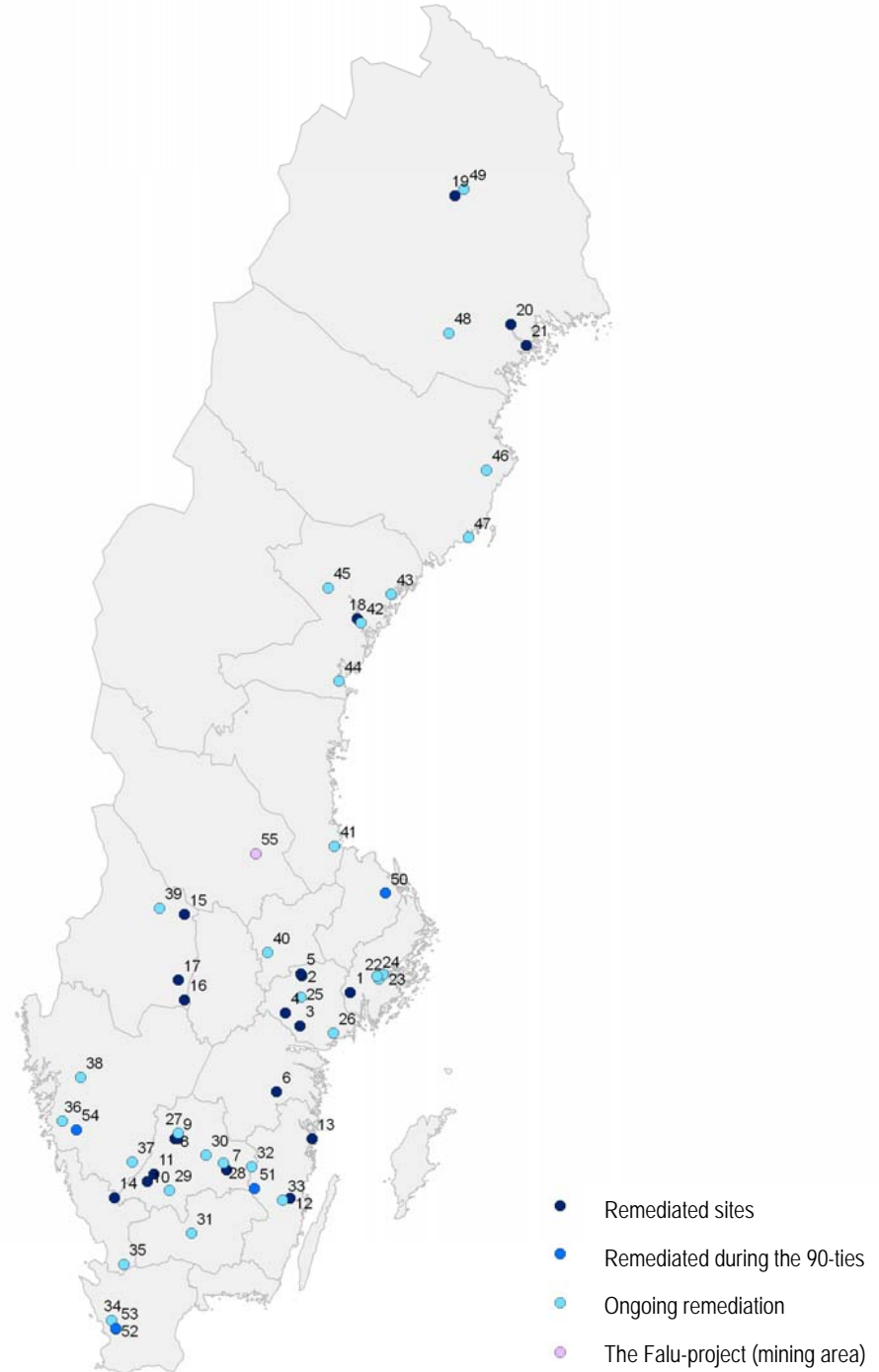
Which risk reduction by which measure?  
Comprehensive and measurable

## Remediation targets

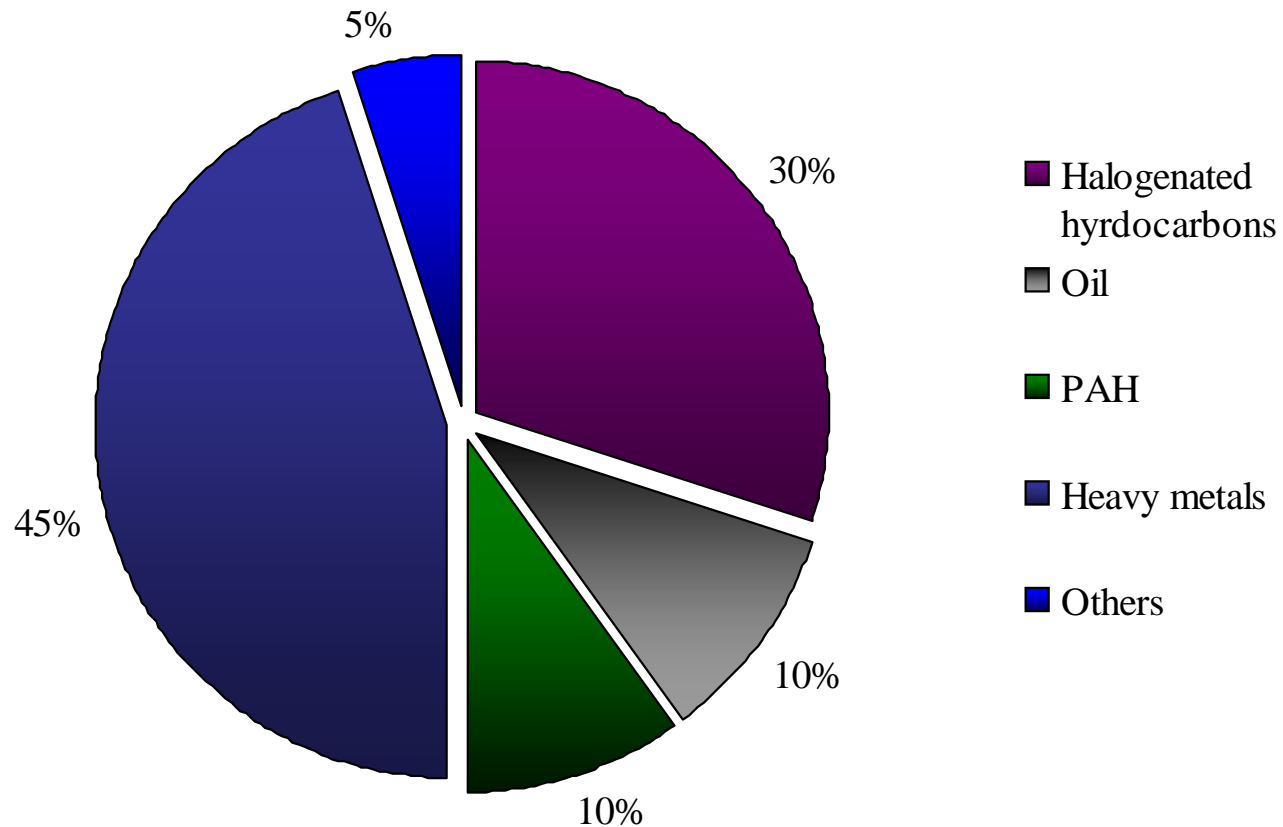
Specification of goals for remediation  
measurable, calculable, time scheduled



# Ongoing and Remediated Sites by State Funding Period 1995-2004

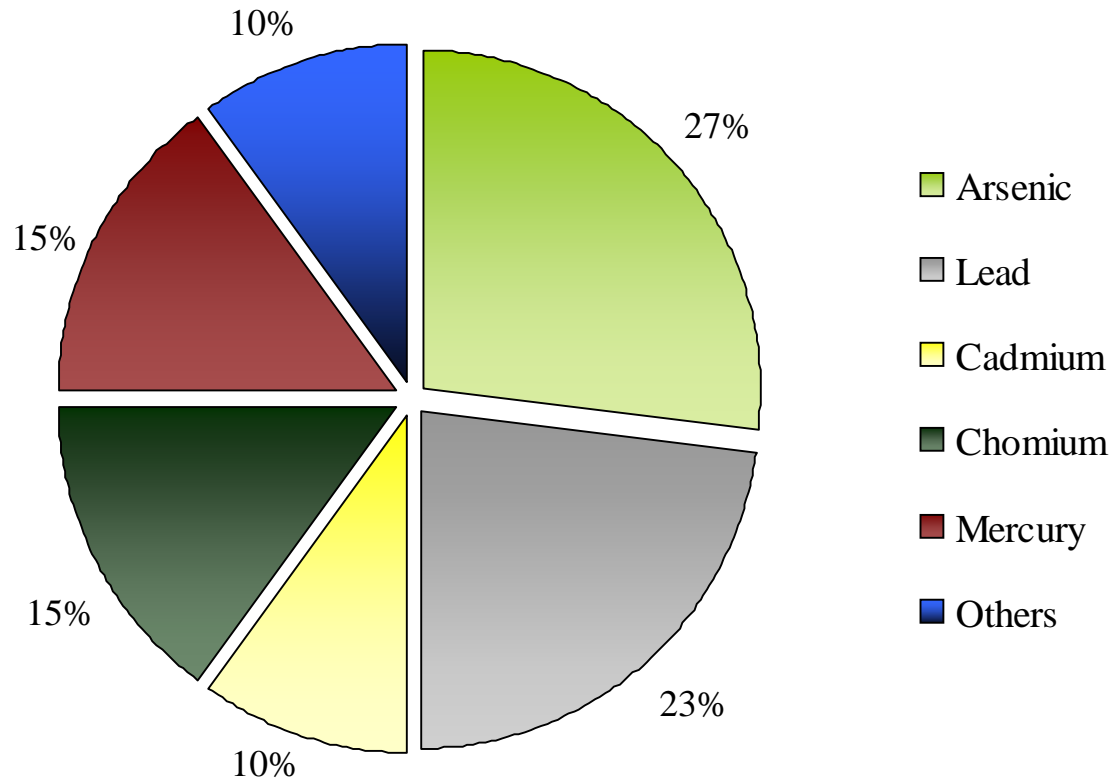


# Common contaminants



**Distribution of the most common contaminants at the regional councils lists of prioritized sites**

# Common metals



**Distribution of the most common metals at the regional councils lists of prioritized sites**



## More Information

- [www.naturvardsverket.se](http://www.naturvardsverket.se)
- [www.miljomal.nu](http://www.miljomal.nu)

***Thank you!***