

# CONTAMINATED SITES IN SLOVAKIA – PRESENT STATE AND PERSPECTIVE

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# SOER 2015 — The European environment — state and outlook 2015

On the basis of non-harmonised national inventories, local soil contamination in the EEA-33 plus the 6 cooperating countries has recently been estimated at 2.5 million potentially contaminated sites. About one third of an estimated total of 342 000 contaminated sites have already been identified and about 15% (58 300 sites) of these have been remediated. However, there are substantial differences in underlying definitions and interpretations in different countries.



# Expenditure

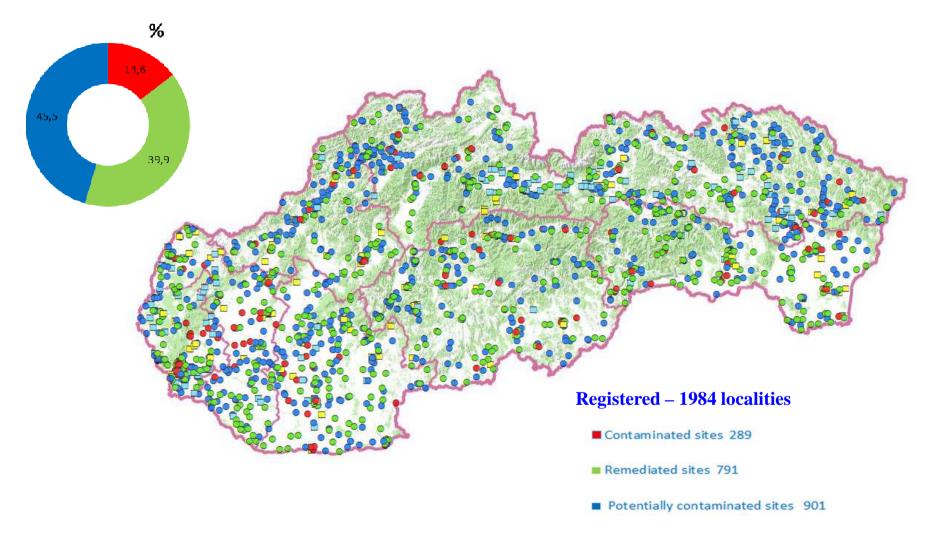
- In the countries surveyed, on average 42 % of total expenditure is derived from public budgets, ranging from 90% in Estonia down to a minimum of about 25 % in Belgium (Flanders). The 2006 assessment reported a smaller share for public expenditure at 35 % (Slovakia: about 50 % in 2006, 71% at present).
- Annual national expenditure for the management of Contaminated Sites are on average about 11 EUR per capita, ranging from approximately 2 EUR in Serbia to more than 30 EUR in Estonia (Slovakia: 6,6 EUR per capita).
- This corresponds to an average of 0.04 % of national GDP. Compared to 2006, average national expenditure for the management of contaminated sites decreased (EUR 12 per capita; 0.07 % of national GDP) (Slovakia: 0,042 % of national GDP in 2015).

# Progress in management of contaminated sites (CSI 015/LSI 003) - Assessment published May 2014

- On average, 81 % of the annual national expenditures for the management of contaminated sites is spent on remediation measures, while only 15 % is spent on site investigations (Slovakia: 12,68 %).
- Costs for site investigations generally fall in the range of EUR 5 000-50 000 (60 % of reported cases) (Slovakia: 25 000 – 450 000 EUR). Investigations that cost more than EUR 5 million are only found in Italy and Switzerland.
- Costs for remediation projects usually fall in the range EUR 50 000-500 000 (40 % of the reported cases) (Slovakia: 30 000 – 50 mil. EUR). Small remediation projects costing less than EUR 5 000 and extremely large remediation projects costing more than EUR 5 million are rarely reported.



# **Contaminated Sites in Slovakia**



## **State Programme of Contaminated Sites Remediation**

- **Represents the basic strategic document for contaminated sites issue**
- The 1st State Programme of Contaminated Sites Remediation (2010 2015) was approved by the Slovak government in March 2010
- Report on implementation of the 1st State program of CSR was approved in May 2016
- > The Supreme Audit Office has checked its implementation since July 2016
- The 2nd State Programme of CSR (2016 2021) was approved in January 2016
  - > It contains a list of priority sites

# Financing

- **\*** State budget
- Environmental fund
  - > Mainly sites that require urgent solutions
- European funds
  - Operational Programme Environment (2007 2013)
    - > Allocation was 118 mil. EUR
  - Operational Programme Quality of the Environment (2014 2020)
    - Allocation about 180 mil. EUR
- Private sector
  - Under the privatization contracts, voluntary activities, or based on the "polluter pay principle"





# Žiar nad Hronom





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# Žiar nad Hronom





# **Activities of the Ministry of the Environment**

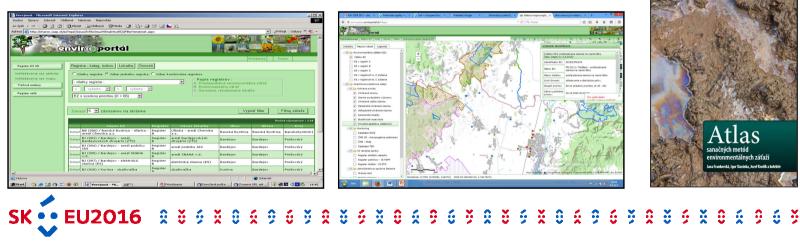


- Systematic inventory of contaminated sites in Slovakia (2006 2008)
- Information System of Contaminated Sites (2008 2010)
- The Operational Programme Environment 2007-2013 has been implemented
- New legislation on contaminated sites was approved amd implemented (2009, 2011)
- > New methodical manuals were adopted (2012, 2015)
- Public information campaign was carried out (paper publications, leaflets, movies, articles, trainings, wortshops, conferences, school competitions)
- Priorities for the new Operational Programme (2014 2020) were proposed



## **Projects focused on contaminated sites**

- Regional studies of the environmental impacts of contaminated sites in selected regions (2008 2010)
- Atlas of remediation technologies for contaminated sites (2010 2011)
- Upgrade of the Information system of contaminated sites (2010 2014)
- Education and public awareness as a support in contaminated sites remediation in SR (2012 2015)



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## **Success stories**

- Investigation of contaminated sites (54 localities)
- Potencially contaminated sites investigation in selected localities (87 localities)
- Monitoring of contaminated sites (161 localities)
- Remediation of contaminated sites (19 localities)

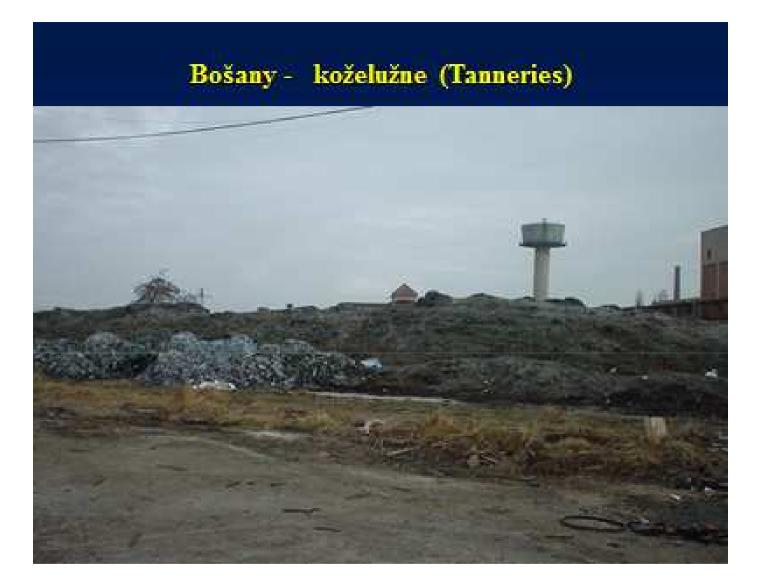




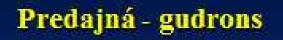
## Investigation of contaminated sites







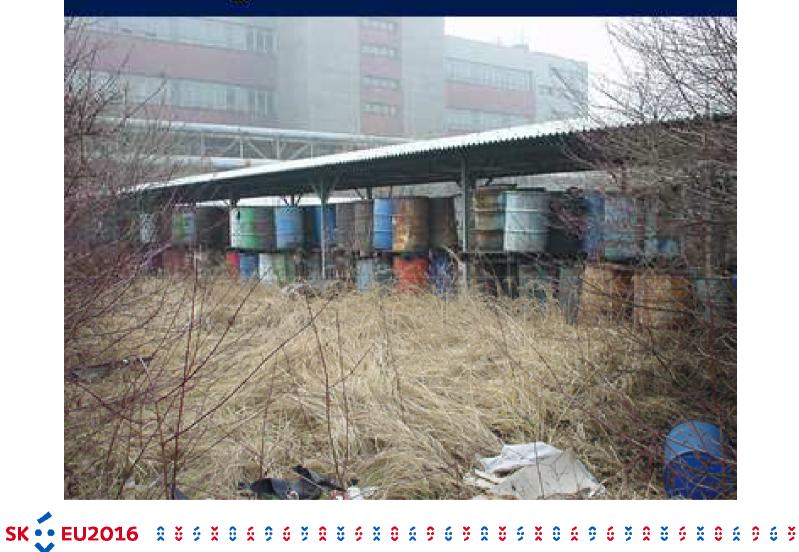








#### Storage of chemicals – Partizánske





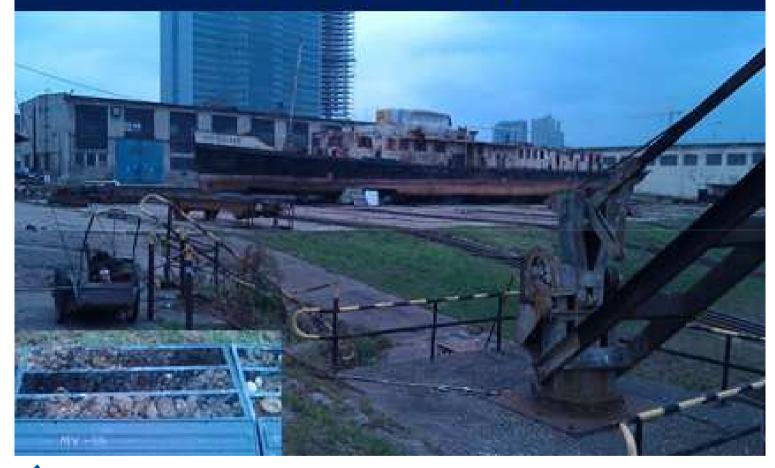


# Žilina – industrial site





#### Bratislava - river port





#### Boldog-old pesticides



## Piešťany-military site









#### Devínska Nová Ves – September 2011





#### Devínska Nová Ves – January 2015





#### Devinska Nová Ves – December 2015





## Devinska Nová Ves – spring 2016



#### **OPERATIONAL PROGRAMME QUALITY OF THE ENVIRONMENT (2014 - 2020)**

The main objective of the Operational Programme Quality of the Environment is to promote the sustainable and efficient use of natural resources, ensuring environmental protection, active adaptation to climate change and promote energy efficiency and low carbon economy. In order to achieve this overall objective the investment strategy of the operational program including three basic thematic objectives has been proposed to:

- **1.** Support the transition to a low-carbon economy in all sectors,
- 2. Support for climate change adaptation, risk prevention and risk management,
- 3. Protect environment and promote resource efficiency.



#### **Specific objectives and activities**

The specific objectives will be met through the following activities:

A. Investigation, remediation and monitoring of contaminated sites in urban environment and in brownfield sites (including areas undergoing change),

**B.** Improving the awareness of issues of contaminated sites.

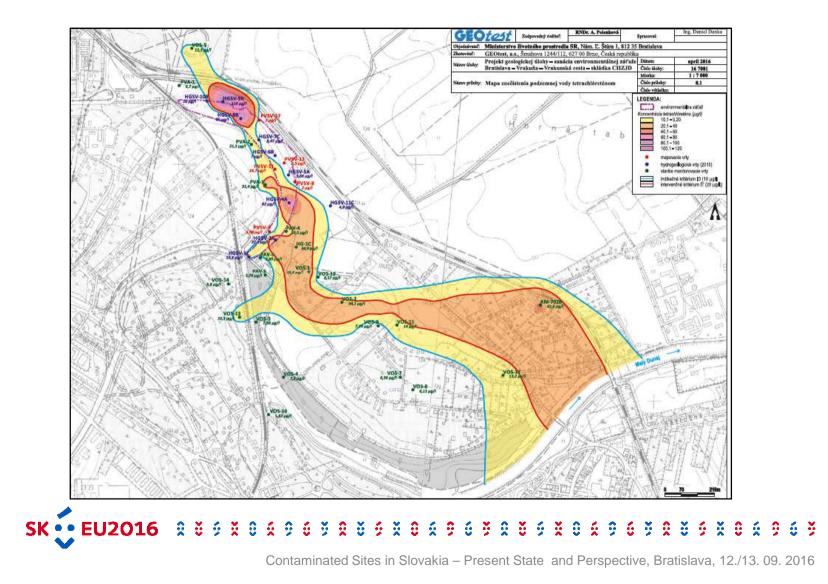
Activities:

- a) Permanent updating of the Information system of contaminated sites,
- b) Investigation of priority contaminated sites, including elaboration of risk analysis of polluted areas,
- c) In the case of extensive contamination to ensure elaboration of feasibility studies of remediation of contaminated sites,
- d) Remediation of contaminated sites in accordance with the "polluter pays principle" and in accordance with the rules on state aid,
- e) Monitoring of contaminated sites.

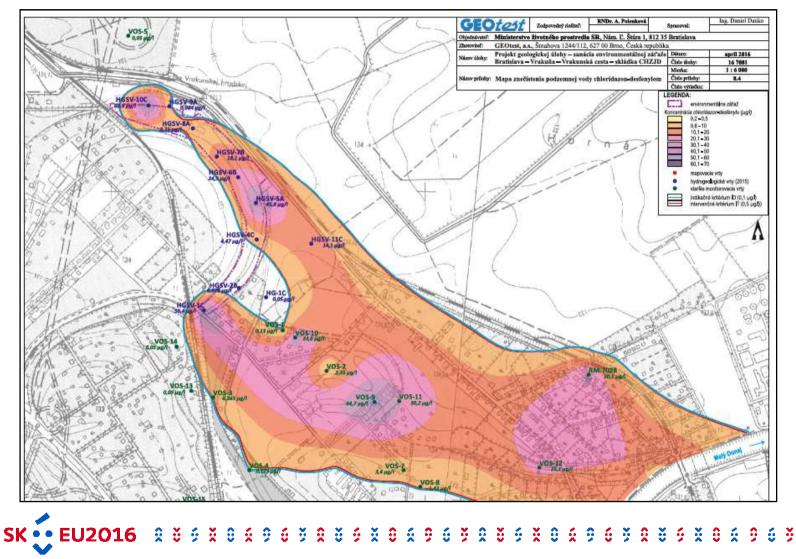
# **Limitations in eligibility of expenditure**

- urban environment (population over 5000) versus contaminated sites in rural environment (e.g. pesticides storages)
- brownfield sites versus state aid
- the difference in price of the property before and after remediation
  - > who should pay it?
  - ➢ in some cases, real estate prices will not change
  - in some cases, only groundwater is contaminated (water is the state property and is not part of the parcel under the Land Registry Act)

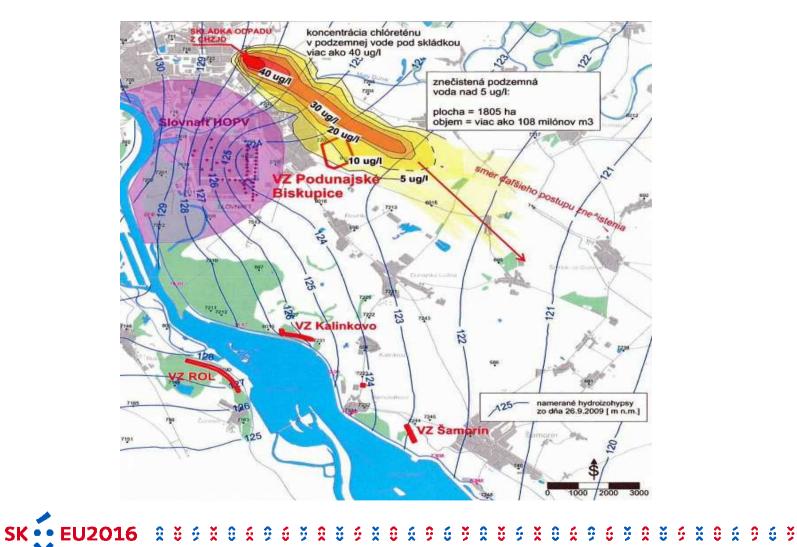
## Vrakuňa – hazardous waste landfill



#### Vrakuňa – hazardous waste landfill



# Vrakuňa – plum on the Rye island





# **Thank you for your attention**

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TITLE OF THE PRESENTATION, Bratislava, 12./13. 09. 2016