



cenia

ČESKÁ
INFORMAČNÍ
AGENTURA
ŽIVOTNÍHO
PROSTŘEDÍ

NI!KM

národní inventarizace
kontaminovaných míst

www.cenia.cz

OVERVIEW OF THE GENERAL AND SPECIFIC ELEMENTS IN THE METHODOLOGY OF THE CONTAMINATED SITES INVENTORY

Zdeněk Suchánek



OPERAČNÍ PROGRAM
ŽIVOTNÍ PROSTŘEDÍ

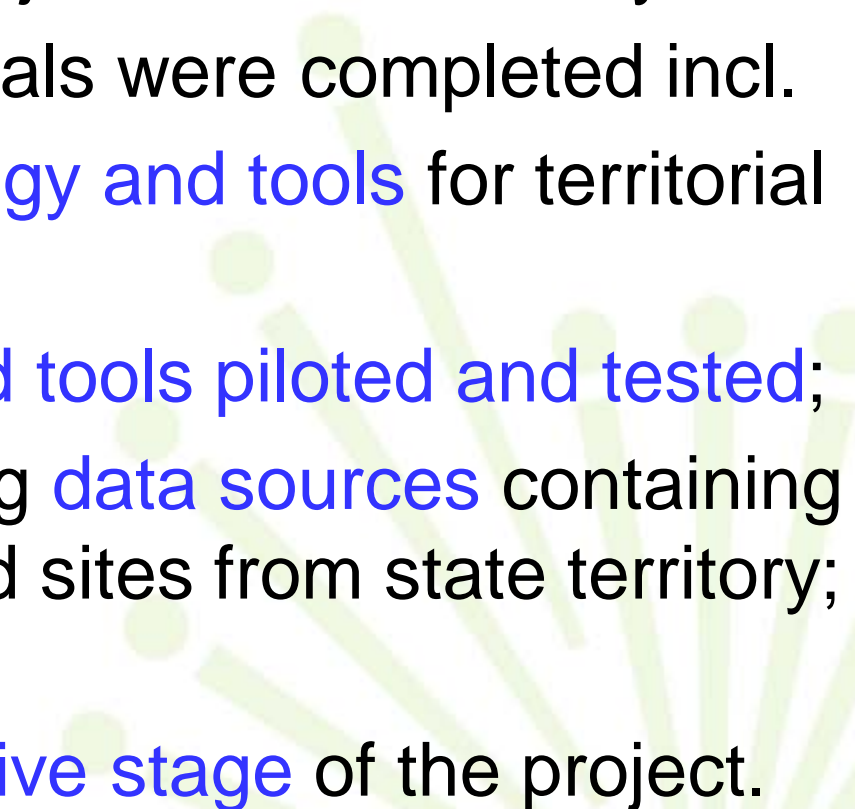


EVROPSKÁ UNIE
Fond soudržnosti

Pro vodu,
vzduch a přírodu

NATIONAL CONTAMINATED SITES INVENTORY (NIKM) PROJECT

www.cenia.cz

- The first stage of the NIKM project was finished by the end of June 2013. Its basic goals were completed incl.
- an elaboration of **methodology and tools** for territorial inventory;
 - developed **methodology and tools piloted and tested**;
 - **collected** and unified existing **data sources** containing information on contaminated sites from state territory; and
 - **prepared draft of the executive stage** of the project.
- 

NATIONAL CONTAMINATED SITES INVENTORY (NIKM) PROJECT

www.cenia.cz

- The methodology of the nationwide inventory of contaminated sites was elaborated within the first stage of the National Contaminated Sites Inventory (NIKM) project performed in the period 2009 - 2013 as a project of *the Operational Programme of the Environment 2007-2013, Priority Axis 4 - The Improvement of Waste Management and the Rehabilitation of Old Environmental Burdens, the area of intervention 4.2. - The Rehabilitation of Old Environmental Burdens.*

NATIONAL CONTAMINATED SITES INVENTORY (NIKM) PROJECT

www.cenia.cz

- The NIKM project was run by a **project team** composed by **CENIA and several contractors** resulting from an open public tender process.
- Individual outcomes and final project outcomes were finished in the summer of 2013. Detailed information from the project is publicly disclosed on the project web site:
<http://www1.cenia.cz/www/projekt/nikm>.

- **On-line application NIKM Editor** – client environment available through a web browser. It allows record management in the central data warehouse, data editing, inserting of measurements and other findings.
- **Off-line application NIKM Client** – allowing field data collection.
- **Web portal NIKM** – for publishing data on contaminated sites for the general public and public administration.
- **Central Data Warehouse.**

2nd STAGE NIKM 2015-2020 SCHEDULE

www.cenia.cz

- In 2012-2014:
- co-financing for the 2nd stage of the NIKM from the MoE (CENIA's founder) **not successful** ,
- **no application** to the Operational Programme of the Environment (OPE) submitted,
- **time demands** of the project (the field work / the seasonal nature of most of the work) is the **main limiting factors** for the realization, still at the end of the OPE 2009-2013.

2nd STAGE NIKM 2015-2020 SCHEDULE

www.cenia.cz

- Given the need to cover the entire Czechia, the **minimum requirement** is the period of at least **two years of inventory work**.
- Because of the need to complete the work of the OPE 2009-2013 by mid-2015, it was finally decided to **postpone the second stage of NIKM until the new programming period** of the OPE.
- In the OPE 2015-2020 program document (recently approved) the National Inventory issue is a part of the **Priority Axis 3 (Waste and material flows, environmental burden and risks), specific objective 3.4 (Complete inventory and eliminate environmental burdens)**.

2nd STAGE NIKM 2015-2020 SCHEDULE

www.cenia.cz

- By the end of 2020, the greatest number of **sites** should be **documented**, and based on the information obtained, **their prioritization** should **be done**.
- Obtained **data** should be **recorded** into the information system used for state administration in the context of administrative proceedings, but also for professionals and the public.

2nd STAGE NIKM 2015-2020 SCHEDULE

www.cenia.cz

- The **target value** for the year **2023** is **10.000** contaminated sites registered, from that **8,952** registered contaminated sites **incl. their priority ranking**.
- A preliminary **schedule of requests** of the new OPE 2015 counts for submitting applications for the specific objective 3.4 **in the second half of 2015**.

The 2nd stage of the NIKM project

www.cenia.cz

- Reflecting the quick development in the field of informatics and information technology (both SW and HW) we have to admit that the proposed NIKM solutions for the application support and database system (elaborated 4-5 years ago) seem to be technically and technologically outdated.

The 2nd stage of the NIKM project

www.cenia.cz

- Besides the NIKM database and **NIKM application tools upgrades** there is also another solution - a modernization of the existing Contaminated Sites Database System (SEKM).
- For being appropriate for the contaminated sites inventory, this “**new SEKM**” has to contain an “**inventory module**”.

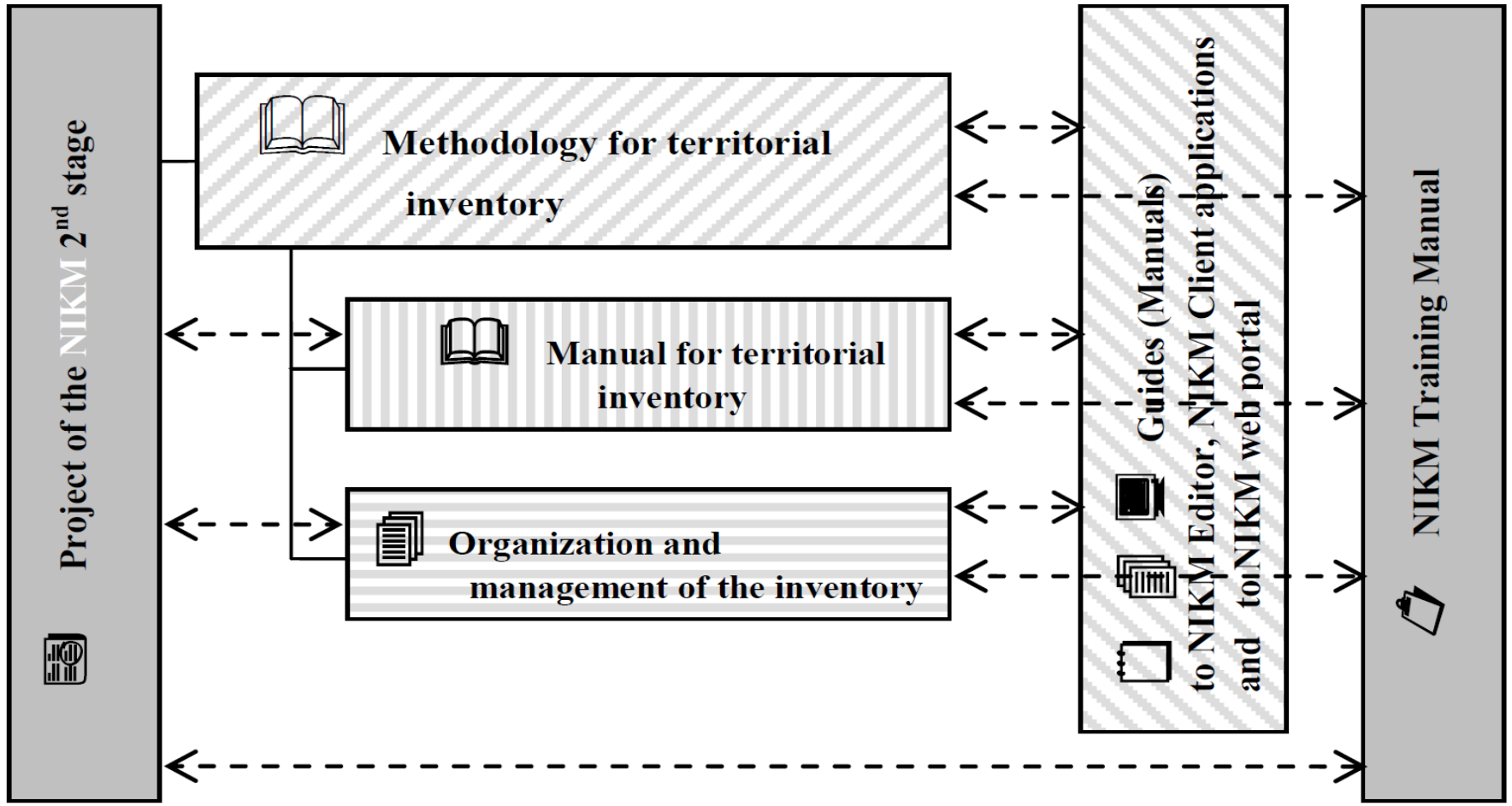
The 2nd stage of the NIKM project

www.cenia.cz

- ❖ In further development of any of the two options (NIKM or SEKM) it is advisable and advantageous to have methodological documentation for the contaminated sites inventory divided into two levels:
 - the first - **more general** – for the purpose of tender specification documents and for the use in the MoE methodology guidance documents;
 - the second – **more specific** – related to the individual database system usable for the contaminated sites inventory and for the specific inventory tools.

The 2nd stage of the NIKM project

Relationships among the methodological documents of NIKM as designed in the project draft from 2012



Principles of contaminated sites inventory

www.cenia.cz

In a **more general way NIKM methodology** (e.g. for the purpose of tender documents for public procurement) should include references to principles such as:

❖ **Optimal multiplicity of information sources**

Using all available sources of information on contaminated sites and on indications of contamination.



Principles of contaminated sites inventory

www.cenia.cz

- ❖ **Improve information quality** to a level enabling decision (for example whether a contamination indication is evaluated as a suspicious site or whether after further examination it reaches the status of contaminated site with a corresponding priority ranking).

❖ **Multistage control and verification**



- in the processing of inventory records
- in the transferring of the resulting records into the central database of contaminated sites

Principles of contaminated sites inventory

www.cenia.cz



❖ **Phase by phase methodological approach** within the inventory implementation.

The mapping process is divided into several phases that build on each other in time and the subsequent implementation phase is conditioned by the completion of the previous phase: (1) The initial stage, (2) Information campaign, (3) Primary data analysis, (4) Data collection, (5) Priority evaluation and (6) Outcome documents elaboration.

Principles of contaminated sites inventory

www.cenia.cz

❖ **Ongoing consultation** with the public and local governments.



❖ **Openness in obtaining evidence and information** about the inventory to the public.



Principles of contaminated sites inventory

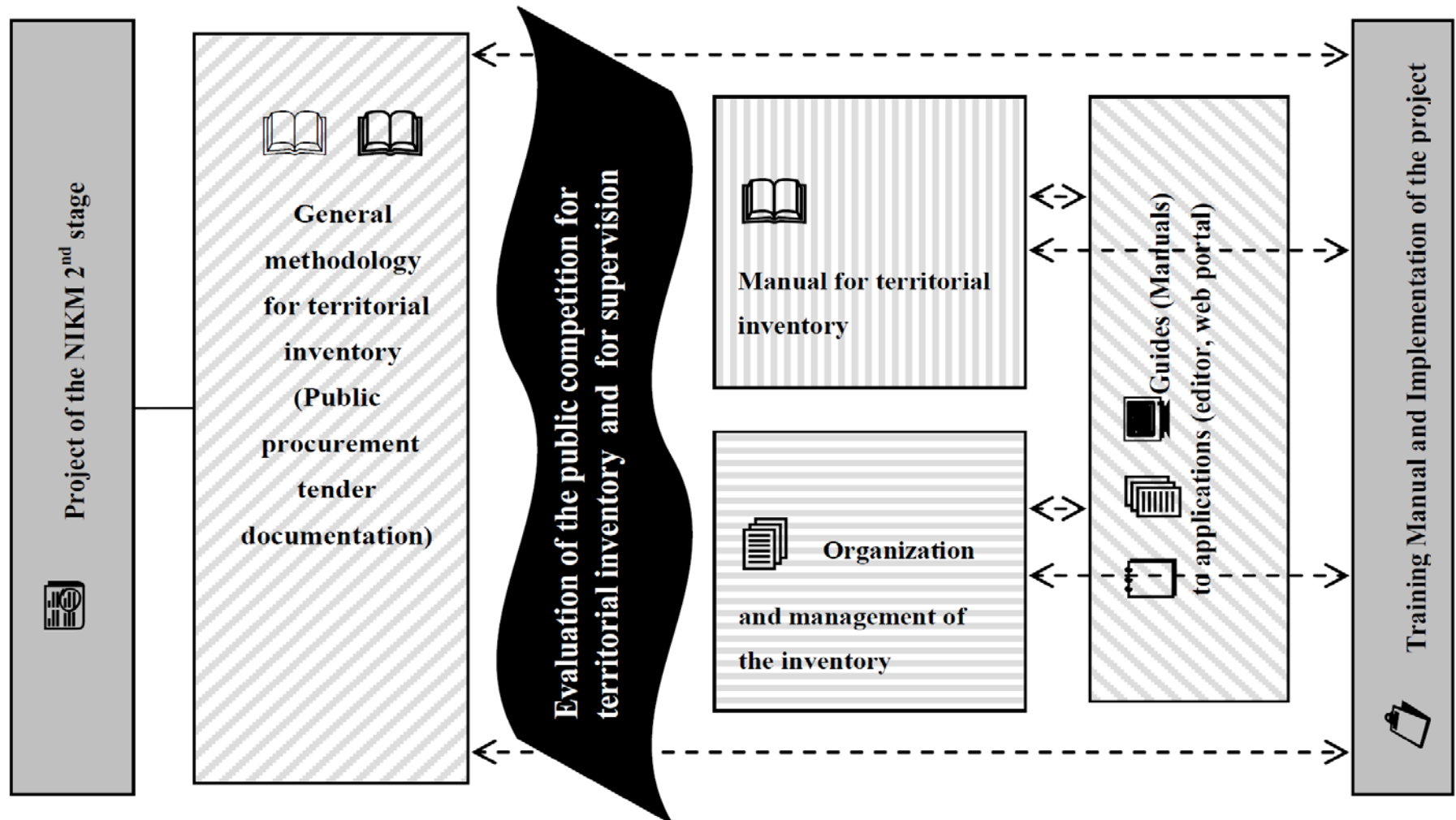
www.cenia.cz

- In the case that we do not relate to a particular database system with its specific tools for inventory, we must modify methodological documents so that they can serve e.g. for the purpose of public procurement tender documents.
- **Only general guidelines and procedures as well as links to publicly available specific manuals and documentation** attached to a particular database application tool (like current SEKM Guidance) should be left from the original methodology.


The 2nd stage of the NIKM project

www.cenia.cz

Considered modification of the methodological documents scheme for the 2nd stage of NIKM



The objective of the 2nd stage - the identification, registration and basic assessment of the largest possible amount of contaminated sites and updating of the information on all known locations - **is valid for any methodology and tools mix**

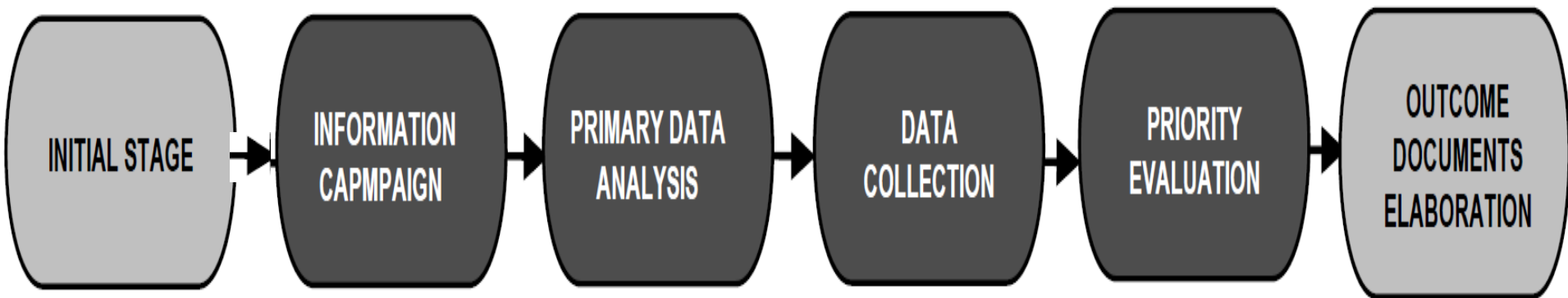


Methodological phases

www.cenia.cz

Methodological phases and outcomes from the Territorial Inventory of Contaminated Sites

- The executive phases “Information campaign“, “Primary data analysis“, “Data collection“ and “Priority evaluation“ are **applicable for any methodological arrangement**.



Territorial Inventory

www.cenia.cz

(2016 - 2020)

Initial Phase
& Information
Campaign

Primary Data
Analysis

Data Collection
(In situ)

Internal Control of
Outcomes

Data
collection

Offices & Other
Bodies Visits

Validation and
Verification of Data
stored in the Central
Data Warehouse

Contaminated
Sites Inventory

Collection and Excerpton
of Information and Data
from External Sources &
Thematic Maps Analysis

Inventory
Conclusion

Priority Evaluation / Site
Clasification & Outcome
Documents Elaboration

*Registered Sites incl. Map
Presentation on SEKM Portal*

*Evaluation Reports for the Regions and
for the Czech Republic,
incl. Map Presentation*

CONCLUSIONS

www.cenia.cz

- In the 1st stage of the project (finished in summer 2013) **the methodology for the nationwide inventory was created and verified** .
- With regard to the development in informatics and information technology the proposed NIKM solutions of **the application support and database system seem to be out-of-date**.
- Besides the NIKM database and application tools upgrade, there is also **a modernization of the existing Contaminated Sites Database System (SEKM)** to be considered. This “new SEKM” would contain an **“inventory module”** .

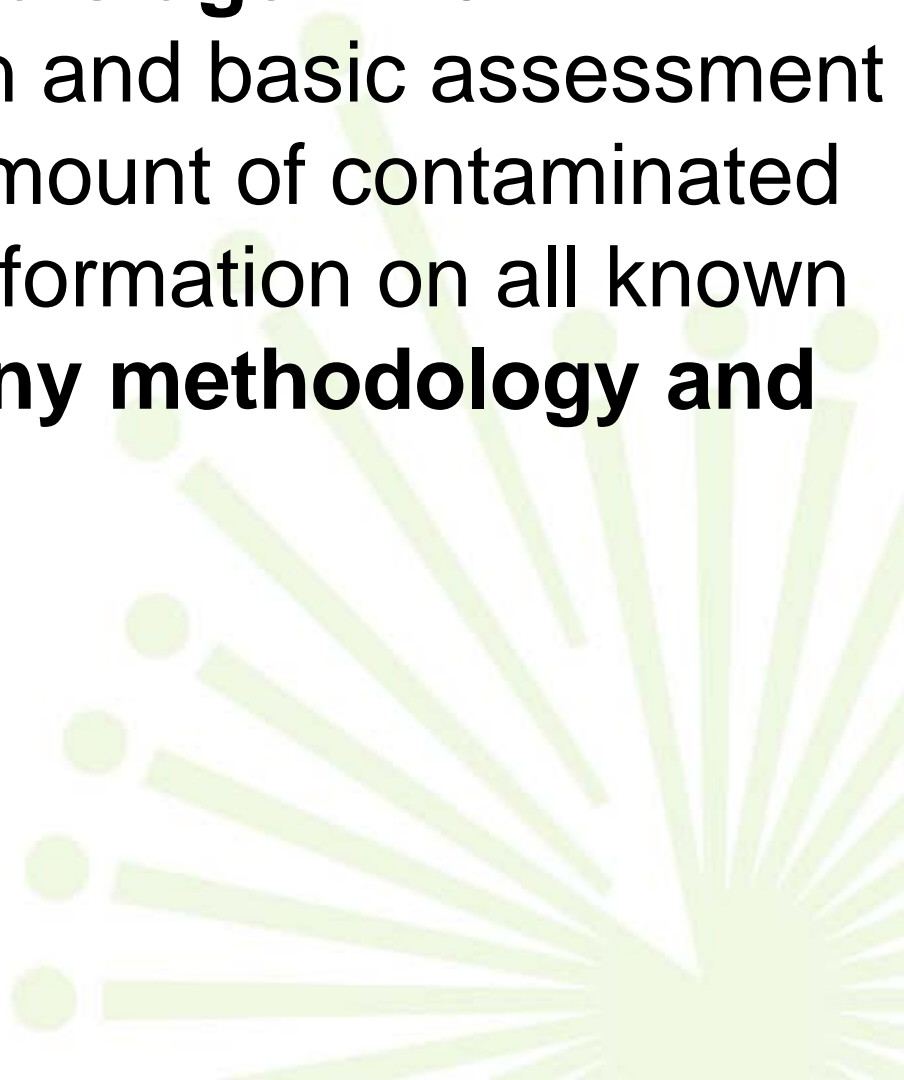
CONCLUSIONS

www.cenia.cz

- In further development it is advisable to have **methodological documentation** divided into two levels:
 - **the first – more general** – for the purpose of tender specification documents and for the use in the MoE methodology guidance documents;
 - **the second – more specific** – related to the individual database system usable for the contaminated sites inventory.

CONCLUSIONS

www.cenia.cz

- **The objective of the 2nd stage - the identification, registration and basic assessment of the largest possible amount of contaminated sites and updating the information on all known locations - is valid for any methodology and tools mix.**
- 

Thank you for attention!

Zdeněk SUCHÁNEK

Project Team Leader

**The National Inventory of Contaminated Sites (NIKM) Project
CENIA, Czech Environmental Information Agency, Prague**

**Vršovická 65, 100 10 Prague 10
Czech Republic**

tel.: +420 267 125 288, +420 604206757

zdenek.suchanek@cenia.cz, www.cenia.cz



OPERAČNÍ PROGRAM
ŽIVOTNÍ PROSTŘEDÍ



EVROPSKÁ UNIE
Fond soudržnosti

Pro vodu,
vzduch a přírodu