



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



ICCL
international
committee on
contaminated
land

D1: Different German approaches and programs of funding beside the polluter responsibility

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Umwelt 
Bundesamt

Agenda

- ◆ Legal framework, obligations and responsibilities
- ◆ Governmental projects
- ◆ Laender Programs and practical implementation
- ◆ Infrastructure and further conditions/services
- ◆ Conclusion and Outlook

Federal legal framework

◆ **Federal Soil Protection Act**

Definitions, Principles and Obligations, Supplementary Provisions for Contaminated Sites, Agricultural Soil Use

▪ **Federal Soil Protection and Contaminated Sites Ordinance**

Investigation and **evaluation** of suspected sites and suspected contaminated sites and harmful soil changes, investigation and planning for **remediation**, **Precautions** against the development of harmful soil changes

▪ Annexes: sampling, analytical procedures and quality assurance during the investigations; values, pathways; investigations for remediation and the remediation plan


– Promulgation of Methods and Standards for Derivation of Test Thresholds and Measures Thresholds pursuant to the Federal Ordinance on Soil Protection and Contaminated Sites



„Obligations to prevent hazards“

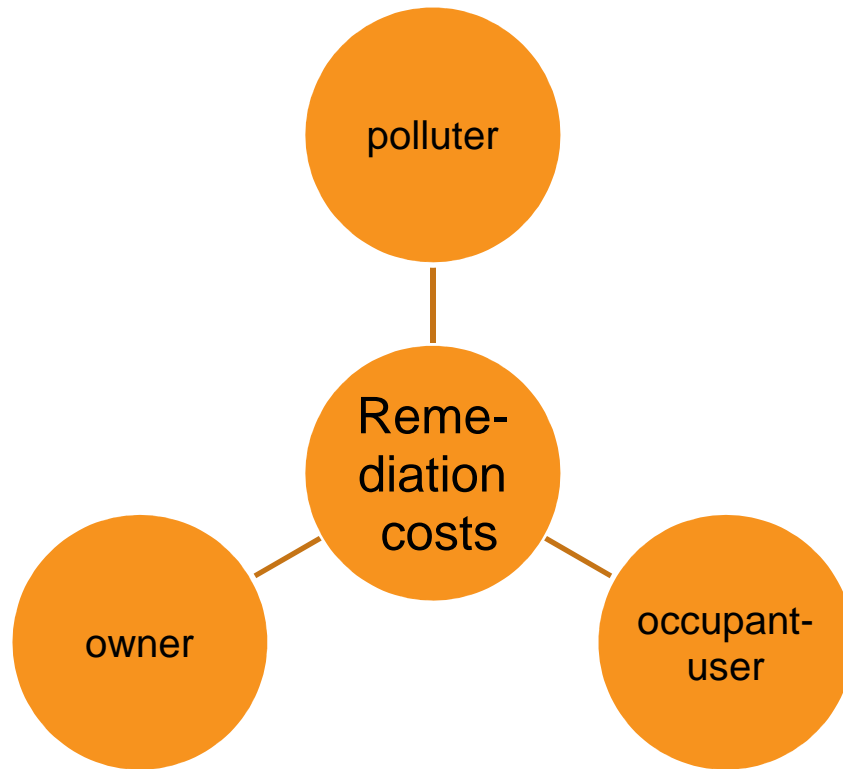
Article 4

The party **WHO** caused a harmful soil change or a contaminated site, and his **universal successor**, as well as the relevant **property owner** and the **occupant** of the relevant real property, shall be obligated to remediate the soil and contaminated sites, and any water pollution caused by harmful soil changes or contaminated sites, in such a manner that no hazards, considerable disadvantages or considerable nuisances for individuals or the general public occur in the long term.




Who has to pay?

„Polluter pays principle“



In Germany the competent authority could choose among polluter, owner or user!

Alternatives:

- Remediation programs
 - Project and research funding
 - Public private partnership
 - Brownfield redevelopment
 - „Laender“-funds and others
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Guiding Principle of Proportionality

The actions of the administration has to achieve a legitimate aim.

- **Suitable** (must reach the purpose);
- **Necessary** (that there cannot be any less onerous way of doing it);
- **Reasonable** (considering the competing interests of different groups at).

Please note: The responsibility for execution is given to the Laender !!



Inventory- Current Status

- Risk Assessment (finalized)
→ 85.500
- Contaminated Sites
→ 14.400
 - Remediated sites
→ 27.300
 - Remediation (ongoing)
→ 4.650

In Germany about
500 Million € public money
will be spend each year for
Contaminated Land
Management in spite of
Polluter Pays Principle!

	survey	suspected sites	suspected former waste	suspected former industrial	Contaminated sites	Remediation (finalised)	Risk Assessment (finalised)	Remediation (ongoing)	Contaminated sites under supervision /
lfd. Nummer		1	1.1	1.2	2	3	4	5	6
Baden-Württemberg	12/2010	13.820	1.615	12.205	2.275	2.780	15.902	616	431
Bavaria	03/2011	16.450	11.296	5.154	1.085	1.823	5.651	992	93
Berlin	07/2011	5.493	1.186	4.971	982	210	n.d.	75	85
Brandenburg	07/2011	19.763	7.112	12.651	1.465	4.189	4.409	137	256
Bremen	06/2011	3.532	27	3.505	398	653	1.023	37	186
Hamburg	01/2011	1.717	273	1.454	557	438	3.223	153	149
Hesse	07/2011	1.035	542	493	460	960	2.141	264	69
Mecklenburg Western	12/2010	5.802	2.630	3.170	1.010	1.197	1.847	363	575
Lower Saxony	06/2011	88.921	9.775	79.146	3.492	2.023	4.608	407	596
North Rhine-Westphalia	01/2010	81.825	33.397	48.428	n.d.	6.213	21.292	553	n.d.
Rhineland-Palatina	07/2011	11.651	10.440	1.211	324	152	6.943	172	71
Saarland	05/2010	1.977	1.650	323	456	156	379	35	64
Saxony	05/2011	19.672	6.717	12.955	592	2.991	6.745	408	675
Saxony-Anhalt	05/2011	16.428	5.044	11.384	193	1.739	3.780	75	55
Schleswig-Holstein	12/2010	13.689	2.099	11.590	330	968	2.570	75	73
Thuringia	03/2011	12.078	3.768	8.310	790	845	4.992	280	75

Published : 31.08.2012 Remark: Numbers provided by the Federal Laender / n.d. (no data submitted)

(a)

- Governmental projects

(b)

- Laender programs and implementation in practice

(c)

- Infrastructure and further conditions / services for CLM

(a) Federal remediation projects

22 large-scale projects whereby the financing of the remediation is shared by the Federal Government (75%) and the “Laender” (25%). Until now the federal government paid more than 2.6 billion Euros.



Underlying legislation

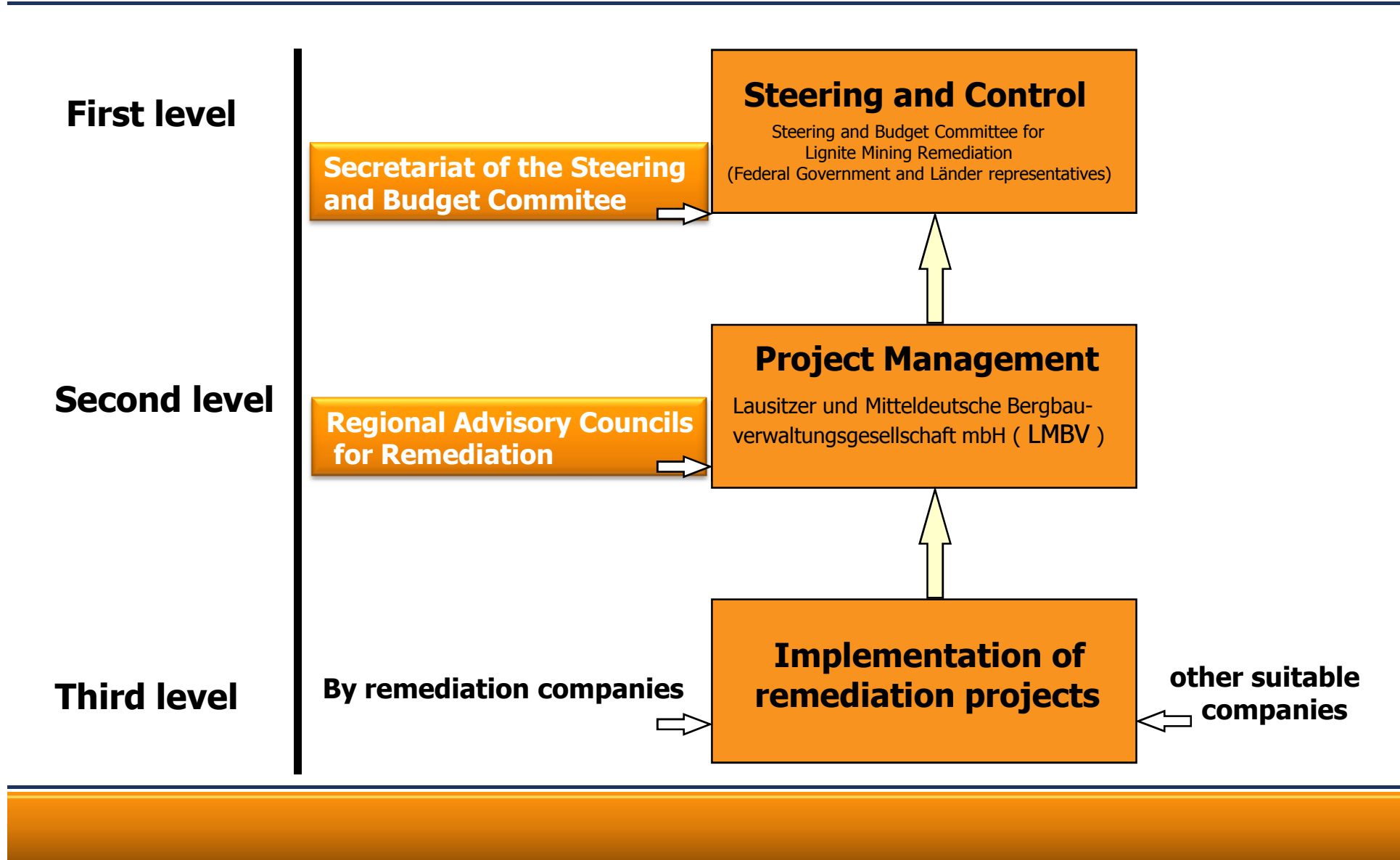
- ◆ The Administrative Agreement (VA) of 1 December 1992 between the Federal Republic of Germany and the Laender Berlin, Brandenburg, Mecklenburg-Western Pomerania, Saxony Anhalt, and the Free States of Saxony and Thuringia on the financing of contaminated sites remediation
- ◆ For lignite remediation:
 - Federal Mining Act, Article 55
 - Administrative Agreement (VA)
 - 1992 - 1998 VA I
 - 1998 - 2002 VA II
 - 2003 - 2007 VA III
 - 2008 - 2012 VA IV
 - 2013 - 2017 VA V



Remediation and redevelopment of former mining areas

- ◆ Until now a total budget of more than 9 billion € spent for the **lignite remediation** programme only.
- ◆ Shared financing with a ratio of 75% Federal Government and 25% the “Laender”
- ◆ Another mining rehabilitation programme for former **uranium mining**. The financial responsibility belongs to the Federal Government only. The remediation programme will continue until 2015 with an expected budget of 6.2 billion €. More than two-thirds of necessary actions are finalised so far.

Administrative implementation



Federal Real Estates (1)

The Institute for Federal Real Estate (BIMA) - federal government's central property services provider.

Its real estate assets valued at around € 12.5 billion – represented by a total of 27,000 properties with 400,000 hectares of land and 42,000.

The focus of the Federal Institute's tasks is on the development of a standardized system of real estate management for all the real estate owned by the federal government.

In addition, some 2,000 to 3,000 properties which the federal government no longer needs to carry out its tasks are offered for sale each year by the Sales division. This also includes numerous locations of the Bundeswehr and foreign forces stationed in Germany to be closed over then next few years.

Other tasks performed by the Institute for Federal Real Estate:

- sale of residential and commercial properties
- forest management and nature protection with a focus on the protection of Germany's natural heritage in the Federal Forests division
- administrative tasks for real estate used by foreign forces stationed in Germany or rental housing subsidized by federal loans
- energy and environmental management for the managed properties, e. g. through central energy purchasing, in the Facility Management division
- centre of expertise for renewable energy sources and central contaminated land management in the Portfolio Management division.



(b) GAB – The Bavarian solution

- ◆ **Industrial and commercial caused contaminated sites**
 - Financial and technical support for the Bavarian counties and independent municipalities for assessment and remediation - if a cost coverage by the polluter is not possible!

- ◆ **Municipality owned landfills**
 - Financial and technical support for the Bavarian municipalities within the meaning of Article 13a of the Bavarian Soil Protection Act (BayBodSchG) and the related ordinance for the investigation and remediation of abandoned waste disposal sites.



GAB – Additional Activities

◆ **Consultancy and project management**

- Especially for municipalities and public owned enterprises - investigation, assessment, control regarding the finalization of the remediation and the cessation of the suspicion.

◆ **Knowledge Platform - Transfer**

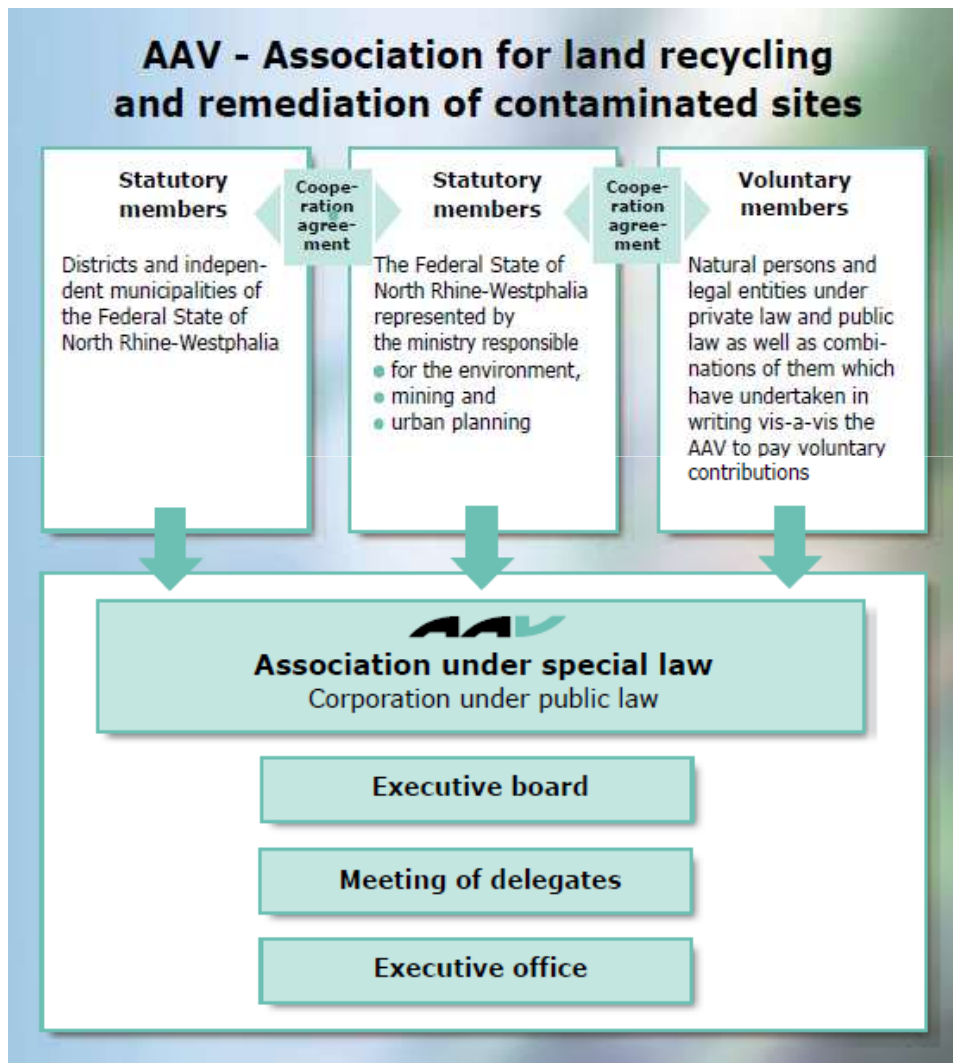
- GAB initiating research projects, knowledge transfer among authorities, remediation companies and consultancies, experts and Universities;
- Edition of a technical Newsletter „GAB KOMPAKT“,
- Execution of an annual scientific conference,
- Examination of certified Experts in line with § 18 BBodSchG,
- Project partner or member within research projects, expert groups related to remediation, Brownfield redevelopment und Soil and groundwater protection

GAB –Financial Contribution / Results



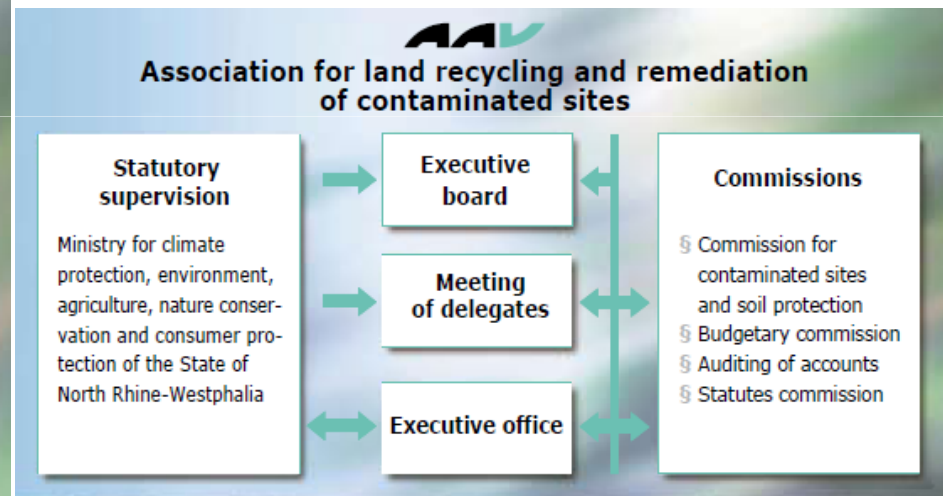
Since 1989 – 77 remediation projects with an total value of 66 Mio. € and a support distributed by GAB of around 46 Mio. €. An Area of approx. 900.000 m² are prepared for future use.

AAV – The solution of North Rhine-Westphalia



North Rhine-Westphalia (NRW) has a long industrial and mining tradition. (currently 80.000 suspected sites)

In many cases it is not possible to hold a polluter responsible for the remediation of contaminated sites.



- 100 Projects with 140 Mil. €,
- Funding up to 80% of the costs
- Prolongation of the AAV act since 01.12.2012



Topics of support


The following measures (AAV Act) will be supported:

1. Remedial investigation, planning and remediation of contaminated sites or of areas still in use with changed soil characteristics in accordance with the regulations of the German Federal Soil Protection Act, including the measures to be taken in connection with them (primary measures for averting dangers),
2. Land recycling to reactivate derelict areas of land (brownfields) and contaminated sites for a new use and hence to reduce the land consumption of areas close to nature and those used for agricultural purposes,
3. Development and testing of new technologies and innovative procedures for the remediation of contaminated sites and of areas still in use with changed soil characteristics to supply land for recycling as well as water pollution control.


- ◆ Since 1989 **HIM GmbH** is responsible on behalf of the land Hesse for the remediation of contaminated sites in those cases, where responsible parties can not at all or not in time be charged with the cost for remediation.
- ◆ **HIM-ASG** in Hesse manages about **60 projects** with a financial volume of approx. **15 - 20 Mil. € per year.**




Contaminated site remediation on behalf of the State of Hesse

- ◆ Polluter of a contaminated site had to remediate, he is the person responsible for the remediation (Polluter-Pays-Principle)
 - ◆ Person responsible for the remediation in Hesse could not be called upon or was not called upon in time
 - ➔ Transfer from remediation measures to HIM when the contaminated sites are hazard for human being, groundwater and soil or other negative environmental influences
 - ◆ paid with state funds
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For the assigned projects HIM-ASG carries out the following duties

- ◆ Project management and control to achieve the set remediation targets
 - ◆ Providing defined expert internal services for the individual remediation measure
 - ◆ Expert counseling of the client
 - ◆ Public relations and realization of the legally demanded citizens' participation
 - ◆ Implementation of Research & Development projects
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During the implementation of it's tasks HIM-ASG is guided by the following principles:

- ◆ Priority for inhabited contaminated sites
 - ◆ Future Use-related remediation
 - ◆ Precaution if necessary, remediation by removing of contaminants if possible and appropriate
 - ◆ Balanced allocation of funds of larger and smaller projects
 - ◆ Acceptance by the public and concerned citizens due to a high degree of transparency
 - ◆ Satisfaction of client by efficient and professional project management
 - ◆ Observation of the principles and standards as a result of the state budget law
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Funding in Baden-Wuerttemberg

- ◆ Comparable to the US-Superfund
- ◆ Current status 97.000 sites registered - 41.000 are indicated without further suspicion, 14.300 with a suspicion and 2.300 approved contaminated sites
- ◆ The program started 25 years ago and will need the same time again – (at least two generations);
- ◆ In 2013 → 14 Mio. €;
- ◆ Since 1988 about 720 Mio. € funding from the state fund; total investment more than 1 billion €.

(C) Permanent working group - AKASG

- ◆ Platform of remediation companies; two meetings a year
- ◆ Information exchange
- ◆ Presentation of case studies, applied techniques and best practices
- ◆ Networking
- ◆ Project and research cooperation

Remediation - Infrastructure Stationary Soil treatment installations in Germany

(Status 2012)

T 0; W 1; B 2

T 1; W 0; B 2

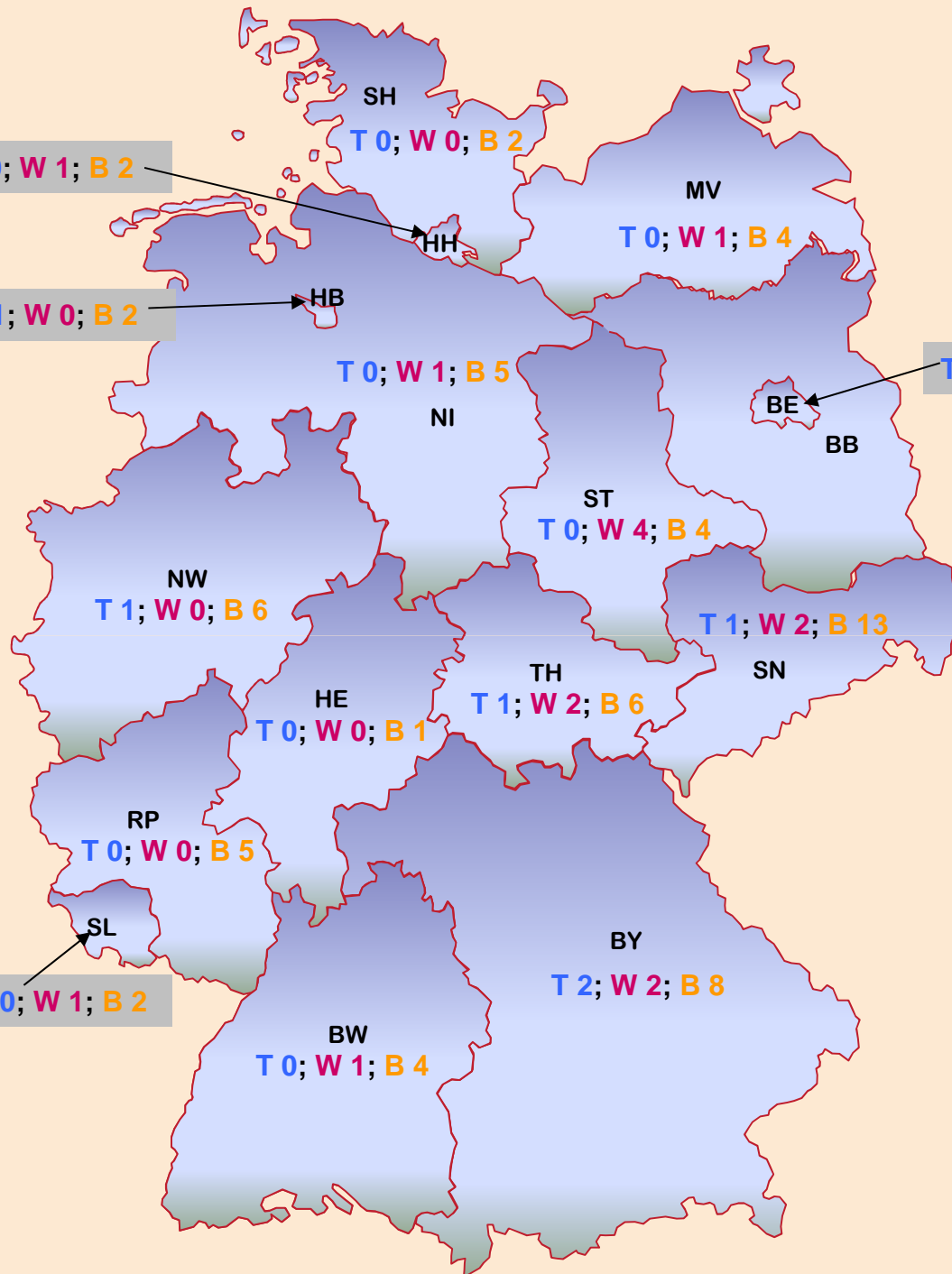
T 0; W 2; B 1

T ► thermal

W ► physicochemical

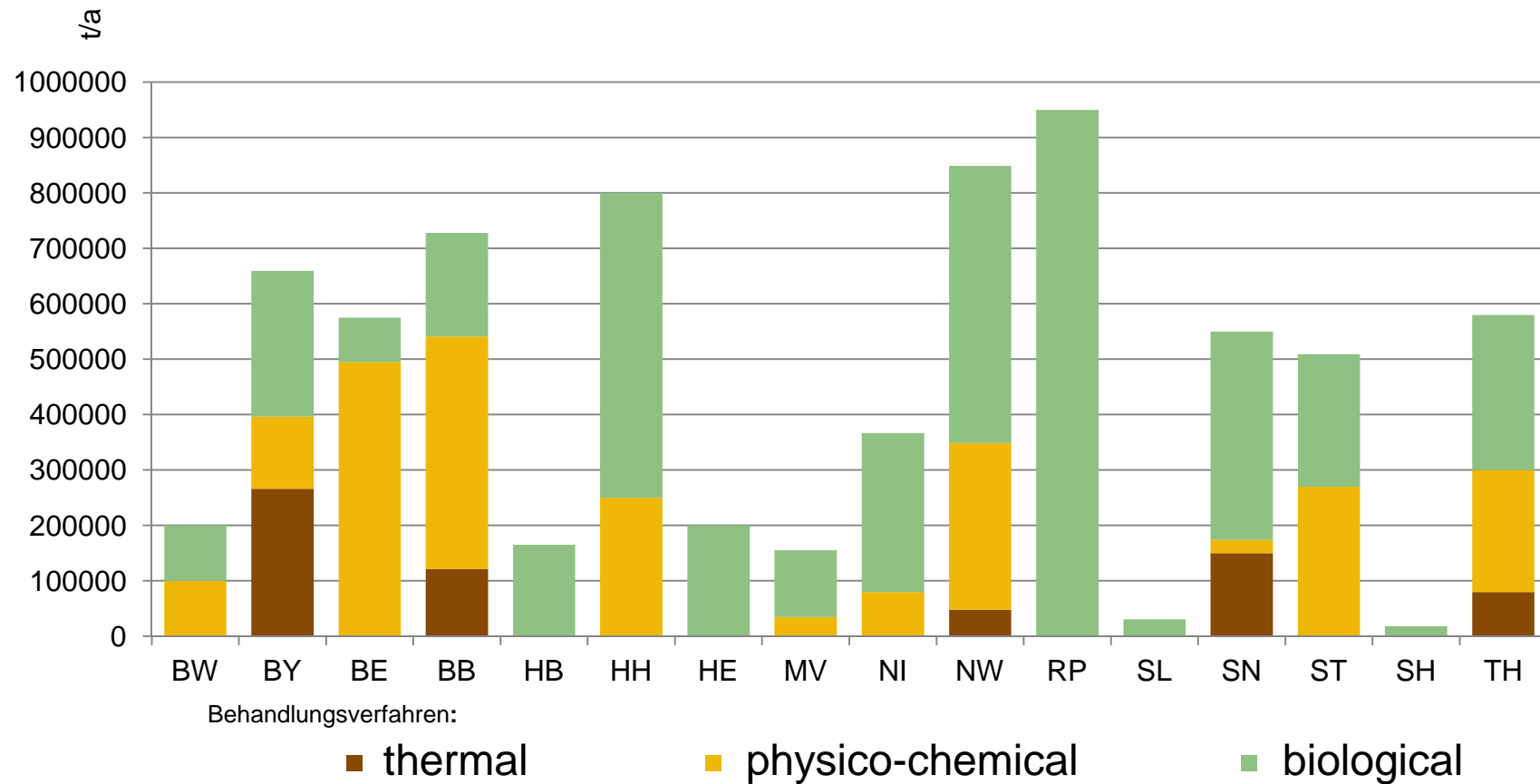
B ► biological

T 0; W 1; B 2

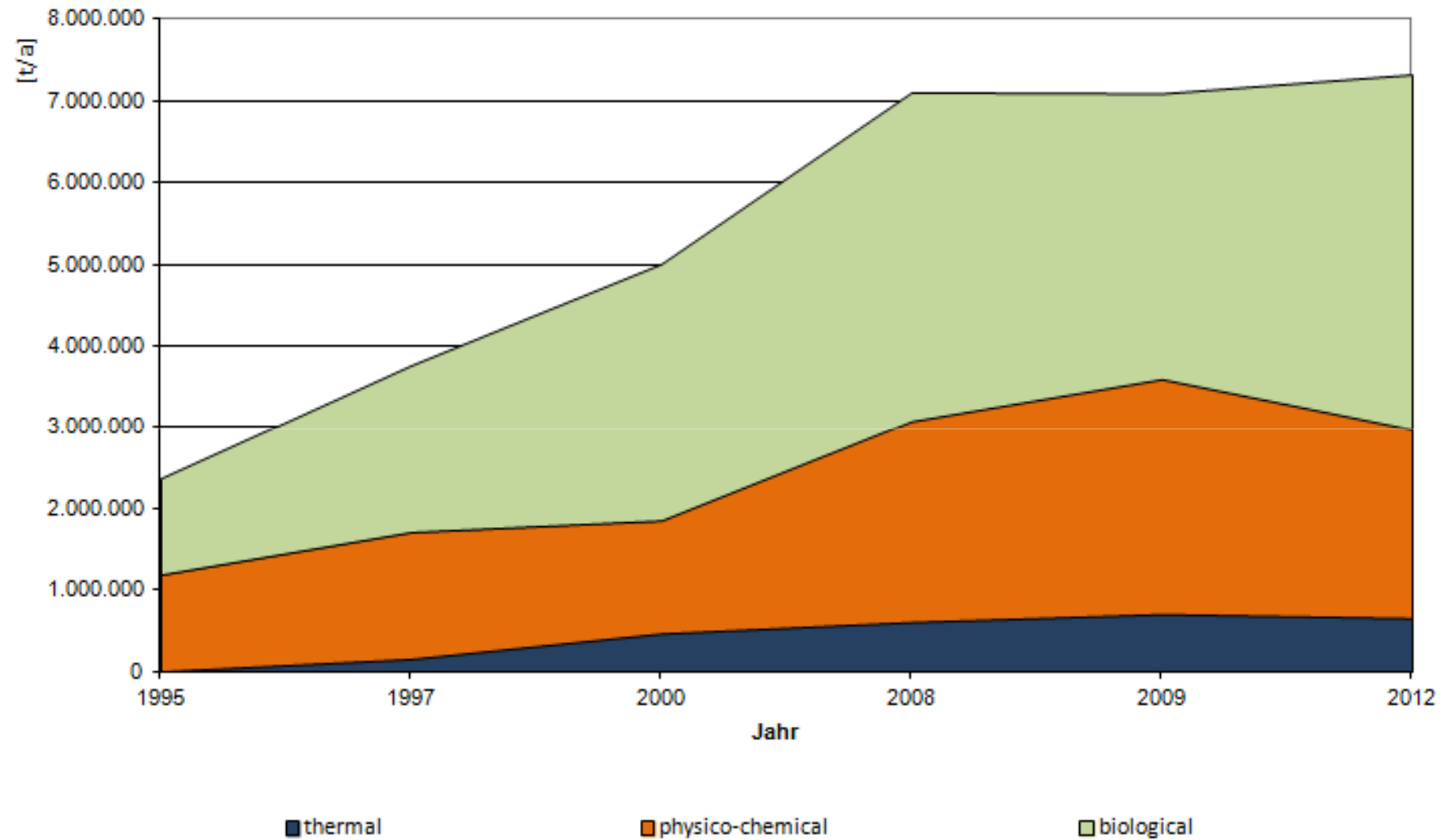


BW:Baden-Württemberg, BY:Bavaria, BE:Berlin, BB:Brandenburg, HB:Bremen, HH:Hamburg, HE: Hesse, MV:Mecklenburg-Vorpommern, NI:Lower Saxony, NW:North Rhine-Westphalia, RP:Rhineland-Palatinate, SL:Saarland, SN:Saxony, ST:Saxony-Anhalt, SH:Schleswig-Holstein, TH:Thuringia

Distribution of stationary soil treatment installations within the German Laender



Permitted Capacity of stationary soil treatment installations



Experts and Investigating Bodies

Article 18 BBodSchG - Experts and investigating bodies that carry out tasks pursuant to this Act shall possess the necessary expert knowledge and reliability for such tasks and shall have the appropriate required equipment. The *Laender* may set forth the details of the requirements pertaining to experts and investigating agencies pursuant to the first sentence of this paragraph, as well as to the nature and extent of their tasks, submission of the results of their activities and the official naming of experts that fulfil the requirements pursuant to the first sentence of this paragraph.

Advisory Board for Soil Investigation (FBU)

- ◆ manages the formal requirements, despite the legally required rigid references in the Act to apply the latest versions. Simultaneously, the FBU is preparing itself a technical continuation of the BBodSchV.
- ◆ The members are proven experts from federal and state institutions and investigative bodies of the touched sentence of BBodSchV sectors and expert's practice.
- ◆ The advisory board compiles findings on advanced soil testing methods and procedures and makes recommendations.

**Thank You for
attention,
any questions?**

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