

# New challenges for mine rescue in Saxony



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## Mining Authority of Saxony — Sächsisches Oberbergamt

- mining concessions — permissions for exploration (Erlaubnis), approval for mining (Bewilligung)
- collection of royalties (Feldes- und Förderabgaben)
- operational plans for mining activity — revision and authorization
- mine inspection — safety, environment, health
- police authority — for protection against threats to public safety from old mines, tailings and subsurface cavities



## responsibilities in mine rescue



## basis for mine rescue in Germany

**Guidelines of the Central Office for Mine Rescue (Hauptstelle GR)**  
of the employer's liability insurance association for mining (BGR CI)  
concerning organisation, equipment and operation of mine rescue,  
April 2006

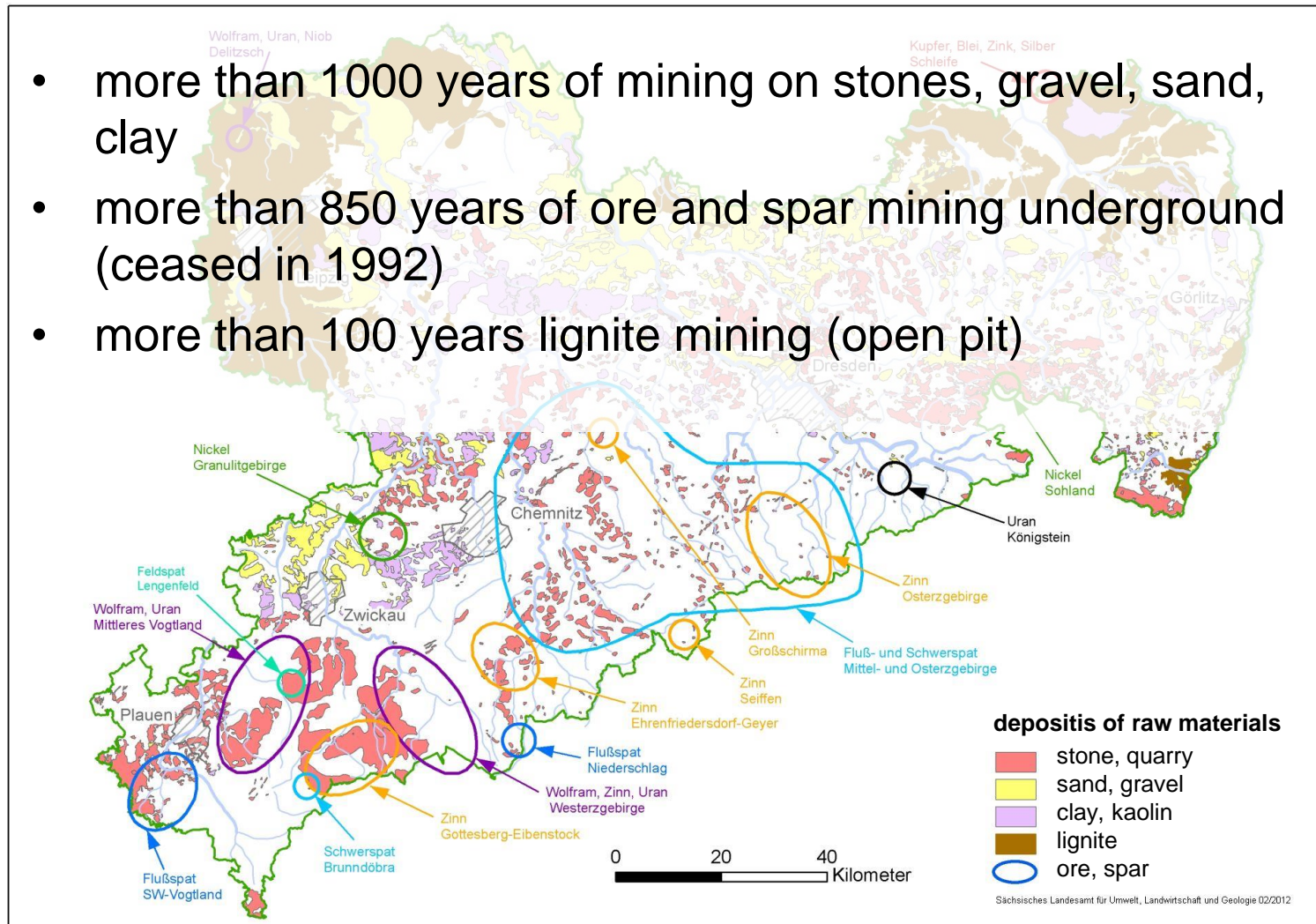
1. Scope
2. Tasks of mine rescue
3. Structure of mine rescue
4. Organisation and equipment of mine rescue
5. Mission and procedure of mine rescue
6. Final clause

### Attachments

- 1 Standardübung
- 2 Übung in Flammenschutzkleidung
- 3 Tragezeitbegrenzung nach Anlage 2 der BGR 190 „Benutzung von Atemschutzgeräten“
- 4 Einsatzzeittabelle für Grubenwehren im Salzbergbau
- 5 Sofortmeldung über Einsätze
- 6a Meldung I über den Einsatz der Grubenwehr mit Atemschutzgeräten
- 6b Meldung II über Funktionsfehler an Atemschutzgeräten und Zubehör
- 7 Betriebliche Angaben zum Grubenrettungswesen

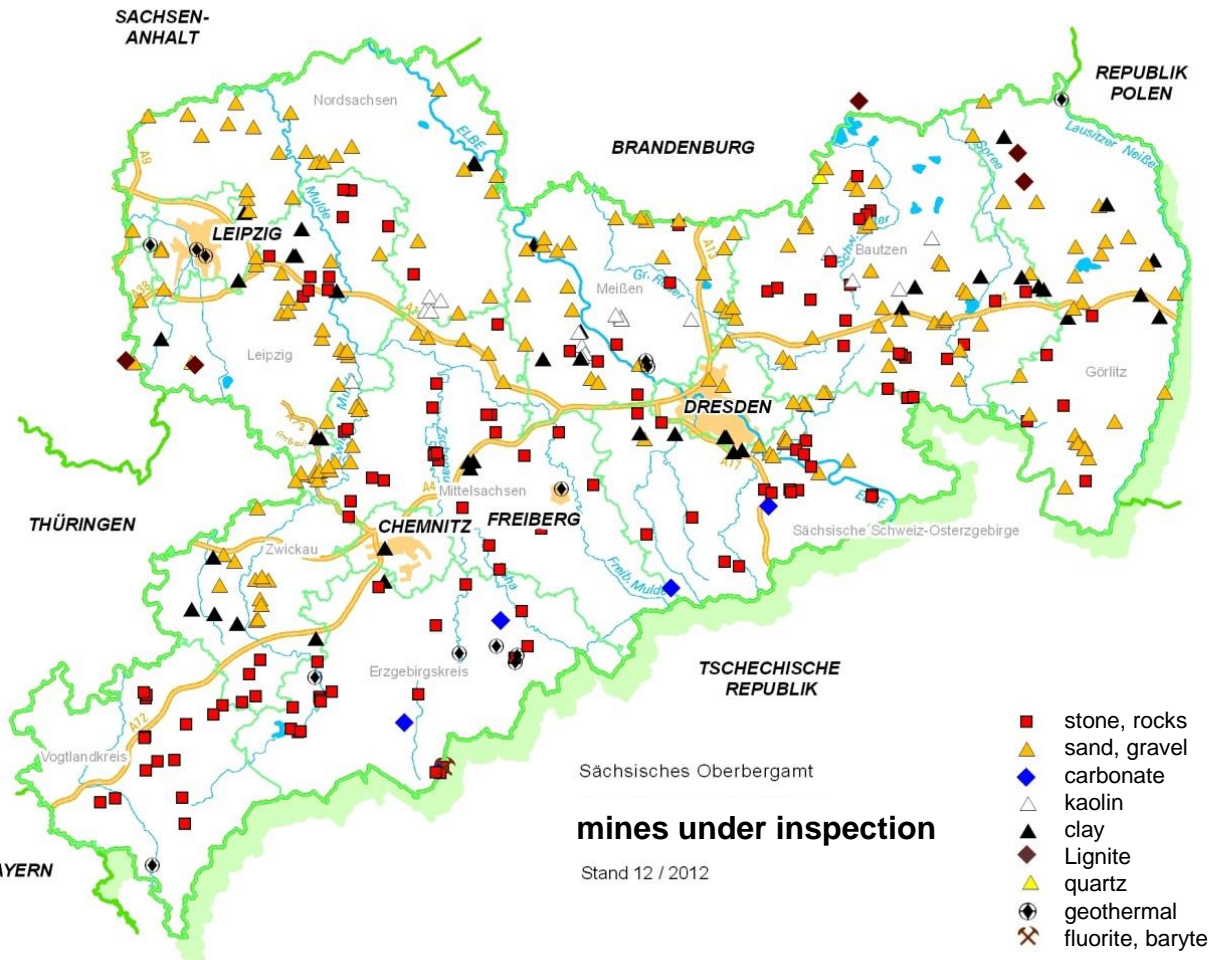
## mining in Saxony

- more than 1000 years of mining on stones, gravel, sand, clay
- more than 850 years of ore and spar mining underground (ceased in 1992)
- more than 100 years lignite mining (open pit)



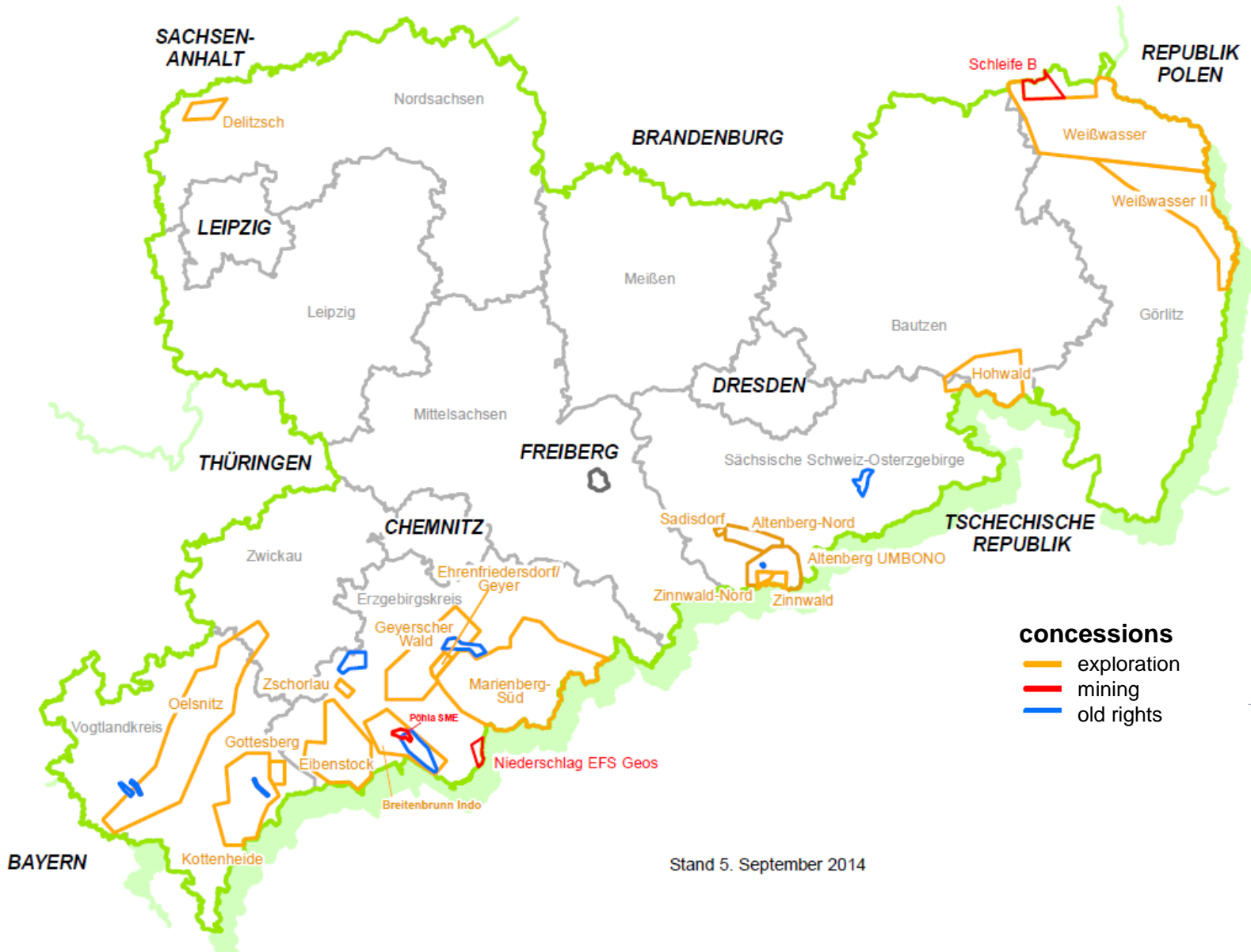


## mining in Saxony — mines under inspection



- ~ 500 mining concessions
- about 20 concessions for ore exploration
- most mines for sand, gravel, clay, stone and quarry
- ~ 5000 employees in mining
- between 1000 and 1500 mine inspections per year

# Neues Berggeschrey — new concessions for exploration and mining



Stand 5. September 2014



## Flourite Mine Niederschlag, EFS GmbH

- approval of mining concession 2008
- **start of flourite production 2013**

**first new  
underground mine**

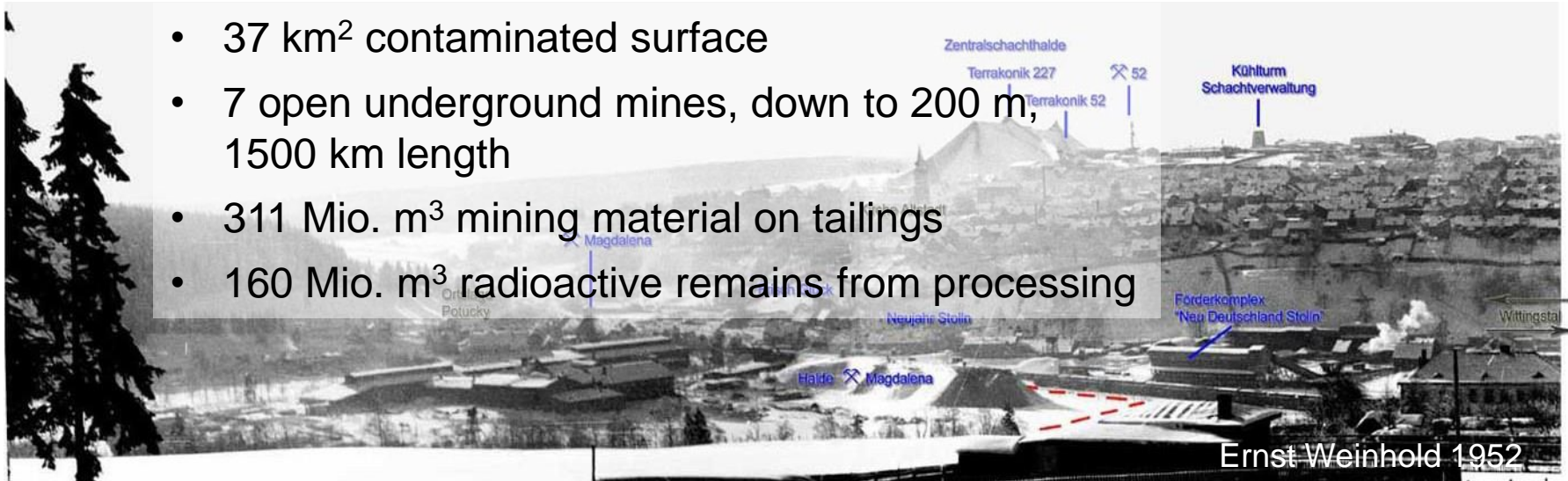
Niederschlag (EFS GmbH)





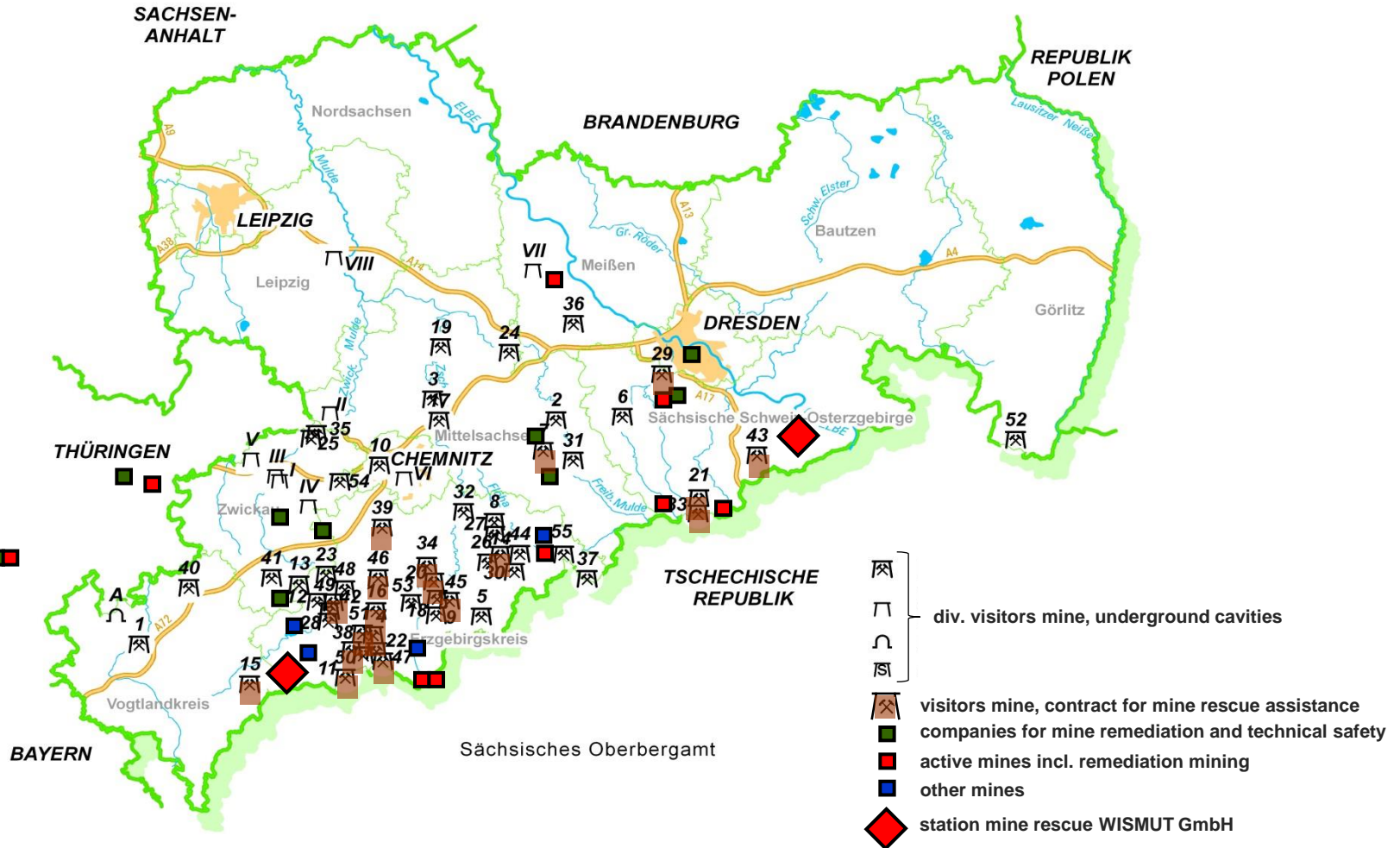
# SDAG Wismut — 45 years uranium mining “fuel for the cold war“

- 37 km<sup>2</sup> contaminated surface
- 7 open underground mines, down to 200 m, 1500 km length
- 311 Mio. m<sup>3</sup> mining material on tailings
- 160 Mio. m<sup>3</sup> radioactive remains from processing



# underground mines

- 3 companies with relevant mines
- 1 research mine





## mines rescue capabilities

- **Wismut GmbH (2013) — 54 rescue miners**
- **2 operational stations at Wismut (Aue, Königstein), 2x 3 operational teams, permanent preparedness, 24h standby**
- **in addition, 21 local competent guides in companies for mine remediation and technical safety, visitors mines**
- **Wismut contracts for mine rescue assistance:**
  - **17 visitors mines, 12 companies for mine remediation and technical safety, 7 small mines, 6 other mines.**
- **operational distance up to 150 km (more than 2 h + 25 min alerting)**

## remediation mining, Wismut GmbH



### situation 2014

- most underground work is done
- **no need for an ext(p)ensive mine rescue system**
- **backbone of mine rescue in Saxony is terminated**
- **„end of mine rescue Wismut“ will come soon**





## new challenges — miners underground

|                                       | 2012              | 2020                     |
|---------------------------------------|-------------------|--------------------------|
| remediation mines (Wismut etc.)       | 170               | 0                        |
| small mines                           | 90                | 40 + (?)                 |
| other mines (research, visitor mines) | 40                | 40 – (?)                 |
| <b><u>total</u></b>                   | <b><u>300</u></b> | <b><u>80 +/- (?)</u></b> |

### How will mine rescue in Saxony be organized in 2020?

- no more mine rescue at Wismut GmbH
- less miners underground
- still (more) small scale mines



## Approaches for a new mine rescue in Saxony (2020 +)

- development of a dense network of smaller rescue units
- network via contracts for assistance
- MoUs between the 4 relevant companies/mines signed in 2014
- small mines with one or two teams only (minimum so far 3 teams)
- reduction of the team structure from 1 leader + 4 rescue miners to 1 + 2 for fast action (draft for new guidelines of mine rescue, BGR CI)
- more consequent implementation of other professional rescue services (e.g. fire brigades)
- ... ?

**mine rescue in Saxony will develop from a „1 company service“ to a flexible network structure**





GLÜCKAUF!