

# Example of establishing the recycling of scrap metal as a waste management option within German regulations

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# Overview

- Clearance in Schleswig-Holstein, Germany
- International obligations and national law
- Release of metal after licenced melting
- Practical experiences
- Conclusion



## Competent authority and independent experts

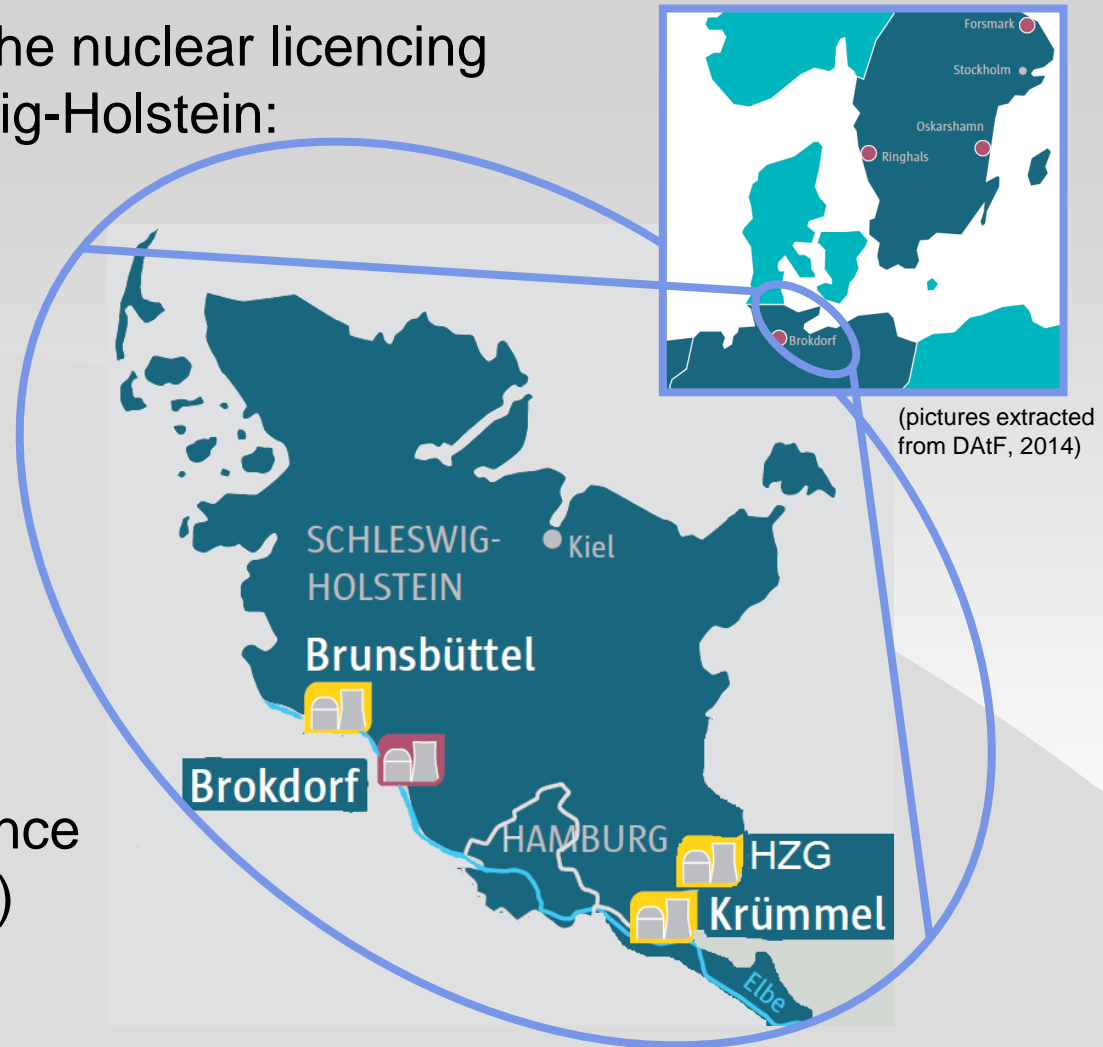
**MELUR** is responsible for the nuclear licencing and supervising in Schleswig-Holstein:

- NPP Brokdorf
- NPP Brunsbüttel
- NPP Krümmel
- Research Reactor HZG



„... the authorities in charge may consult authorized experts.”  
(Atomic Energy Act § 20)

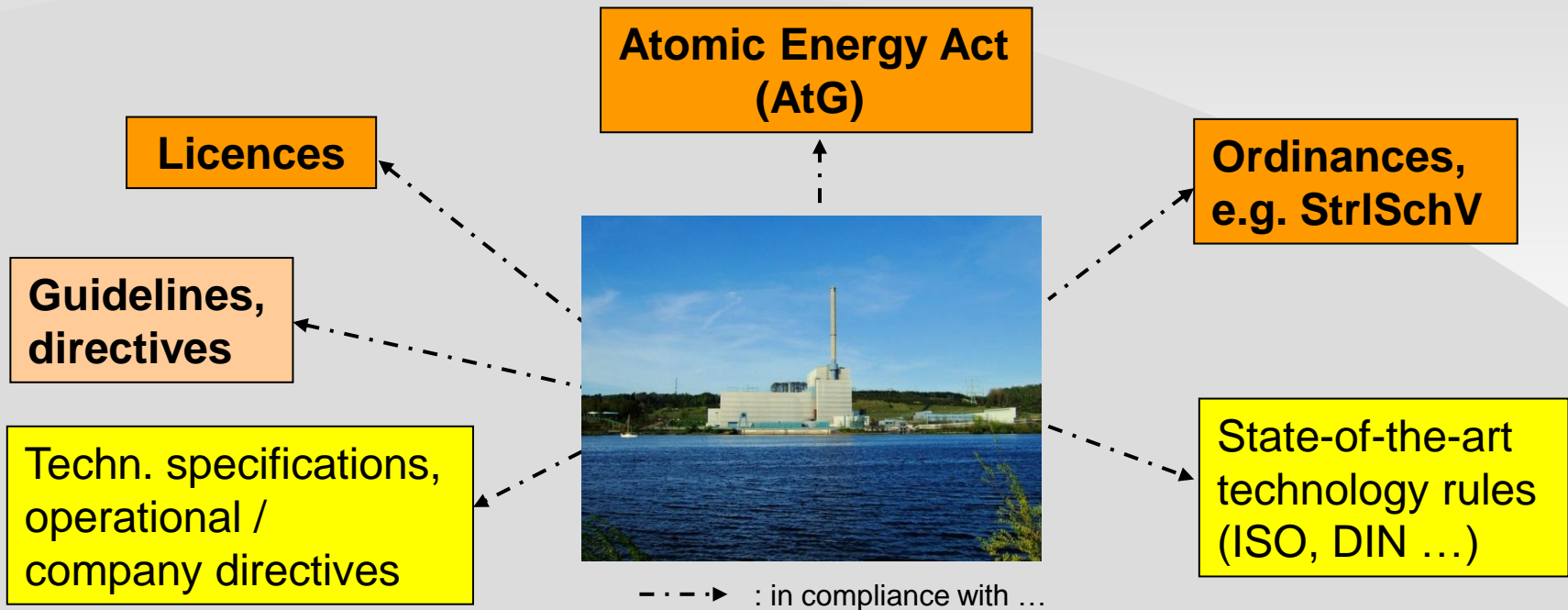
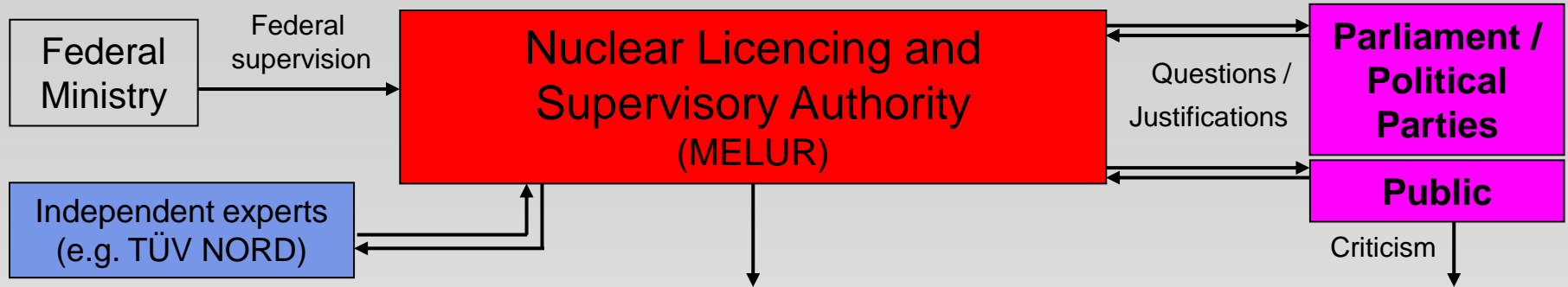
e.g. **TÜV NORD** for clearance  
(chosen by contract award)



(pictures extracted from DAtF, 2014)



# Dependencies and Responsibilities in Germany



# Basic Safety Rules

## Council Directive 96/29/Euratom / Radiation Protection Ordinance (StrlSchV)

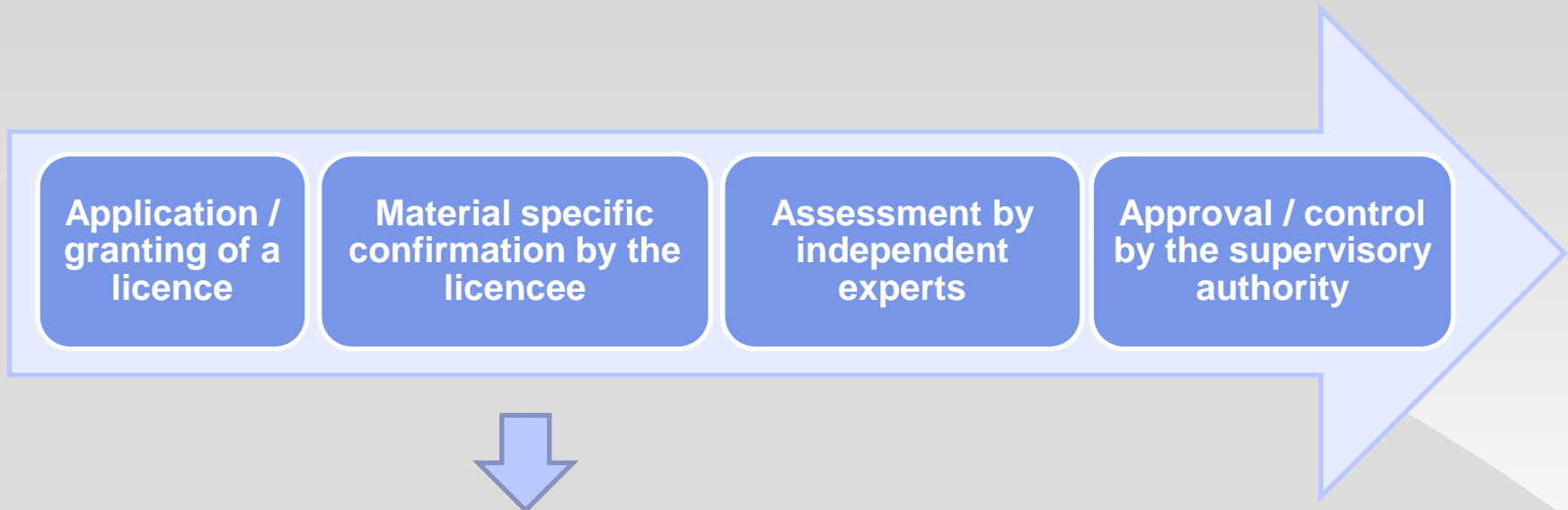
- **Art. 2 / § 2:** practices ↔ work activities
- **Art. 6, 7 / §§ 4, 5, 6:** justification, optimization and dose limitation
- **Art.18 / § 36:** controlled areas
- **Art. 4 / § 7:** requirement of a licence
- **Art. 3, 5 / § 29:** nuclide-specific clearance levels

Last update 2013: **Council Directive 2013/59/Euratom !**



## Clearance according to § 29 StrlSchV

**Clearance** is an administrative and supervised act by **MELUR** :



The radiation protection officer is responsible for documentation and verification:

- ✓ residual contamination is below particular clearance levels
- ✓ material conforms to all clearance conditions (licence + StrlSchV )

# Treatment and clearance in scope of an external licence

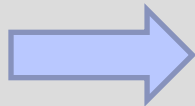
(1/2)



... is not a standard option explicitly addressed in the StrlSchV

... is possible under some circumstances:

- Different responsibilities and sovereignties remain untouched
- Agreement with both supervisory authorities
- Responsibility for nuclear waste rests with the NPP
- Comparable requirements on the clearance

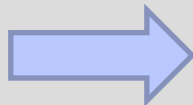


On what terms could **MELUR** agree upon the clearance according to RP89 along with the German regulations?



## Requirements on the clearance procedure:

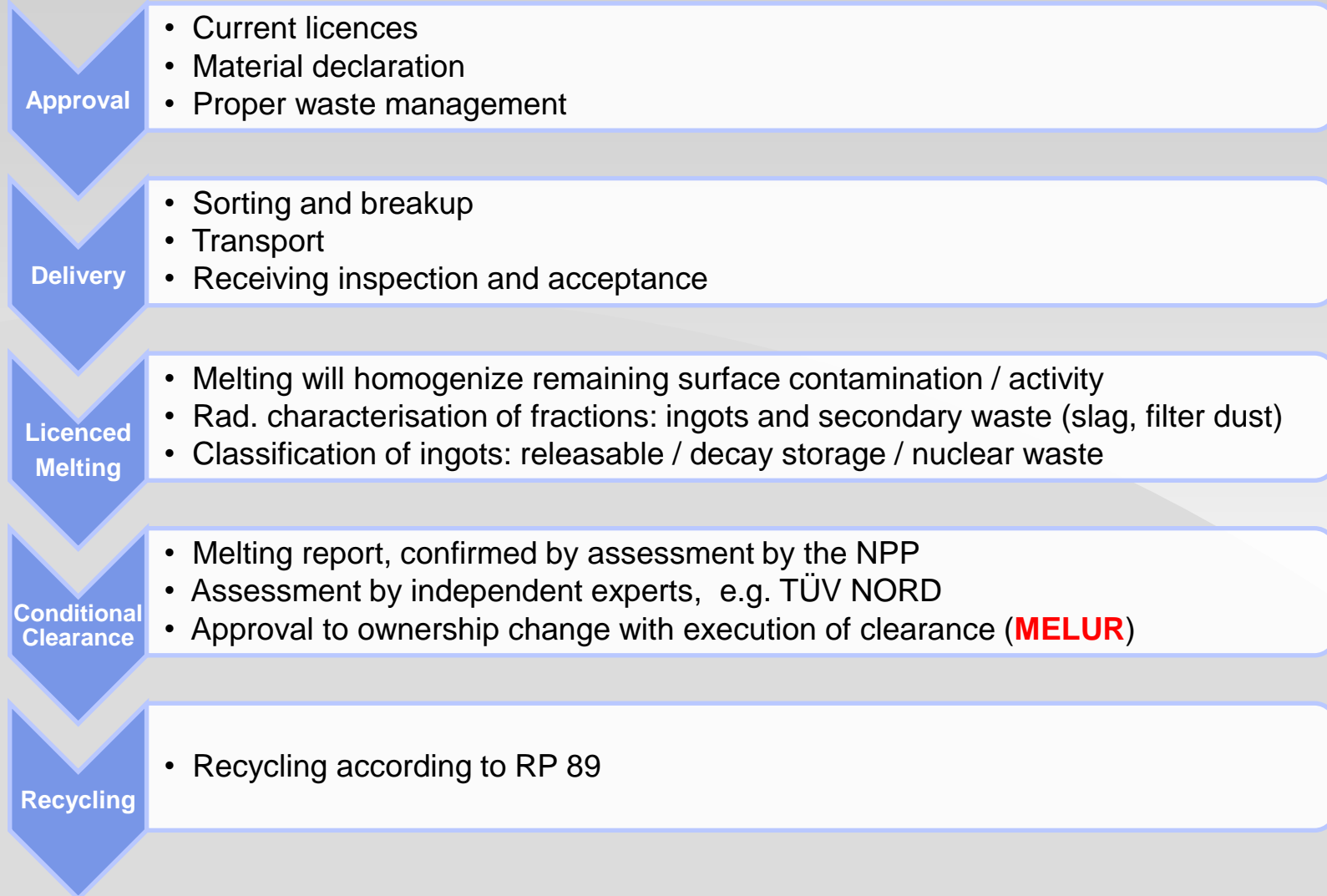
- Safety, transparency and feasibility of the procedures
- Compliance with the EU basic safety standards
- Existing licences
- Compliance with applicable clearance levels
- Completeness of the documentation
- Control by the supervisory authority



Approval by **MELUR**

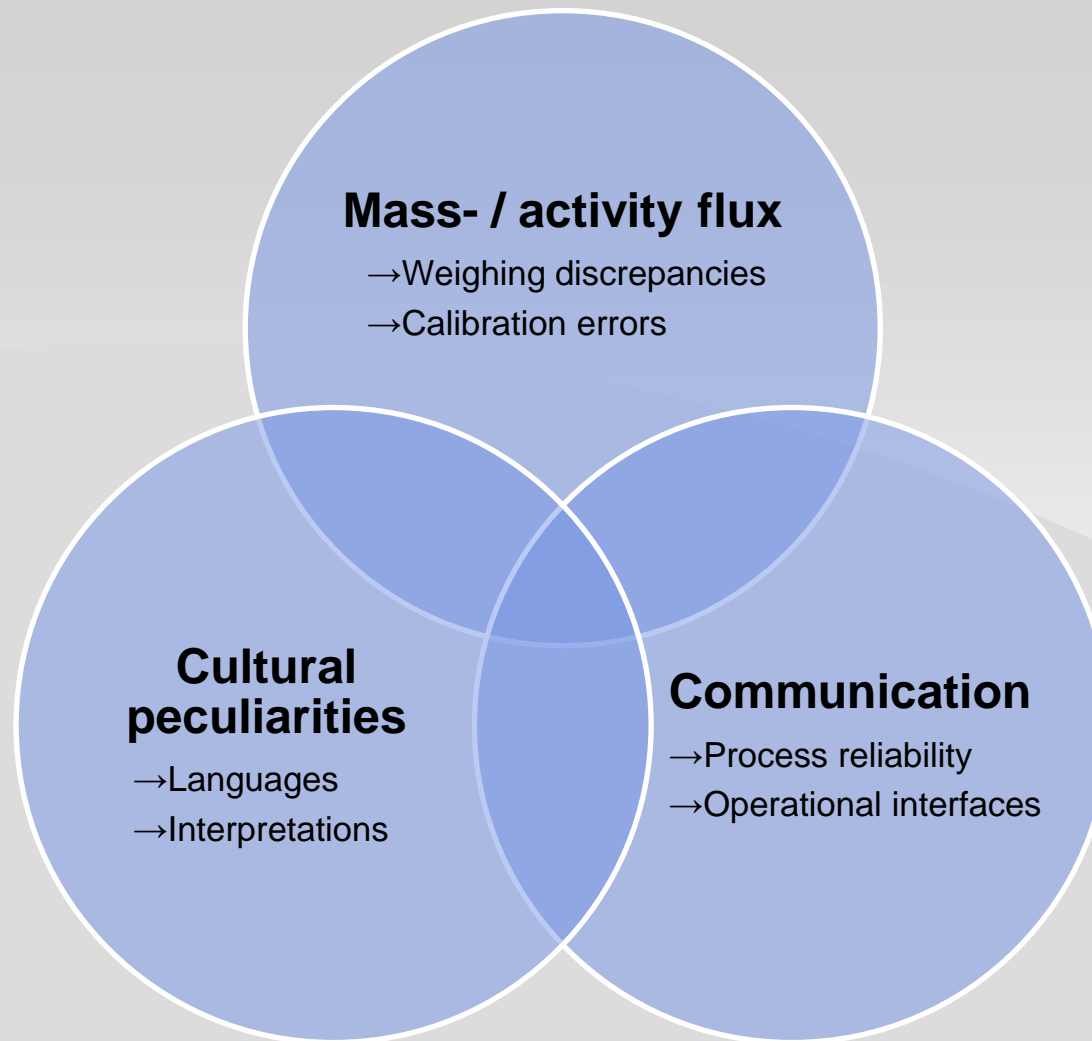


# Example of establishing the release of metal scrap after licenced melting





# Practical experiences





## Conclusion

External treatment and clearance of metal scrap in scope of an external licence is a feasible and workable option.

The comparability of national and third party regulatory requirements on clearance is of major importance.

The experience has shown that despite additional requirements the recycling of metals in foreign EU member states can be applied in a practicable way.



**THANK YOU  
FOR YOUR ATTENTION**