



*Supplement of*

**Safety in law – legal bases for safety-related decisions on technology in Germany: hazard, risk, residual risk and best-possible safety in nuclear disposal**

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Federal Office  
for the Safety of  
Nuclear Waste Management

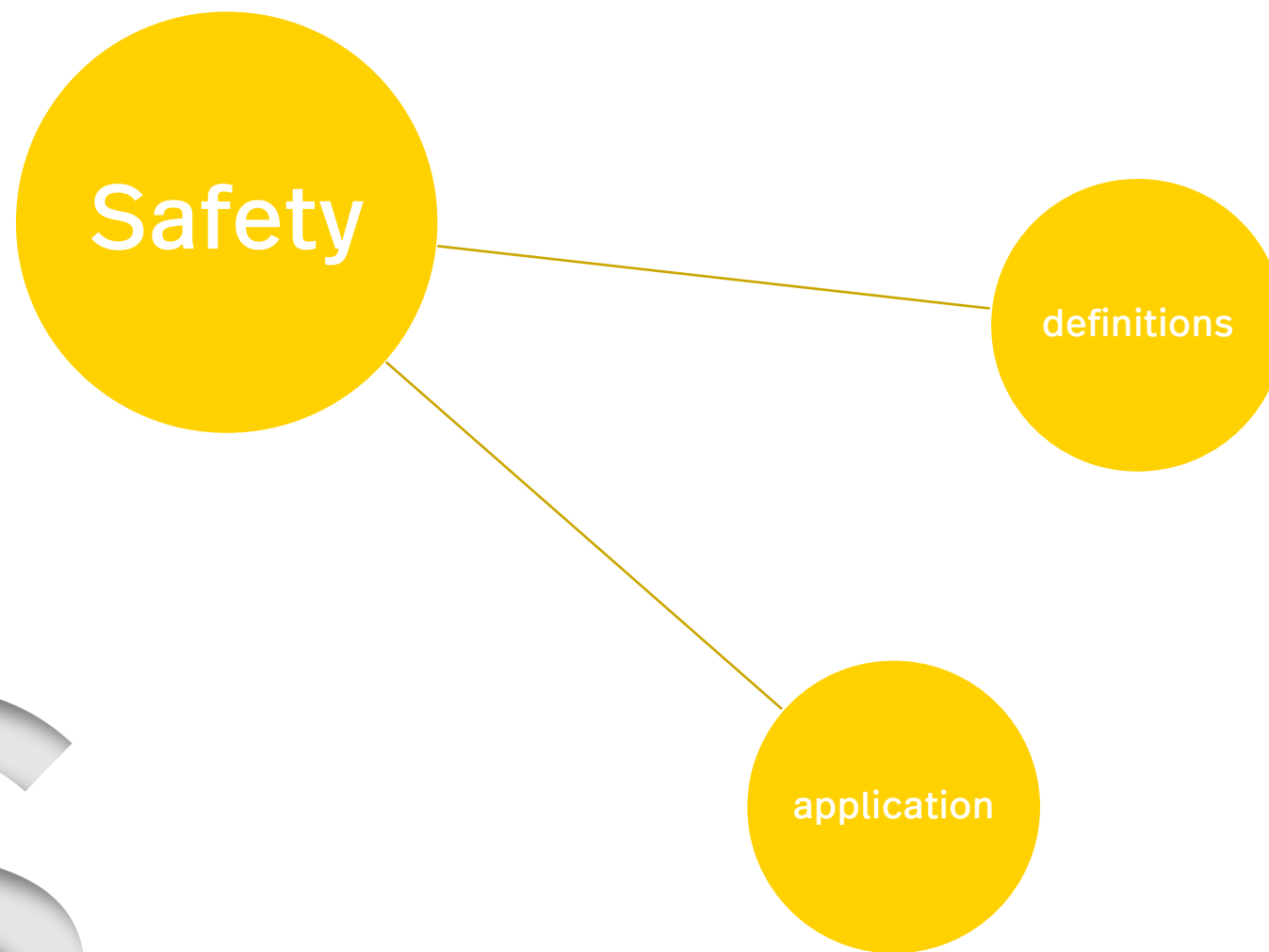
# **Risk & Safety in law**

**Legal Bases for safety-related Decisions on Technology  
in Germany**

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# Definitions are important (not only in law).



**BEACH WARNING FLAGS**  
BANDERAS DE ADVERTENCIA EN LA PLAYA

-  **Water Closed to Public**  
Agua Cerrada al Público
-  **High Hazard**  
High Surf and/or Strong Currents  
Peligro Alto, Resaca Alta y/o Corrientes Fuertes
-  **Medium Hazard**  
Moderate Surf and/or Currents  
Peligro Medio, Resaca Moderada y/o Corrientes Fuertes
-  **Low Hazard**  
Calm Conditions, Exercise Caution  
Peligro Bajo, Condiciones Calmas, Tenga Cuidado
-  **Dangerous Marine Life**  
Vida Marina Peligrosa

Absence of Flags Does Not Assure Safe Waters  
La Ausencia de Banderas No Asegura Aguas Seguras



# **A technically unambiguous definition is possible.**

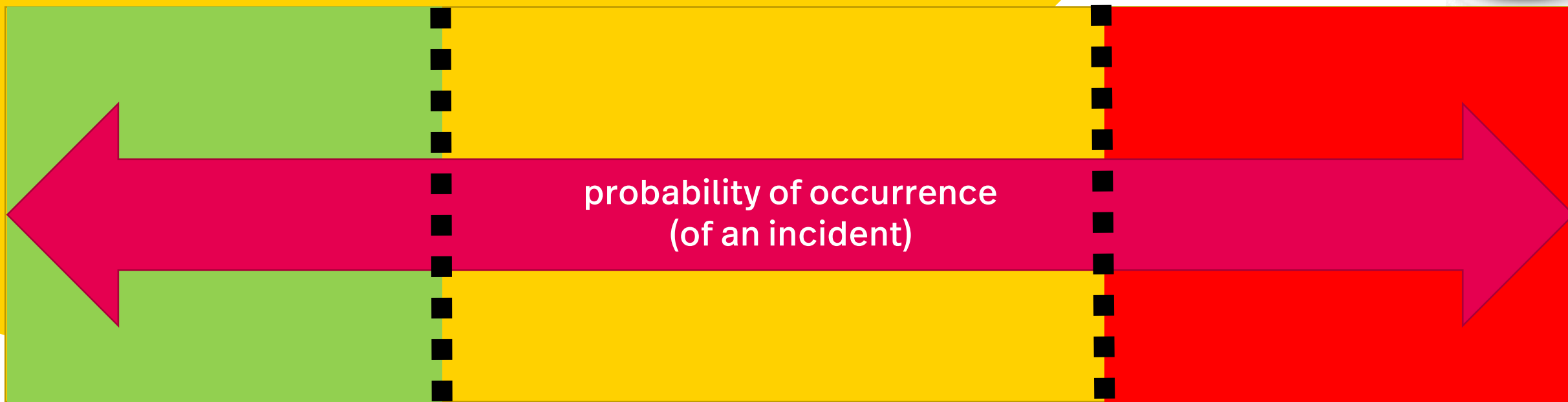
- Safety = zero risk
- Value-free scientific-technical term

# **There is no common interdisciplinary & legal definition.**

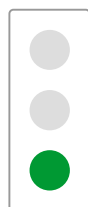
- undefined legal term
  - need for interpretation in every legal area
- central component of environmental and technical law
- interface between technical (natural) sciences and humanities
- no interdisciplinary definition



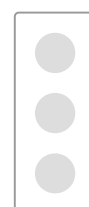
# Classification leads to legal consequences.



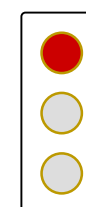
residual risk



risk



hazard

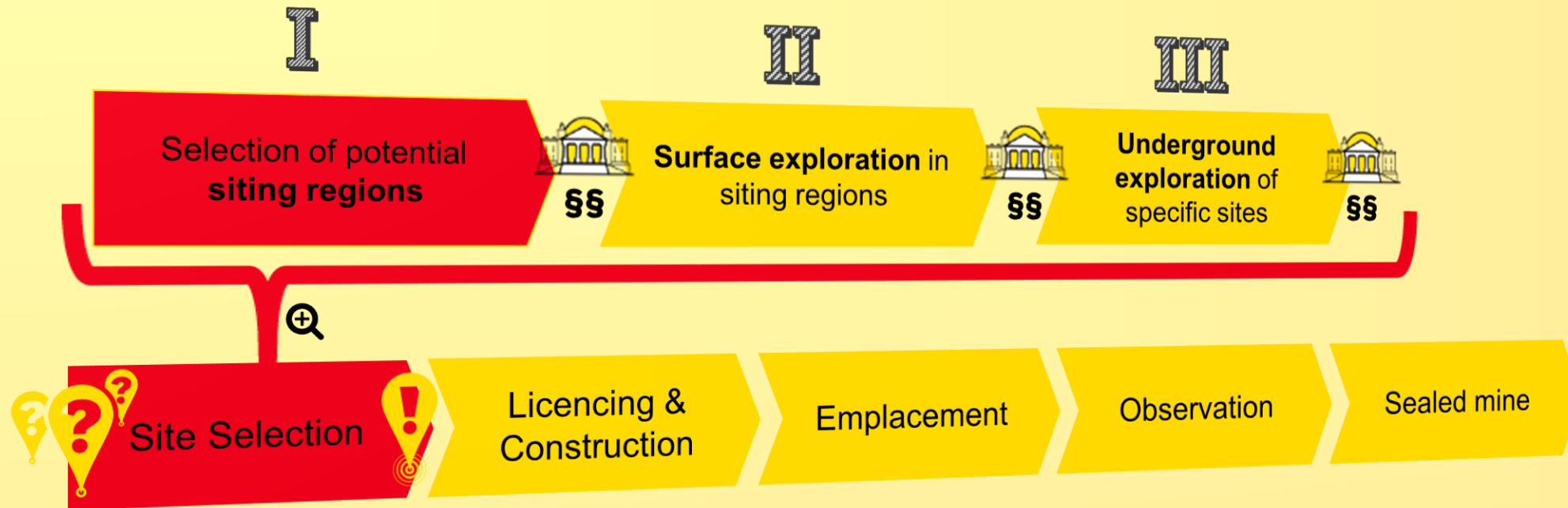


# Risk regulation is implemented in several fields of life.

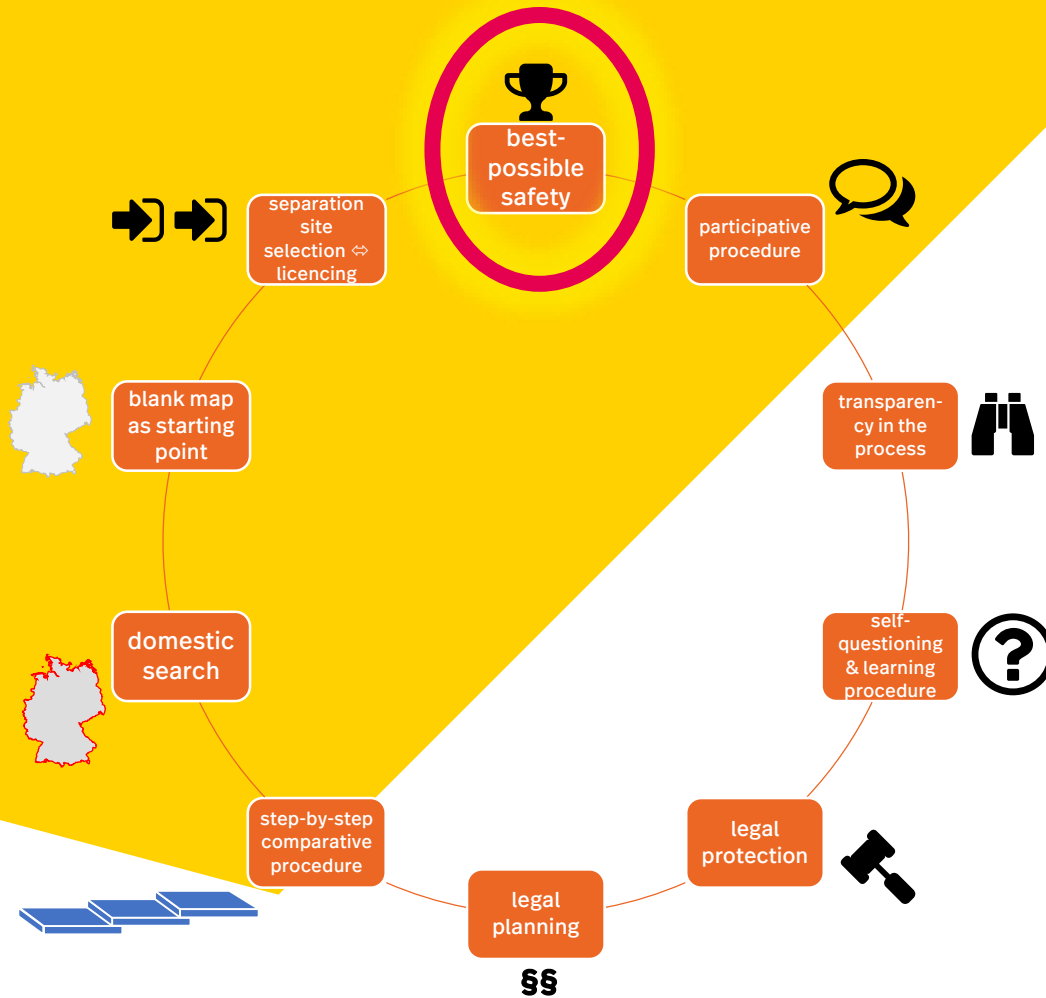




# The Site Selection Process follows a phase-based approach.



# The Site Selection Process is guided by basic principles & characteristics.



# The best-possible safety (I/III)

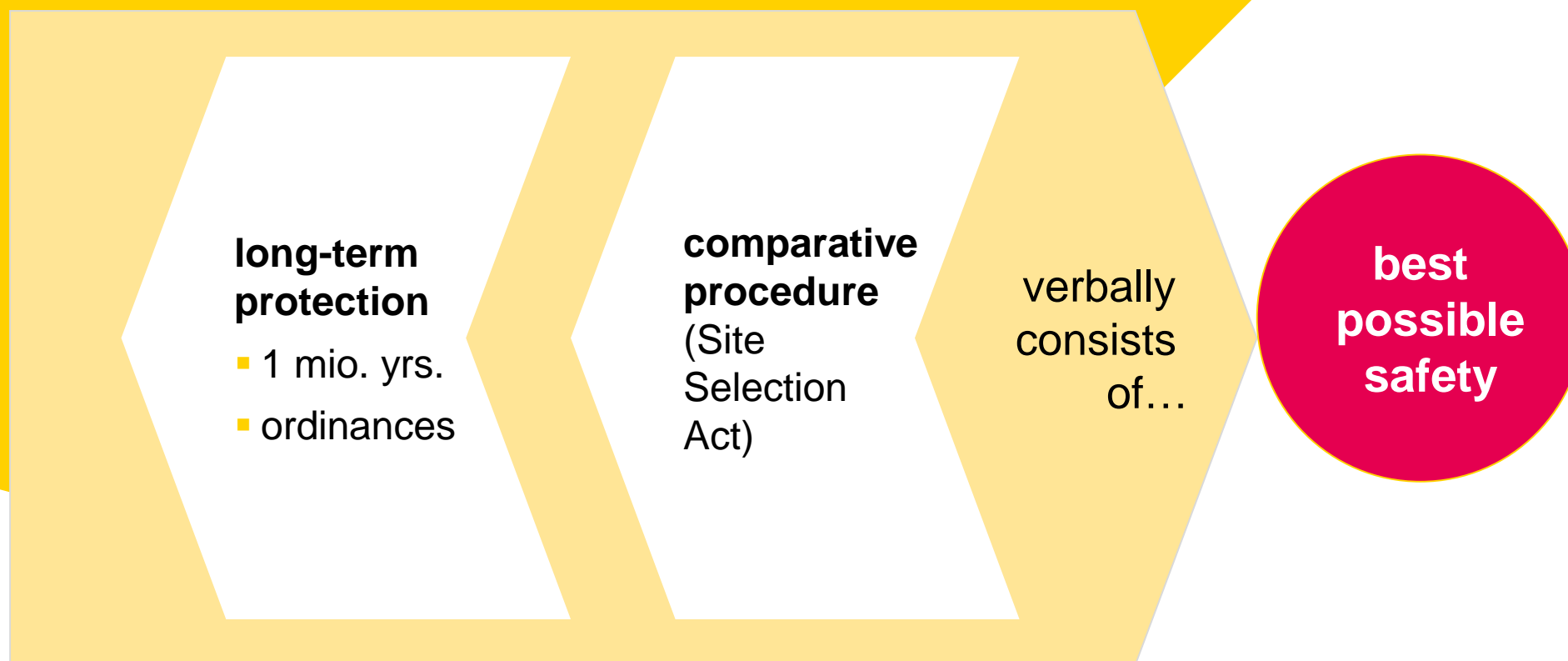
## § 1 (2) StandAG (Site Selection Act)

The purpose of the site selection procedure is to identify [...] a site for the disposal of high-level radioactive waste [...] with the best possible safety for a disposal facility [...].

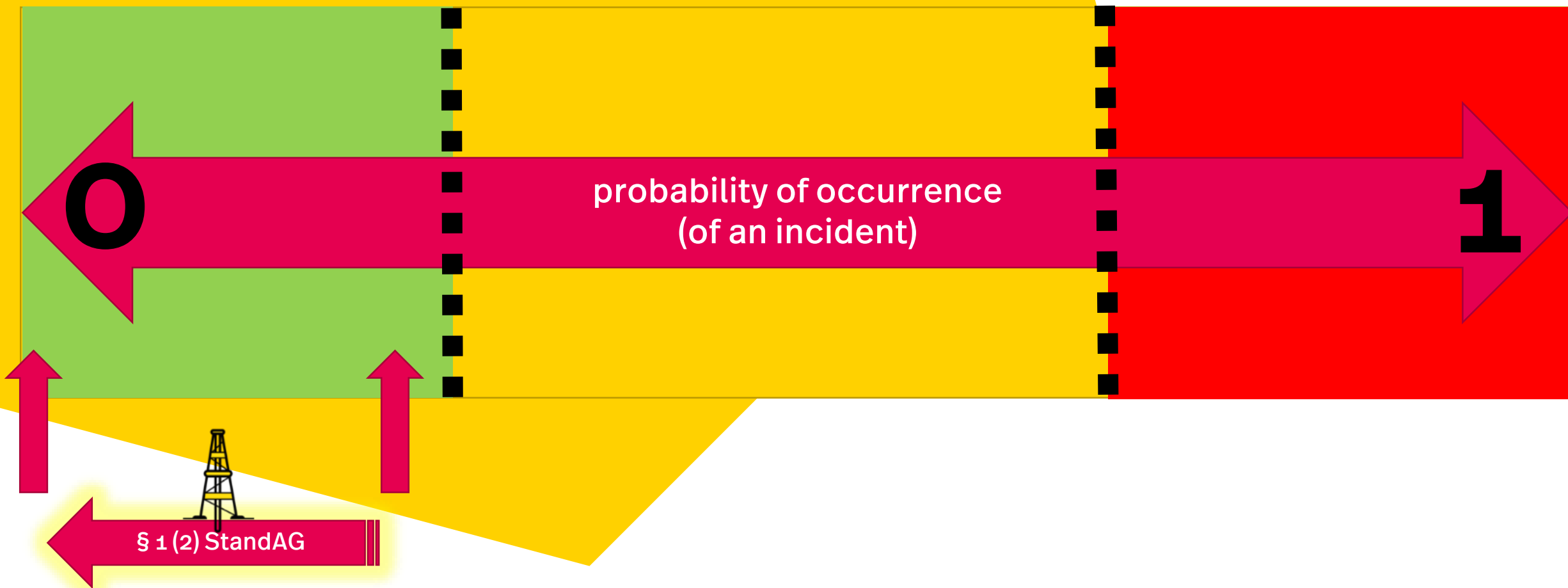
The site with the best possible safety is

- the site identified on the basis of a **comparative procedure** from among the suitable sites in the respective phase [...]
- ensuring the best possible safety for the **long-term protection** of man and the environment against ionising radiation and other harmful effects of such waste for a period of one million years.

# The best-possible safety (II/III)



# The best-possible safety (III/III)



# References

- Federal Constitutional Court (Bundesverfassungsgericht),  
Decision 2 BvL 8/77 (Kalkar I), 1978/8/8, BVerfGE 49, 89
- Federal Constitutional Court (Bundesverfassungsgericht),  
Decision 1 BvR 385/77 (Mülheim-Kärlich), 1979/12/20, BVerfGE 53, 30

# Contact

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