



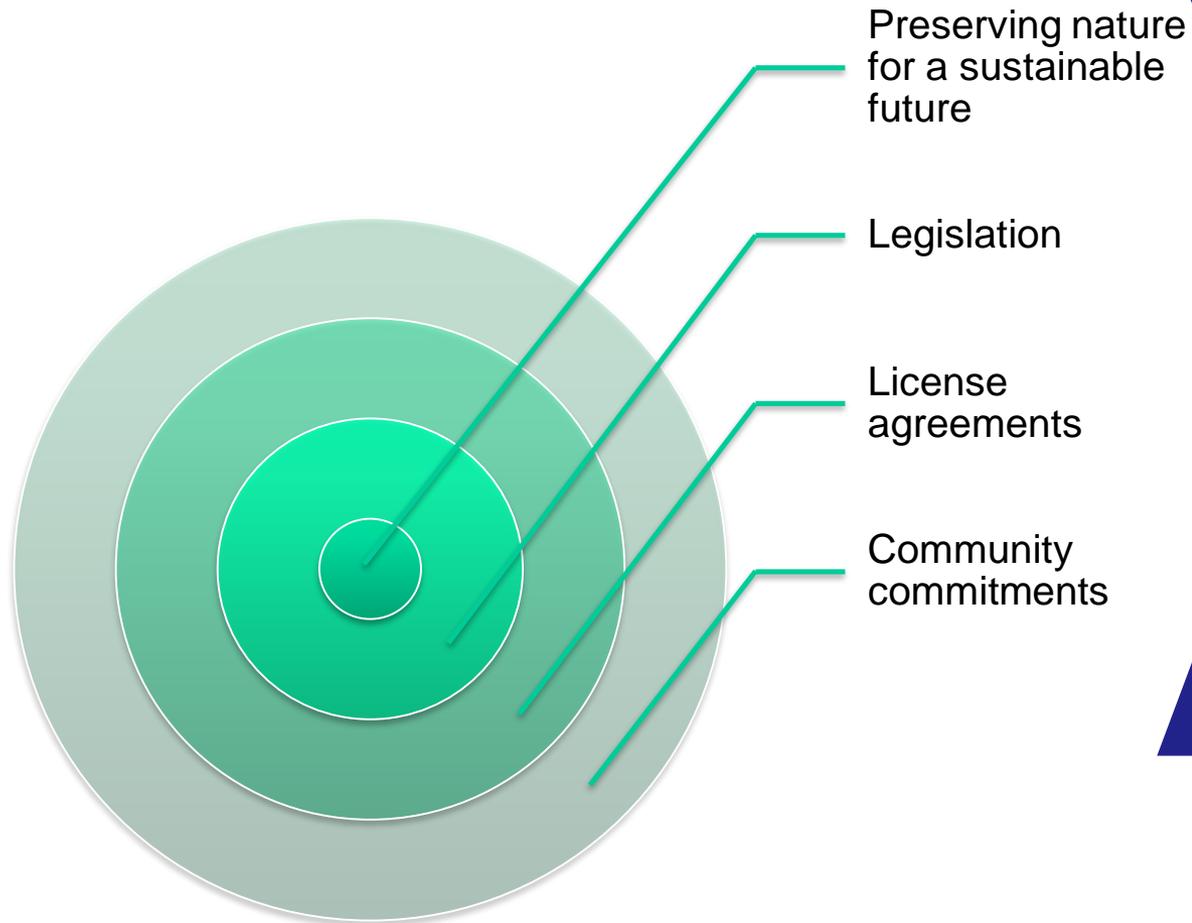
**Riksrevisjonen**

Office of the Auditor General of Norway

# Decommissioning

WGEI 2nd meeting, Oslo, 21-23 September 2015

# Decommissioning – Where does it start?



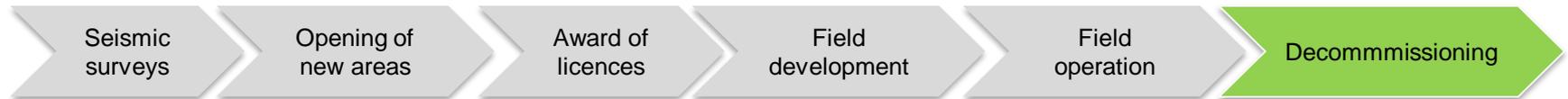
•Financial intent

•Environmental management

•Financial provisioning

•Guaranteed funds

# Decommissioning of offshore facilities



# Legal background for decommissioning in Norway

- Act of 29 November 1996 No. 72 pertaining to petroleum activities (Petroleum Act), chapter 5
- Regulations to the Petroleum Act, laid down by Royal Decree 27 June 1997 (Petroleum Regulations), chapter 6
- OSPAR convention, decision 98/3 and IMO convention, 2009
- Norwegian Pollution Act § 20

## Legal background cont.

Licensees have to submit a cessation plan to the Ministry of Petroleum and Energy (MPE), 5 to 2 years before the production licence expires or the use of a facility is permanently terminated. A cessation plan shall include i.a.:

- proposals for continued production or shutdown
- relevant disposal alternatives with impact assessment
- recommended solution
- time schedule

Disposal alternatives:

- further use in petroleum activities, other uses, complete or part removal or abandonment.

# The Norwegian experience

- In 2015 over 500 facilities in operation on the Norwegian continental shelf (subsea and different types of platforms)
- Up to date 13 cessation plans approved
- Significant increase in decommissioning activities to be expected as technical end of life will be reached/not prolonged or production terminated for economical reasons
- Cost for decommissioning of current facilities estimated by operators to NOK 170 billion (appr. USD 21 billion)
- 78 per cent of this cost covered indirectly through tax deductions by the Norwegian state

# Potential decommissioning risks

Safety and environmental security risk due to

- facilities awaiting offshore removal, during transport and on-shore decommissioning
- wells awaiting permanent plugging

Does regulatory oversight by relevant authorities ensure adequate execution of disposal decision?

# Examples of decommissioned facilities

## Frigg Industrial Heritage

[http://www.kulturminne-frigg.no/stream\\_file.asp?iEntityId=349](http://www.kulturminne-frigg.no/stream_file.asp?iEntityId=349)



## Ekofisk Industrial Heritage

<http://www.nettmuseum.no/subindex.asp?iSelectedMenuItemId=1001&iMin=3&iMax=30&iContentMenuRootId=1001>

## Potential decommissioning risks cont.

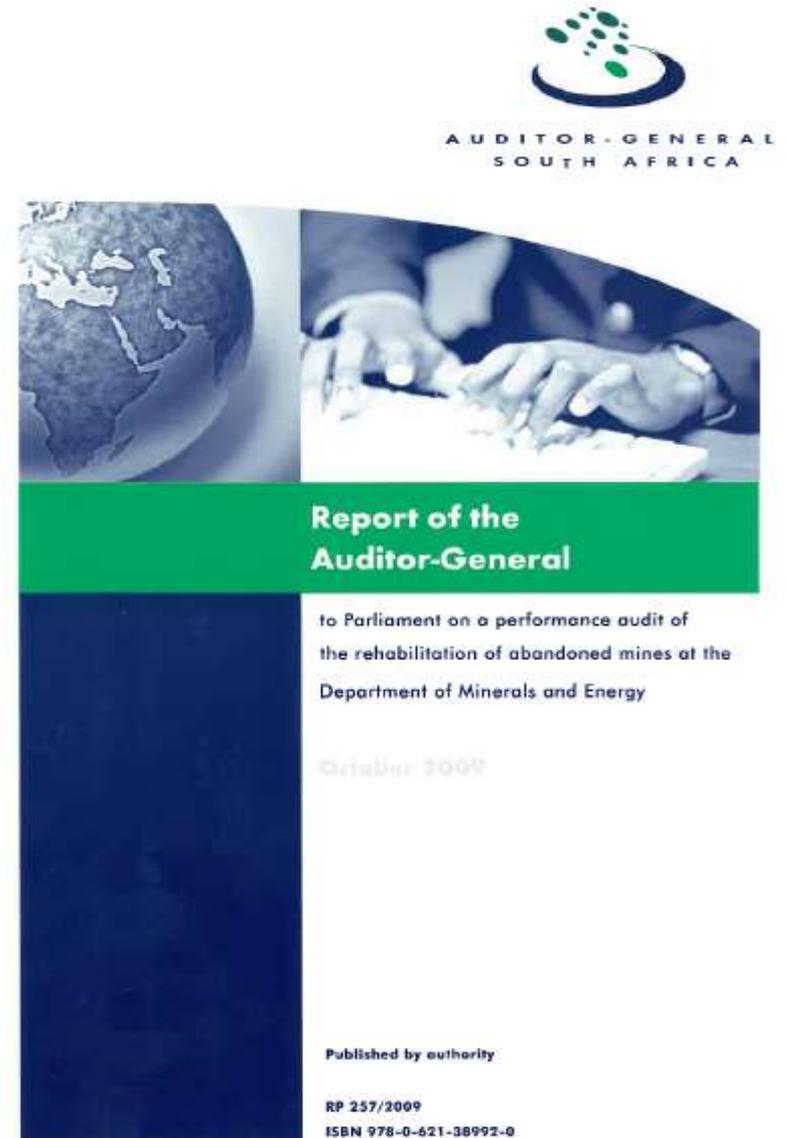
Financial risk for the state: Are licensees' financial provisions sufficient to cover their decommissioning costs and liabilities?

- How do authorities ensure that operators' estimates are realistic and thus made provisions sufficient?
- Even if owners are subsidiarily liable, how do authorities ensure that provisions are sufficient, e.g. in case of transfer(s) of licences?
- Do authorities ask for guarantees?

# The South African experience

Performance audit of the  
rehabilitation of abandoned  
mines

< Key observations and recommendations >



## Background: Department of Mineral Resources

- Responsible for **formulating** and **implementing** mining-related policies
- Regulates mining industry:
  - ***Mineral and Petroleum Resources Development Act***
- 2006: contracted Council for Geo-Science to develop national strategy:
  - development and population of database of abandoned mines in South Africa
  - ranking of mines within database i.t.o. potential impact
  - 5 906 abandoned mines
  - estimated cost of rehabilitation => *R30 billion (USD2.3 billion)*
  - *1 730 High risk mines => R28.5 billion (USD2.2 billion)*

## Findings on audit of abandoned mines

- What was the department *NOT* doing?

### Problem statement:

*Does the rehabilitation process for abandoned mines ensure timely, cost effective identification and rehabilitation of abandoned mines to ensure that the social and environmental impact is limited?*

- No approved strategy or plan
- Unavailability of information to target high risk mines
- Organisational structure not supportive
- Communication channels not defined or structured
- Poor project management and budget allocation

# Discussion

- Risk assessment in other countries
- How can SAIs contribute to reduce risks related to decommissioning?

Thank you for your attention!