

Defence Materiel Organisation



Halon Banking Case Study

Lessons for Climate Change

Anton L.C. Janssen

Head, Knowledge Center for COSHER

NL Ministry of Defence , Defence Materiel Organisation

Content

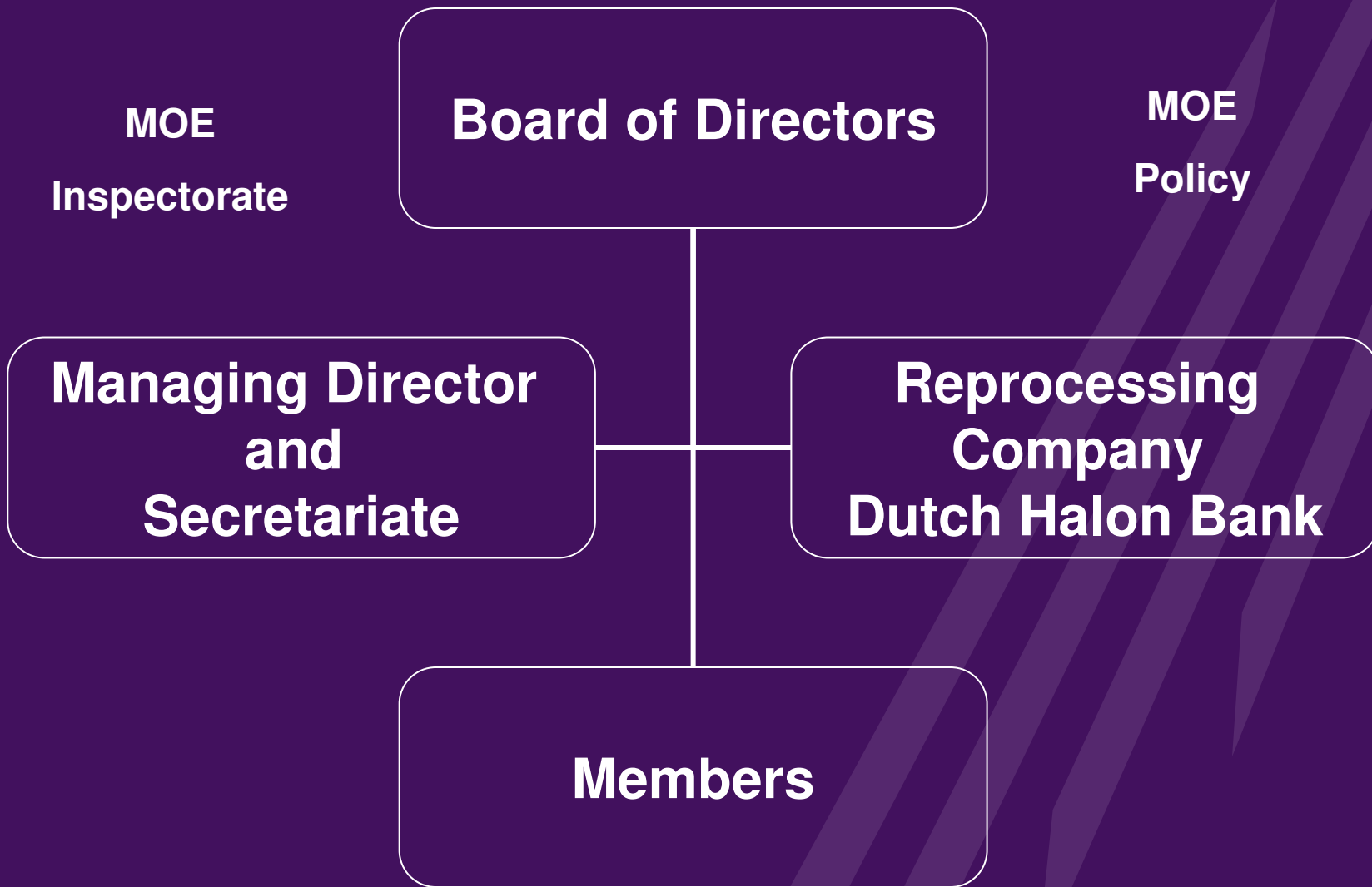
- **History NL Halon Bank Association**
- **Organisational Structure NL Halon Bank**
- **ODS Management in NL Post-2000**
- **NL Halon Bank Volumes**
- **Case Study**
- **Lessons for Climate Change**

History NL Halon Bank Association

ODS Management in Europe Before- 2000:

- Individual nations of EC/15 implemented Montreal Protocol
- Only few EC nations established halon banks for essential uses
- NL Ministry of Environment in 1991/92 conducted study on aim and organisational structure for NL Halon Bank

Organisational Structure NL Halon Bank



ODS Management in NL Post- 2000

- 1. EC Regulation 2037/2000 of June 29, 2000**
- 2. NL Collection/Destruction Scheme CFC and halons 2002/2003**
 - > collection finalized on January 1, 2004 and subsidy finalized on January 1, 2006**
 - > less than 1,000 mtons total of both halons 1211 and 1301 collected**
 - > number of members NL Halon bank dropped to less than 10**
- 3. Draft- Revision of EU Regulation 2037/2000 in 2008**

NL Halon Bank Volumes

Nov 4, 2008

- 1. Quantities of halons estimated in NL at start in 1993;**
- 2. Non-critical/essential halon users:**
 - > free of charge disposal of halons through NL Halon Bank**
 - > alternative disposal: charged as chemical waste**
- 3. Quantities of halons in NL Halon Bank from January 1, 2000**
- 4. January 1, 2008: halon shortage because of halon claims**

Case History

- 1. Danish Air Force early- 2008 announced surplus of 27,7 mton Halon 1301:**
 - * DA MOE licence for export to NL**
 - * NL MOE licence for import from DA**
 - * NL Halon Bank: no requirement for additional volumes, nor NL MOD, nor US DOD**
- 2. NL MOE August 2008 agreed:**
 - * import from DA to NL industry**
 - * however, under administration of NL Halon Bank**

Lessons for Climate Change (1)

- 1. GHG emissions origin:**
 - > combustion processes: mobile and fixed engines and power plants: 80-90%**
 - > waste disposal: methane: 5%**
 - > high- GWP, often ODS replacing, chemicals (HFC's, SF6): 5-15%**
- 2. 85- 95% GHG emissions require process management**
- 3. 5- 15% GHG emissions require product management, similar to management for ODS**

Lessons for Climate Change (2)

ODS phase- out succes factors:

- **focused on potential impacts to readiness**
- **inventories of uses and emissions**
- **industry commitment**
- **R&D driver**
- **alternative new systems and retrofits where technically and economically feasible**
- **monitored progress**

Lessons for Climate Change (3)

Lessons for GHG emission:

- evaluate use of GHG chemicals
- identify GHG chemicals critical uses
- include GHG chemicals in risk assessment of new designs
- include waste disposal in design and acquisition assessment
- international networking and cooperation is important

Lessons for Climate Change (4)

ODS banking:

- **NL Halon Bank: proven management tool**
- **banking is the proper management tool for ODS and GHG chemicals**
- **ODS clearing house is small scale “service”**
- **global clearing house for GHG (and ODS) is a requirement**

Questions

???