

# SWERA – Kick Off Meeting

Introduction and Expectations.

Below the surface ticks a silent clock.  
Towards the oil disaster.

Helsinki 15.5.2014



## TOWAGE

More than 50 vessels in the Baltic Sea

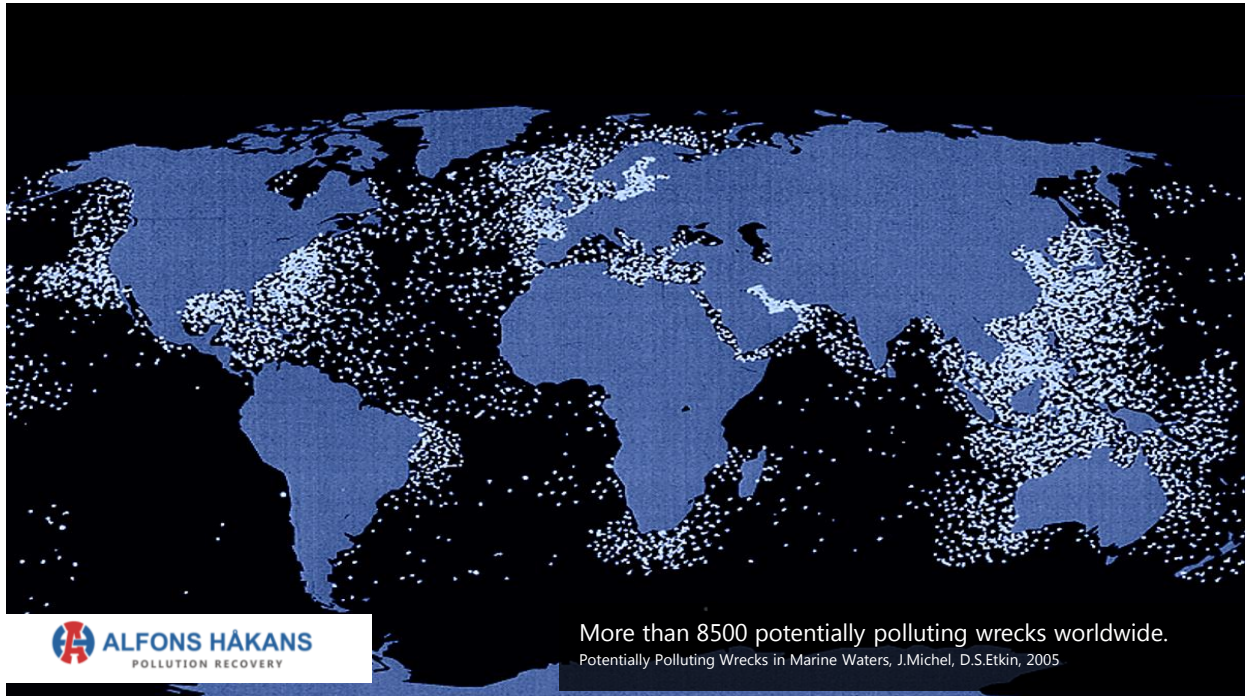










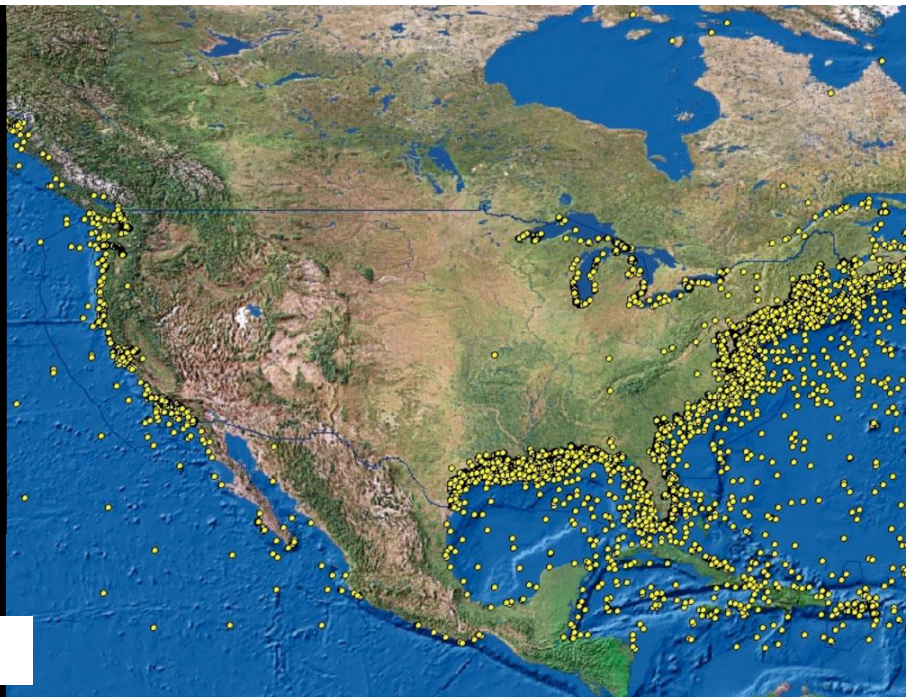


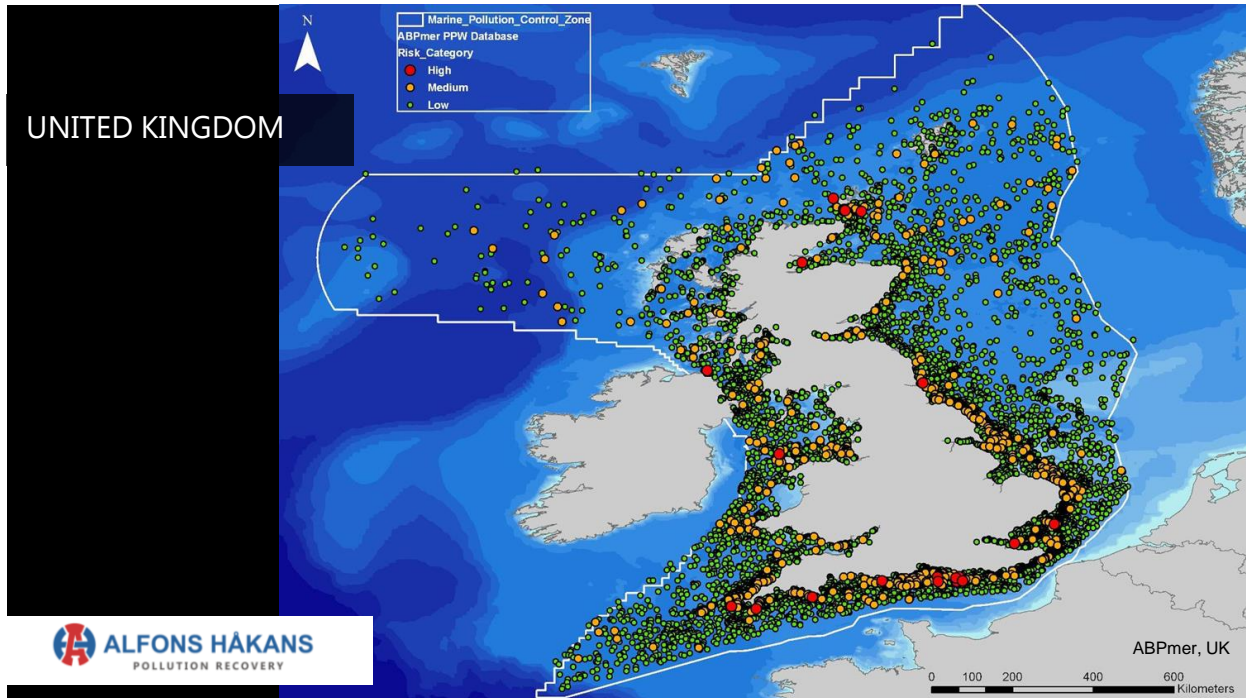
## USA

The NOAA Resources and UnderSea Threats (RUST) database has over 30,000 targets, including 20,000 vessels.

U.S. Coast Guard  
Potentially Polluting Wrecks  
in U.S Waters, 2013

- \* Low Priority 11-45 wrecks
- \* Medium Priority 36-40 wrecks
- \* High Risk 6-36 wrecks





## NORWAY

Wreck database

\* Low Risk 1700 wrecks

\* Moderate Risk 350 wrecks

\* High Risk 30 wrecks

## Inventory of more than 2000 wrecks registered in the 1990s ("Wreck Program")

### 30 shipwrecks prioritized

- 9 wrecks empty
- 3 wrecks not found
- 18 wrecks assumed to contain from 10 to 300 tons of oil

### Wrecks drained

- 1994
  - Blücher (Ger)
- 2007-2008
  - Velheim (Ger)
  - Nordvard (Ger)
- 2011-2013
  - HMS Bittern (UK)
  - RFA Boardale (UK)
  - Erich Giese (Ger)
  - Neuenfels (Ger)
  - U-864 (Ger)





## SWEDEN

Wreck database

- \* 2700 subsea objects
- \* Moderate Risk 316 wrecks
- \* High Risk 31 wrecks



### MILJÖRISKER FRÅN FARTYGSVRÄK

Resultat från inventering 2011  
31 vrak



## FINLAND, VTT 1999

Wreck Class	Description	pcs.	Percentage of surely identified wrecks
I	Wreck contains, with relatively high probability, over 100 tonnes of oil or it is in some other respect similarly dangerous to the environment.	22	32 % 68 %
II	Wreck may contain over 100 tonnes of oil because of the size, type or other structural feature of the vessel.	24	21 % 79 %
III	Wreck may contain 10-100 tonnes of oil.	68	n.a
0	Wreck contains less than 10 tonnes of oil.	306	n.a

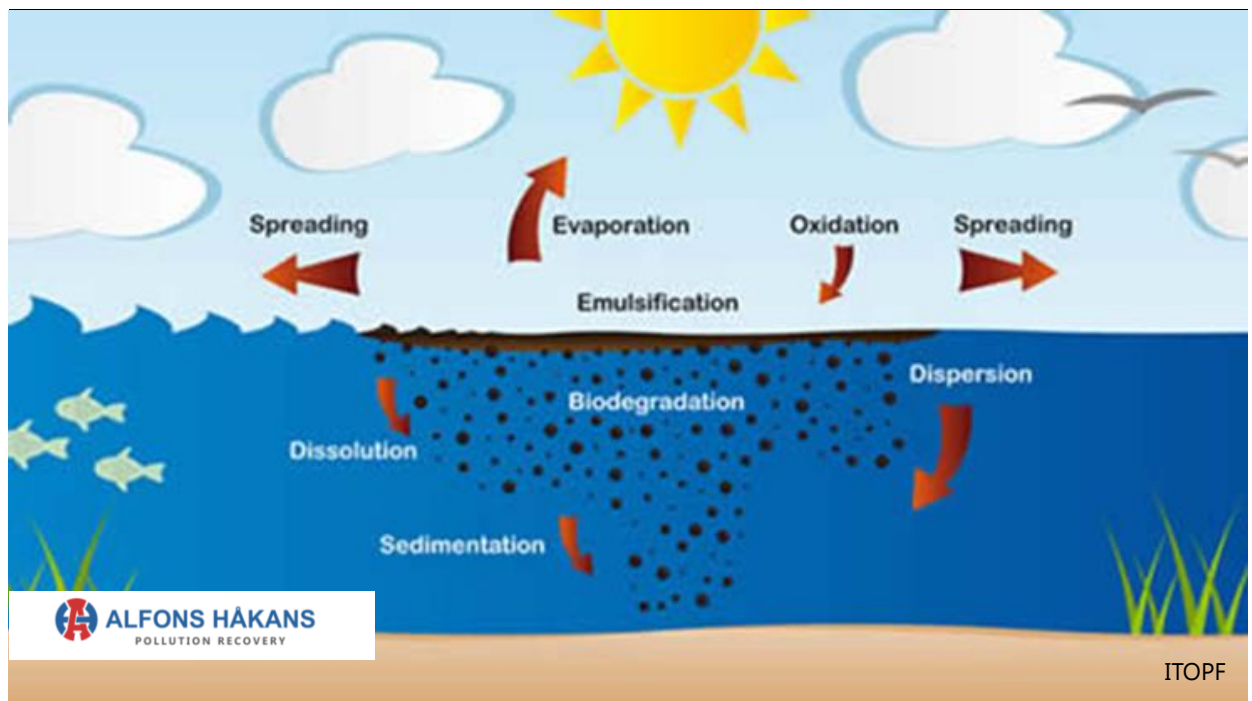




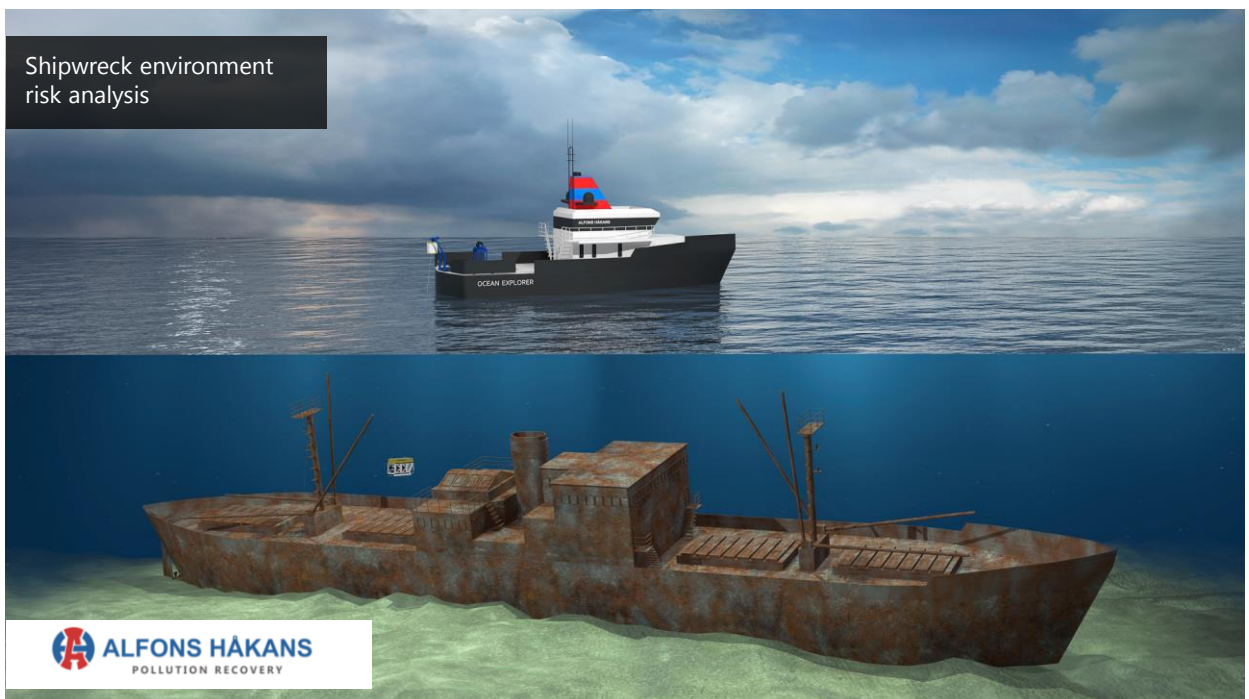
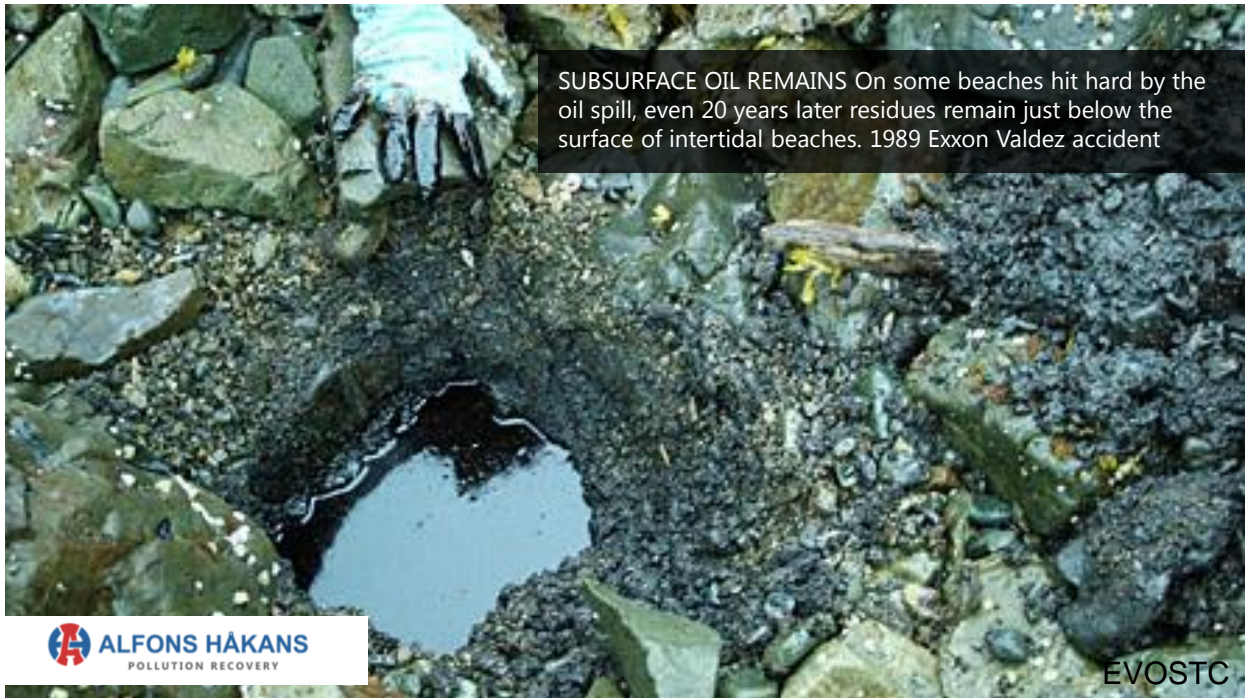
NOW IS TIME FOR ACTION!

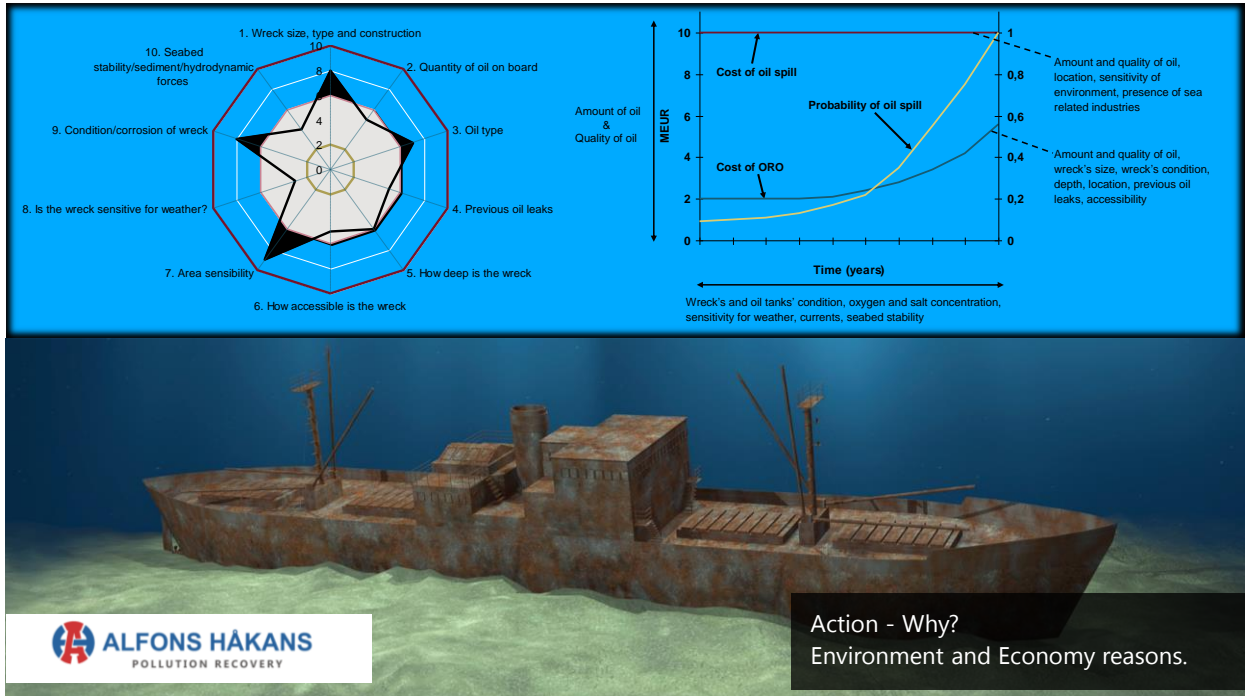
Oil leaking shipwreck

 **ALFONS HÅKANS**  
POLLUTION RECOVERY











Case; SS Park Victory  
Grounded and sunk in  
December 1947.

She is laying  
on the seabed in  
20-40 meters depth  
in Utö, South Finland.

Bow of Park Victory.



Syke

Case; SS Park Victory



Syke

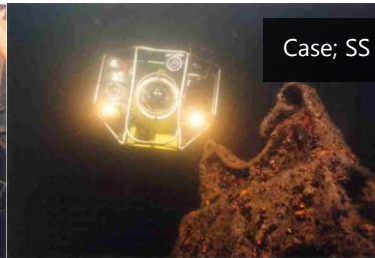
Case; SS Park Victory

Subsea manifold unit

Removed 410 tons of heavy fuel oil from her tanks.

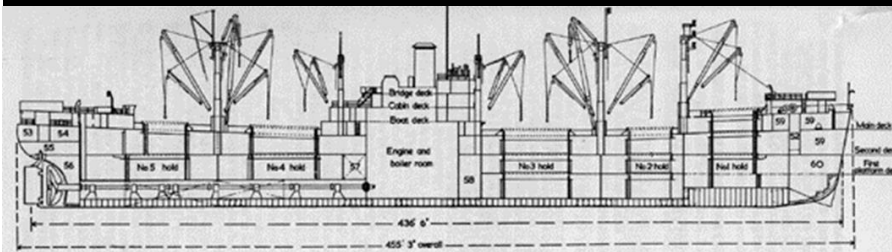


Syke



Case; SS Park Victory

Oil Recovery Operation's working hours 1994-2000;  
Oil recovery vessels Halli and Hylje total 5000 h.  
Finnish Navy Divers, total 1400 dives and 1200 working hours.  
Observation class ROV, 1700 working hours.

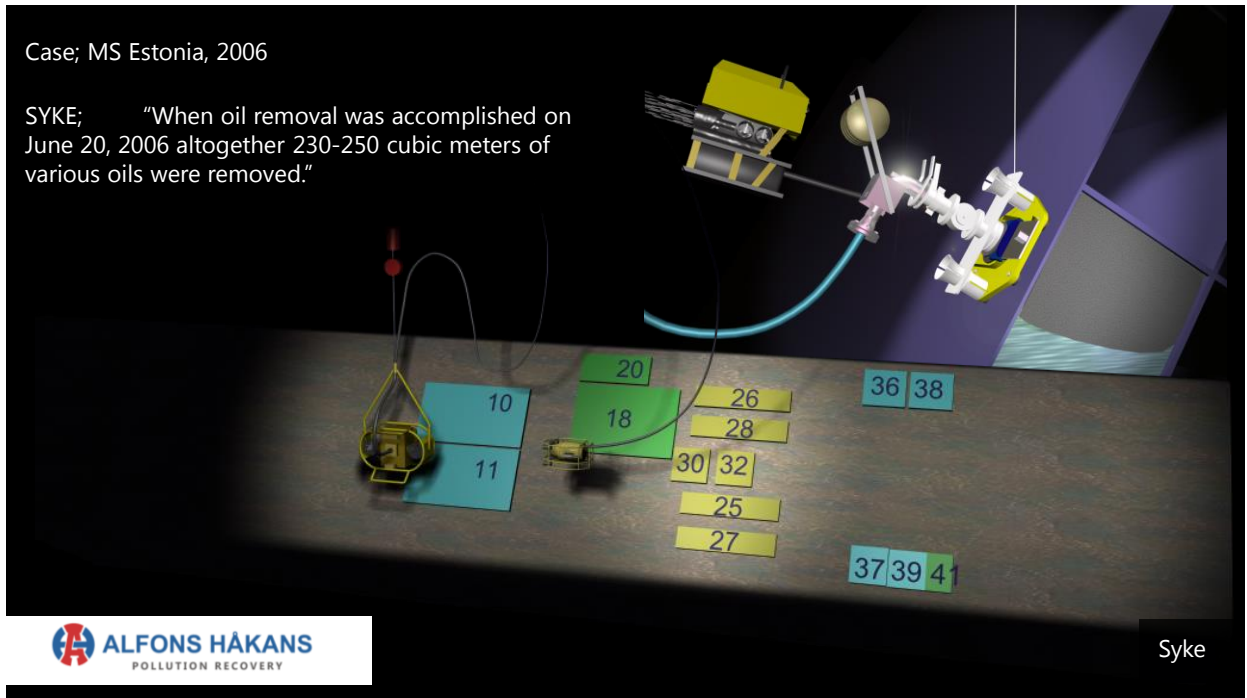


Syke



Case; MS Estonia, 2006

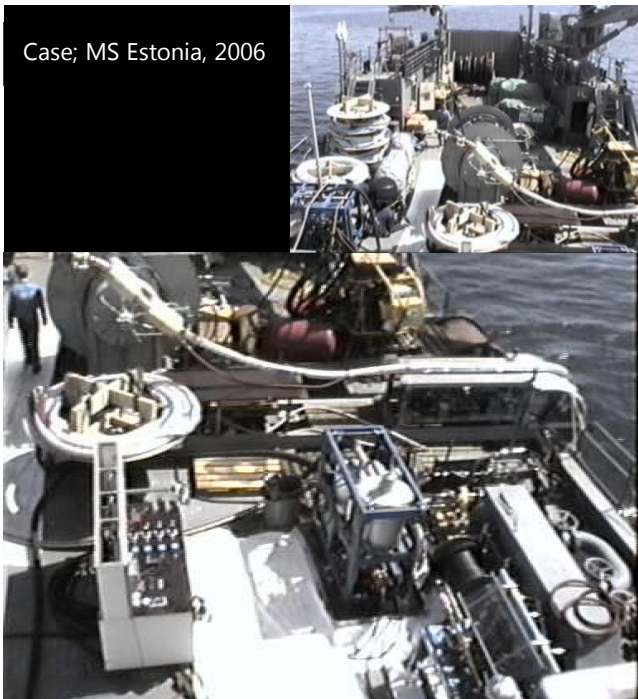
SYKE; "When oil removal was accomplished on June 20, 2006 altogether 230-250 cubic meters of various oils were removed."



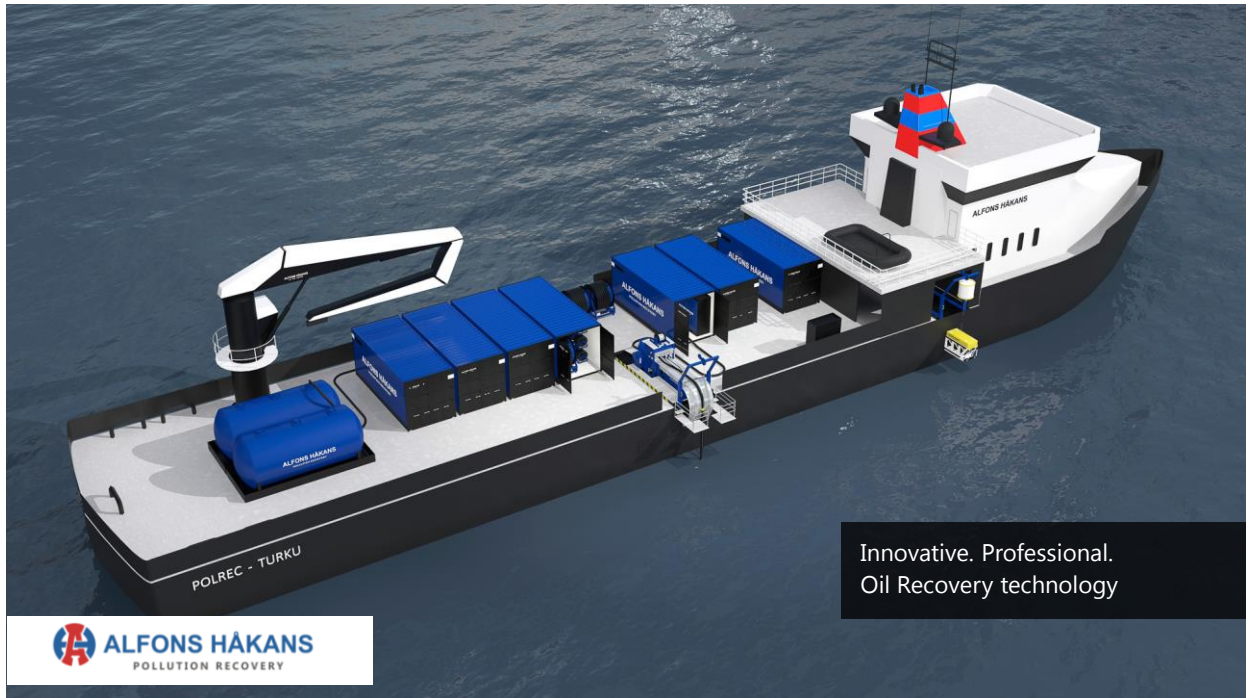
**ALFONS HÄKAN**  
POLLUTION RECOVERY

Syke

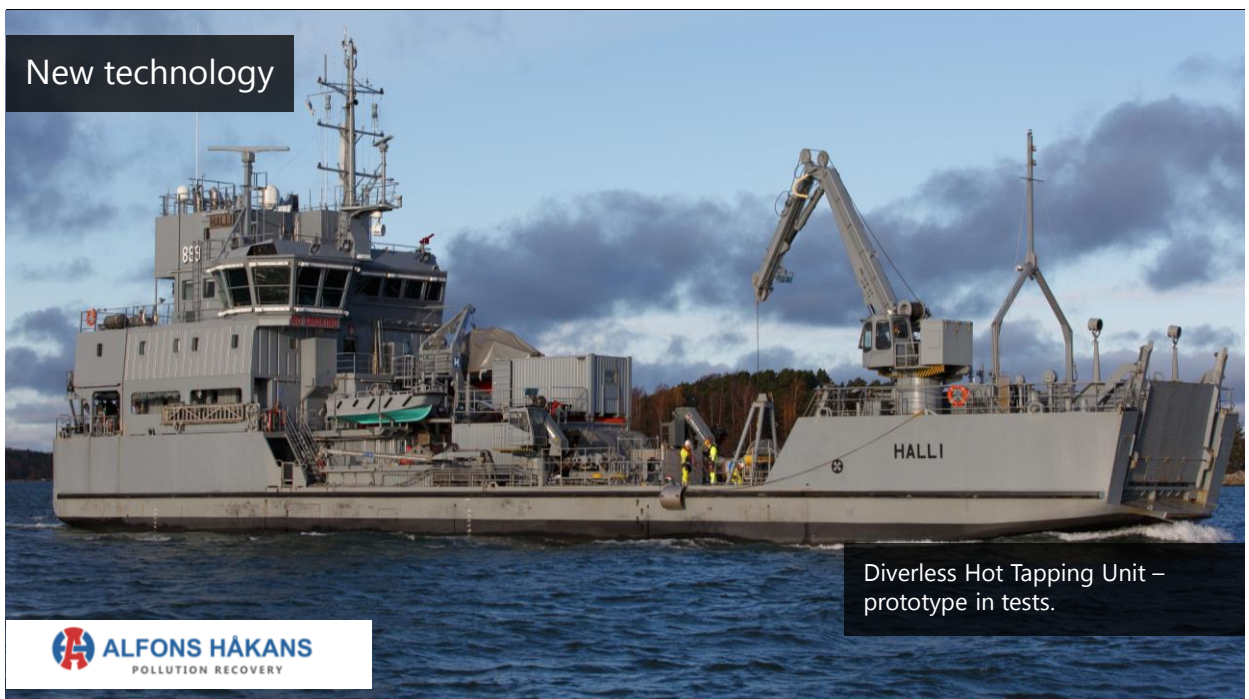
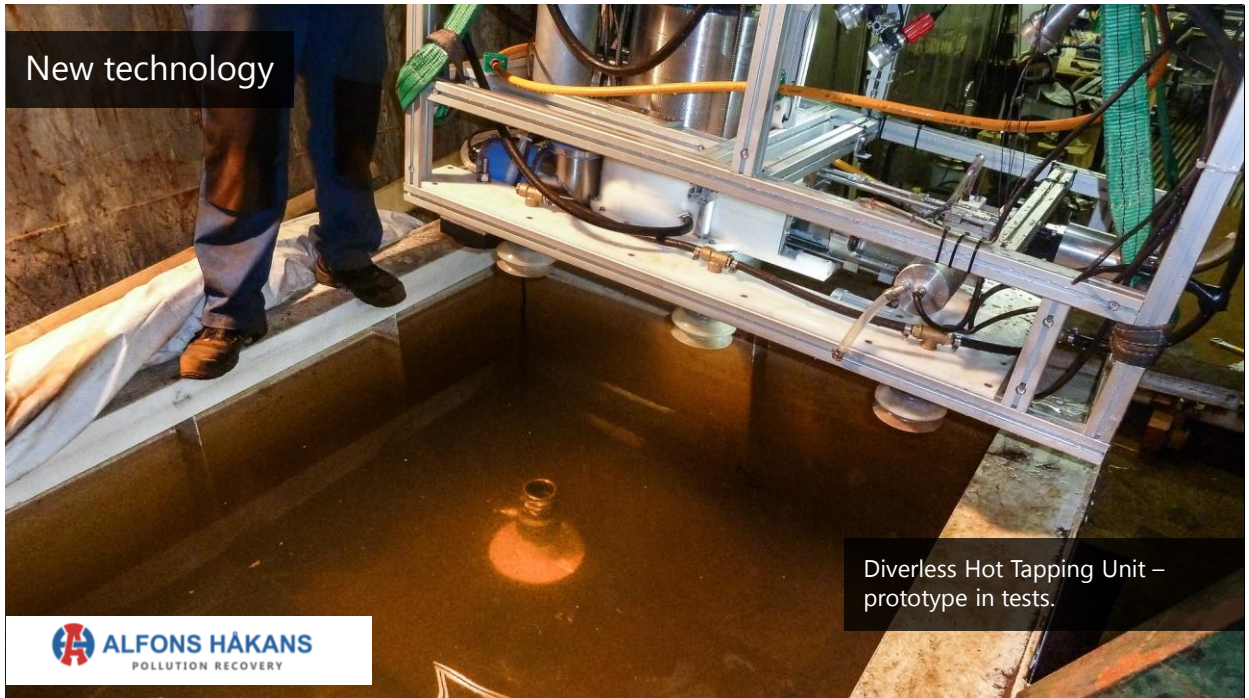
Case; MS Estonia, 2006



Syke



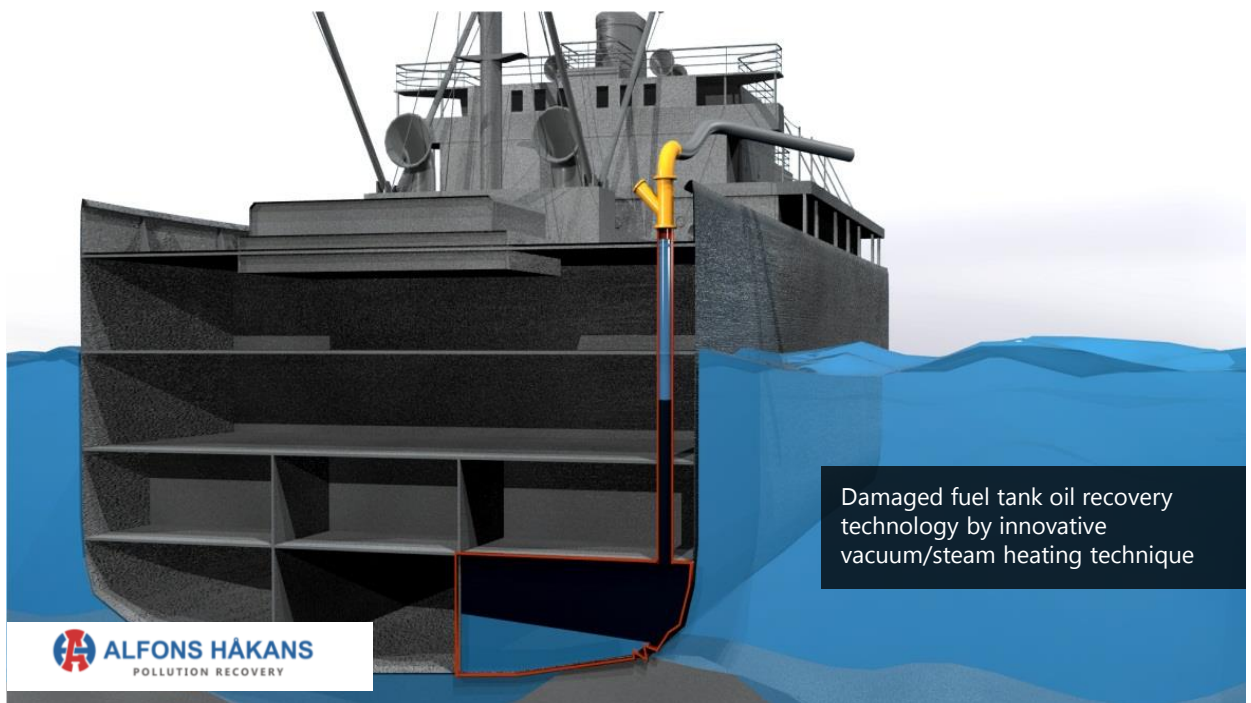




New technology



Diverless Hot Tapping Unit –  
prototype in tests.

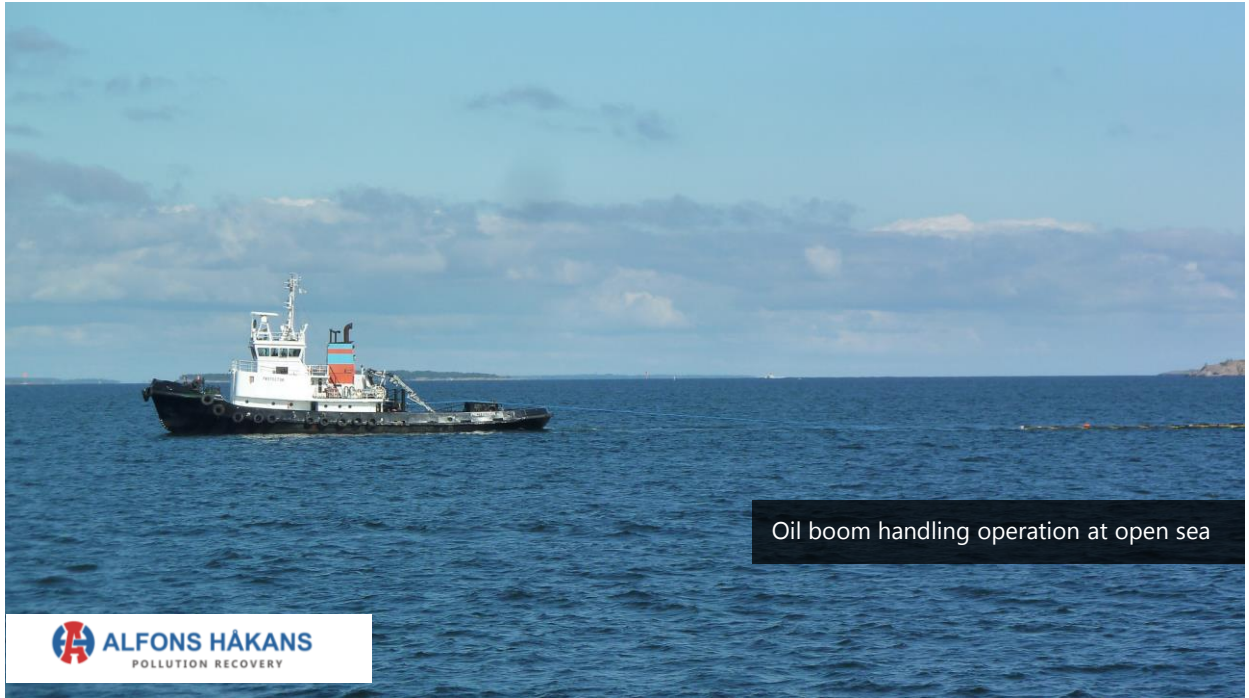


Damaged fuel tank oil recovery  
technology by innovative  
vacuum/steam heating technique













## PROJECT VISION 2016

"We have globally accepted method, which can be used to analyze environment risks caused by potentially polluting shipwrecks theoretically, operationally and practically."



## ALFONS HÅKANS PROJECT VISION 2016

"We have the Best Available Technology, innovative salvage toolbox, and know-how to do the environment risk analysis of potentially polluting shipwrecks – operations, actions and tools in-situ."



## EXPECTATIONS

Innovative, open and good co-operation.  
Let's take a view and jump it!



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