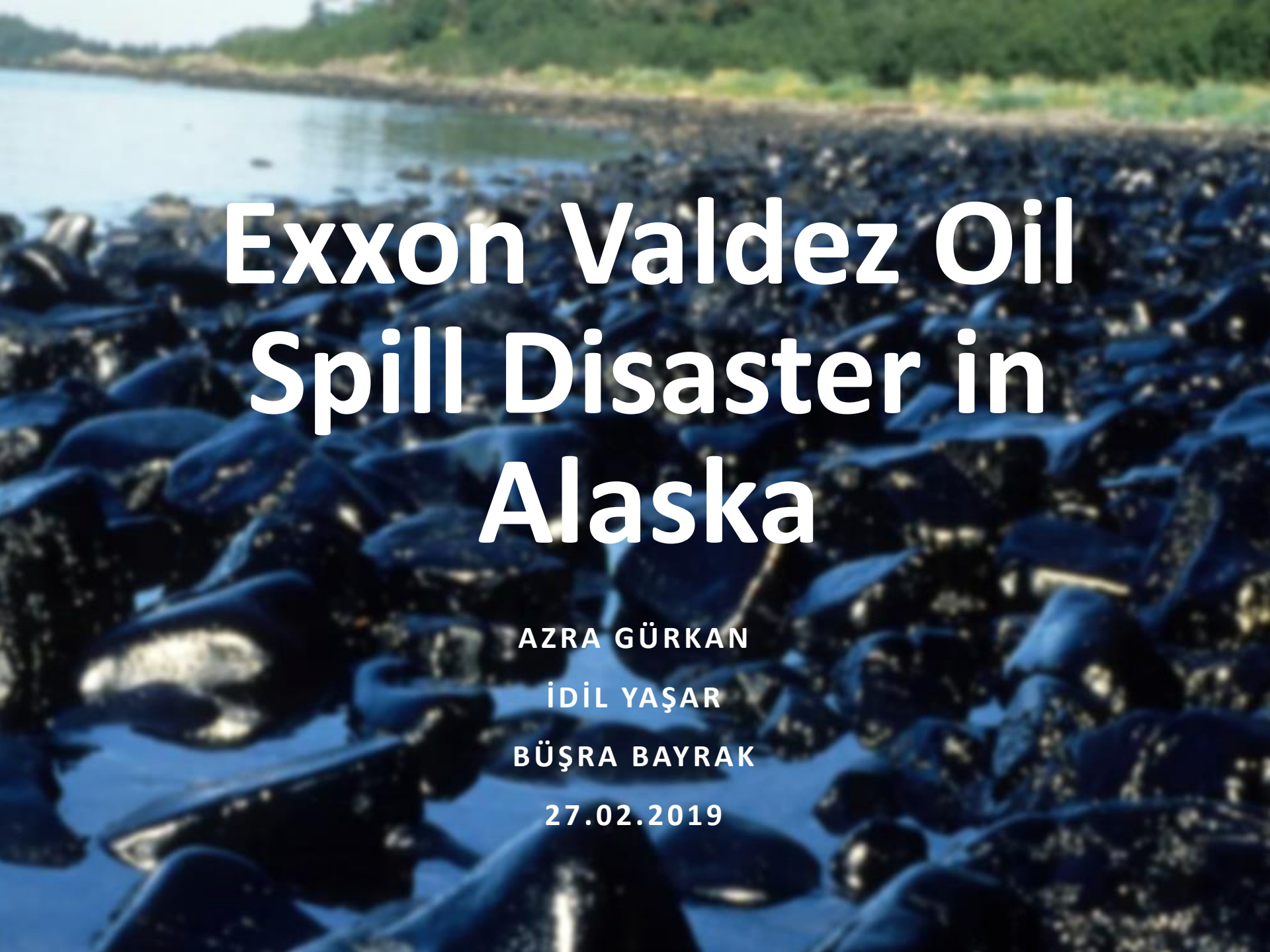


Exxon Valdez Oil Spill Disaster in Alaska

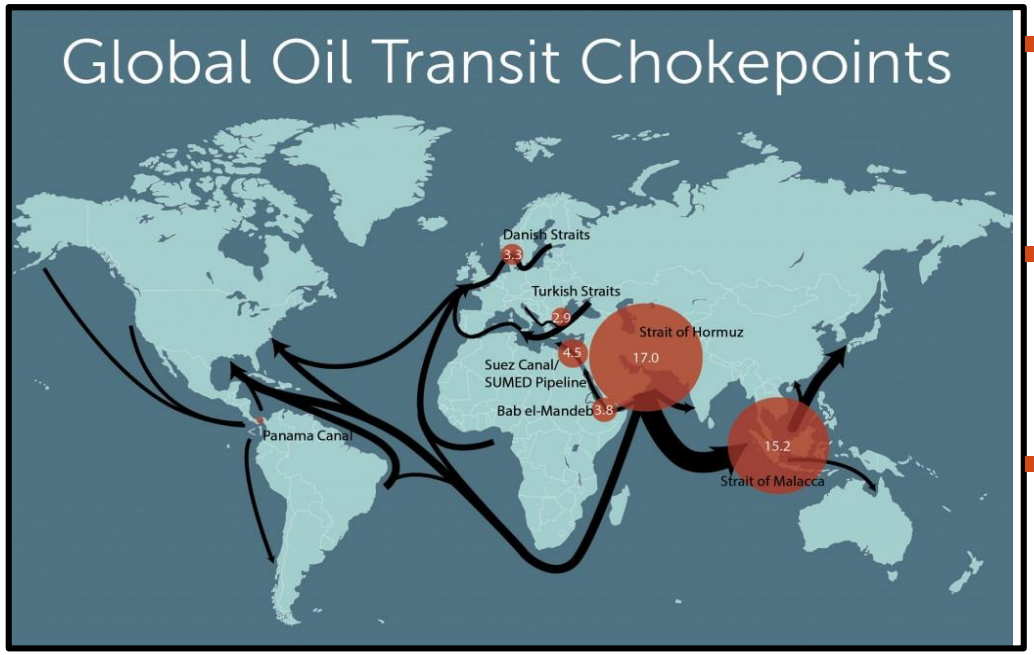
AZRA GÜRKAN

İDİL YAŞAR

BÜŞRA BAYRAK

27.02.2019

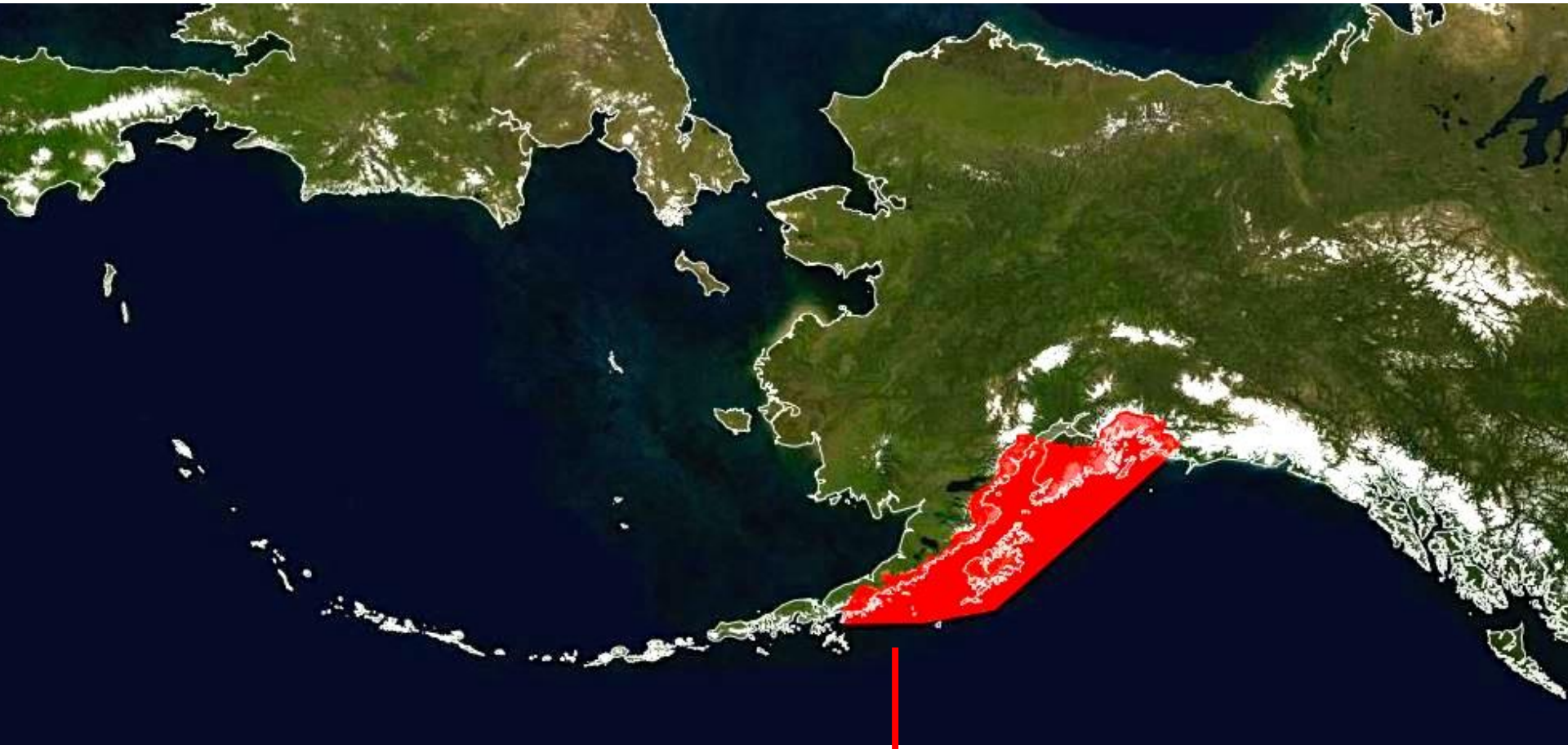
1.Overview of the disaster



- Oil spills are man-made disaster which could be categorized as sudden onset.
- Every day, 46.9 million barrels of oil flow through the world's oil transit chokepoints.
- On a daily basis the 550,000 barrels of oil is delivered to Valdez Marine Terminal.
- Date :

  24 March 1989

1.Overview of the disaster



1.Overview of the disaster

2,100 kilometers
(1,300 miles) of shoreline fouled

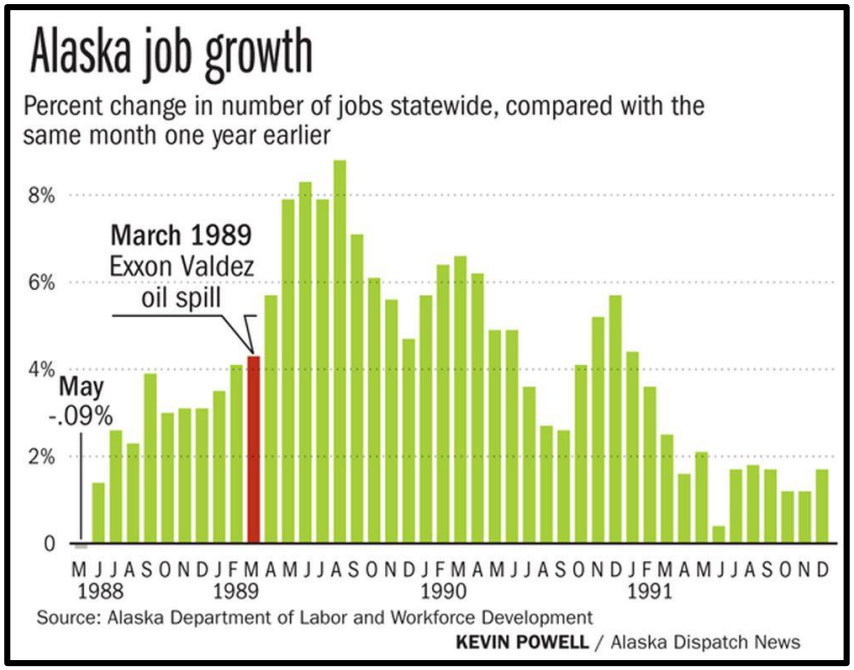
$286.8 million
In losses to local fisherman

$2,4 billion
loss in tourism industry

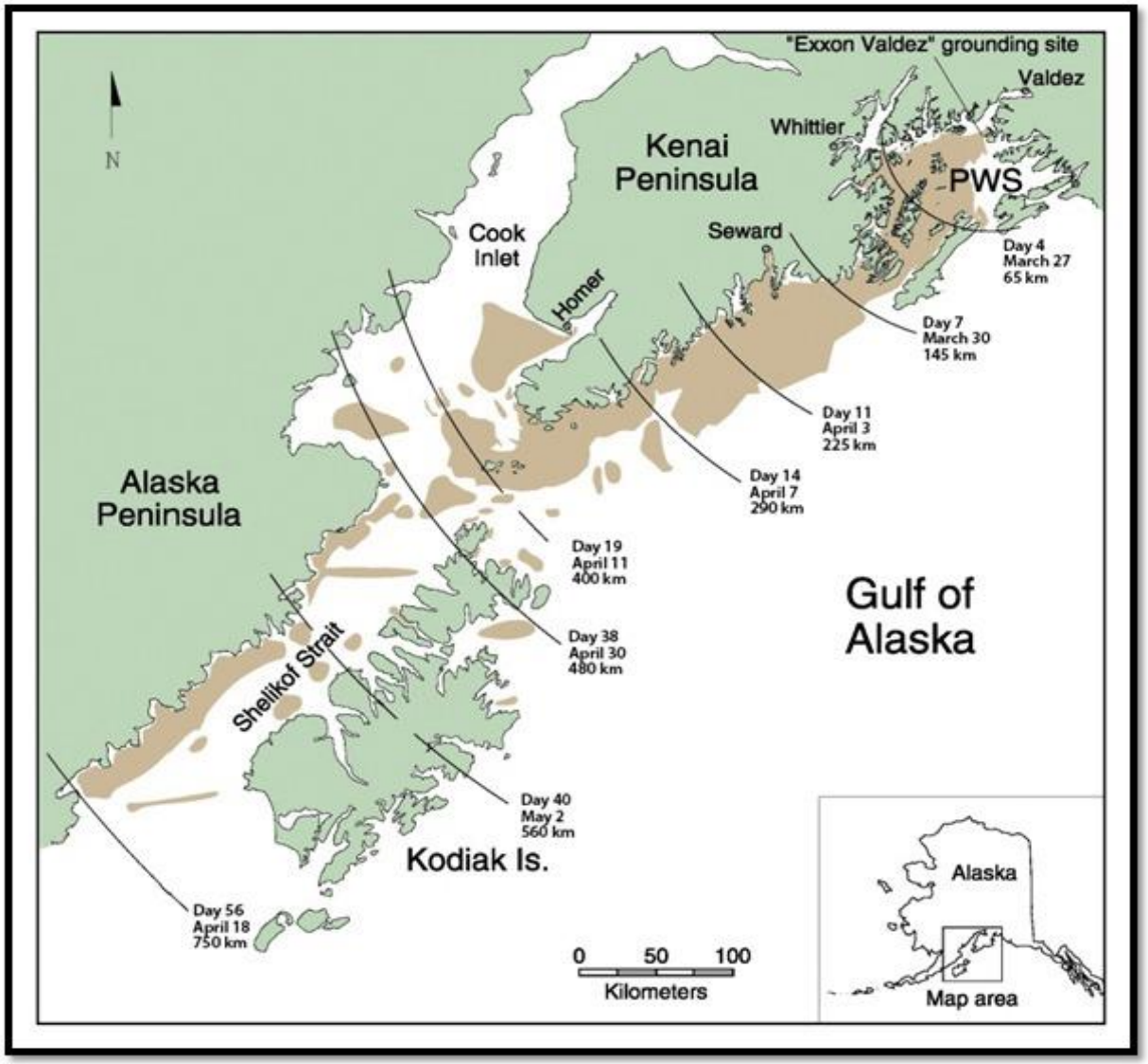
41 million liters (11 million gallons)
crude oil gushed into the arctic waters.

250,000
Seabirds killed

$20 billion
in subsistence harvest lost

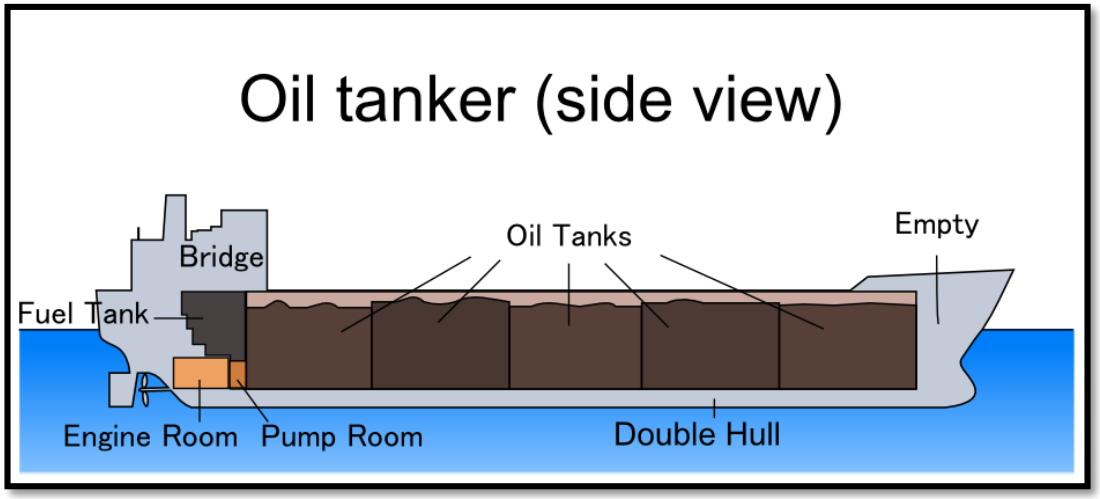


1.Overview of the disaster

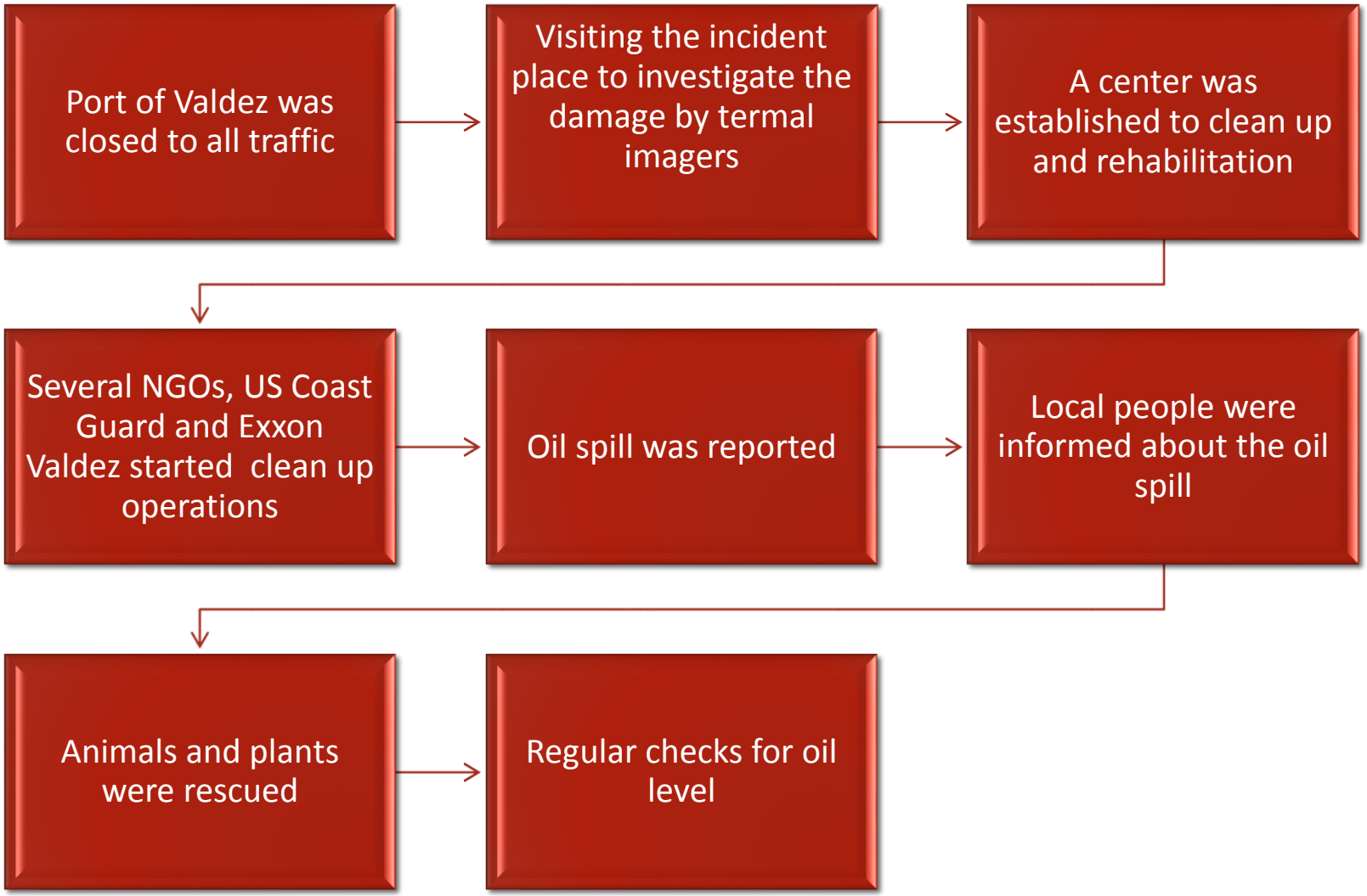


2. Precautions

- Well trained and experienced crew
- Fire safety regulations
- Size of individual tanks within ships should be limited(spills are smaller)
- Vessel traffic control to be used(to reduce risk of collision)



3. Disaster Management



4.During Clean Up Operations

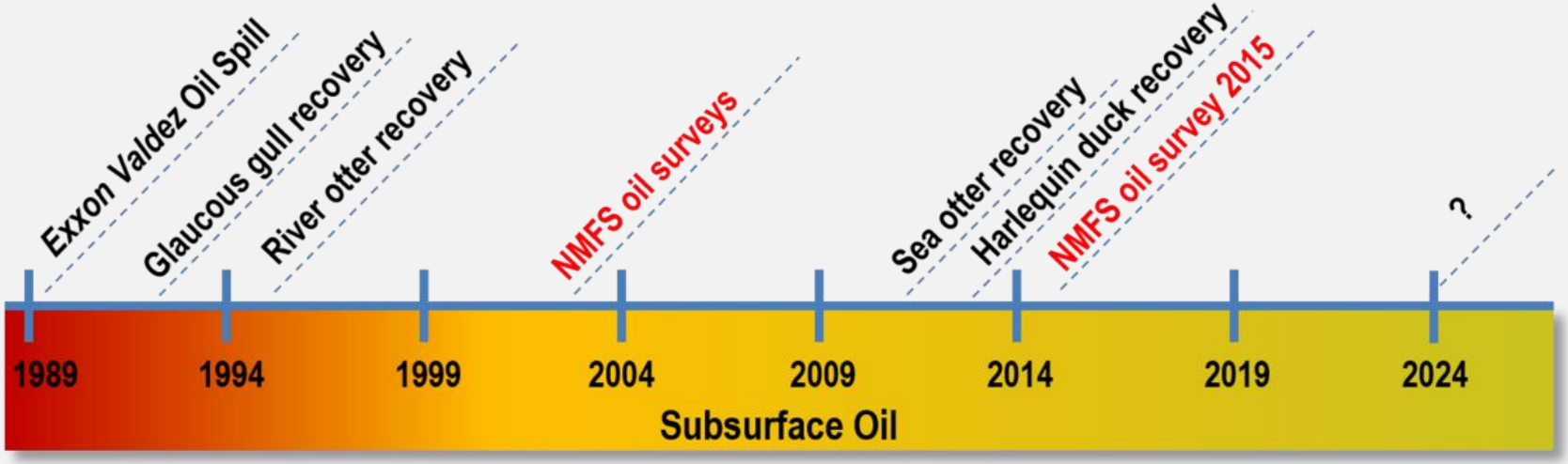
- Total cost: $7 billions
- 1400 marine vessels
- 11000 people
- 32 skimmers
- Exxon fine paid: $250 millions
- 20 acres is still polluted (60,62 tons oil)

Lingering Oil

NMFS: *Lindeberg et al.*

Prince William Sound

Monitoring Decades of Persistent *Exxon Valdez* Oil



Surface oil

Subsurface oil

Subsurface oil

Subsurface oil

5. What was wrong / right?

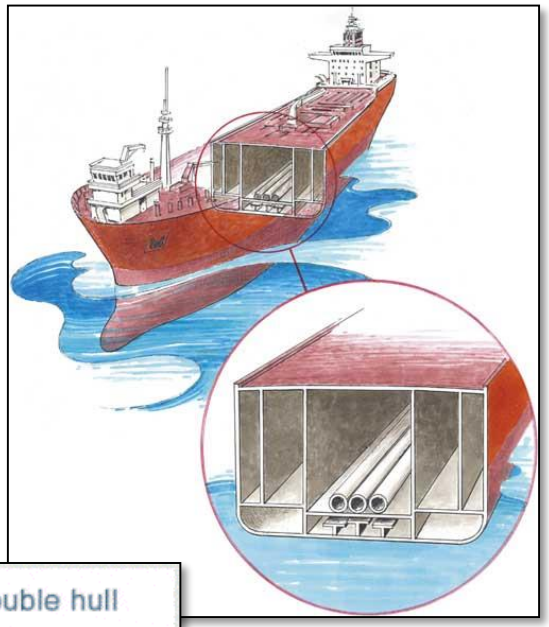
RIGHT	WRONG
✓ Clean up and rehabilitation center was established to take an action immediately.	X Skimmers were not readily available during the first 24 hours following the spill.
✓ US Coast Guard Coordinator immediately closed the Port of Valdez to all traffic.	X Most of the methods they used were ineffective and slow to remove oil spill.
✓ Alaska Department of Environmental Conservation worked effectively.	X Exxon's insufficient supply of trained crew members.
✓ Affected species were monitored until they were fully recovered.	X More reliable equipment were not preferred.
	X CEO of Exxon did not take action immediately.

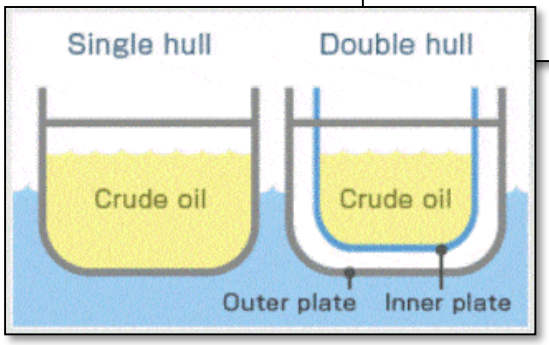
6. Lessons Learned

- Design of the oil tankers was changed.

  (single hull → double hull)

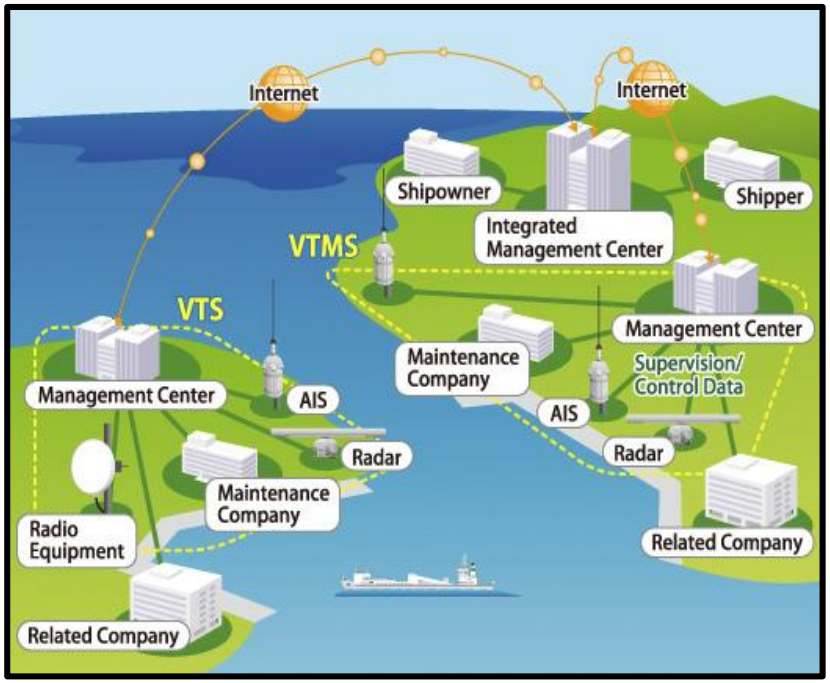
- Coast Guard strengthened its regulations on oil tank vessels, oil tank owners and operators.

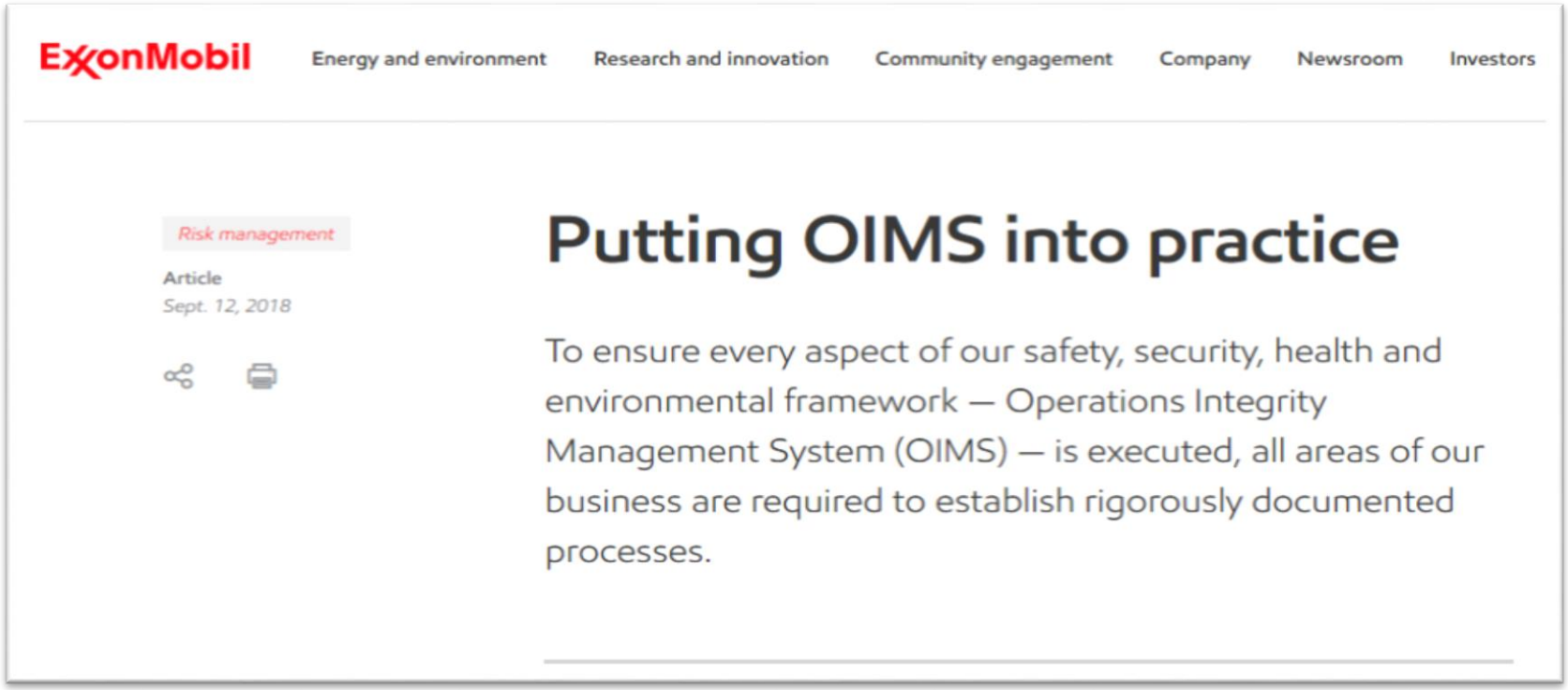




6. Lessons Learned

- Communications between vessel captains and vessel traffic centers have improved to make for safer sailing.
- Two escort vessels accompany each tanker for safety issues.




ExxonMobil
Energy and environment
Research and innovation
Community engagement
Company
Newsroom
Investors
Risk management
Article
Sept. 12, 2018
Putting OIMS into practice
To ensure every aspect of our safety, security, health and environmental framework — Operations Integrity Management System (OIMS) — is executed, all areas of our business are required to establish rigorously documented processes.

7.References

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THANKS FOR LISTENING!
ANY QUESTIONS?