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DECISION MAKING
on the use of dispersant
"How to decide"

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Interspill 2015 - Science workshops - Dispersant Breakthrough

What is the impact of chemical dispersion?

Without dispersant
Surface slick

With dispersant
suspended plume of oil

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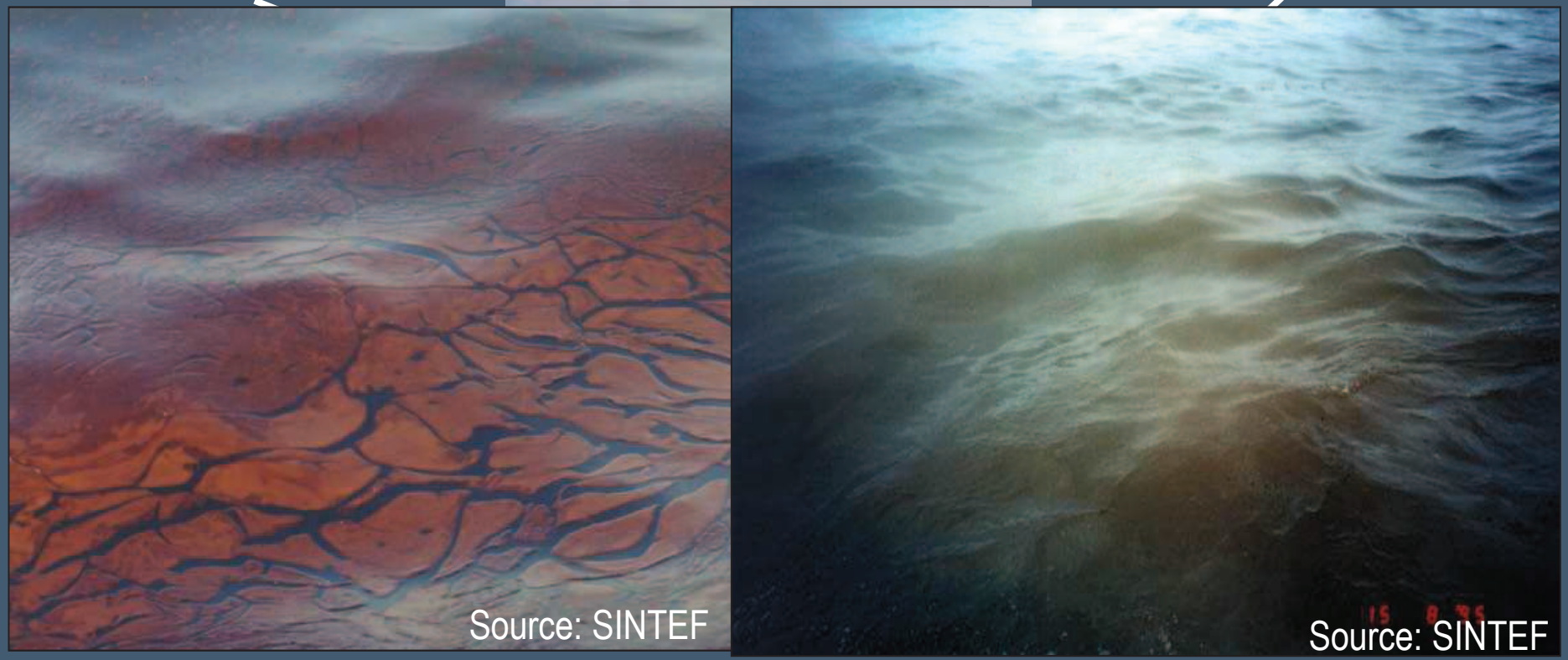

What is the impact of chemical dispersion?

Without dispersant
Surface slick

With dispersant
suspended plume of oil

Source: SINTEF

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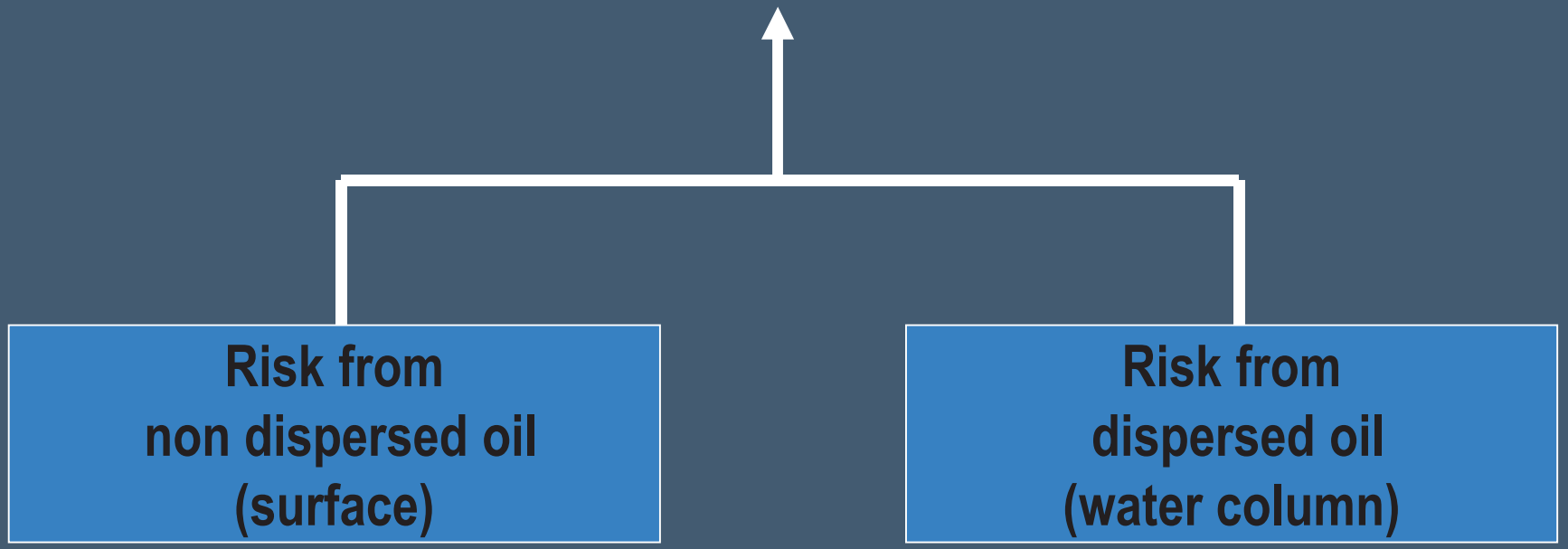
What is the impact of chemical dispersion?

Without dispersant
Surface slick
Drift ashore

With dispersant
suspended plume of oil
Remains offshore

The NEBA

Net Environmental Benefit Analysis



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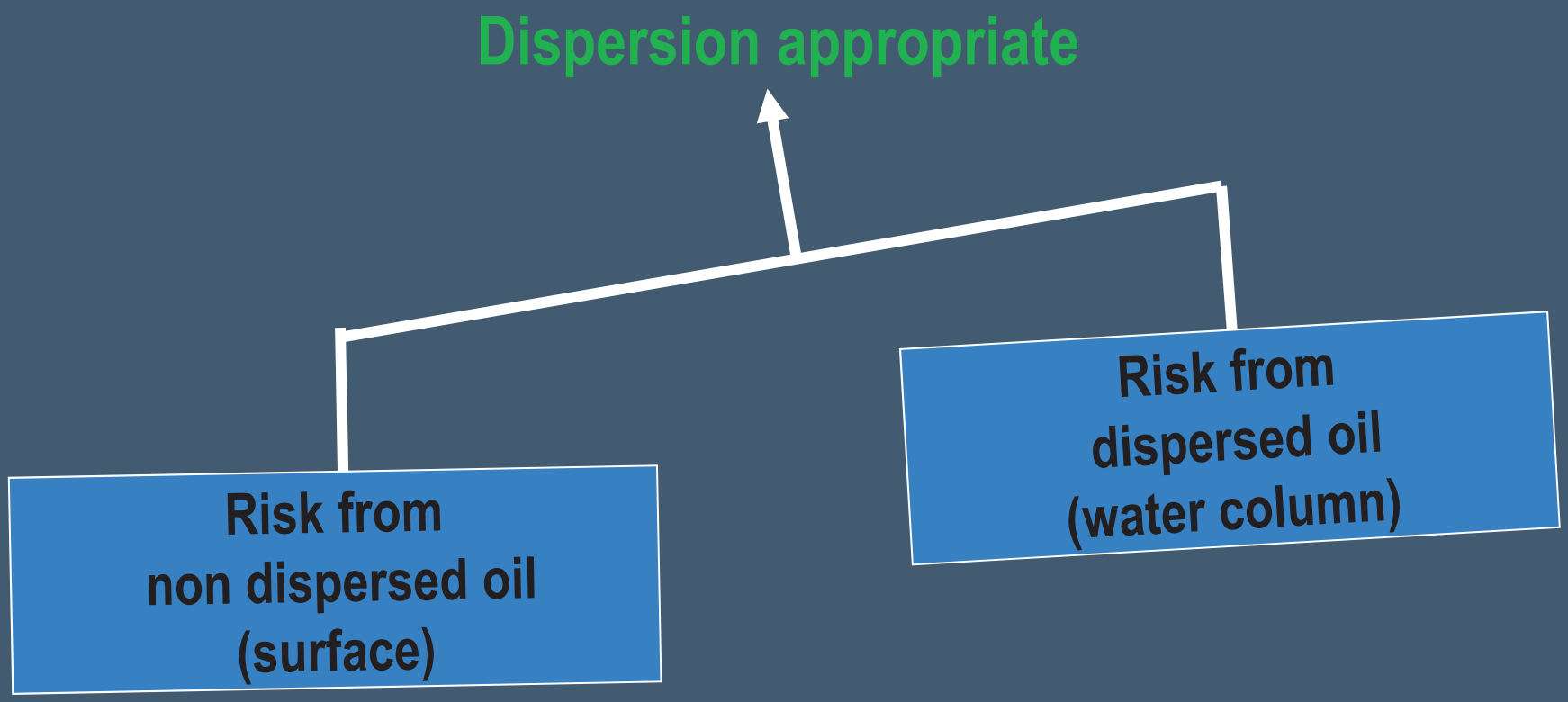

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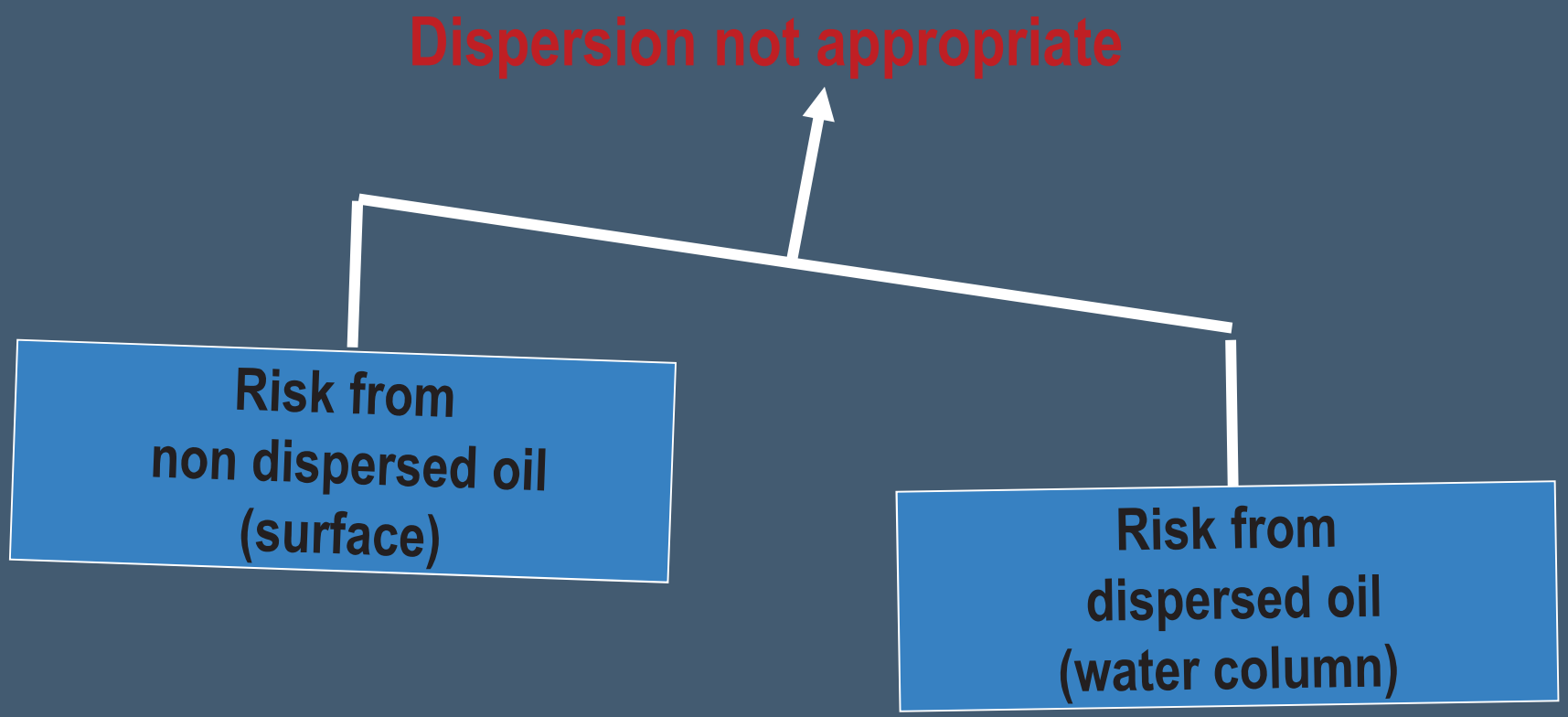

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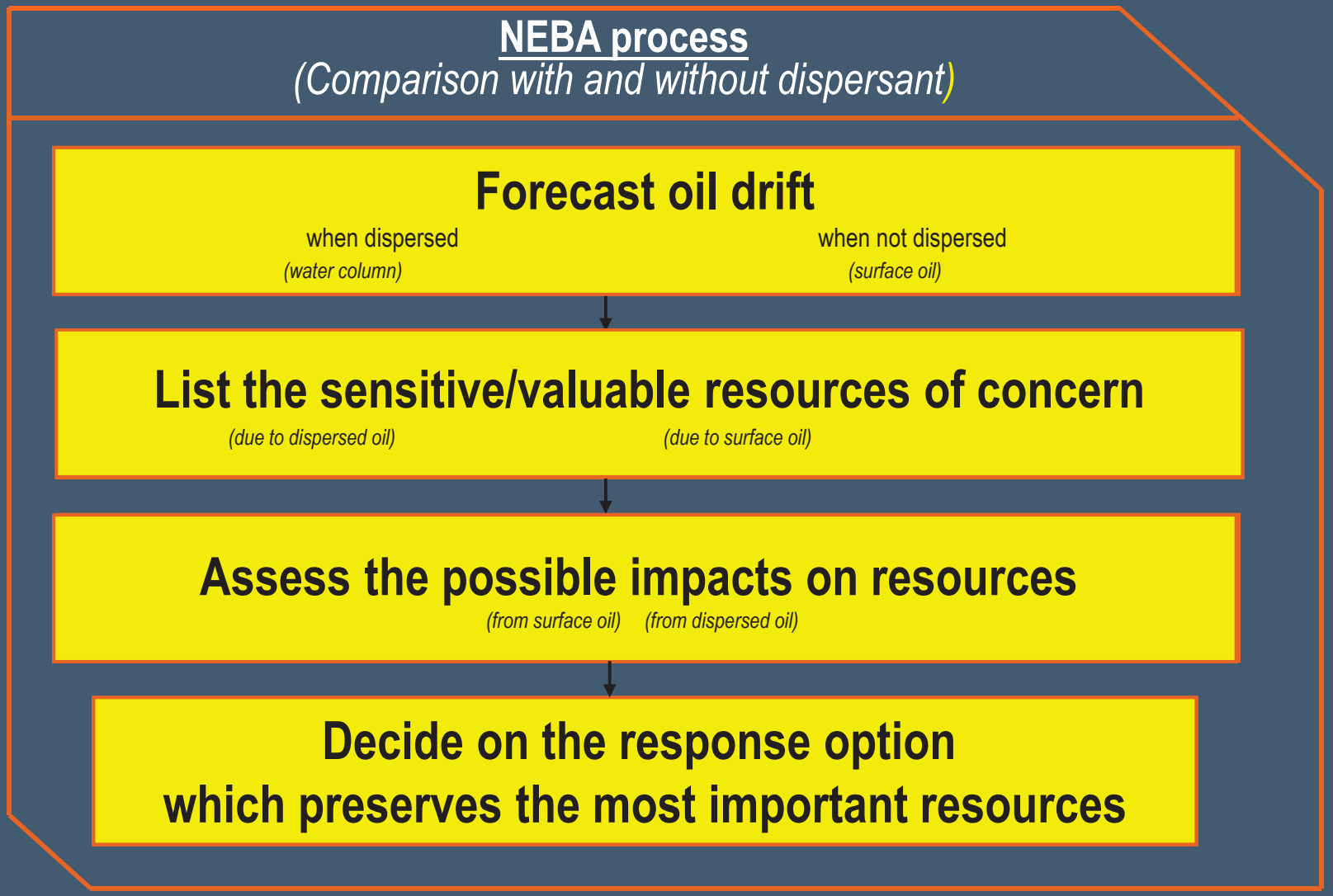


Scientific methods to study toxicity

Toxicity tests at laboratory or mesoscale levels

Impossibility of completing a real impact assessment and of making a pertinent comparison with dispersant and without dispersant

What is pertinent:

The **medium-long term impact** (difficult to assess)

The **impact at the population level** (difficult to assess)

An impossible comparison:

toxicity in the water column species ***(dispersed)***
and smothering of coastal species ***(non dispersed)***

Impossibility of completing a real impact assessment and of making a pertinent comparison with dispersant and without dispersant

ıct (difficult to assess)

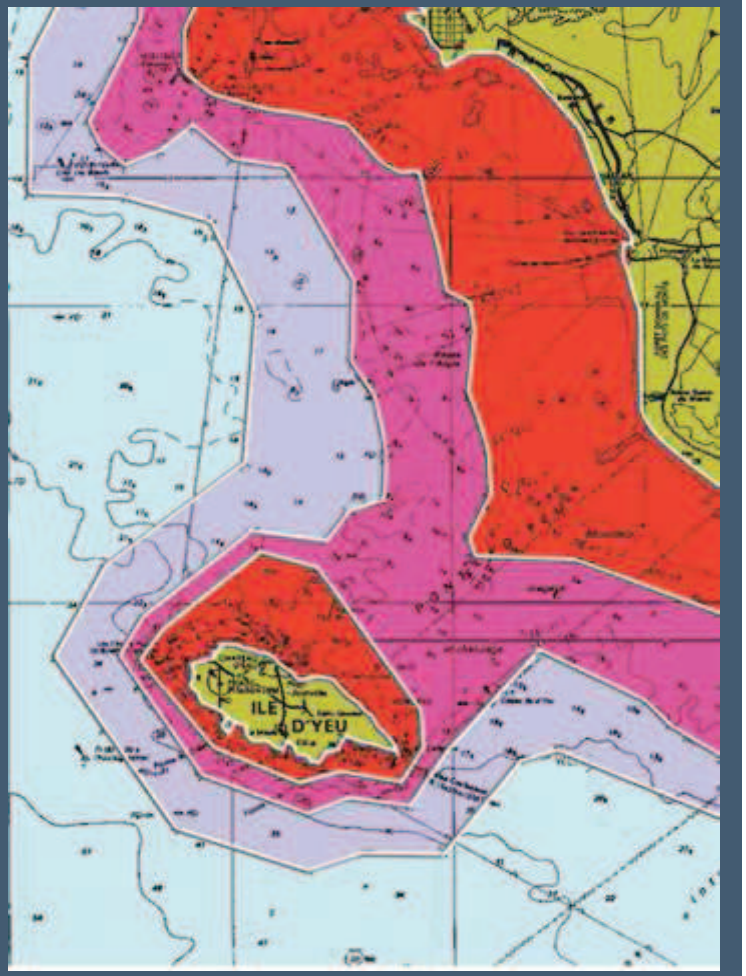
ı level (difficult to assess)

A pragmatic approach to decide on the use of dispersant

- Determining the exposure conditions for which there is no impact, no observed effect.

  ⇨ dilution conditions

- Geographical boundaries where Dispersants can be use safely



Limites de libre utilisation des dispersants en France

- Zone terrestre où la dispersion est proscrite
- Zone côtière où la dispersion est a priori proscrite
- Zone où il est possible de disperser jusqu'à 10 tonnes
- Zone où il est possible de disperser jusqu'à 100 tonnes
- Zone où il est possible de disperser jusqu'à 1000 tonnes

In real incidents, impact of dispersants much less severe than feared

- **Sea Empress** *(UK 1996)*

  440 t. of dispersants applied

- => little impact <<<< benefit from using dispersant

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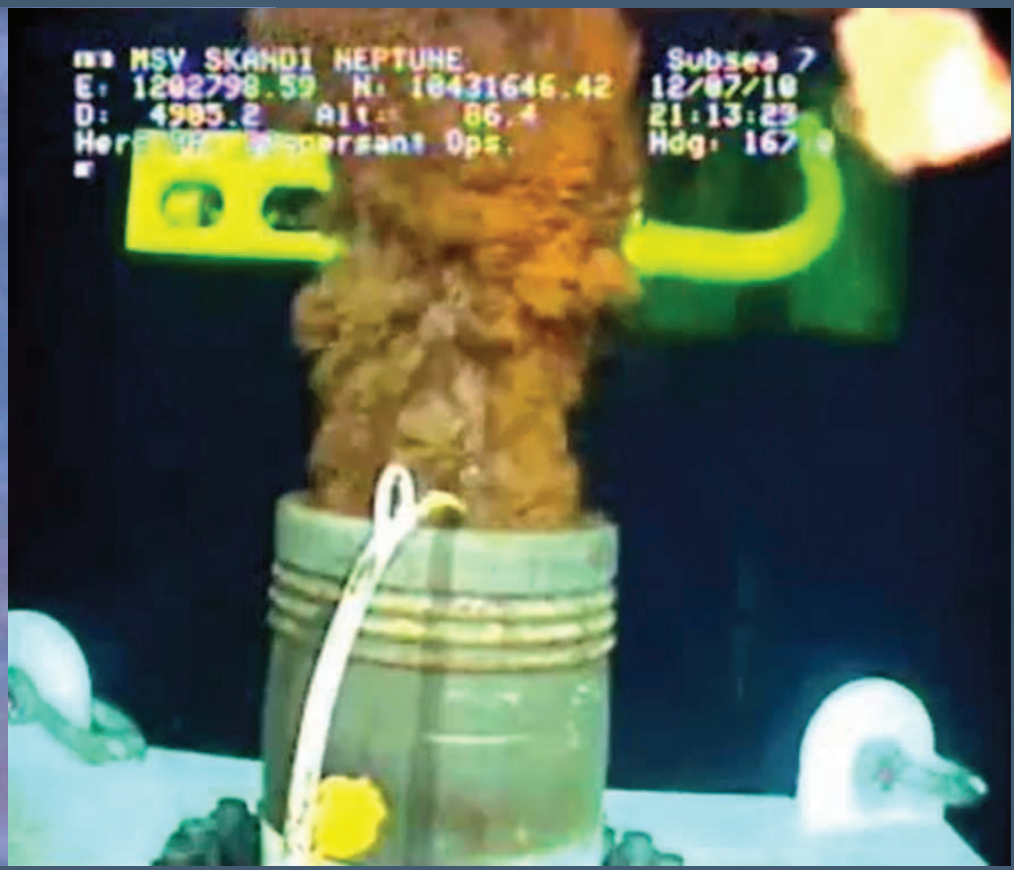

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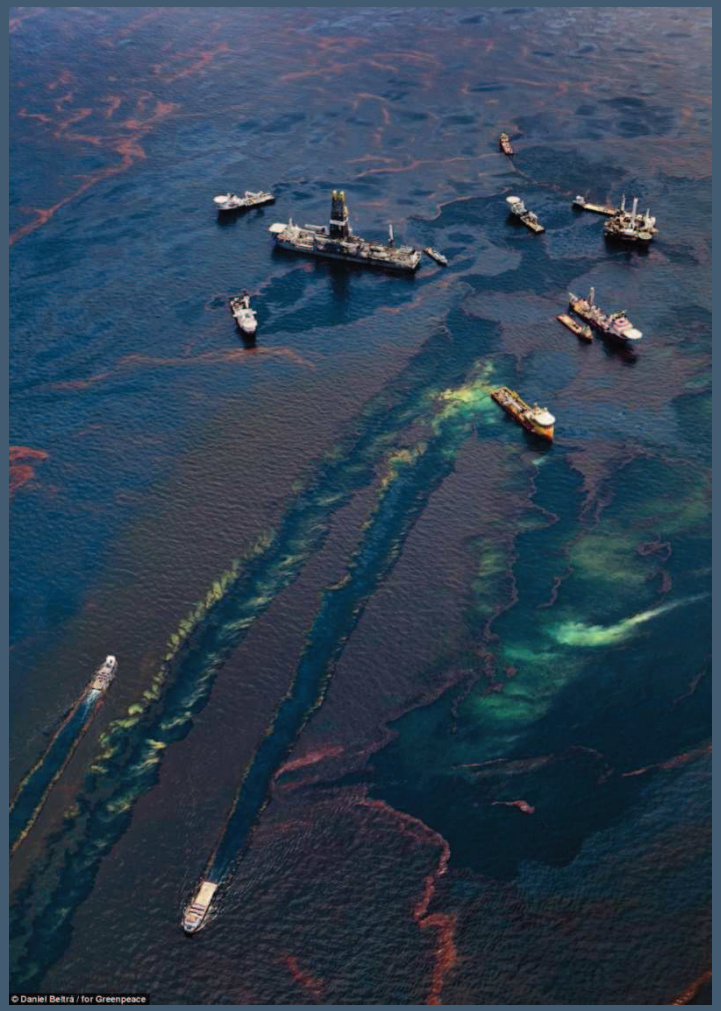
- Safety of the wellhead location

  for team in charge of killing the blow-out



Conclusion

Decision making on the use of dispersant:

- **A decision between knowledge and empiricism**
- **A mixture of reasonable and scientific**