



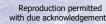
Session One: Environment and Emissions

Franck Chevallier TOTAL

10th CONCAWE Symposium 25th-26th February 2013

Session One: Environment and Emissions

- **▶ Introduction to Session One: Environment and Emissions**
 - Session Chair: Franck Chevallier, TOTAL
- ▶ Industry performance and contributions over 50 years
 - **▶** Speaker 1: Les White, Les White Associates
- ▶ Air Quality: Air Quality Policy Review
 - Speaker 2: Scott Brockett, DG-Environment
- Water Quality: Industry performance over 50 years
 - Speaker 3: Graham Whale, Shell
- Water Quality: Water and waste challenges looking forward
 - > Speaker 4: Klaas den Haan, CONCAWE
- Session One: Questions, Answers, and Discussion





concawe Some thoughts from the past to the future

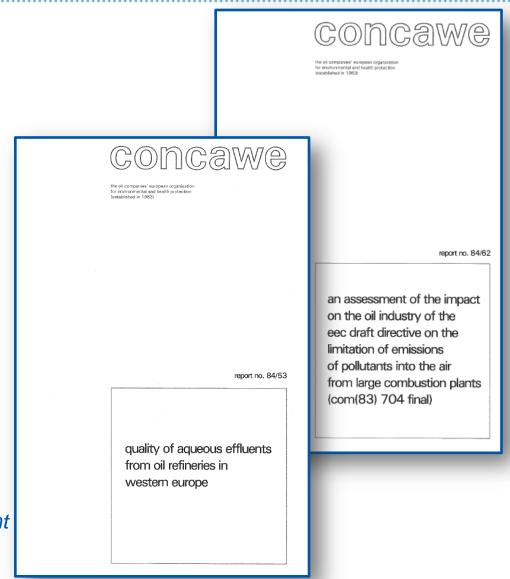
- CONservation of Clean Air and Water in Europe association was born
 years ago when the European Economic Community had 5 years
- The oil refining industry has contributed actively over this long period to improve EU air and water quality through investments in reducing their emissions and with cleaner products
- ▶ For this, CONCAWE has always promoted three operating principles:
 - Sound science
 - Cost-effectiveness of technical options
 - Transparency of results
- Significant progress has been achieved for air and water emissions

concawe Emissions reduction example in last decades

- Refinery industry progress:
 - More production of fuels
 - More sulphur extraction
 - Less emissions from fuels combustion
- Refining SO₂ emissions has decreased by more than 60% between 1990 and 2010
- Considerable success has been achieved in reducing the discharge of pollutants to fresh and coastal waters, leading to considerable freshwater water quality improvements."

2010 State of the European Environment and Outlook Report, EEA, 2010

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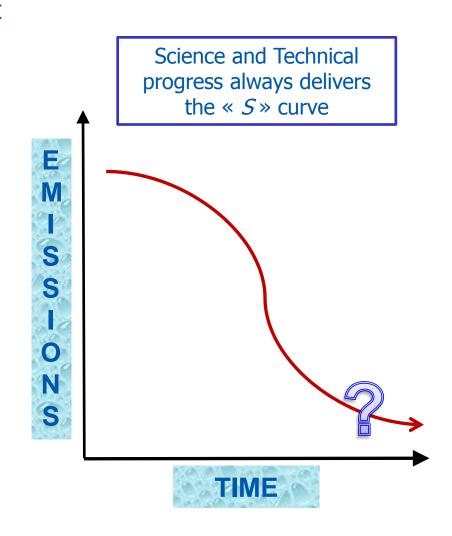


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Environment and Emissions

- Two words that go together well but in two opposite directions:
 - Improving Environment impacts needs to decrease the Emissions
- Two words closely linked by:
 - Source/ Receptor functions
 - Environmental Quality Standards
 - Emissions Limit Values
- ▶ A curve in "S" for progress
- An inverse curve for emissions
- The key questions:
 - Are further reductions needed ?
 - What can be still achieved ?
 - Which reasonable timeline?

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