

# **Aligning an oil and gas company's reserves and future emissions with a 2°C science-based target**

*A preliminary study of an oil and gas major*

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**Presentation to the**

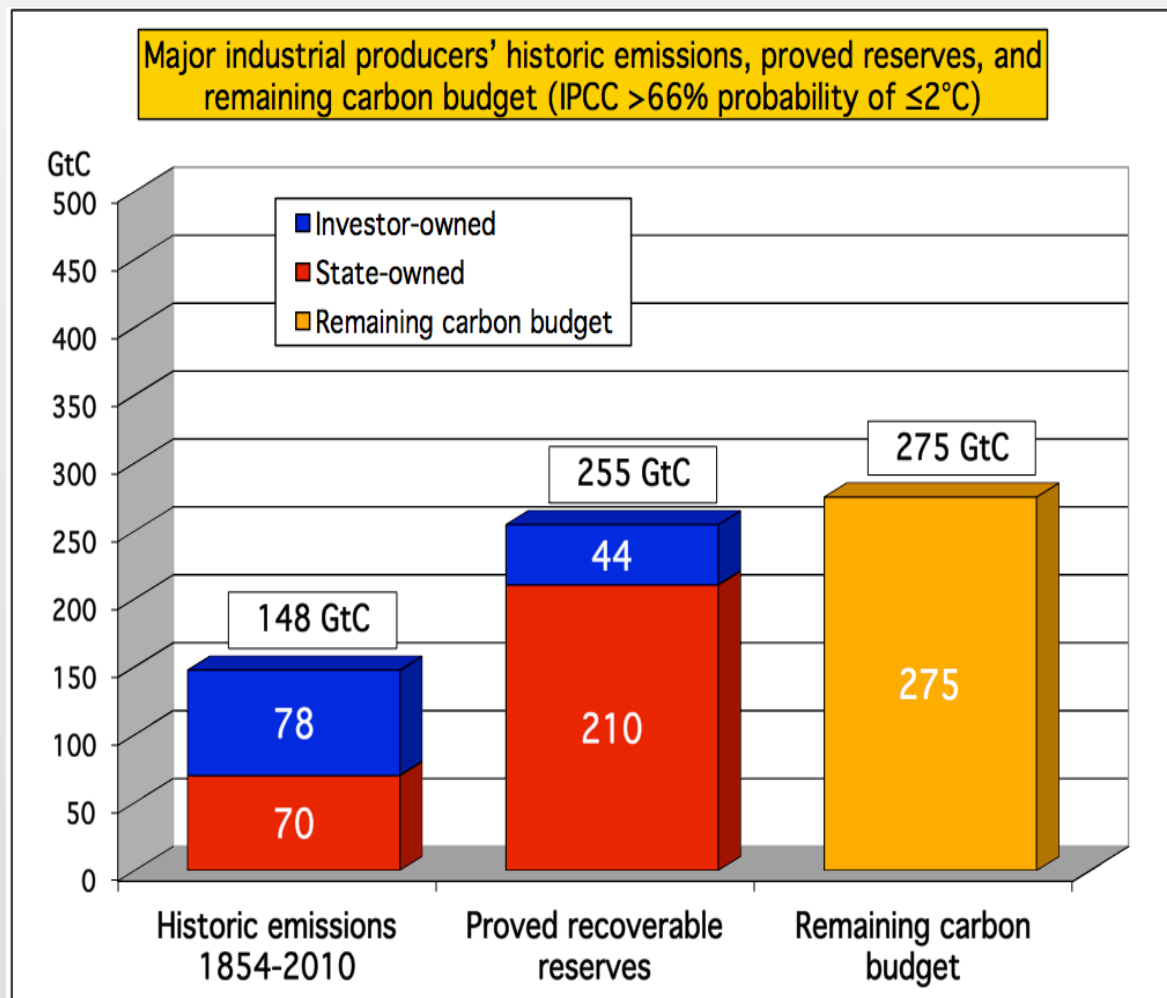
**International Conference on**

**Fossil Fuel Supply and Climate Policy**

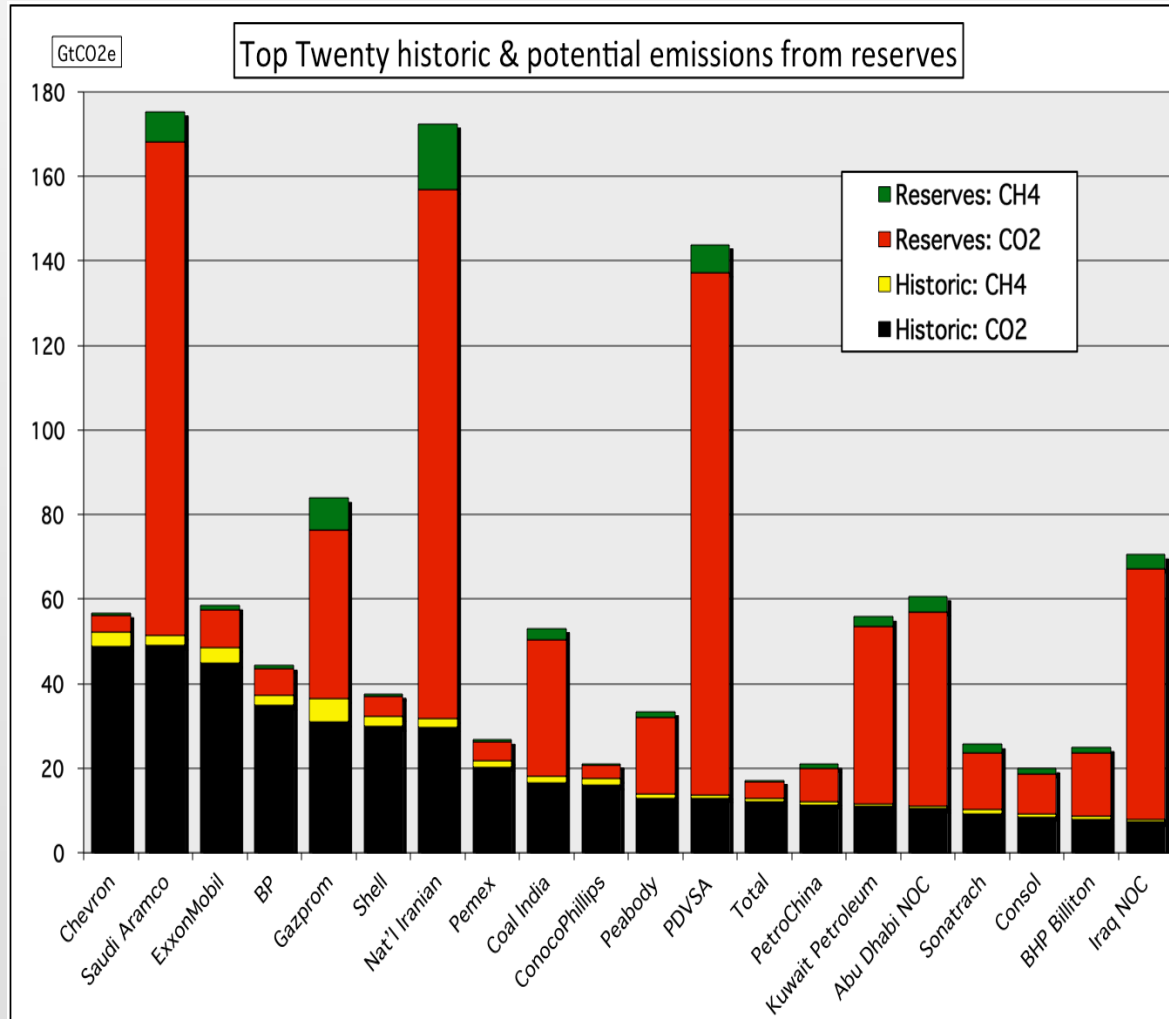
**26-27 September 2016, Queen's College, Oxford**



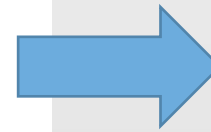
# Remaining carbon budget & proved reserves



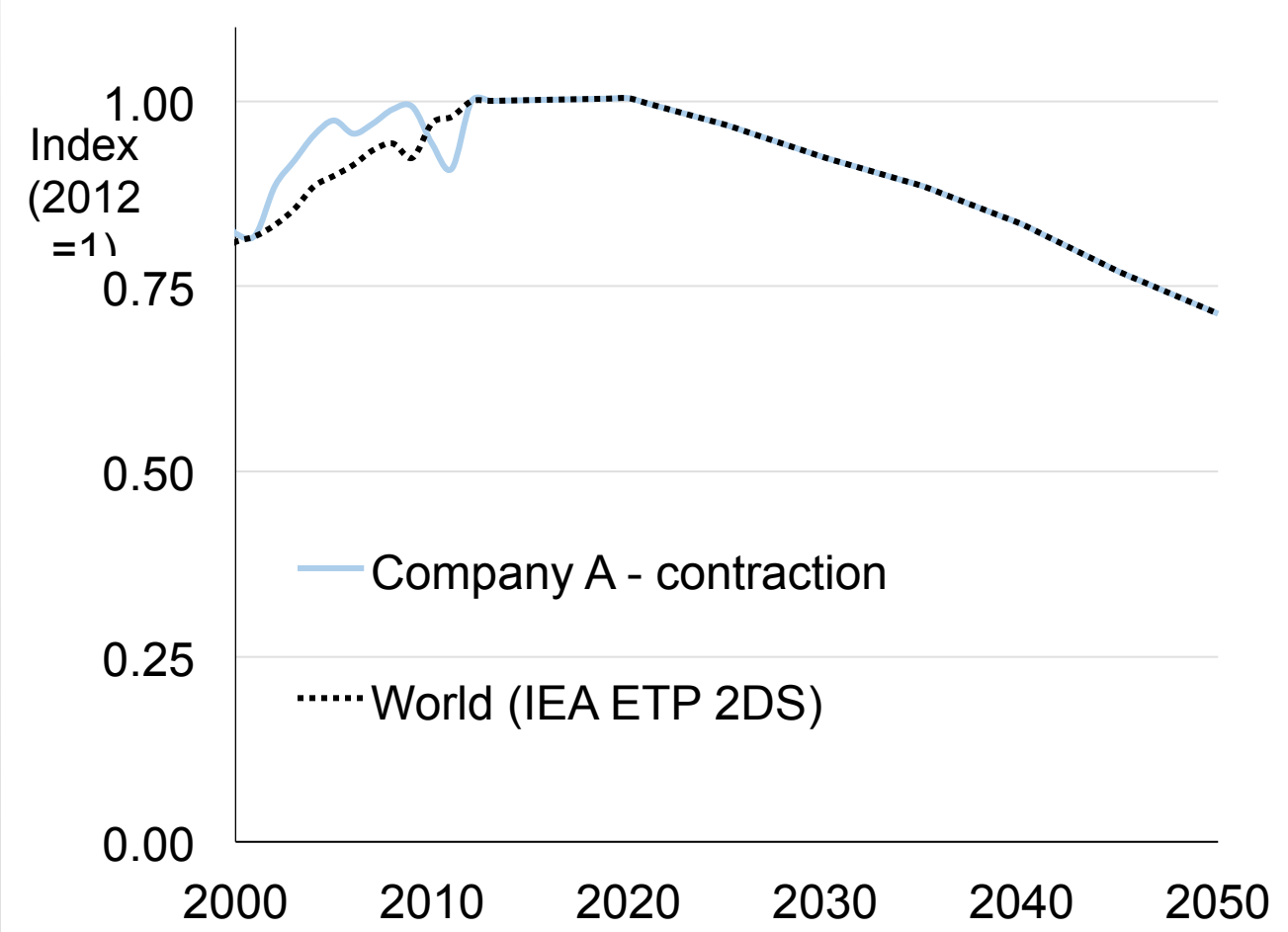
# Top 20 companies: historic & potential emissions



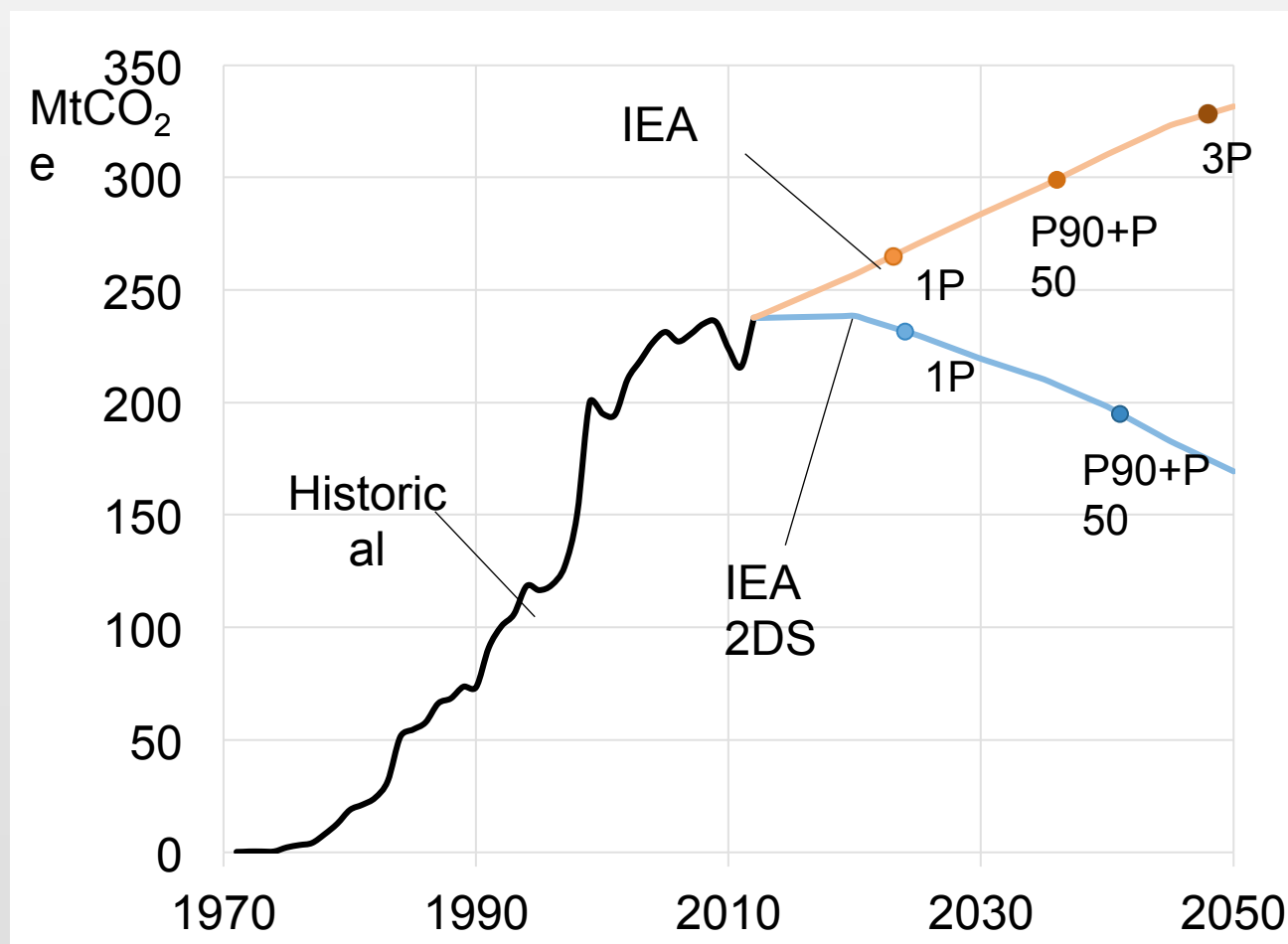
# Science Based Targets (SBT) → Sectoral Decarbonization Approach (SDA)



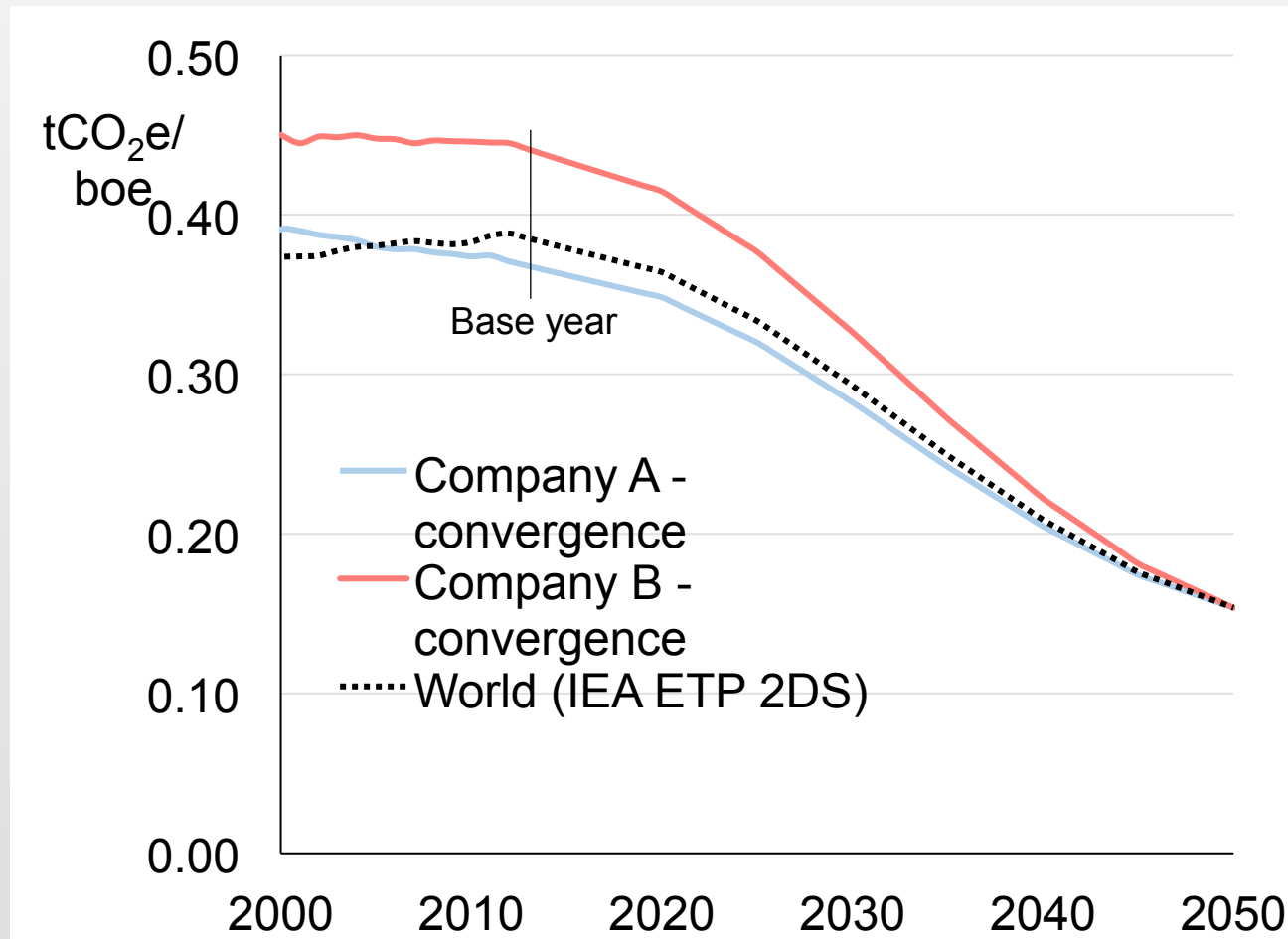
# SBT Absolute Emissions (contraction) : Theory



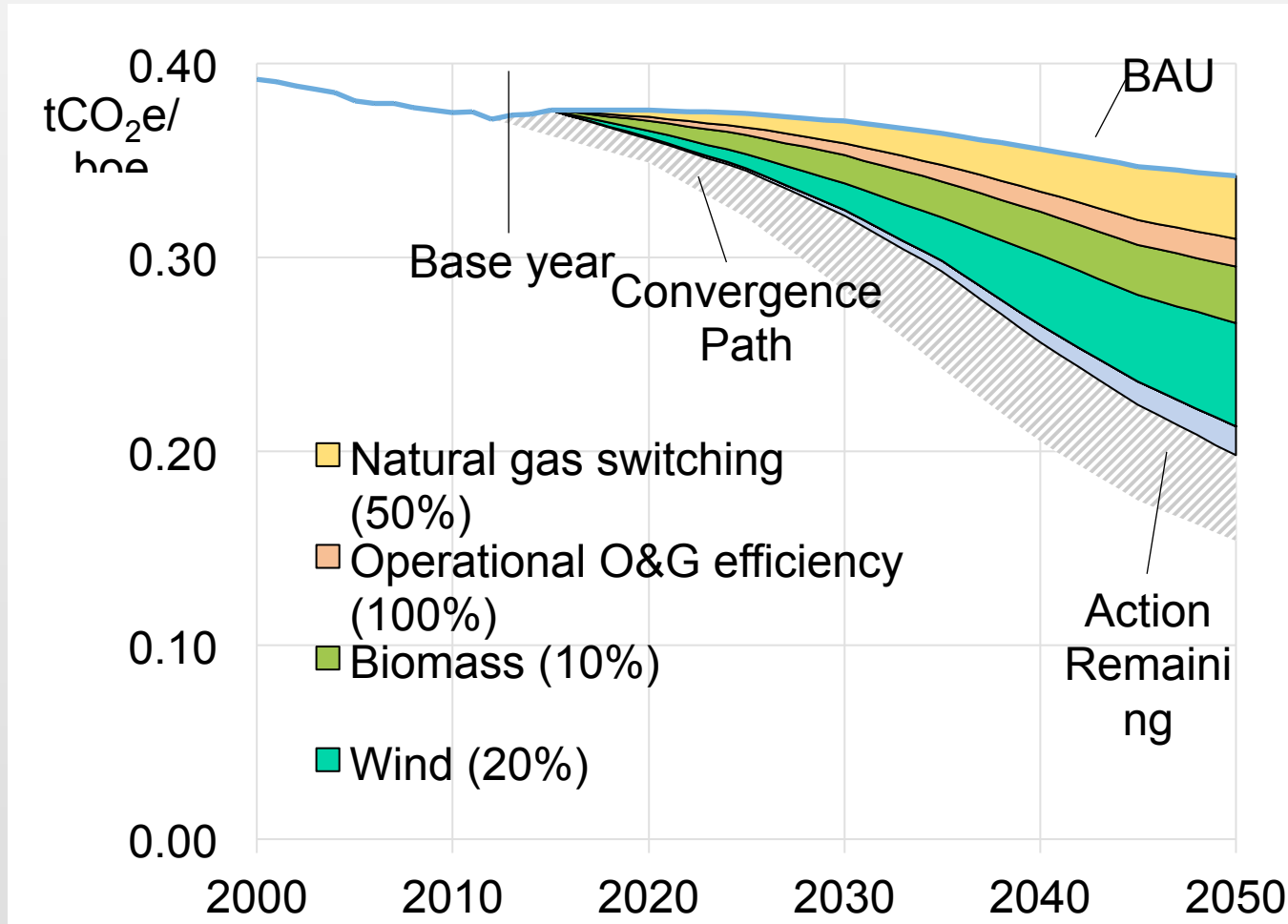
# SBT Scope 1+3 Emissions (contraction) : Example



# SBT Emissions Intensity (convergence) : Theory

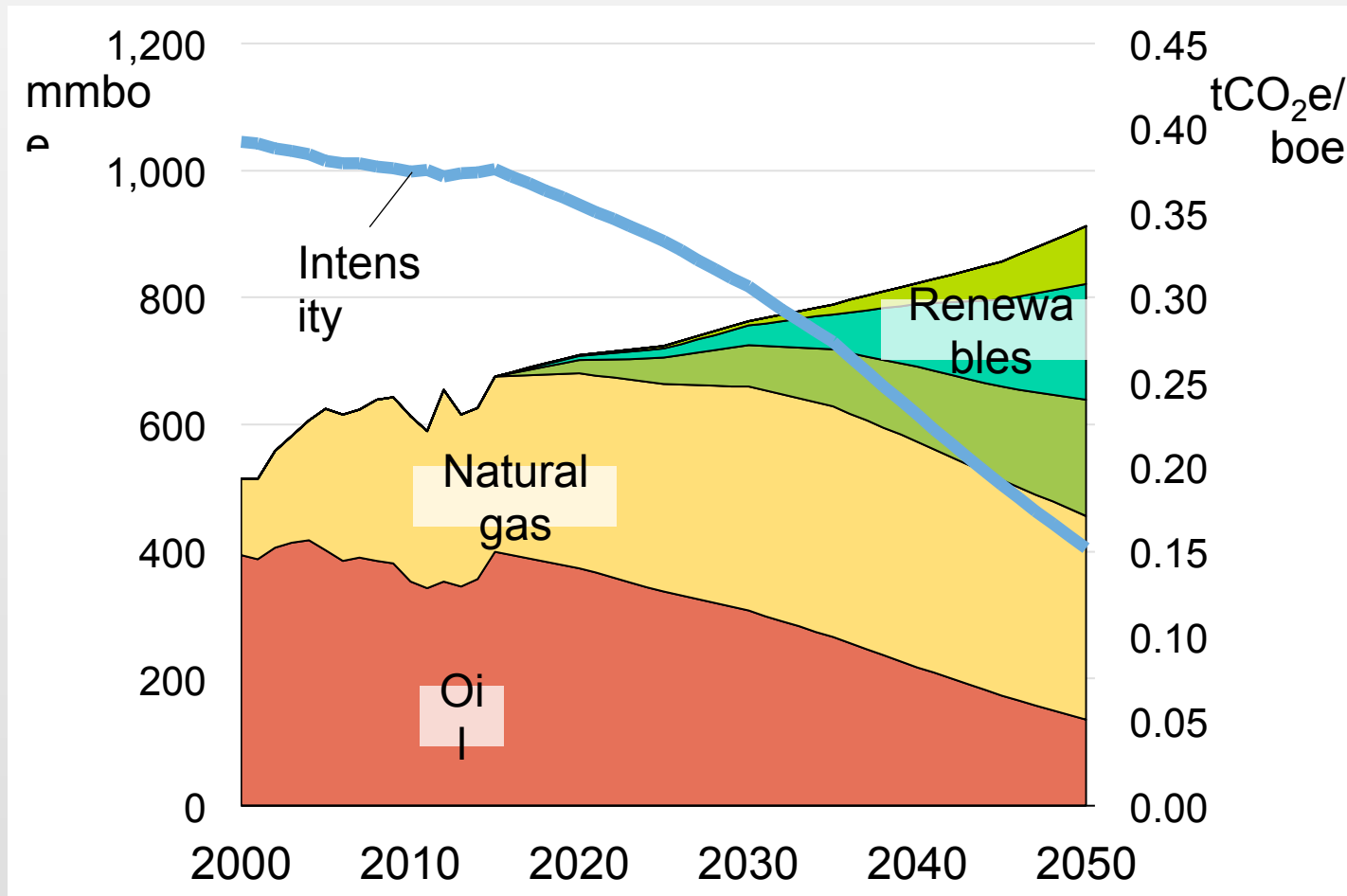


# SBT Scope 1+3 Intensity (convergence) : Example





# Linking contraction and convergence



2015-2050 Cumulative emission : 8 GtCO<sub>2</sub>e  
 IEA 2DS Budget : 8 GtCO<sub>2</sub>e

# Conclusions

- Companies can begin to plan transition around reserve lock-in
- CCS provides a range of flexibility, but is not the solution
- Oil and Gas companies need to follow contraction AND convergence SBT in order to continue growing

## Next Steps

- Extend analysis to 2100, e.g. RCP2.6
- Modified scenarios, e.g. 1.5-1.7 °C limit
- Further considerations on company-level allocation: the carbon supply cost curve (CTI 2014)
- Apply a levelized cost assessment.