Where is the Oil and Gas Industry with Decarbonization?

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GHG emissions from oil and gas supply is about 15% of global energy sector.

…but GHG emissions from oil and gas supply can vary considerably…

...as not all oil is created, developed or operated equally...

...and this shows-up as variability at country levels and within operator portfolios...

Source: Science (2018), Global Carbon Intensity of Crude Oil Production
...but equally not all gas is developed, operated or transported equally...

Source: IEA, 2020: “Spectrum of the well to tank emissions intensity of global gas production 2018”.
...so the type of oil and gas resources, how they are developed and operated needs to change

- Existing field production decline at ~8% per year without investment is larger than any plausible fall in global demand - even in 1.5°C deg net-zero by mid-century scenarios
- Markets will become increasingly competitive. Those with lower-costs and better environmental performance will benefit
- Many options exist to avoid, reduce, replace, offset and sequester GHG emissions from oil and gas
  - Approximately 40-50% of methane emissions can be avoided at no net cost
  - 10% of energy use can by reduced through applying energy efficiency at low or no cost
  - 25% of energy use can be replaced with low carbon alternatives at a $50/te carbon price