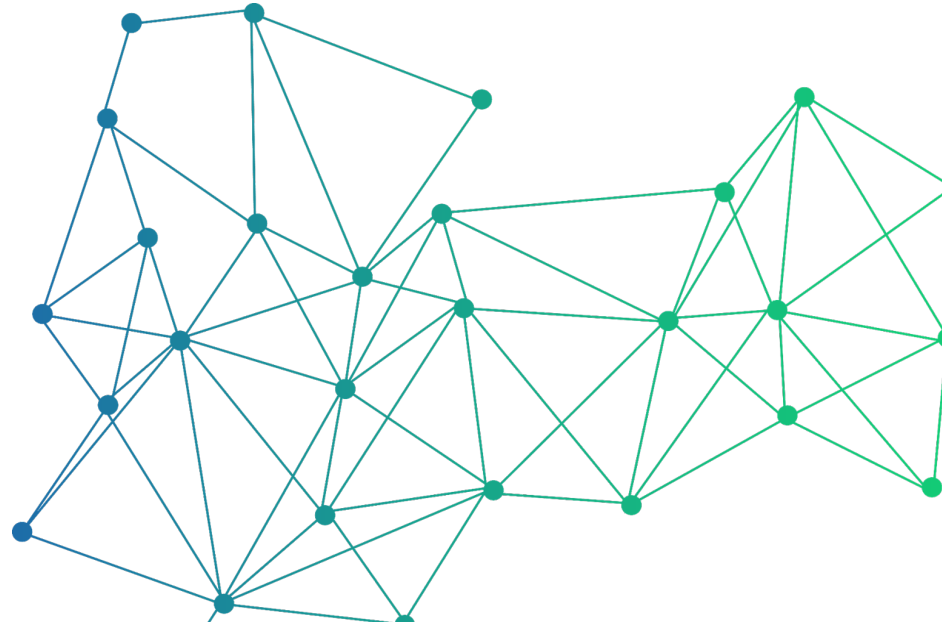


Coal Mine Methane (CMM) at Ember

Eleanor Whittle - Programme Lead



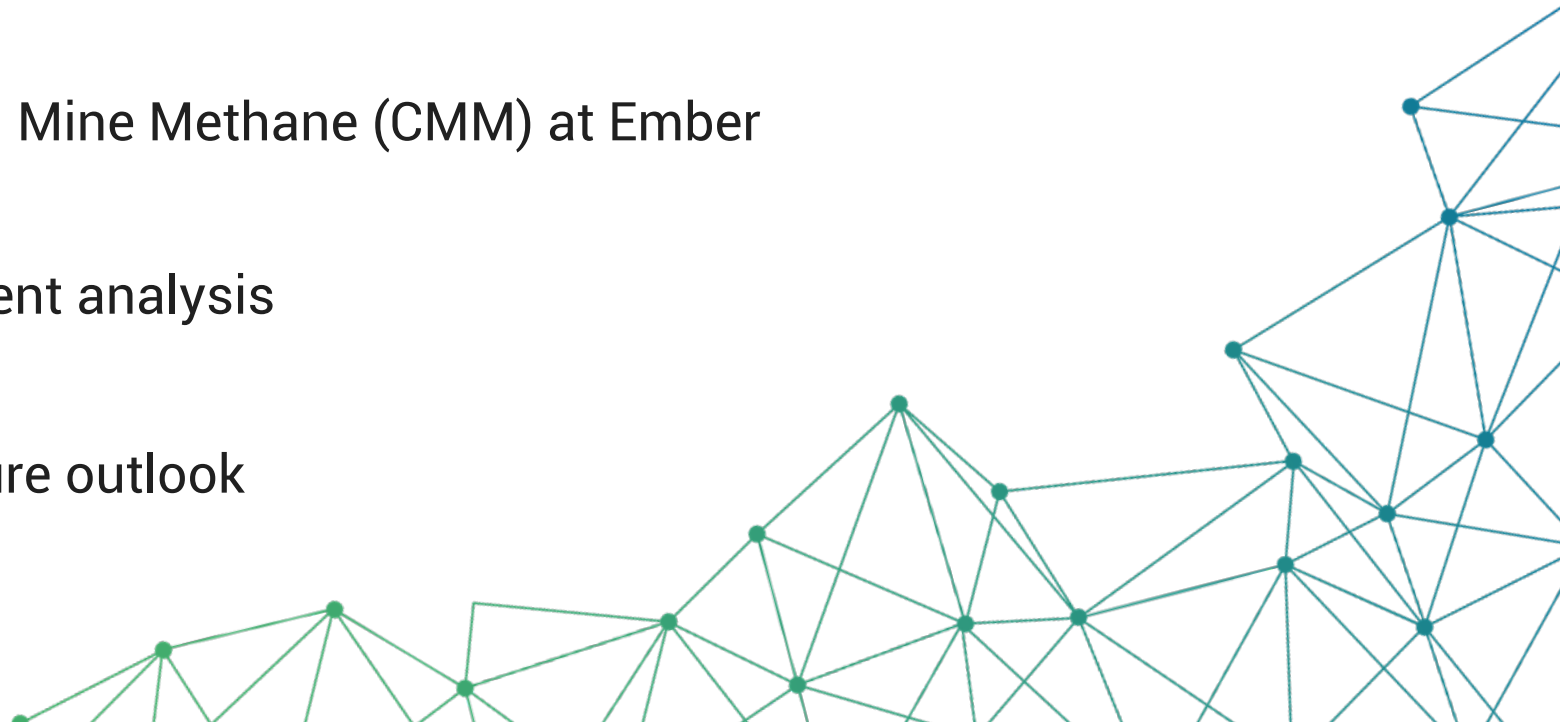
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Intro to Ember

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Recent analysis

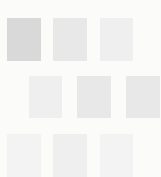
Future outlook



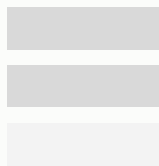


What we do

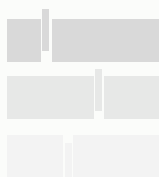
We turn data into action.



GATHER



CURATE



ANALYSE



CHANGE
policy



SHIFT
narratives



EMPOWER
campaigns

We gather, curate and analyse data on the global power sector and its impact on the climate.

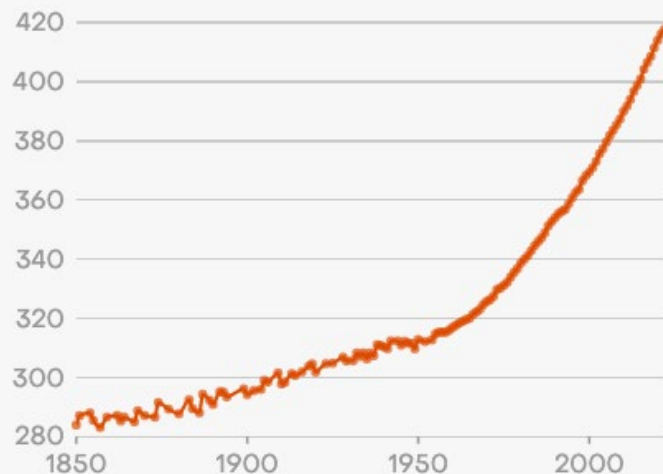
Our data and insight changes energy policy, shifts the global narrative, and empowers other advocates to do the same.

Trends in atmospheric carbon dioxide and methane and their effect on surface temperatures

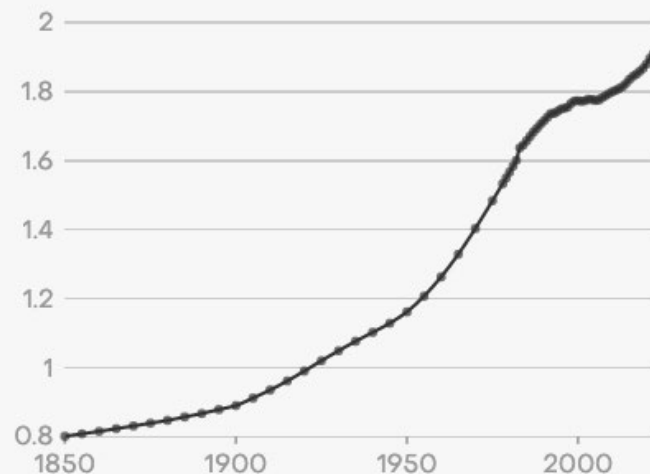
Average concentrations since 1850 (ppm)

All other gases have had a negative impact on surface temperatures of -0.26°C

CO₂ (+0.8°C)



CH₄ (+0.5°C)



Source: NOAA Global Monitoring Laboratory
Featured figures represent the changes in surface temperatures from pre-industrial levels, caused by each gas

Ember's CMM team

- 40 Mt of coal mine methane (CMM) was released in 2022
- CMM represents ~ 10% of methane emissions from human activity
- We have a global team dedicated to galvanising significant reductions in CMM emissions in the world's biggest emitters





Recent work: Ember's Steel Report

- Coking coal in steel production is set to persist, even in the most ambitious decarbonisation scenarios
- Coking coal mines emitted nearly 12 Mt of methane in 2021 (surpassing gas pipelines and LNG)
- CMM adds **at least** 27% to steel's global warming impact
- Low carbon pathways for steelmaking miss out on one of the biggest and quickest climate wins
- Recommendations (to companies, investors etc.) for how to reduce the climate impact from steel making



Australia's Safeguard Mechanism

- CMM is growing in Australia
- Methane reduction not regulated or incentivised by Safeguard Mechanism
- However, Australia's coal mines could almost halve methane emissions by using just 1% of annual profits
- Ember gave evidence at Senate Enquiry:
 - MRV
 - best-practice emissions intensity baseline
 - carbon credits must not be used
- Commentary and policy responses: "massive climate harm" recognised but not addressed



EU Methane Regulation

- EU coal mines emitted more methane than oil and gas combined
- Two thirds is from Poland
- EU has committed to cut methane by 58% - but current draft only cuts methane by a maximum of 47%
- 25% of emissions could be cut by dealing with Abandoned Mine Methane (AMM)
- Recommendations include: tightening venting thresholds, closing gassiest mines, dealing with AMM



Cumbria Coal Mine (UK)

- First underground coal mine approved in 30 years
- Will emit 15x more methane than estimated by developer
- Would increase UK's fossil methane emissions by 40% - not consistent with Global Methane Pledge
- Claims it will mitigate 95% - but best case scenario is 69% with world class technology
- Mitigation plan must be scrutinised by experts

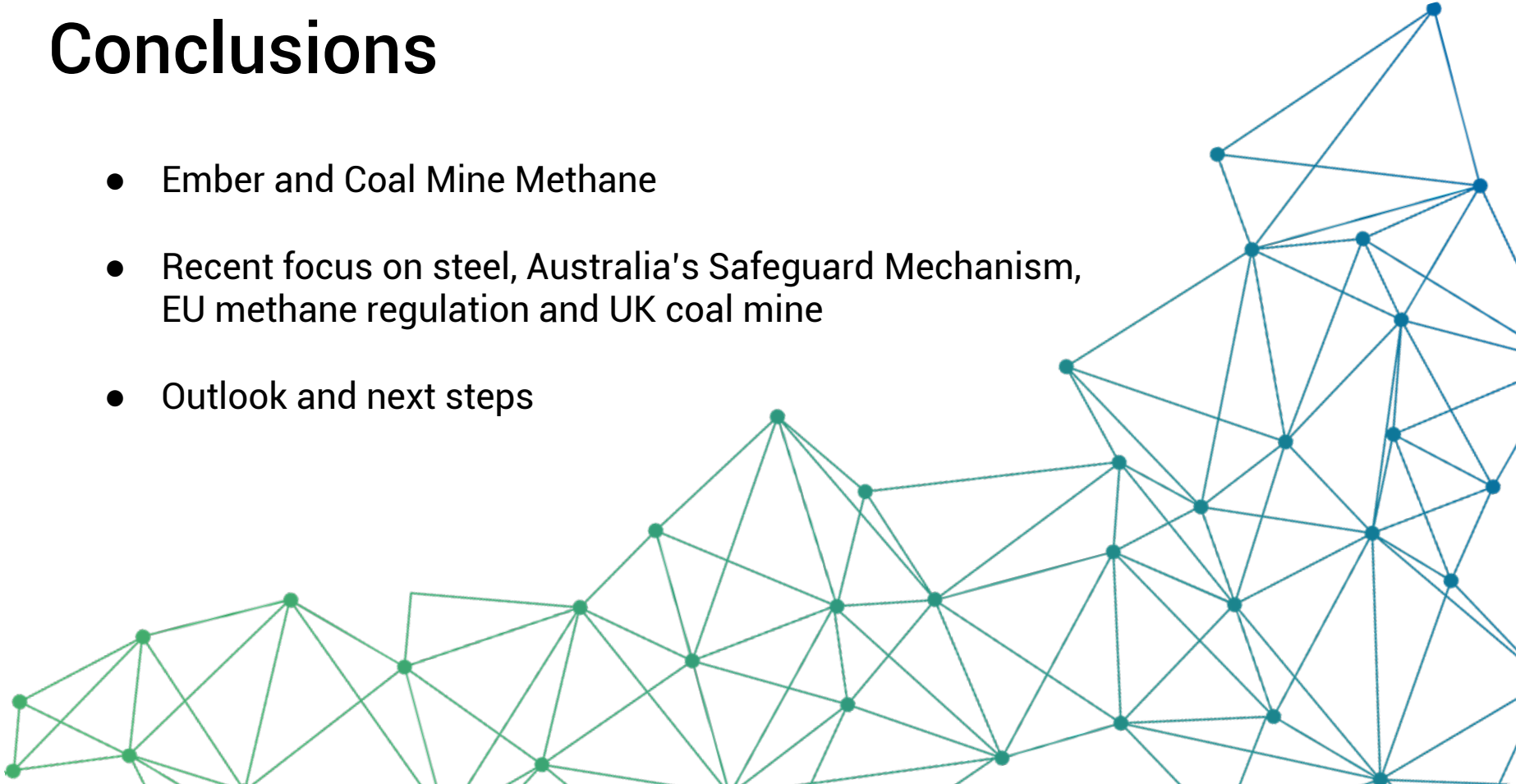
Ember CMM Next Steps

- Continue to focus on EU, Poland and Australia
- Continue to build the story using data
- Continue to analyse and demonstrate the 'real' footprint of steel
- Expand to new geographies with a focus on India and Indonesia
- Scope the opportunities and challenges for reducing CMM in China



Conclusions

- Ember and Coal Mine Methane
- Recent focus on steel, Australia's Safeguard Mechanism, EU methane regulation and UK coal mine
- Outlook and next steps



Thank you

Eleanor Whittle

