

Team 107, Memzyme for Carbon Capture

SAND2019-15446PE

76 Interviews



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Adv. Materials



Susan Rempe (PI)
Biophysics



Dan Keiser (IM)
Oxy Low Carbon



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Imagine a future ...



→
+1.4 F



Memzyme captures CO₂

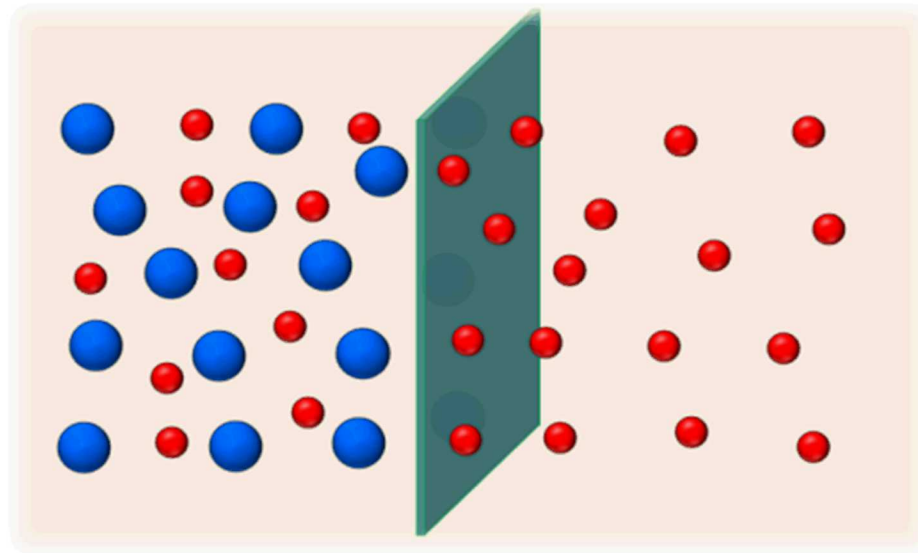


AIR



CO₂-RECOVERED OIL

Unique function

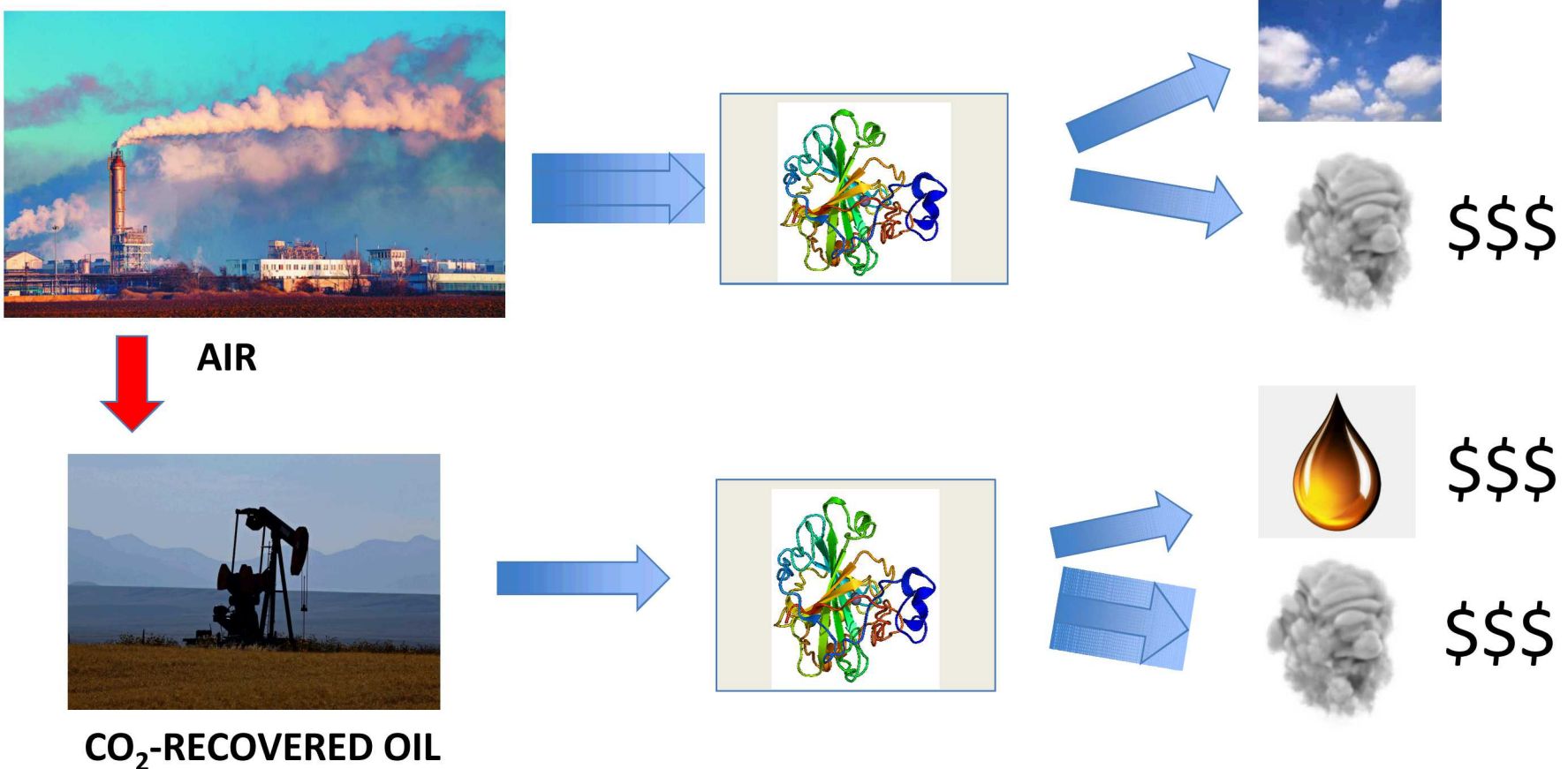


CO₂ Only
(>10x purer)



Rapid → less membrane
(>10x faster)

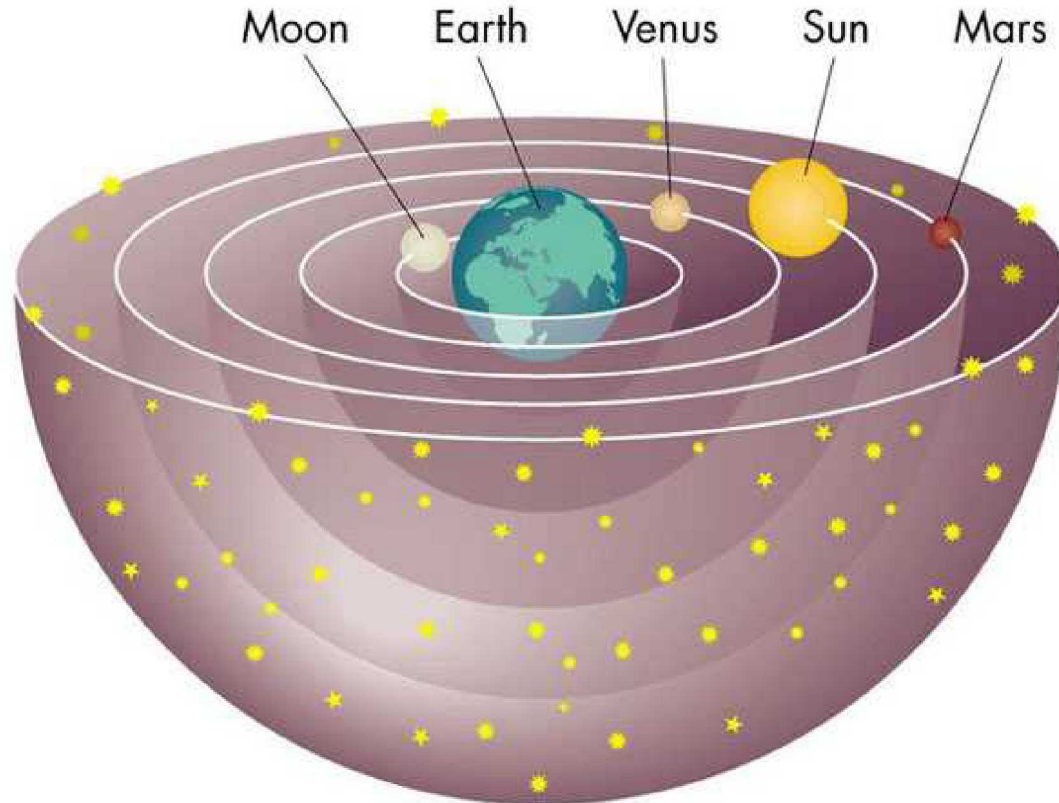
Value Proposition



We provide drop-in, easily regenerated filters to chemical engineers that separate pure (99.8%) CO₂ from air & oil at low cost (\$18/t), making carbon capture, storage/utilization profitable (\$\$\$) while saving the planet.

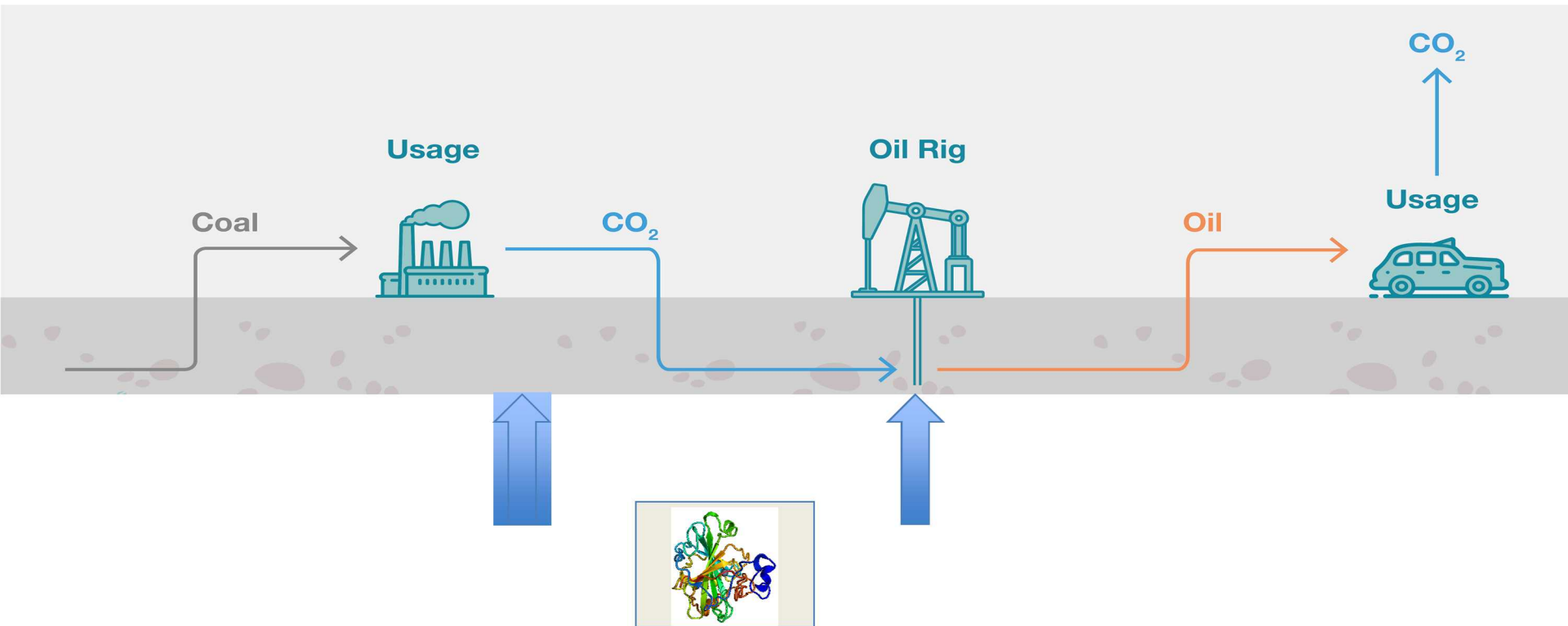
Lessons Learned: In the beginning

- Ecosystem



Lessons Learned: Beyond the Tech

- Ecosystem



Lessons Learned: Beyond the Tech

- Customer View



Looks?



Deliver?



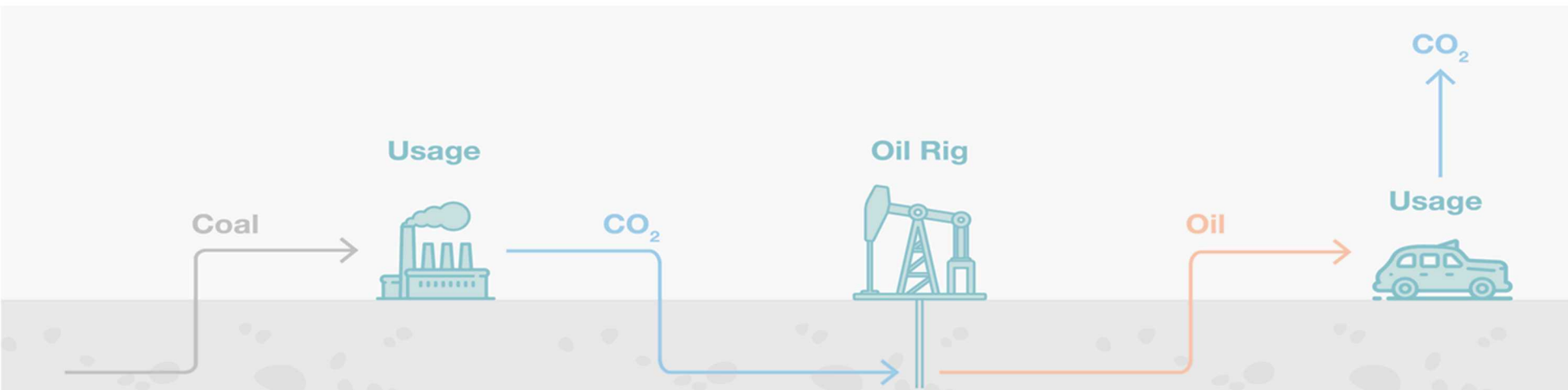
Install/
Regenerate?



Do?

\$\$\$

Money?



Lessons Learned: Customers?



Who needs it?

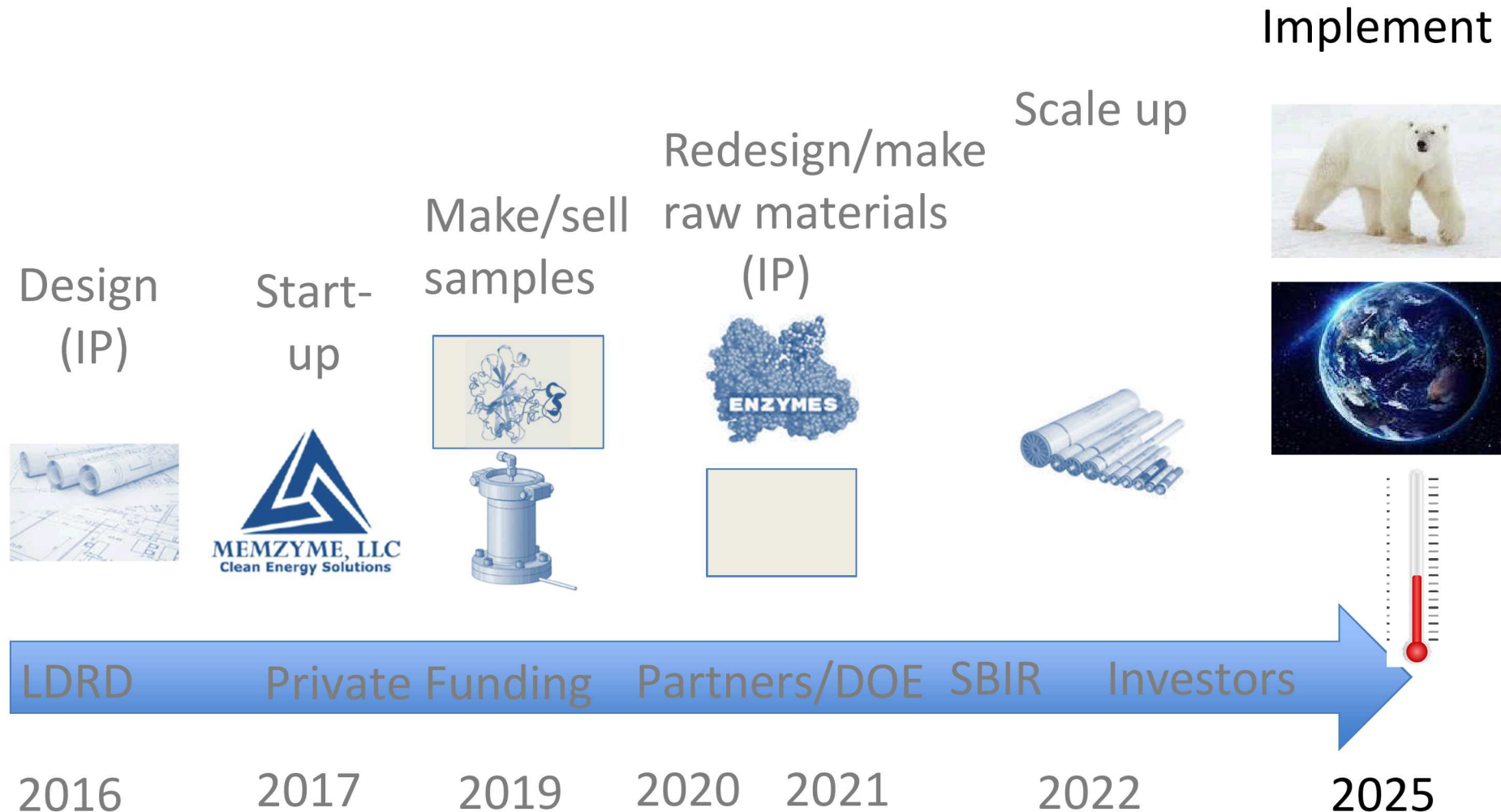


3x more CO₂ than beer
carbonate



CO₂ highest cost

Lessons Learned: Comfort with Business



Thank you!

