

International Panel Session

*The 8th International Supercritical CO₂ Power Cycles Symposium
San Antonio, Tx*

Need to derisk the technology

David T. Sánchez
University of Seville



Renaud Le Pierres
Heatric (Parker Hannifin)





Supercritical CO₂
Power Cycles
Symposium

FEBRUARY 26 – 29, 2024

DR. RAFAEL GUÉDEZ

HEAD OF DIVISION
DIVISION OF HEAT AND POWER –
ENERGY DEPARTMENT, KTH

Speaker at Panel Session
"International R&D Projects"

Tuesday 27th, 16:45 - 18:00

SCC



 You and 127 others

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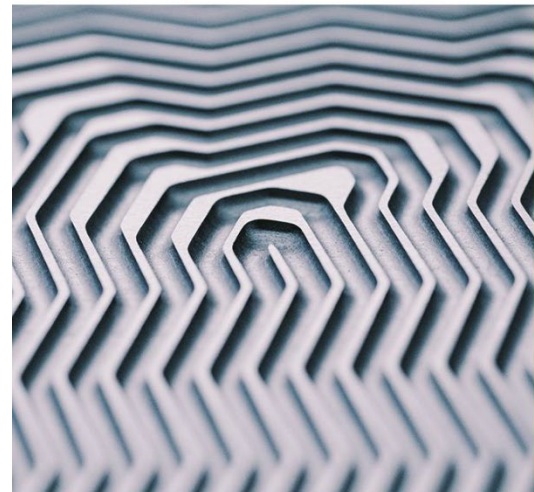
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Join [Heatric's Renaud Le Pierres](#) at sCO₂ Symposium in San Antonio, 26th - 29th February - find out how Heatric PCHes are enabling sCO₂ projects during the sCO₂ Heat Exchangers Tutorial Session, Monday 5pm CST.

Register here: <https://sco2symposium.com/>

[#sco2](#) [#energyefficiency](#) [#heatexchanger](#)



 You and 17 others

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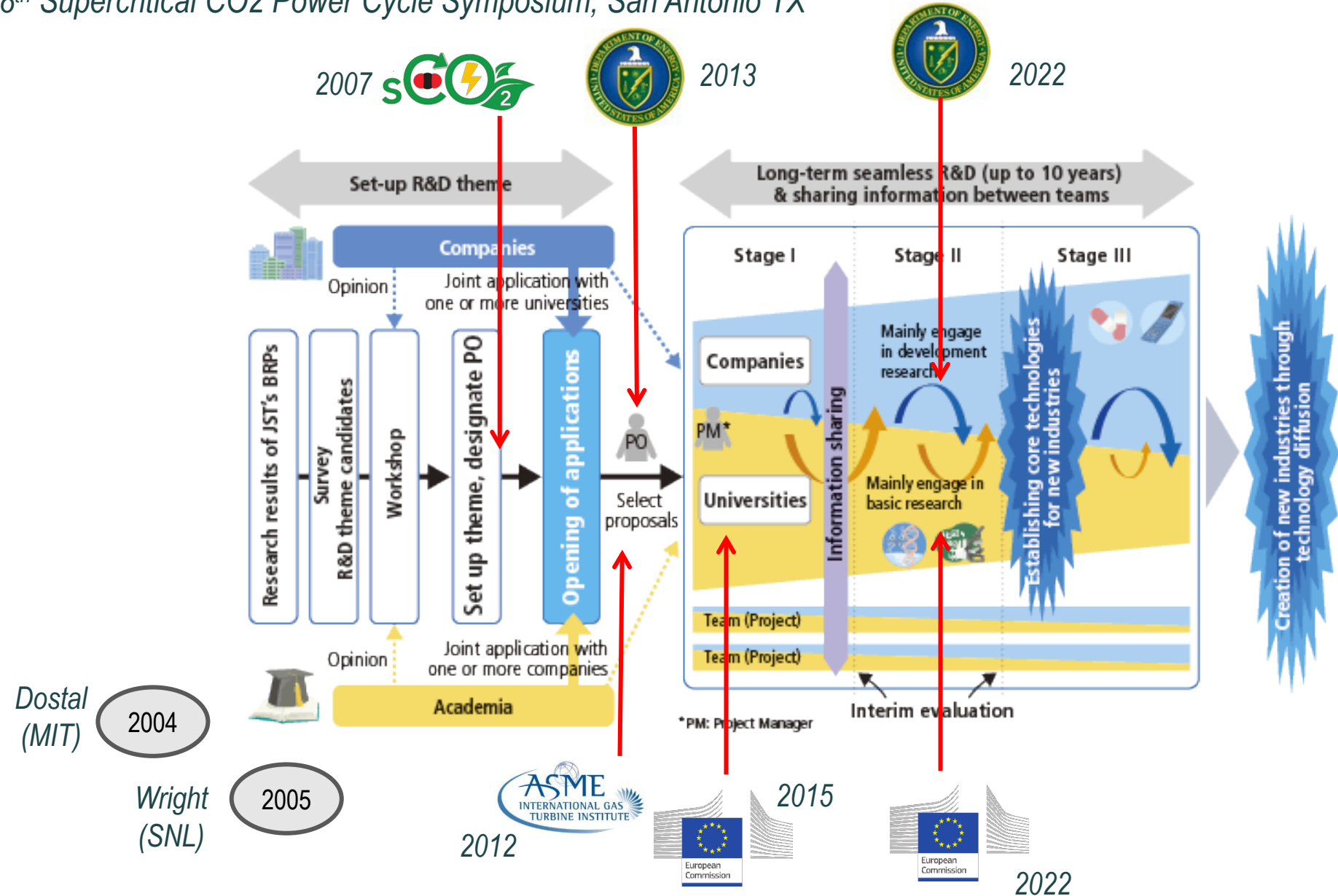
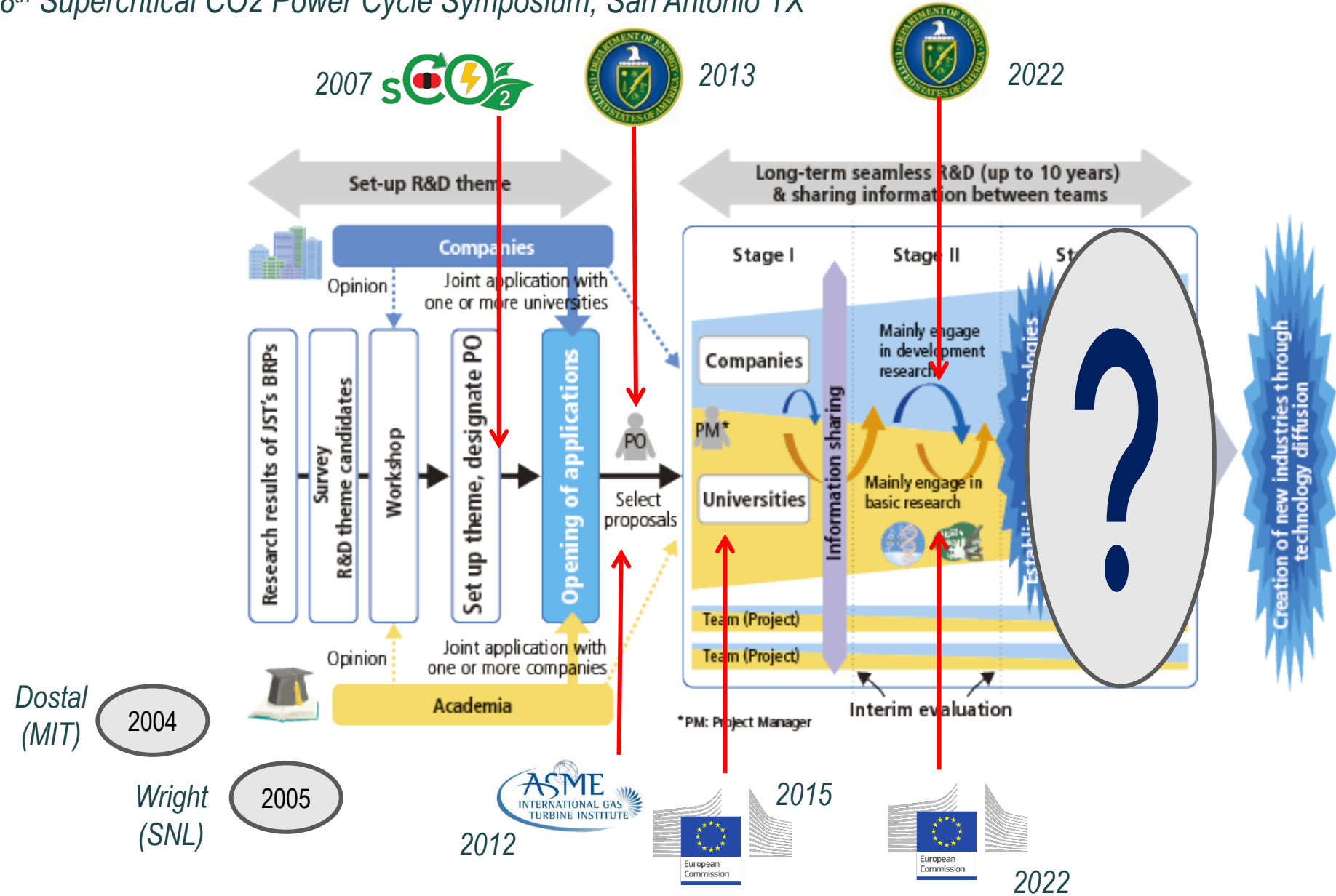


Figure credits: Industry-Academia Collaborative R&D Programs, Japan Science & Technology Agency



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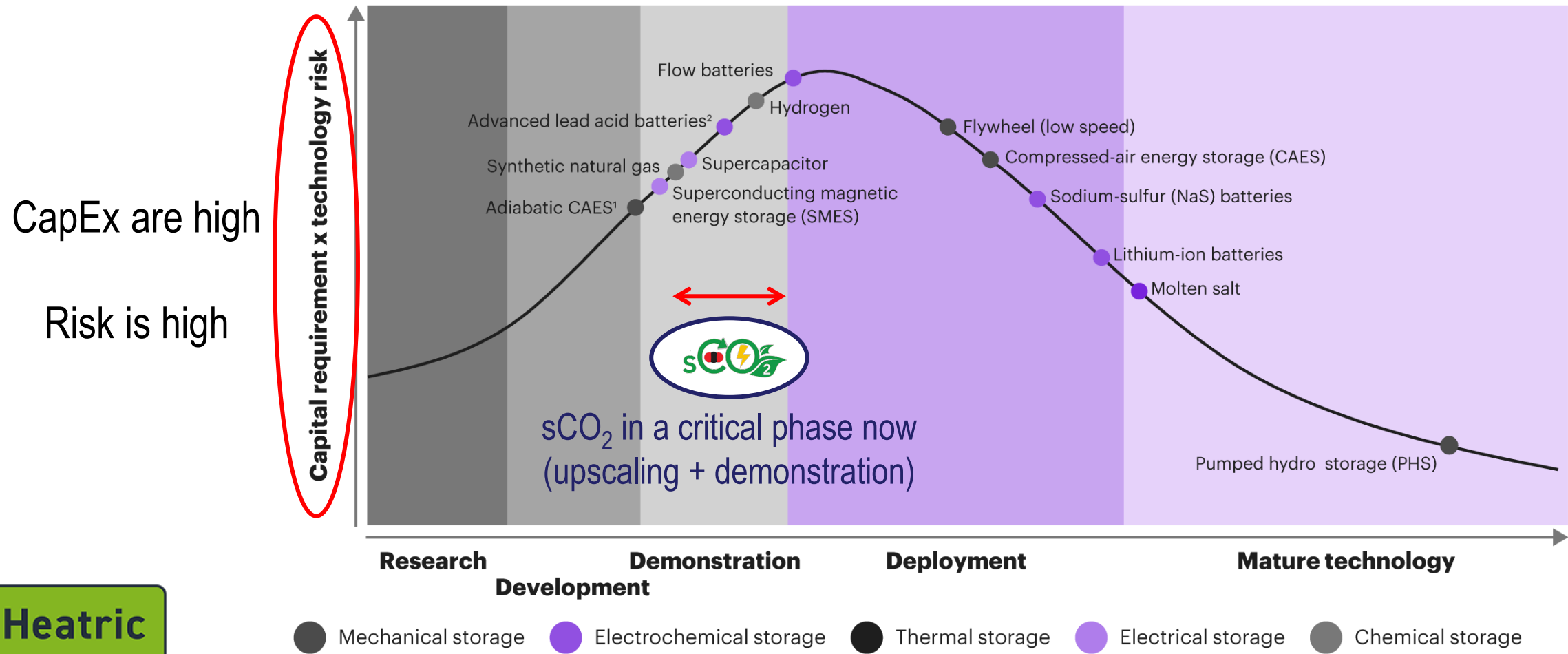
Figure credits: Industry-Academia Collaborative R&D Programs, Japan Science & Technology Agency

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Technology maturity curve



¹ CAES is compressed-air energy storage.

² Valve regulated lead acid batteries is a mature technology.


Source: A.T. Kearney Energy Transition Institute analysis

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 **TransCanada**
GT+sCO₂
7.5 MWe

 **CO₂OLHEAT**
Cement+sCO₂
2 MWe



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 **edf**
 **首航节能**
SHOUHANG RESOURCES SAVING


CSP+sCO₂
10 MWe

 **STEP DEMO**

NG+sCO₂
10 MWe



 **SOLAR sCO₂OL**
CSP+sCO₂
2 MWe

 **DESOLINATION**
CSP-D+sCO₂
10 MWe



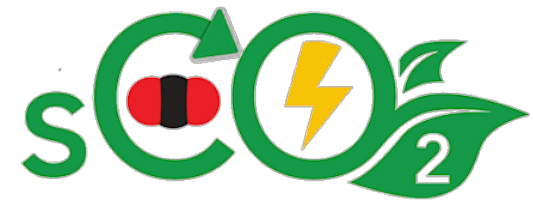
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 **UNIVERSIDAD DE SEVILLA**
1505

Electricity Storage Gaining Momentum, A.T. Kearney Energy Transition Institute

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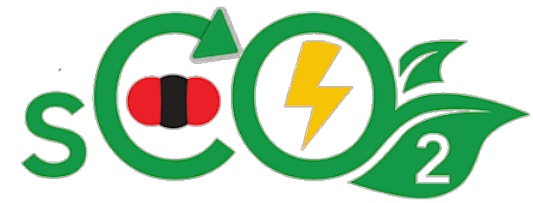
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- Early-adopters still reluctant:
 - High costs of ongoing projects → Uncertain CapEx
 - Operational demonstration (at relevant scale) still missing → Uncertain OpEx
- Upscaling and demonstration (operational) mandatory to derisk technology
- Is this possible today?
 - Availability of R&D funding
 - Suitability of current R&D programmes
 - Engagement of industry sponsors

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- Intro: Renaud Les Pierres & David Sánchez [10 mins]
- The panel today: [10 mins each]
 - Rafael Guédez, KTH Stockholm
 - Lorenzo Cossi, Baker-Hughes
 - Doug Hofer, Southwest Research Institute
 - Jeong Ik Lee, Korea Advanced Institute of Science and Technology
 - Guillermo Paniagua, Purdue University
- Q&A (get your questions ready) [25 mins]



University R&D Panel Session

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Thank you!

