



Underground Energy Storage

Developing a flexible, innovative
underground hydrogen storage solution

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Managing Director

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Mission

A wide-angle photograph of a landscape featuring five wind turbines on a green, rolling hill. The turbines are white with three blades each, and they are spaced out across the horizon. The hill is covered in lush green grass, and the background shows more hills and a sky with scattered white clouds. The overall scene is bright and clear, suggesting a sunny day.

Gravitricity exists to accelerate the global transition to 100% renewable energy

Underground System Engineering Experts

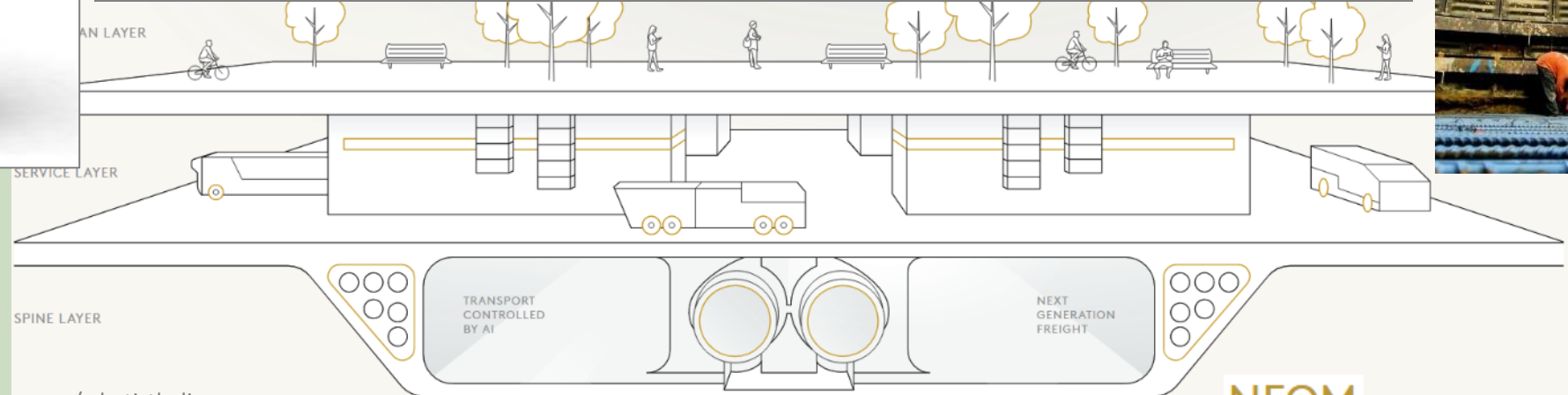
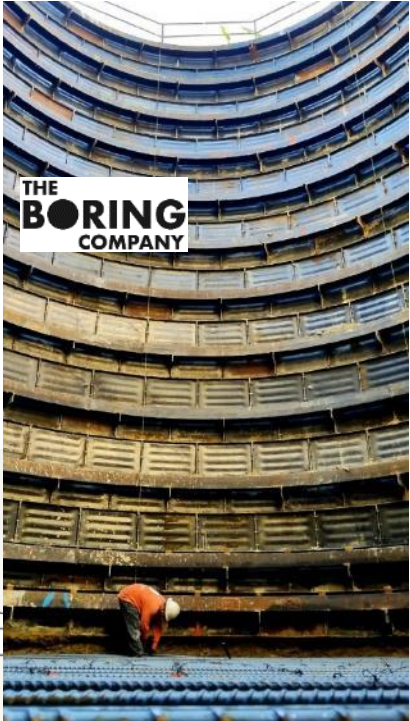
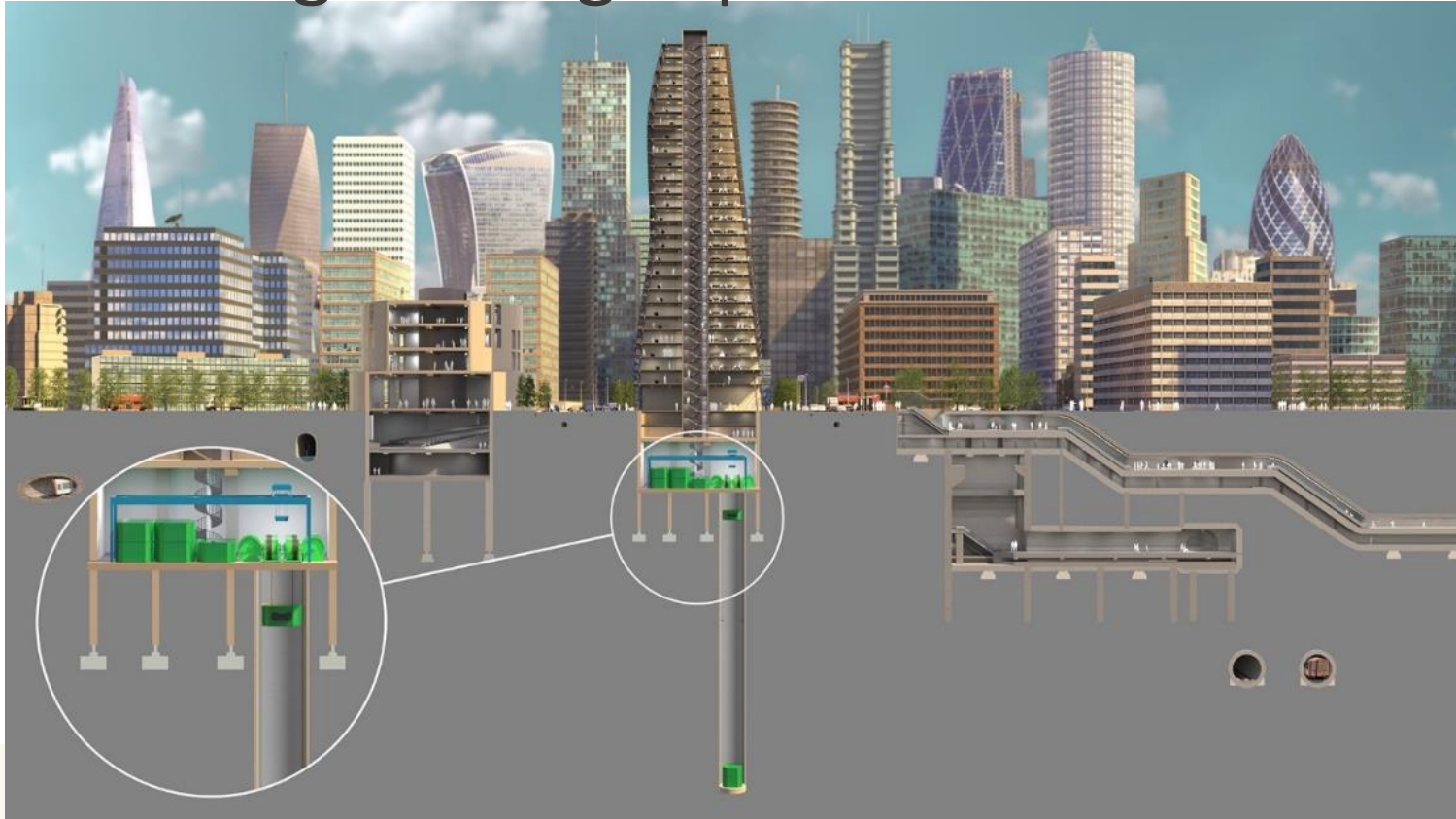
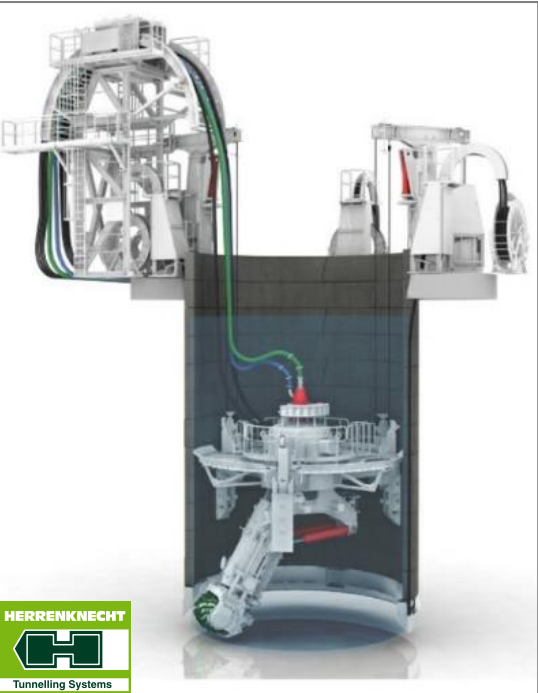


Image: www.neom.com/whatistheline

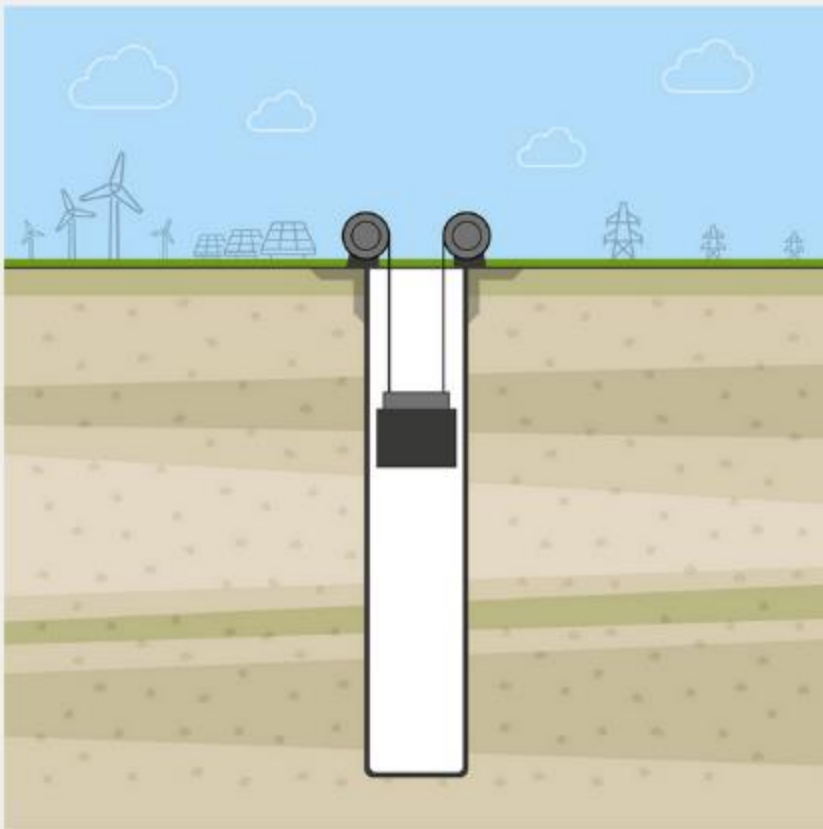
ULTRA-HIGH-SPEED TRANSIT

NEOM

Two Pioneering underground energy storage technologies

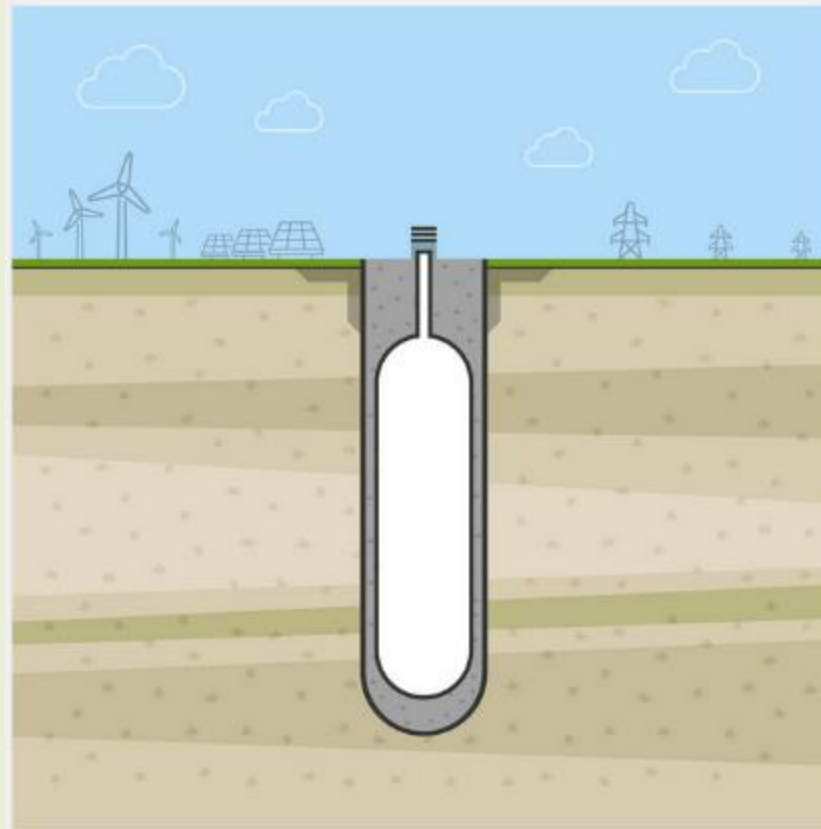
Gravity Power Storage

Gravitational Energy Storage (GraviStore)



Hydrogen Storage

H₂ FlexiStore



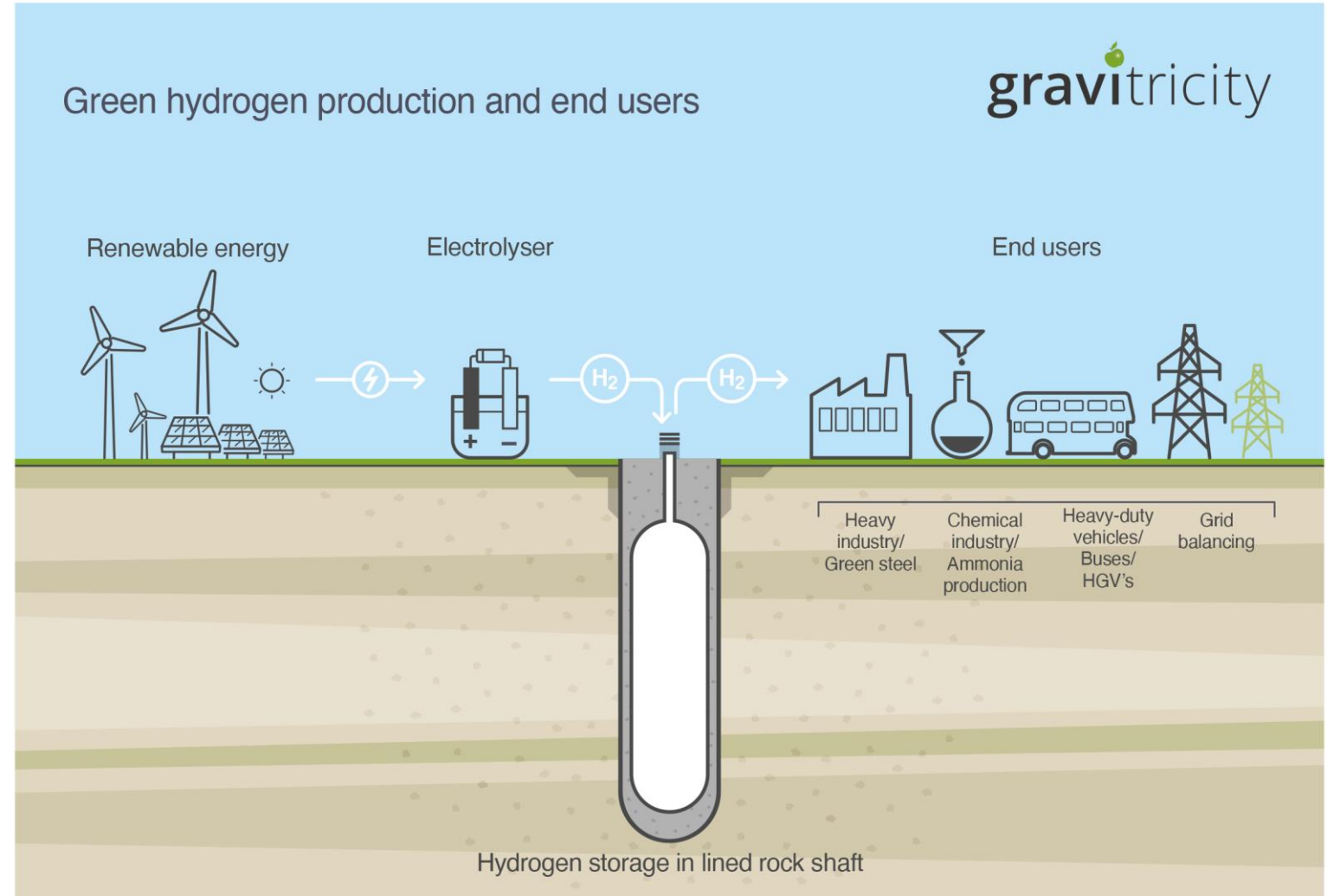
Both of these technologies use the characteristics of the underground space to store energy.

GraviStore uses the geology of the earth to hold thousands of tonnes of weight to store electricity.

H₂ FlexiStore uses the geology of the earth to contain pressurised fuel gas, allowing safe storage underground. The system will provide large-scale storage and use very little land.

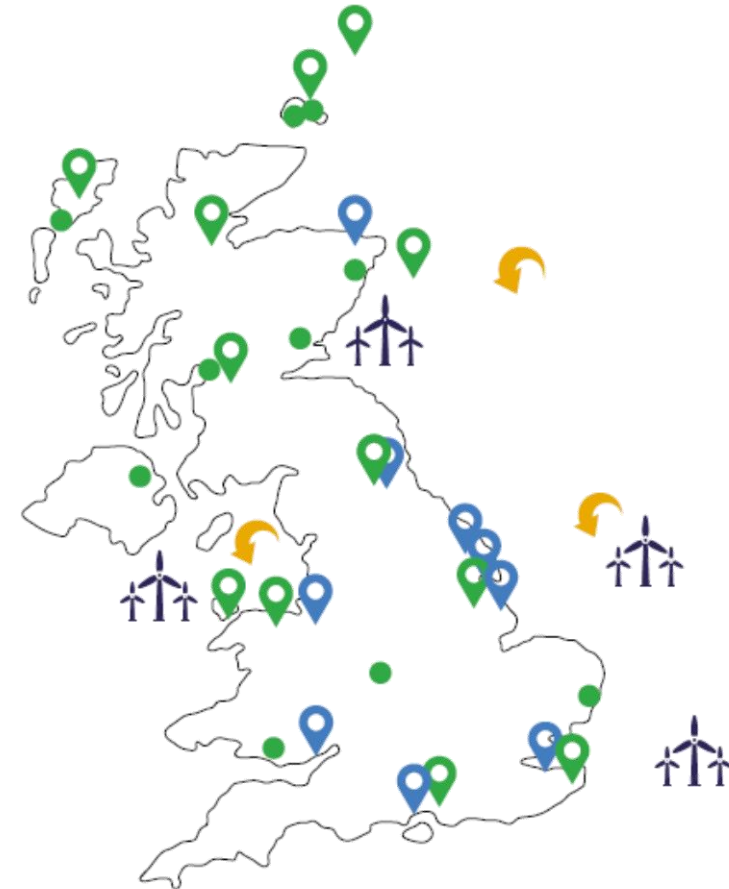
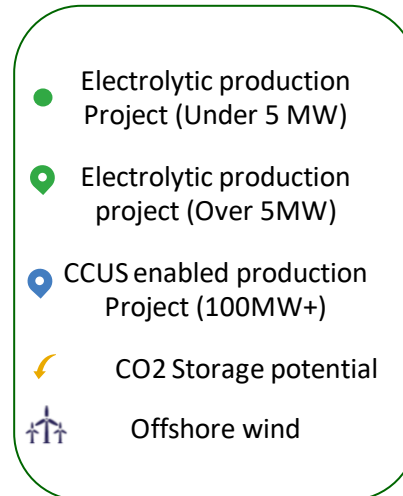
Buffer storage of green hydrogen

- **GWhs** of buffer storage for green hydrogen
- Design prioritizes **safe storage** of gaseous Hydrogen
- By using geology to contain pressure, significantly **less steel** is required
- As a result, project costs are projected to be **significantly lower** than pressurised containers at surface
- **Geographically flexible**
- Development time in **months not decades**

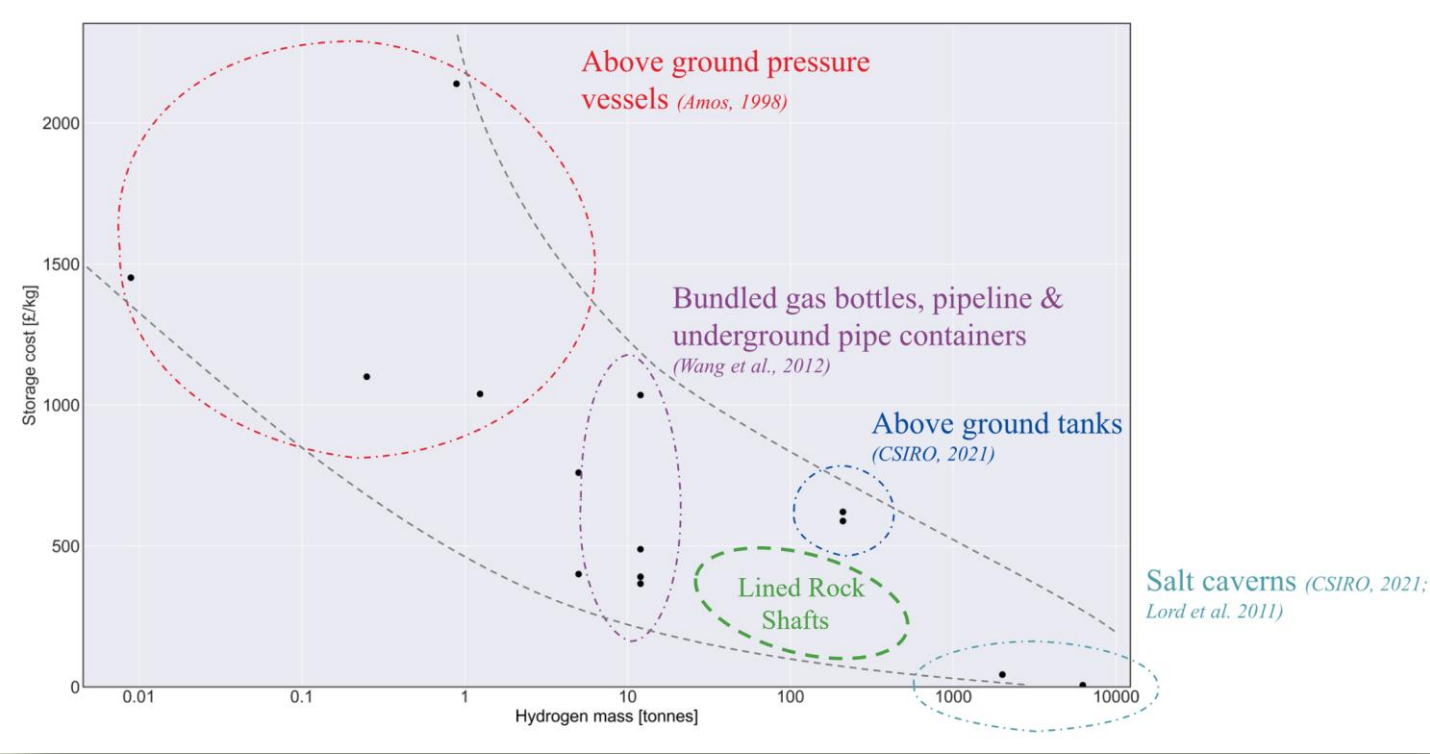
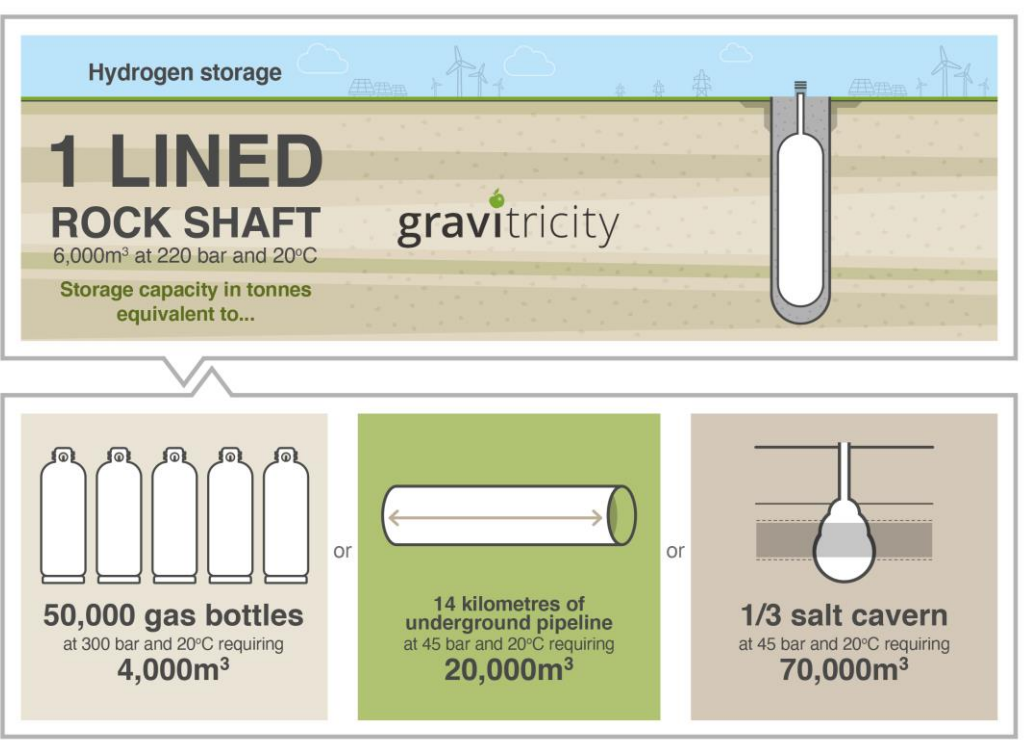


Buffer storage – the missing element to many green Hydrogen projects

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Gravitricity's Goldilocks Solution



Team and Partners



Peter Fraenkel



Martin Wright



Charlie Blair



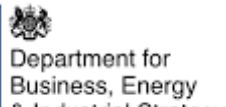
Juliet Davenport

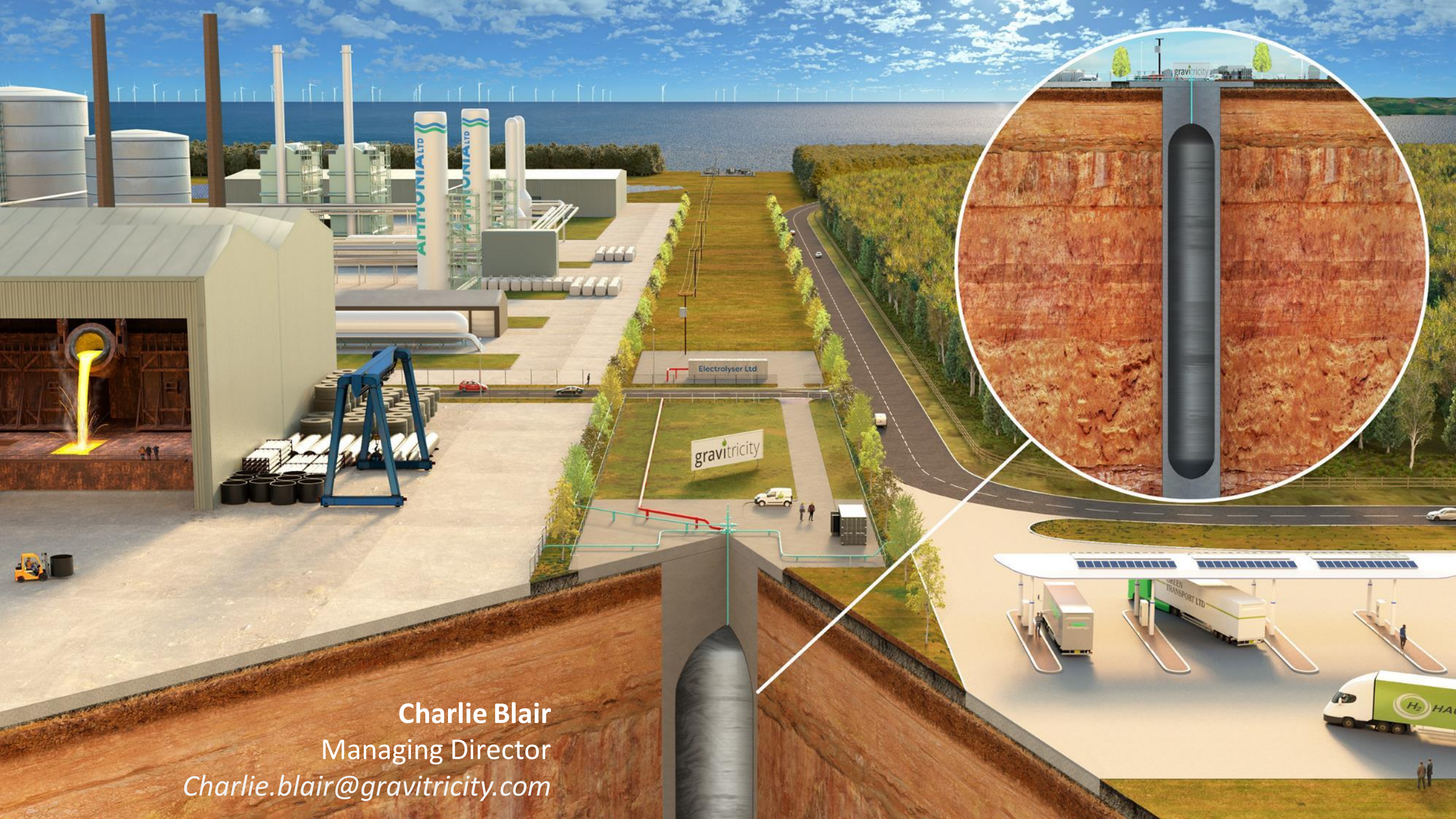


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