Ryan Law – Managing Director

UNITED DOWNS DEEP GEOTHERMAL PROJECT

EGEC – London, 25th September

OVERVIEW

- Background
- Proposition
- Geological study
- Uncertainty
- Summary

WHO ARE WE?

ARUP

Ove Arup and Partners Ltd. International engineering consulting firm (1946). Over 90 offices Worldwide with more than 10,000 employees

GeoScience Ltd. Providers of engineering and scientific support to geothermal and oil and gas projects Worldwide

Heavily involved in the Cornwall Hot Dry Rock project (drilling, testing and stimulation of three wells in granite, to a depth of 2.7km)

EVERSHEDS

Wardell Armstrong INTERNATIONAL

EPOCH

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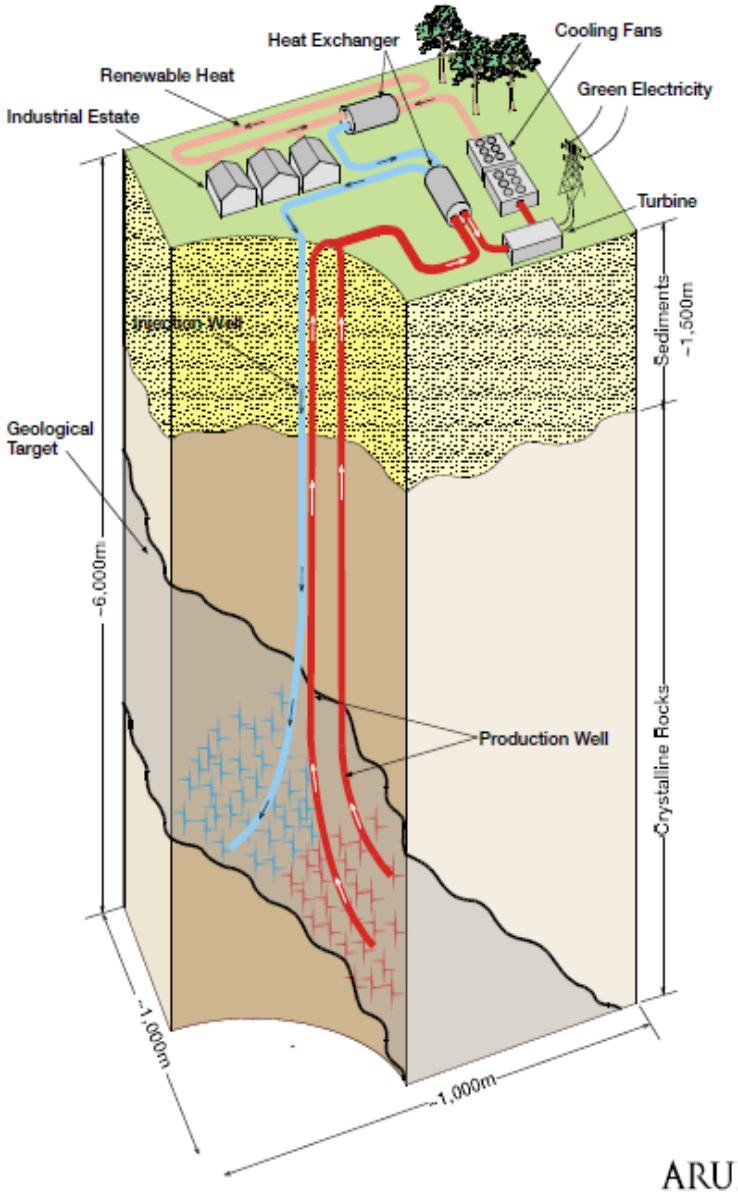
UNITED DOWNS PROJECT



ARUP

MAIN FEATURES

- 10 MW electric (7MW net) ~ 50 MW thermal
- Three well system; two producers, one injector
- ~ £50 million, in defined stages
- Anticipated temperature approaching 200°C
- Production ~ 150kg/s at 175°C
- Target depth ~ 4.5km
- Host structure (buried granite) has naturally higher permeability than surrounding rock
- Stimulation within and adjacent to the fault structure

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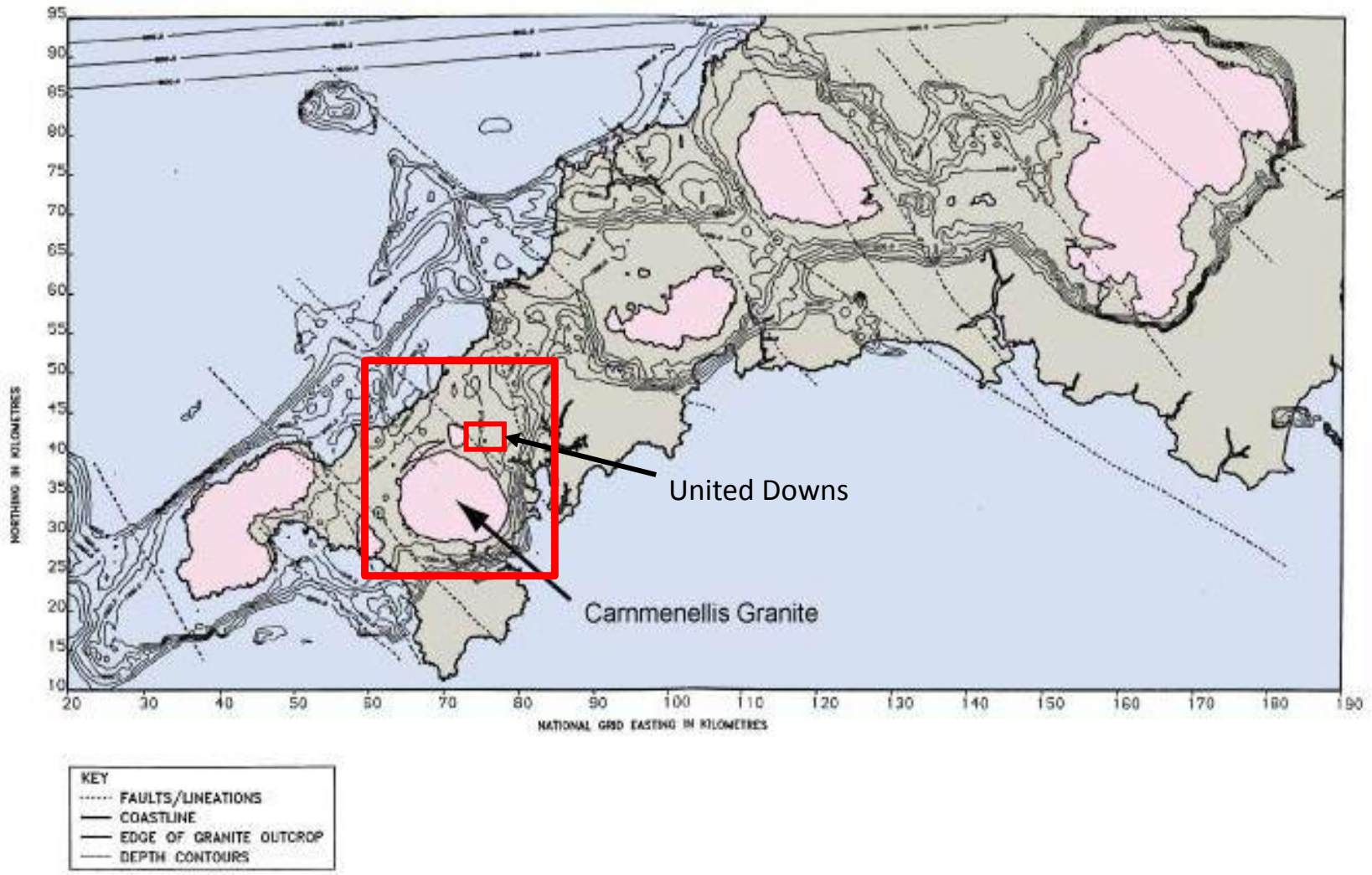
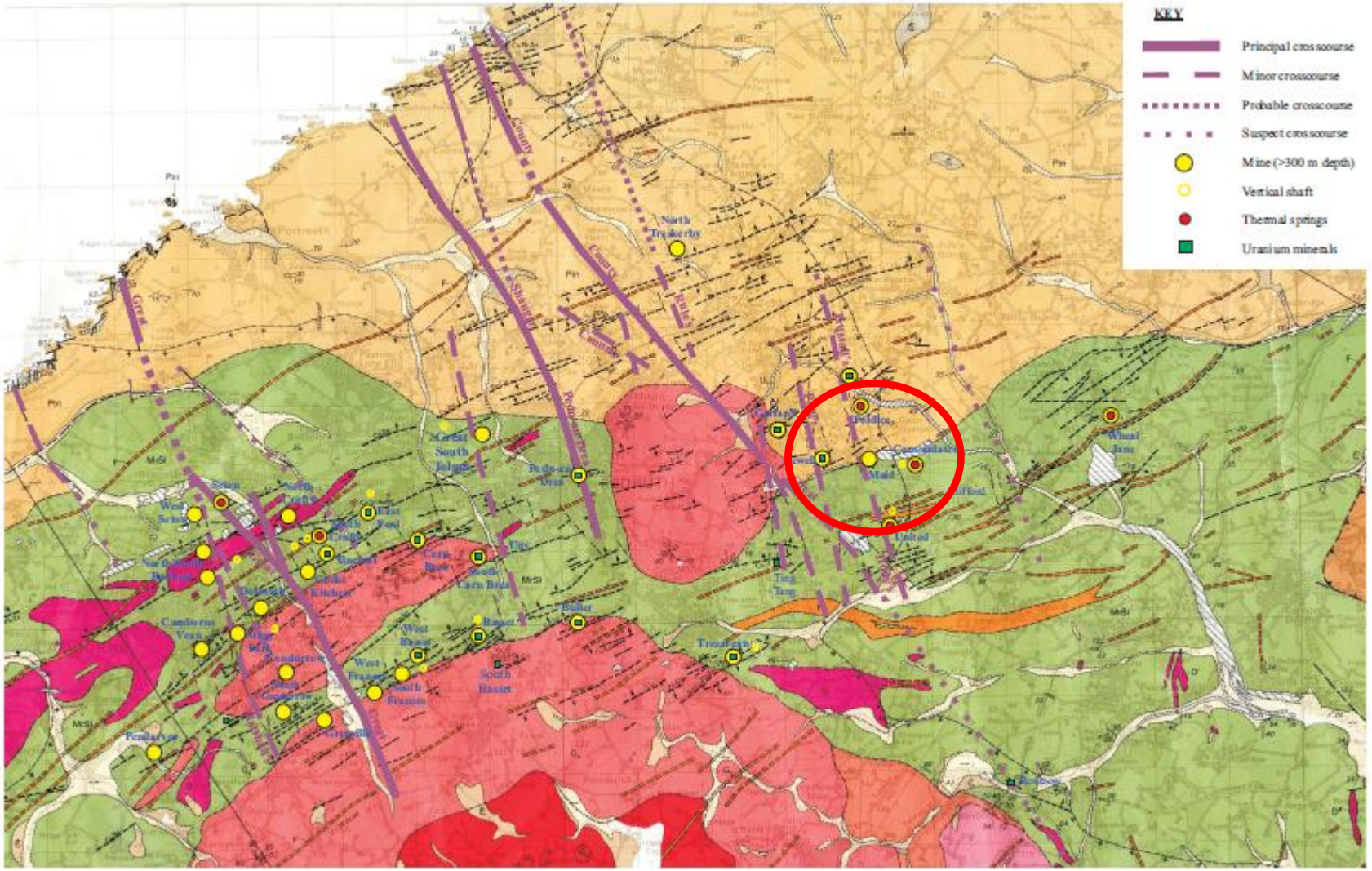
GEOLOGICAL STUDY – AREA



SIGNIFICANT DATA BASE

- Drilling records from the Hot Dry Rock project (3 wells, deepest to 2.7kms) < 10kms from the United Downs site
- Temperature data (boreholes and mines)
- Gravity data
- In-situ stress data
- Injection and circulation tests
- Mining records (extensive)
- Heat flow data (with depth)
- Seismic lines (off shore and on-shore)
- Geo-chemistry
- Stimulation programme and micro-seismic interpretation

SURFACE GEOLOGY AND MINING DATA



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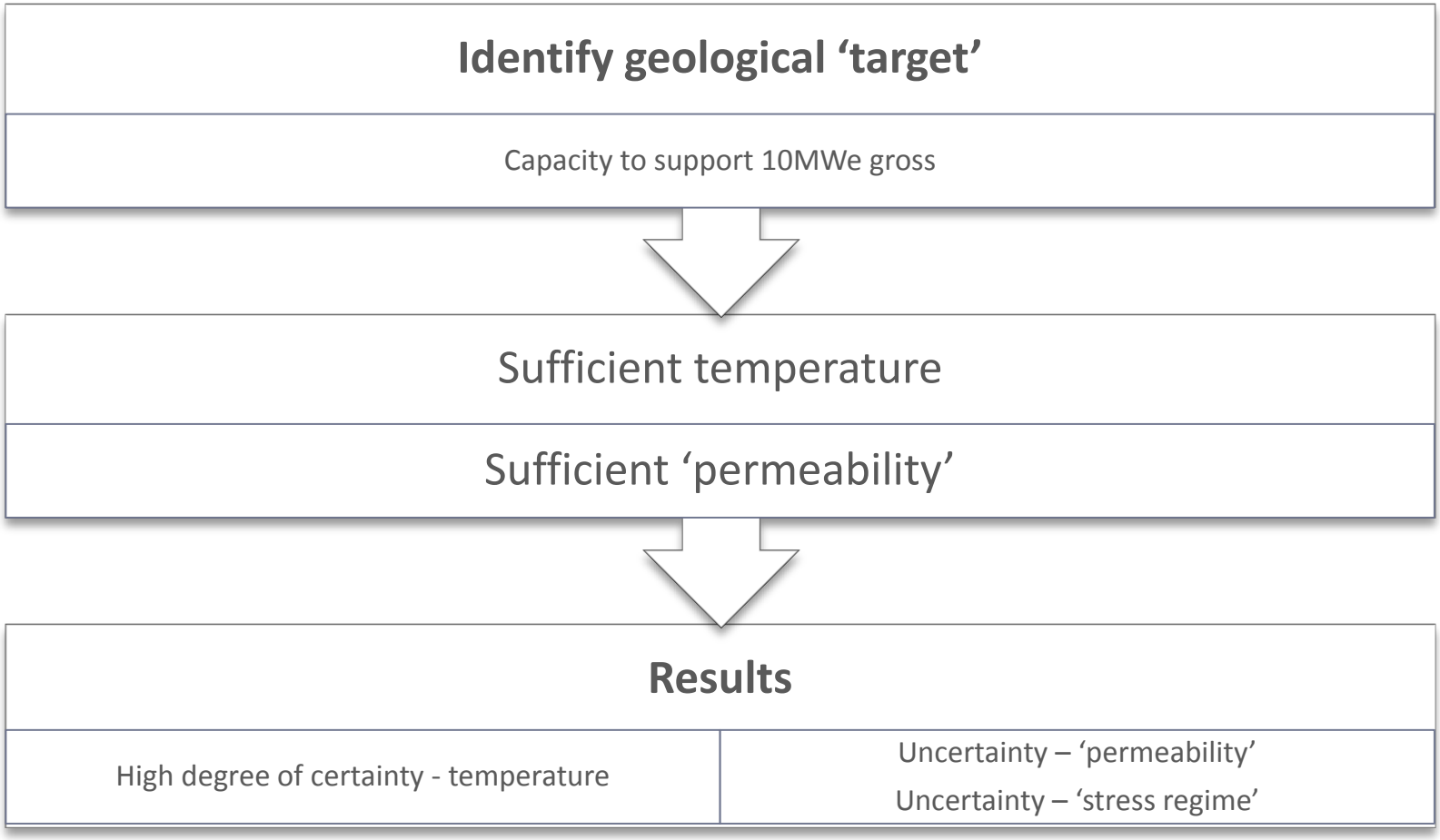
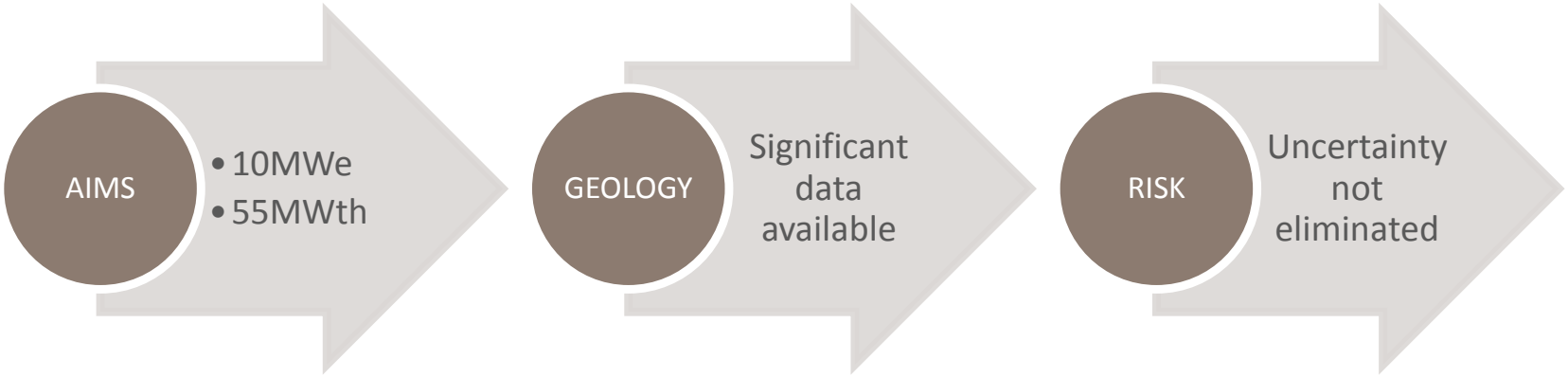
GEOLOGICAL STUDY



UNITED DOWNS PROJCET - SUMMARY



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