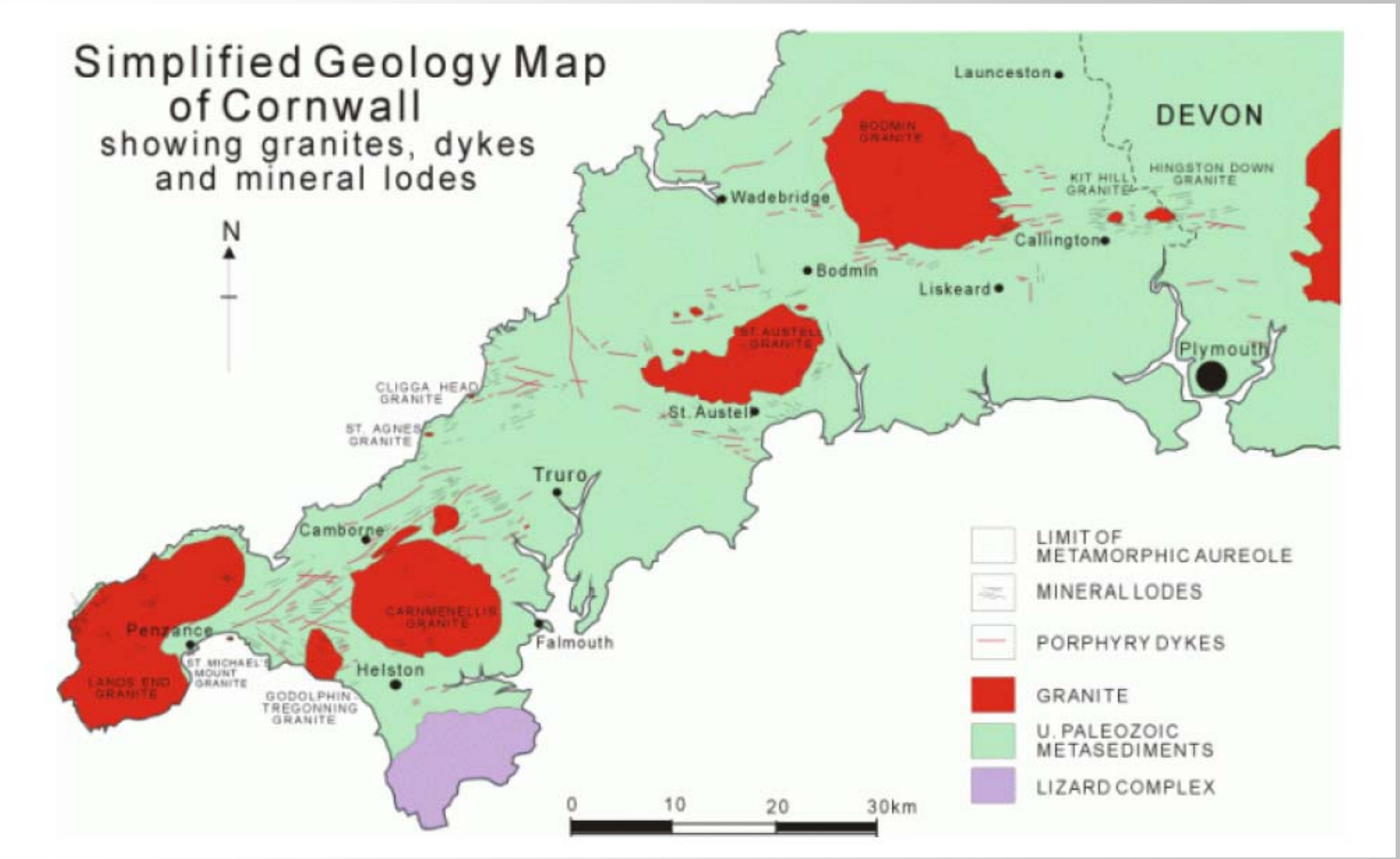
EXISTING STUDY OF GEOTHRMAL POTENTIAL IN THE UK

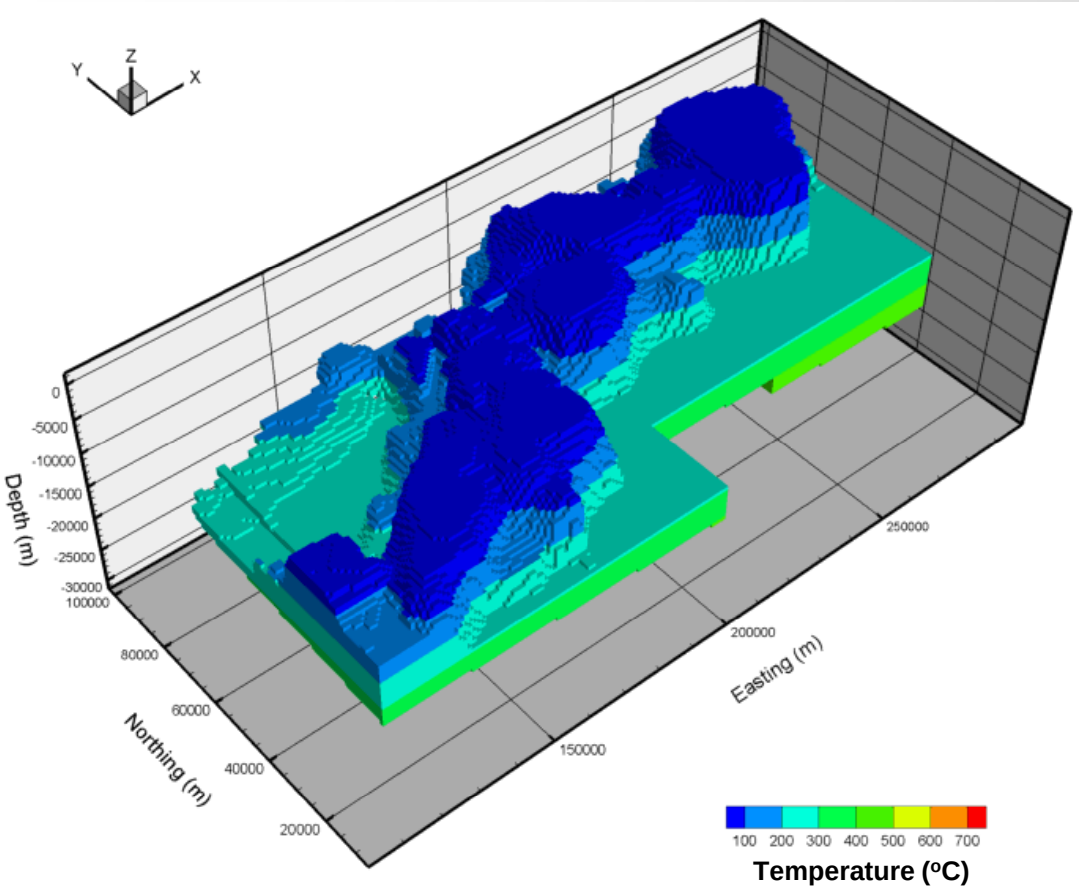
R. Baria,
EGS ENERGY LTD

Granite and mineral lodes

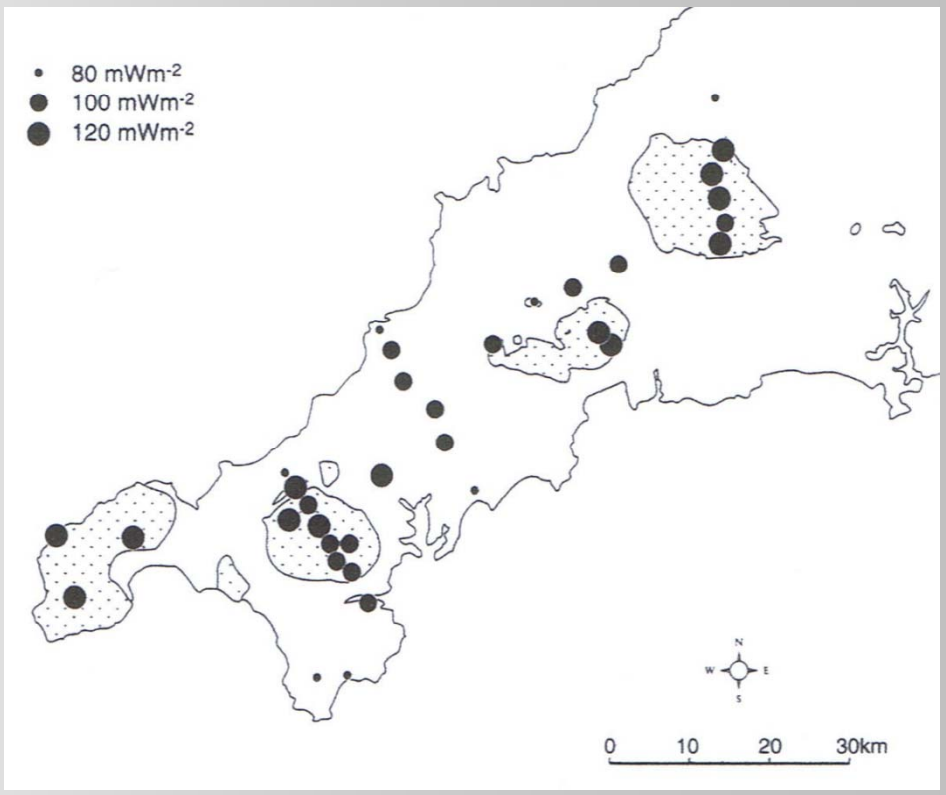


3D thermal model

A) 3D shape of granite body

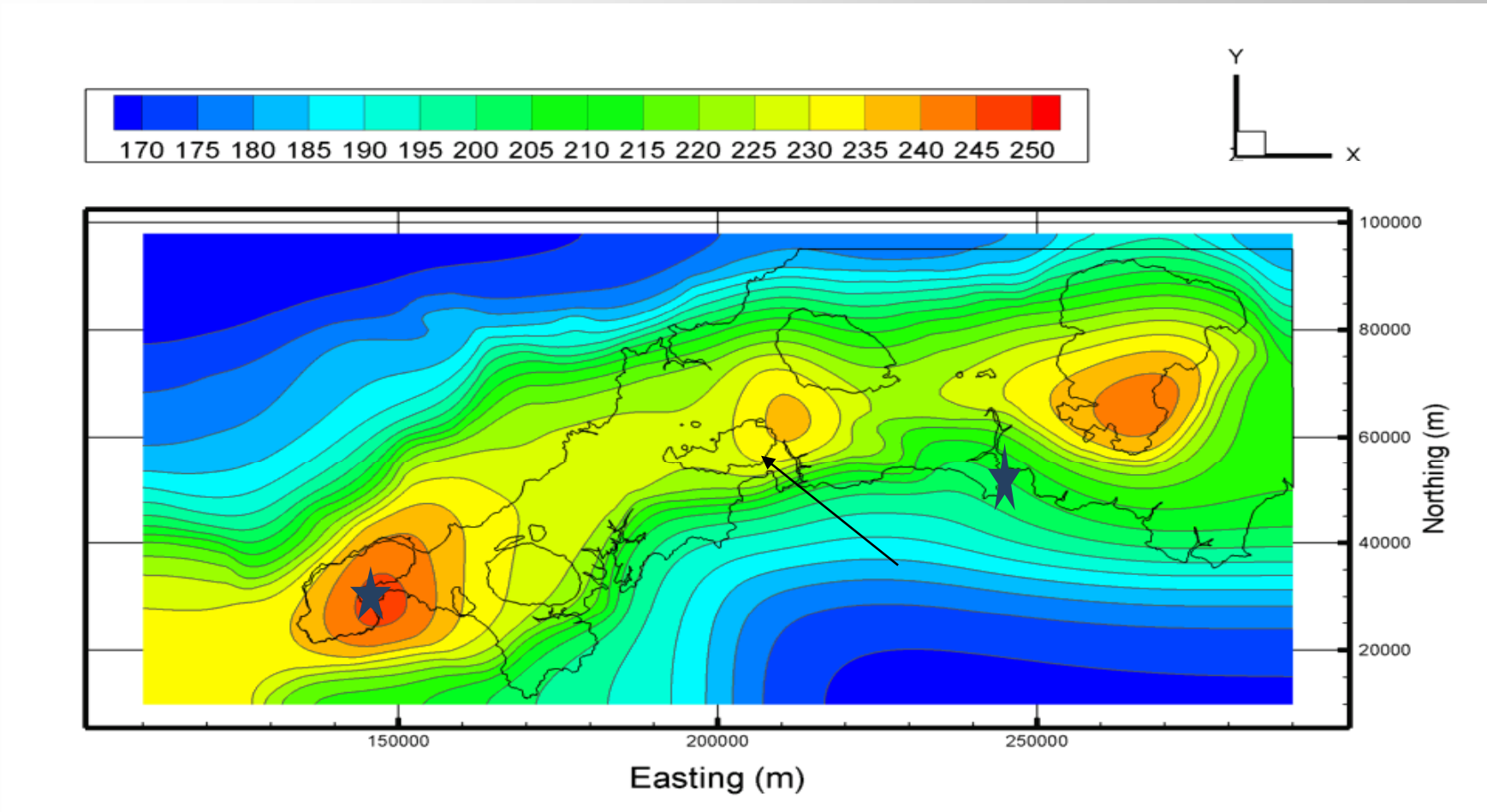


B) Heat flow measurements



Temperature in Cornwall

°C prediction at 6km depth (EGS Energy 2009)



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Temperature at 6000 m, whole of SW England

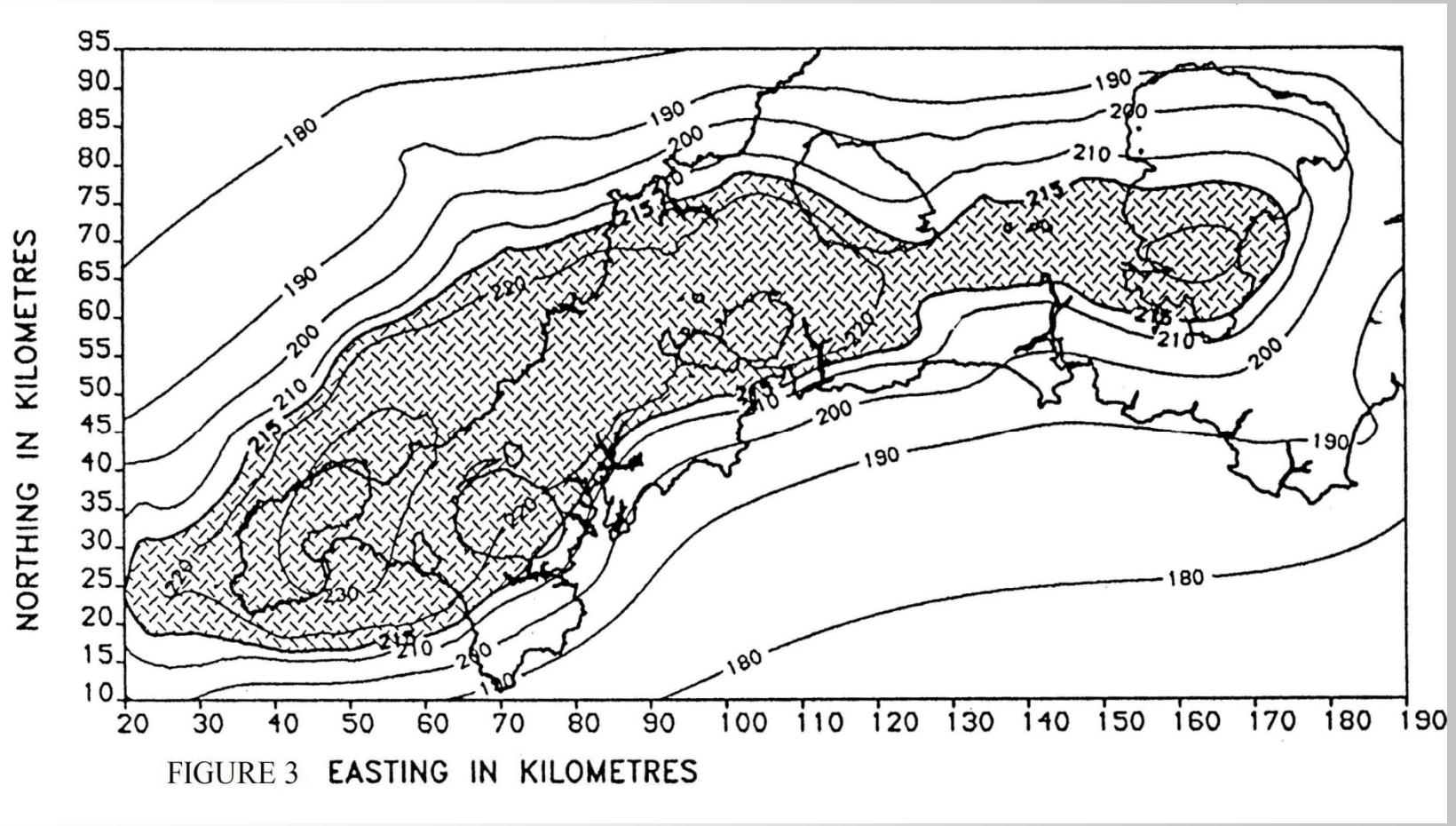

FIGURE 3

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ASSESSMENT OF UK EGS Resource by ETSU

- Macdonald and others of ETSU published in 1992 a review of resource estimations for the UK of "accessible" resource in the paper "THE UK GEOTHERMAL HOT DRY ROCK R&D PROGRAMME".

- The conclusion is that the total UK electrical resource is 1,880TWh and that of this, Cornwall alone has 900TWh.

- Based on a 50 year cycle, these figures amount to a power output of ~4.3 GW and ~2.1 GW respectively for the UK and Cornwall.

- . This amounts to 10% of the UK electricity requirement for 200 years

SET UP BASIC CRITERIA

1. Possible depth of investigation 10km
2. Existing temperature , heat flow and rock conductivity data available
3. Gap in the data and further shallow wells to reinforce the data
4. Gravity mapping of the area of interest
5. Identification of convective cells which may distort the data and give incorrect temp with depth.
6. Geological mapping of the area of interest.
7. Get data from oil and gas industry
8. There seems to inappropriate palio climatic correction for the northern Europe.
9. Numerical modelling of the temperature with depth.
10. Follow established resource assessment protocol IEA/GIA
11. Set up a structure to coordinate the data and digitise it. QC is essntial.