

# WHERE DO WE GO FROM HERE?

- LIGO  $\Rightarrow$  Advanced LIGO
- TAMA  $\Rightarrow$  LCGT
- VIRGO  $\Rightarrow$  Upgrade
- GEO600  $\Rightarrow$  GEO HF
- AURIGA )
- NAUTILUS )  $\Rightarrow$  Sphere, Dual?
- EXPLORER )

# WHERE THEN? Research Issues

- Coating thermal noise – how to reduce?
  - Better materials?
  - Cooling?
  - Mesa-beams?
- Standard Quantum Limit
  - How much improvement from squeezing, QND schemes etc?
- Gravity Gradient
  - Underground detectors

# The Future

- Heading to low temperature underground detector with non-classical illumination
- Where?
  - Japan upgrade of LCGT
  - Europe: third generation EGO detector
  - US: ‘super-LIGO’ – new site?
  - China?
  - Australia?
- When? 2015-20 ??
- Also LISA follow-on: Big Bang Observer

# This and further Meetings

- Any additions/changes to program?
- Can we manage without Saturday morning session this year? YES but not to be a precedent
- Elba next year – programme? 27 May till June 2 2006
- Future meetings (including Elba)
  - Networking
  - Detector characterisation/commissioning
  - Squeezing and other sensitivity enhancing schemes
  - Some source talks
  - LISA and its follow-ons for one?