

Commercial space exploration

- **Exploration and exploitation**
- **Social** (direct participation tourism, vicarious participation, gaming)
- **Manufacturing** - scarce resources, materials
- **Infrastructure** support for exploration ('Wells Fargo', DHL, construction, communications, navigation)

Questions

- What are the commercial opportunities?
- What is the likely economic benefit to the UK?
- What is needed to realise these opportunities?
- How to secure a valuable, complementary, but realistic role for the UK supporting international explorations initiatives?
- International commercial partnerships?
- What strategy should the UK adopt?

Initial steps

- **Exploit UK strengths** in small satellites and robotics to initiate a UK activity supporting the infrastructure for exploration - eventually on a commercial basis to allow the UK 'to sit at the table' when we wish to participate in the future (e.g. STS Canada-arm)
- **MoonLITE & MoonRaker** as UK initiatives for eventual commercial activities
- The UK needs to strive for intellectual and entrepreneurial innovation to maintain a position in the new economic order anticipated by ~2030..

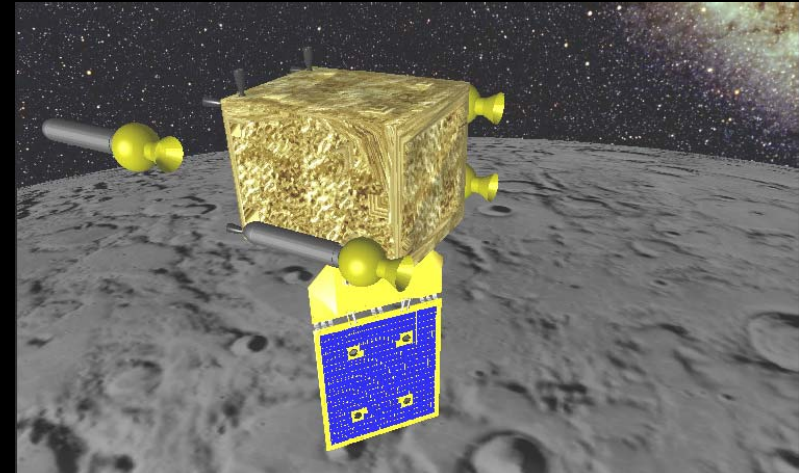
Space Exploration



UK-led exploration initiative - supporting exploration infrastructure

MoonLITE

- A **polar orbiter** for communication, navigation plus orbital remote sensing
- **Multiple micro-penetrators** for both far-side and near-side deployment and in-situ geophysics & geochemistry
- **Launch targeted for 2010**



MoonRaker

- **Small lander** (semi-hard or soft) for northern near-side geophysics & geochemistry
- **Micro-rover** for surface mobility (<1 km range) and multiple sites sampling
- **Launch targeted for 2013**

