

# Space Policy Skills Education and Training

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### What is space policy?



Military, intelligence, security



- Science and technology policy; exploration
- Industrial strategy, relations, development
- Global trade and regulations
- Cross-disciplinary (Politics, History, Law, Economics, Sociology...)
- States, agencies, institutions

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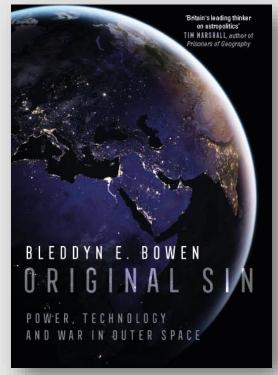






## There is a clear need for policy and political, historical expertise

- Political research skills needed to scrutinise, communicate, evaluate space projects and values
- Humanities, arts, social sciences have traditionally under-studied the space age
- All space projects have human, political, social dimensions





#### International Relations, Europe, and Space

- Spacepower is pursued for war, development and prestige
- Space has always been a militarised environment and a place of politics as usual
- Space is part of wider technopolitical competition for economic and industrial returns, and political influence
- Cooperation in space is still political it does not happen *despite* politics
- Traditional US dominance of scale and quality in space technologies now joined by Chinese presence
- EU and ESA space strategies suffused with political concepts: sovereignty, autonomy, freedom of access
- Europe struggling to match the scale of investment, but ESA and EU chiefs talk a big game



#### The space economy

- Three pillars Upstream, Downstream, Space-enabled
  - Satellite & spacecraft industry (e.g. Boeing, Airbus, Thales Alenia Space, Lockheed Martin, OneWeb, Telespazio, SSTL)
  - Subsystems and software (e.g. Logica, Teledyne/e2v, many small companies)
  - Spinout technology
  - Services
- Huge demand for skilled people (100,000 in the UK alone)
  - engineering, physics, chemistry, mathematics, informatics, geology, geography, policy, law, economics, medicine, biology....
- UK, (2021) Scottish, (2021) and Welsh (2022) space policies/strategies



## Space Research and Education at the University of Leicester

- School of Physics and Astronomy
  - Active instruments in space every year since 1967
  - Leading roles in multiple ESA and NASA science missions, e.g. JUICE, JUNO, and BepiColombo
- School of History, Politics, and International Relations
  - Research-led teaching on astropolitics at the UG, PG levels and PhD supervision
  - CPD on The Politics of Space Security and Space Law
  - Home to the Third Nuclear Age ERC-funded project
- Leicester Law School
  - Research-led teaching on space law and commerce at PG levels



#### **Space Park Leicester**

- Subject of £85M investment
  - £26M UK government funding
  - £25M University of Leicester
  - £34M industry
- Works with 100 + businesses.
- Supporting economic development of the East Midlands region and UK National Space Policy emphasis on skills
- Sector partners: Rolls Royce, CGI, ESA, UKSA, DASTEC
- 2023 Space City Leicester £233m cluster expansion announced







#### Thank you!

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- Space Park Leicester: <a href="https://www.space-park.co.uk/">https://www.space-park.co.uk/</a>

















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