

CONNECTING DEVELOPED, EMERGING AND ASPIRING SPACE NATIONS - AN INDIA, AUSTRALIA, KENYA CASE STUDY

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UNOOSA 30TH WORKSHOP ON SPACE TECHNOLOGY FOR SOCIO-ECONOMIC BENEFITS: "Challenges and Capacity-building Opportunities for Emerging Space Nations"







Developed

complex network of actors typically involved in the development of new technologies, the creation of new business models, and the expansion of human activity in space.



Emerging

growing network of actors starting to establish themselves in the realm of space exploration, exploitation, and utilisation. It is characterised by a rapidly growing demand for space-based products and services, and an increase in investment and innovation in the sector.



Aspiring

a nascent network of actors working towards building a presence in the space industry. It is characterised by a high degree of innovation and experimentation as new players seek to establish their niche and find a path to growth and profitability.

V. Latchman-Singh, F. Covella, M. Bandurksi, A. Platell, D. Watson, J. Kim, E. Paat-Dahlstrom (2023). *A space ecosystem maturity index: proposition to assess and identify the development level of space innovation ecosystems around the world.* Paper presented at the IAC-23, Interactive Presentations - Business Innovation Symposium, International Astronautical Federation (IAF)





Australian challenges:



Strong space heritage of the 1950s and 60s, followed by Iull. Only 3 years into new space strategy.



Largest users world-wide (by volume and variety) of foreign EO data, Australia relies entirely on other nations and foreign companies.



Australia has very niche EO requirements.

QL Space is an Australian EO observation data company that offers upstream solutions as well as customised downstream applications in:



Precision mining



Soil organic carbon



Agriculture monitoring



Supply chain mapping: mineral, agri-product



Disaster response support



Infrastructure planning and development

EO from space enables

Future Workforce

A high-tech **STEM** workforce will emerge based on new jobs in high growth areas across the entire EO data supply chain. Economic Growth

Australia EO sector directly contributed **\$283M** in economic value and the wider economic benefits were estimated \$2.5bn.

Socioeconomic Benefits

From understanding availability and quality of water, to delivery of disaster and emergency response.





7 partnerships

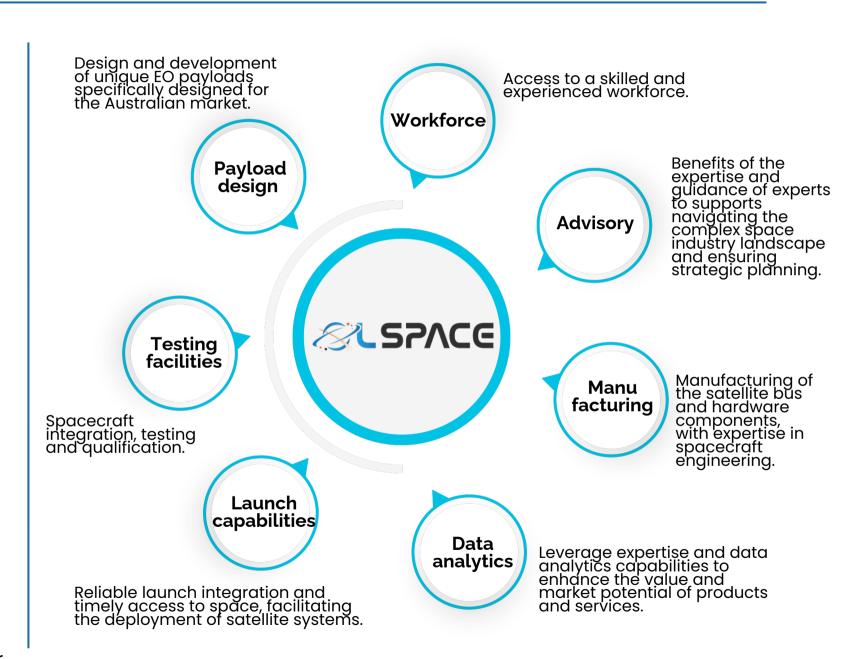
The capability to develop Australian EO missions and payloads, across the design, build, qualification, operation and disposal phases of mission lifecycles.







International Space Investment (ISI) India Projects grant, with a substantial commitment of \$20.69 million over four years.







Aim:

Proactively develop demand for and explore new use cases within Kenya that offer EO data driven solutions to influence appropriate, sustainable solutions for decision making.

Area of focus: Challenge

Food security Capacity building within the private sector



The Viwanda Africa Group

Key actors within food value chain:

Fertiliser manufacturers



Agri-banks & loan providers



Marketplace platforms



Functional and technical capacity building:



Building strong EO market demand



Functional capacity to support technical capacity execution



Promote a solution based mindset, rather than product based



Implement pathways to encourage leadership development



Takeaways:



Industry is nimble and fast adapting, use those strengths, don't wait for the policy landscape to catch up



Effective capacity building, is both functional and technical capacity building



Tap into our shared humanity, don't hesitate to seek support



Start from whereever you are, with whatever you've got

- Jim Rohn

