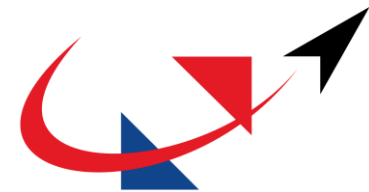




# Next Generation Ground Stations

**SMARTSATCRC**

*Building Australia's Space Industry*

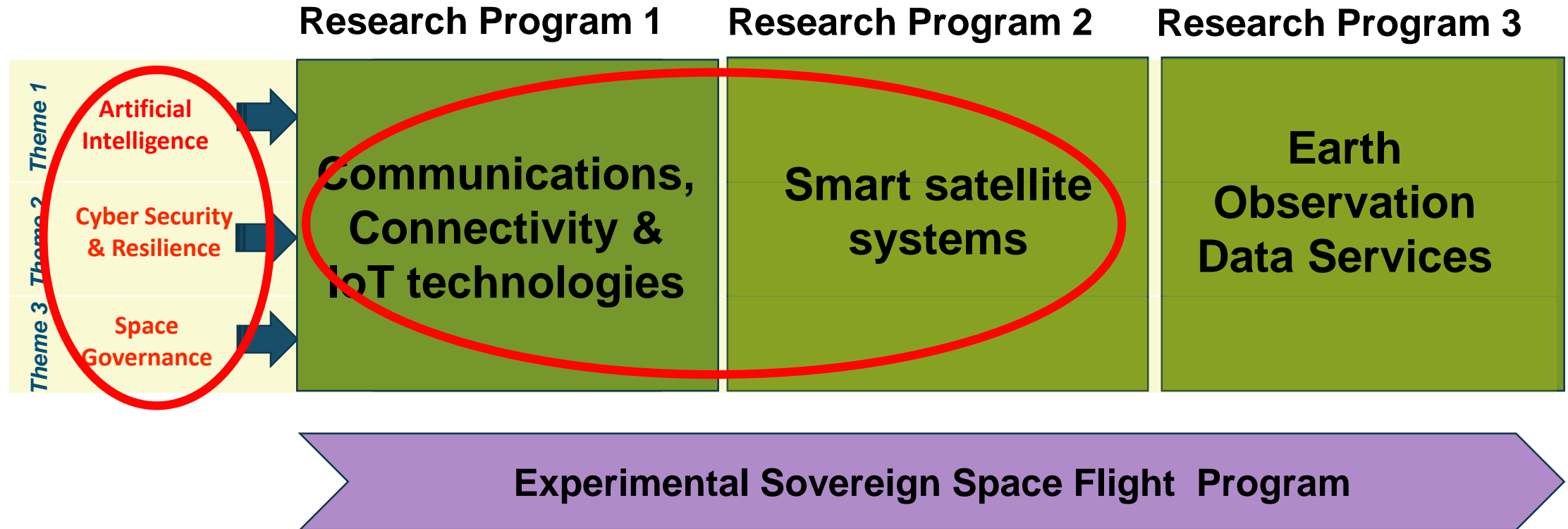


Nova Systems

**Peter Nikoloff**

UNLIMITED RESILIENT DIGITAL CONNECTIVITY

# SmartSat CRC R&D Program



# Advanced Ground Stations

## ◆ Challenges and Opportunities

- Exponential increase in data to and from Space
- Rapidly Increasing Number of Satellites
- Technologies
  - Flat Panel and Distributed Array Antenna
  - Laser optical communications
  - Intelligent Systems (optimisation of data links)

## ◆ Nova Ground Network

- Site with RF Licences in Development
- R&D Test Beds
- RF Service Provisions (communications back bone)
- Support Optical Systems

## ◆ Ground Station R&D Infrastructure (Concept)

- Develop a World Class National Ground Station R&D Capability
- Hybrid RF and optical Capabilities
- Distributed Test Sites West, Central and East & Networked with other capabilities
- National Collaborative Research Infrastructure Strategy (NCRIS)



# Local & Global Partnerships

- 85 Participants
- \$110 million Partner and Gov Funds
- \$130 million Staff and In-kind
- Australia's top research concentrations

~ \$240 million of Research Effort

## Industry Focused

- *Industry Cluster*
- *Australian Space start-up industry Cluster (ASISC)*

