Sustainable Space Initiative

SSI.ORG.NZ

Shaping a sustainable future in space, from Aotearoa

A transdisciplinary research network in Aotearoa New Zealand, est. 2022, on the economic, environmental, social and cultural impacts of space technologies.

9	15	9	10	24
disciplines	active academics	postgrad students	publications	media outputs

OUR APPROACH

Stakeholder engagement and a PESTLE analysis set how we prioritise projects and which disciplines we bring in, across four connected pillars.

Stakeholder engagement + PESTLE analysis

Systems thinking

Futures and foresight

Futures of the space sector · space strategies mapped against possible futures · space sustainability metrics

Policy and incentives

Constraints and levers

Science-informed space policy · space policy frameworks · corporate social responsibility

Partnerships and engagement

Narrative and buy-in

Stakeholder engagement on risks and opportunities · satellite data value for New Zealand · sustainable spaceport planning

Engineering solutions

Tech as an enabler

Life cycle assessment · reusable launcher thermal protection · in-orbit refuelling · re-entry forecasting

DISCIPLINES AND KNOWLEDGE SYSTEMS

Aerospace and mechanical engineering · Kaupapa Māori and maramataka · Public and space policy · Space law · Futures studies · Environmental engineering and LCA · Astrophysics · Atmospheric physics · Geospatial science · Anthropology · Urban planning · Business, ESG and entrepreneurship · Strategy and communication

OUR PEOPLE

Dr Priyanka Dhopade
Director · Aerospace engineering

Dr Sarah Bickerton
Public and tech policy, astrophysics

Dr Cody Mankelow
Environmental engineering, LCA

Ronda Geise
Process engineering, futures studies

Catherine Qualtrough
Space strategy and communication

Dr Thomas Dowling
Geospatial and maritime intelligence

Dr Adam Morris
Futures and foresight

Dr Stefan Korber
Space industry ecosystems

Stevie Katavich-Barton
Anthropology, satellite services

Andrew Iwanoczko
ESG and environmental impact

A/Prof Nicholas Rattenbury
Astrophysics, optical communications

Dr Benjamin Kirollos
Fluid mechanics, in-orbit refuelling

Lena Henry
Urban planning and kaupapa Māori

Dr Anna Marie Brennan
Space law

Carolle Varughese
Public policy and astronomy

A/Prof Annika Seppälä
Atmospheric physics

Te Kahuratai Moko-Painting
Maramataka, space strategy

Meena Pandit
Policy, dark sky engagement

Postgraduate researchers topics: re-entry forecasting · reusable launchers · life cycle assessment · corporate social responsibility · space sustainability metrics · space policy frameworks

Join us in building a sustainable aerospace sector.

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