



‘Connected’

Creating a sustainable transport infrastructure network throughout the Kingdom of Tonga

Jason Sprott (Executive Director – Ports & Airports)

PMTA Conference – Fiji (July 2024)



NTRO

Today's Conversation

NTRO – Who are we?

Our work with the Kingdom of Tonga...

Critical Issues

Importance of Partnerships





Executive Director (Ports & Airports)

My Background

Professional career spanning 30 years (including 23+ years in Port Sector – Operational & Advisory)

Worked for Government & Private Sector Clients across Australia & New Zealand

Key Maritime Skills:

Sustainability, Major Projects, Master Planning, Environmental Approvals, Corporate Governance, Expert Advisory

Qualifications:

- Bachelor of Urban & Regional Planning
- Master of Science (Environmental Science)
- Business Sustainability Executive Education - Cambridge University
- Sir Winston Churchill Fellow

Joined NTRO in Dec. 2022 – **Lead Ports & Airports Streams across Australia, New Zealand and Pacific**

About



- **60 Years of Operations** (Previously ROAD focused – now also across **RAIL, PORTS & AIRPORTS**)
- **Recognised Leaders** in Transport Infrastructure Research and Policy / Project Advisory Work
- **World Leading Transport / Materials Science Laboratory** in Melbourne
- **‘Not for Profit’ Commercial Entity**
- **250 staff** – across Australia and New Zealand

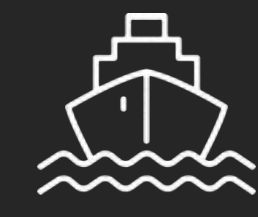


Our Headquarters





Transport Streams



Road | Rail | Ports | Airports

Business Groups



Infrastructure Measurement



Data and Technology



Asset Performance & Management



Transport Futures



Safer Smarter Infrastructure



Structures and Certification



Sustainability and Materials Performance

OUR PARTNERS

Our Unified Approach

Since 1960, The NTRO has been the source of independent expert transport knowledge, advising key decision-makers on our nation’s most critical challenges. Today, our vision is to deliver an integrated mobility future that is safe, sustainable and a driver of economic well-being.

Our driving values are at the heart of everything we do: transformative, collaborative, energy and passion, and integrity.



OUR LEGACY BRANDS



THE CENTRE OF TRANSPORT INNOVATION



DISCOVER NTRO

Global Partners

We are one of seven Global Research Laboratory Organisations and have active relationships with each of our partners.

- United Kingdom - Transport Research Laboratories (TRL)
- Germany - BAST
- France - IFSTTAR
- Sweden - National Road and Transport Research Institute (VTI)
- China - Research Institute of Highways (RIOH)
- USA - Transport Research Board (TRB) (FHWA)



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Our work with the Kingdom of Tonga



Strategic Transport Infrastructure Advisory Program (STIAP)



Ministry of Infrastructure
Kingdom of Tonga

10 Year Program



The program has been developed with a high level of trust and in a spirit of 'friendship'.

Trusted Friendship & Enduring Partnership





Ministry of Infrastructure
Kingdom of Tonga



2024-2025 Contract Agreement Signed



Roads | Ports | Airports

Roads



Ports / Maritime Areas



Airports



Program Streams...



1. Training & Development

Nationally certified training.

'In-House' and 'In-Country'.
Practical and bespoke.



2. Infrastructure Measurement

It all starts here.

Visual or Vehicular based.
Data Excellence.



3. Asset Performance & Management

Informed Infrastructure Decisions.

More targeted expenditure
MOI Infrastructure Insights.



4. Materials Science

Material Testing.

Proving the science. Undertaken
with transparency & rigor.



5. Transport Safety

Improving safety for all.

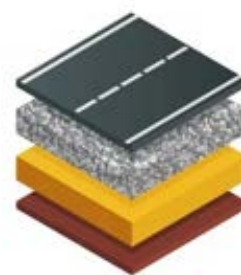
World-leading expert road
safety advisory service



6. Infrastructure Sustainability

A must.

A UN based framework for all
transport decisions.



7. Pavement Design & Resilience

New thinking.

The right pavements for the right
roads.



8. Strategic Infrastructure Planning

Thinking about the network.

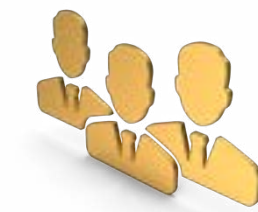
Getting the connections right between
modes of transport across the nation.



9. Infrastructure Advisory & Standards

Your infrastructure. Your standards.

Your in-house advisory team +
infrastructure standards for Tonga.



10. Organisational Preparedness

MOI for the future.

Helping you focus on the critical
tasks at hand.



Training & Development

...we have specialist infrastructure training and packages underway across a range of infrastructure topics that have mobilized staff to Tonga offering 'in-field' training etc.

.....with delegations to Australia

Critical to success





Infrastructure Measurement

....with a suite of high-tech infrastructure measurement tools, NTRO can help Tonga better manage transport networks.

.....providing **accurate data** to allow **targeted solutions**





Asset Performance & Management

...our asset performance and management teams are helping Tonga develop asset management systems for the infrastructure portfolio – including helping determine the most targeted financial spend from available Tongan and Donor funds.





Materials Science

...our sustainable material scientists are helping Tonga develop a sustainable/recycled materials pathway for future infrastructure – helping to use local materials and demonstrate decarbonisation opportunities.

Critically, our laboratories will scientifically test and provide evidenced-based solutions available within the Kingdom.

Our Laboratory staff are working in partnership with Tonga – helping design & plan the new MOI/NTRO Laboratory - and transferring knowledge.



**Ministry of
Infrastructure**
Kingdom of Tonga

NTRO SOUTH PACIFIC
RESEARCH CENTRE





Transport Safety

...for roads, ports and airports - our transport safety teams is helping Tonga address safety issues associated with design, signage, geometry and operation of infrastructure networks.

Better Infrastructure – Better Safety

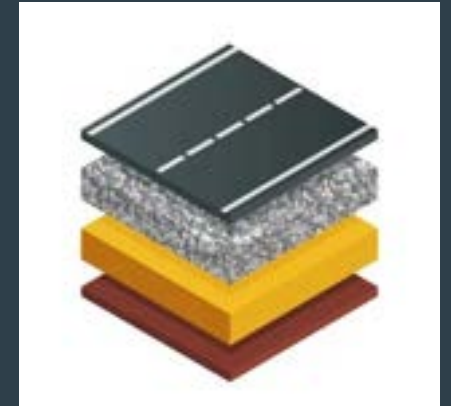




Infrastructure Sustainability

...our team is helping Tonga develop an overarching 'Kingdom of Tonga: Infrastructure Sustainability Strategy' for the transport infrastructure portfolio – using the United Nations Sustainable Development Goals framework as a foundation.

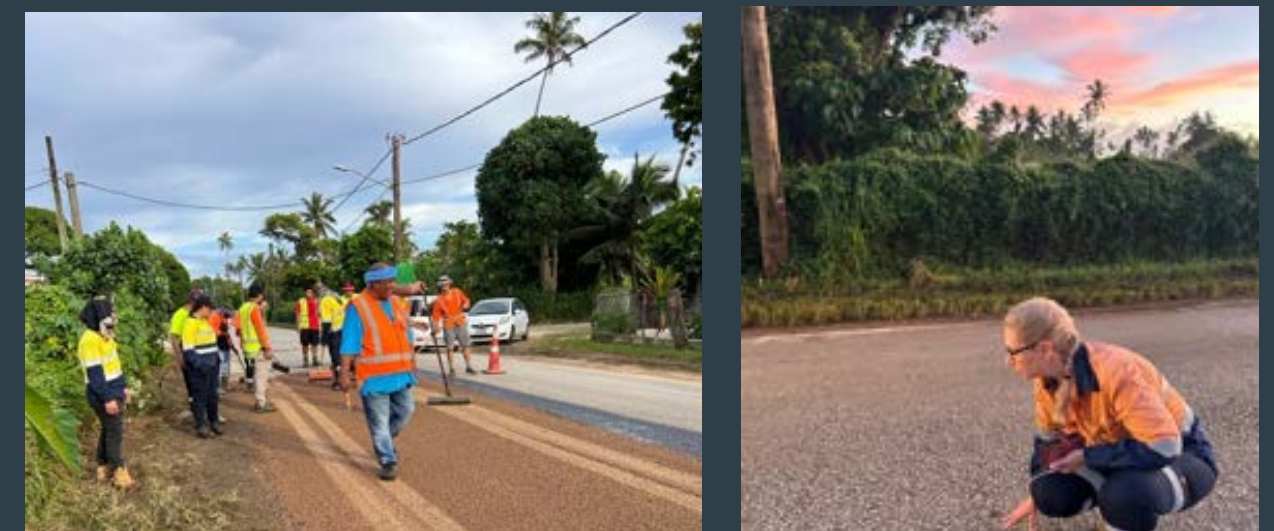




Pavement Design & Resilience

....our pavement specialists are training and helping Tonga plan, build and maintain new infrastructure...

.....and repair and **'extend the life'** of existing pavements and road networks throughout the Kingdom.....





Strategic Infrastructure Planning

...NTRO is working alongside the Government in their review of the Infrastructure Investment Program for Tonga (ie. an independent strategic review the 'Infrastructure Investment Program' across road, port and airports assets).

'Connections' enabled by Robust, Resilient & Sustainable Infrastructure





Infrastructure Advisory & Standards

...NTRO will help Tonga develop 'Tongan Infrastructure Standards & Specifications' - purposefully developed for Tonga across road, port and airport assets to improve resilience and project outcomes.

'Tongan Standards – for Tonga'





Organisational Preparedness

...our transport specialists are helping Tonga prepare for the transport future.

We will help 'right-size' and 'right-shape' the Ministry of Infrastructure to ensure the right skills and teams to plan, deliver and manage the infrastructure across road, port and airport assets.



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Critical Issues



Critical Issues

- ✓ **Maritime and Aviation ‘CONNECTIONS’ (regional and international) are crucial for:**
 - Community Safety & Access
 - Natural Disaster Resilience & Recovery
 - Economic Development & Growth (Tourism Access, International & Domestic Connections)



‘Infrastructure & education provides the foundation upon to which to build a prosperous nation’

- ✓ **Infrastructure must be SAFE & ROBUST**
- ✓ **Infrastructure must be CLIMATE RESILIENT & designed for LOCAL CONDITIONS - ‘using data’**
- ✓ **Infrastructure must be ECONOMICALLY VIABLE (using certified local materials)**
- ✓ **SKILLS TRANSFER / EDUCATION must be a focus**

A special place....



With special people.....



Program Streams...



1. Training & Development

Nationally certified training.

'In-House' and 'In-Country'.
Practical and bespoke.



2. Infrastructure Measurement

It all starts here.

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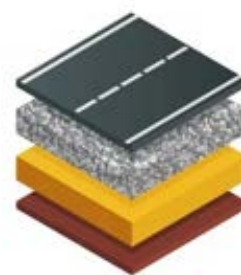
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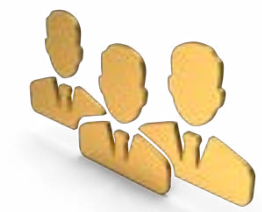
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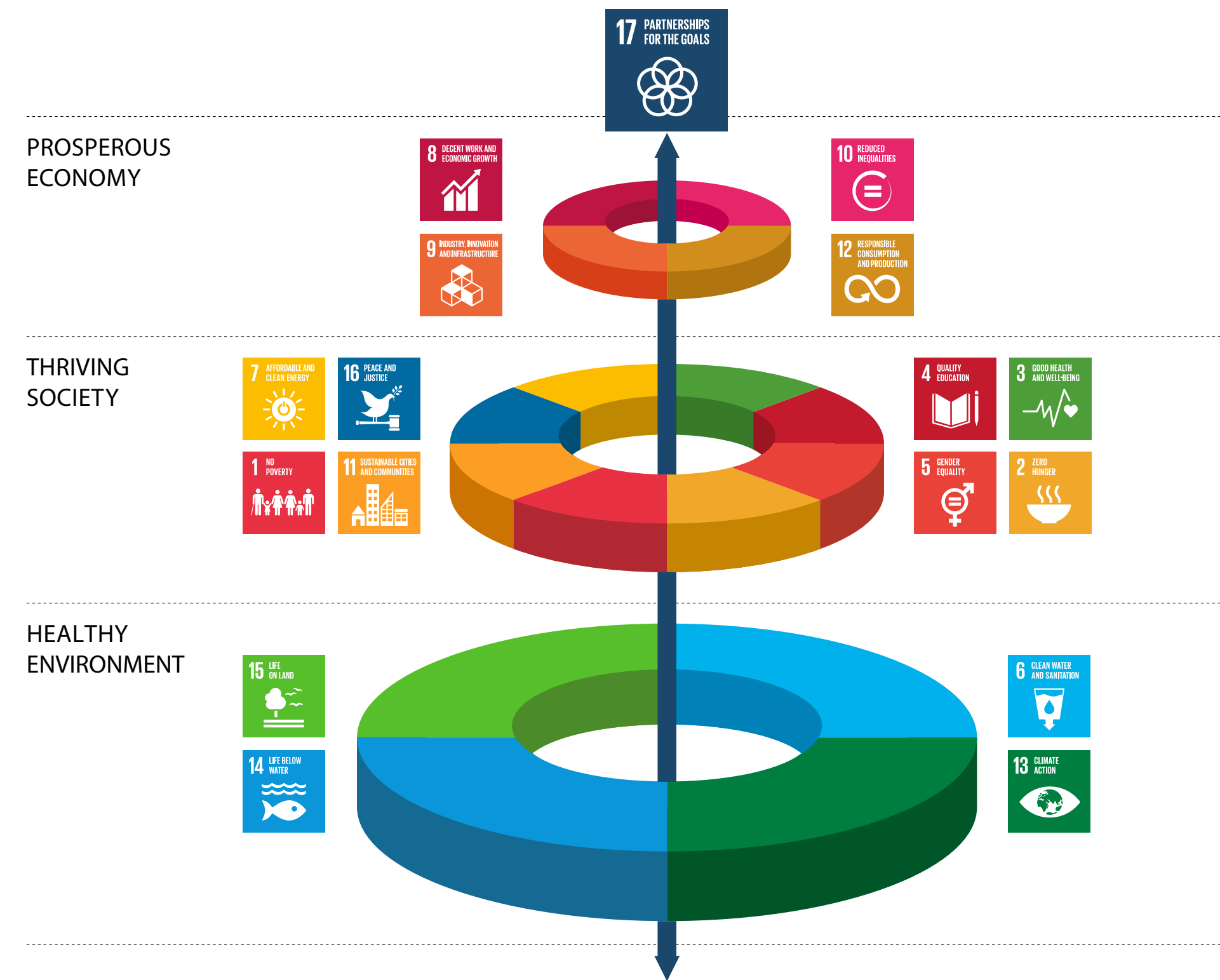
Importance of Partnerships



Partnerships are key...

Partnering as an essential approach to SDG impact

The 2030 Agenda is based on an interconnected economy, society and environment



'Individually we are one drop, but together we are an ocean'



NTRO

Thank you



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