

The background is split diagonally from the bottom-left to the top-right. The upper-left portion is white, and the lower-right portion is a solid bright blue. The text 'REANNZ' is centered horizontally across the diagonal line.

REANNZ

NZ SKA COLLOQUIUM – 12TH JULY 2018

# REANNZ

OUR PART IN THE NREN  
COMMUNITY AND HOW THAT  
SUPPORTS GLOBAL SCIENCE.

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REANNZ



## REANNZ NETWORK

Our network now includes  
a 20 Gbps link from Auckland  
to Dunedin

— 20 Gbps

# WHO

## Members

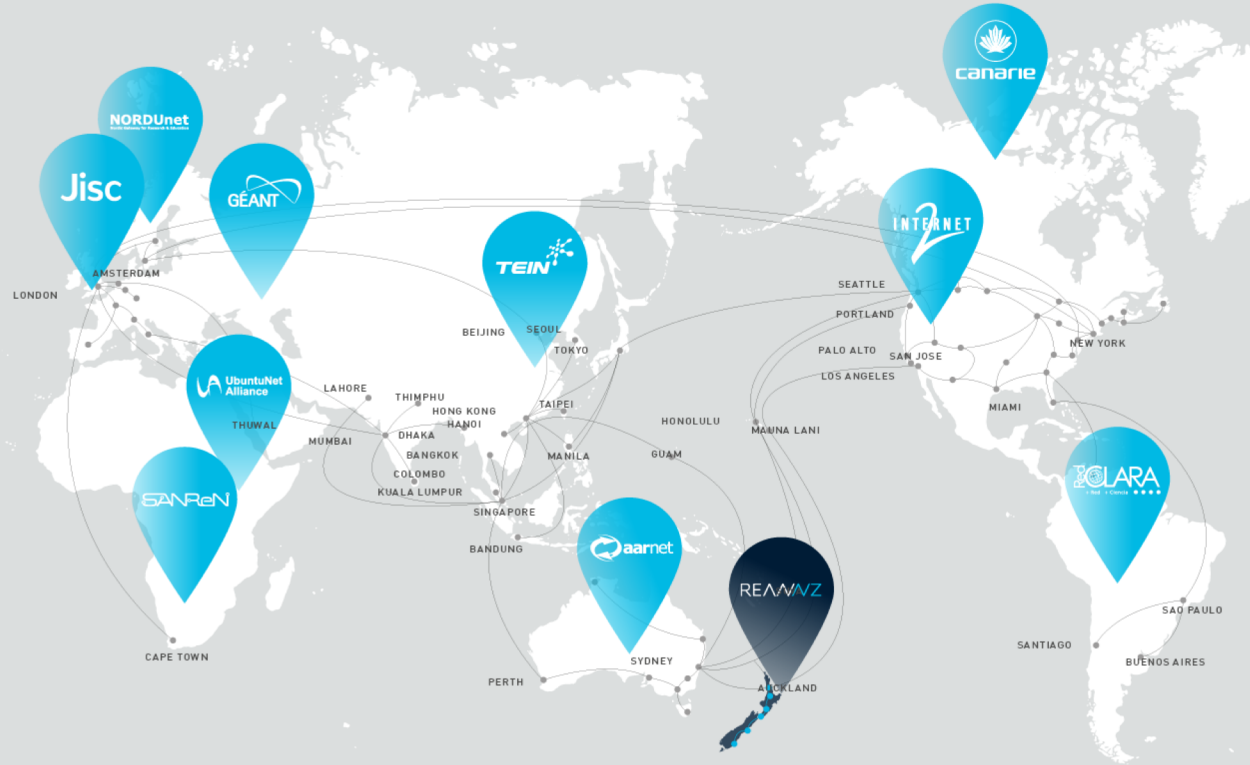
- Universities
- Crown Research Institutes
- Polytechnics
- Government Agencies
- Independent Research Organisations
- Government Education agencies (MoE/TEC etc)

## Programs

- 11 National Science Challenges
- 10 Centres of Research Excellence
- MBIE research grant programs
- Health Research Council
- Marsden Fund Recipients
- ....

**Over \$1.6 billion of public funds spent on  
science and research every year**

# 120+ RESEARCH & EDUCATION NETWORKS WORLDWIDE







## HOW ARE NRENS DIFFERENT?

# WORKING TOGETHER TO SUPPORT RESEARCH

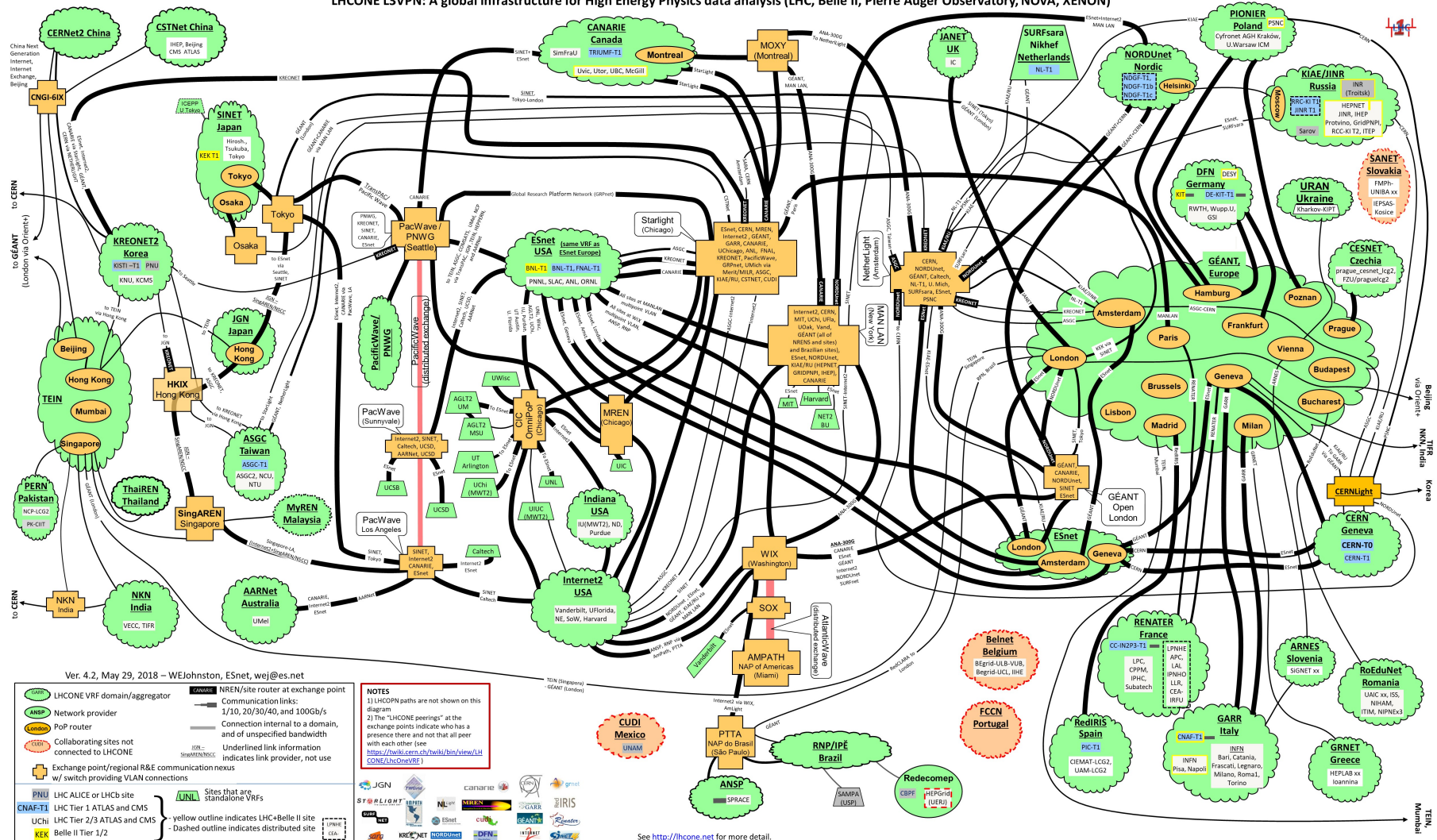
- The commercial internet is now just about connecting you to the top 10 hyper-scale providers
  - The end-to-end model is dead, clients do not talk to each other, ISP's no longer send traffic to each other in any significant volume
- Collaborative research is dependent on direct communication between parties
- NRENs create a hierarchy to manage the scale of connections, relationships and trust required to build, test, manage and diagnose transfers between any two researchers

## HOW ARE NRENS DIFFERENT?

### SHARED GOAL – SHARED APPROACH

- Our shared goals encourages a shared approach
- REANNZ extensively tests our network and our connections to our peers and members
  - Our peers do the same throughout their network
    - And their peers do the same in their network
- We limit the exponential explosion of diagnosing every possible research collaboration through the hierarchy between NRENs
  - If every institution instead picks a different provider – this support hierarchy collapses.





# THE ROAD TO REGIONAL CENTRES

- NRENs have experience in supporting global science
  - Examples like LHCONe show the potential of layering on top of the NREN infrastructure
- Our network continues to evolve to meet the requirements of New Zealand and our involvement in global science
  - Our new international connectivity through Hawaiki will be arriving in the next month
  - Our 100Gbps national network upgrade is under way
- We can forecast and support future demands more effectively if we are involved in the planning of those projects earlier.





Thank you  
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