

SMART ECONOMY GRANT

Supporting innovative ICT commercial ventures

'Smart' barge project gets SMART Economy grant

The Ministry of Finance and Economic Management (MFEM) is pleased to announce that Roger Malcolm of Southern Cook Islands Shipping Company 2020 Limited (Southern CI Shipping) has been awarded a SMART Economy Initiative grant to build and test a fully automated remote-controlled cargo barge. Southern CI Shipping will use the 'Autobarge' to enable cheaper, faster and more frequent freight shipping service between the Cook Islands' various islands. The innovative technology used to run an Autobarge requires global internet monitoring and control, which has become possible with completion of the Manatua cable. The Autobarge prototype will have a 5-tonne cargo capacity and be robust enough to travel between islands, but also small enough to enter the harbours and dock at all outer islands. It will be capable of traveling to a southern group island up to three times a week, carrying cargo and potentially carrying fresh produce back to Rarotonga. The prototype will be used to test the barge's remote-control capabilities and use of artificial intelligence

for navigation and hazard avoidance. The testing phase will also enable Southern CI Shipping to determine its operating costs, assess the risks and trial fresh produce shipments. Southern CI Shipping's Roger Malcolm says a more frequent and cost-effective freight service between islands would open-up more opportunities for agriculture businesses on Pa Enea and support local cashflow through faster turnaround of goods. "The frequency and cost of shipping perishable food from the outer islands has been a stumbling factor holding the Pa Enea back from becoming Rarotonga's food basket. Improved shipping would make exporting produce from the outer islands more viable, providing employment opportunities, and reducing depopulation," says Roger. Roger has already secured support from the X-Craft company in New Zealand to help develop the on-board control system using artificial intelligence techniques. Once proven through the prototype, he has plans to build Autobarges for sale to shipping operators and private buyers. "Our need is to prove that Autobarges work, are economic to run, and fulfil the

need for cheap, frequent freight between the outer islands and Rarotonga. The challenge will be to make these barges autonomous, remote controllable, reliable, and capable of traveling independently to and from Rarotonga and an outer island, dockside to dockside," Roger says. As well as creating new markets between islands, a successful Autobarge trial could also give the Cook Islands access to a \$48 million market in the Pacific and a much larger market in the rest of the world. Southern CI Shipping intends to engage with the Ministry of Transport on the unique maritime regulatory requirements for these innovative new vessels.

