

**Submission
No 9**

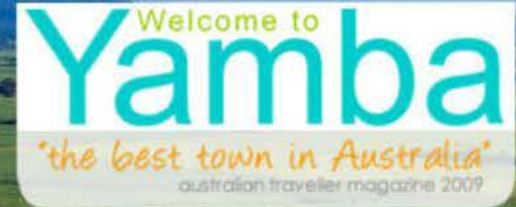
**INQUIRY INTO THE DEFENCE INDUSTRY IN NEW
SOUTH WALES**

Name: Harwood Marine

Date received: 16 June 2017

Harwood Marine Shipyard Clarence River NSW

Defence Industry Inquiry June 2017



Refurbishment of Shipyard
October 2014 - January 2017

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Overview

- **Overview:-**
- **Harwood Marine (HM) has a large heavy lift DNVGL Certified Defence capable construction and repair shipyard.**
- **Harwood Marine have a young highly skilled and trained shipbuilding workforce.**
- The Harwood Slipway Pty Ltd T/A Harwood Marine has been in operation since the early 1970's when it carried out both Australian Army and Navy contracts for repairs and refurbishments, and has during this time grown into an international shipbuilding and repair company, both in Australia and SE Asia.
- Harwood Marine directors closed their shipyard in October 2014, retaining 95% of their full time employees and carried out extensive repairs and refurbishment to the in water foundations, replacing and rebuilding their Slipway/ Ship lift infrastructure for the future, to be one of the largest, safest, and environmentally compliant Slipways in Australia and New Zealand, and have an area of approx. 200 Acres of freehold waterfront land for Marine precinct operations.
- **Additional 40 extra acres to compliment the existing 20 acres, have been recently rezoned Marine Industrial IN4 so facility expansion can be accommodated very quickly as the need arises.**
- Please view more on our website www.harwoodmarine.com.au

TERMS OF REFERENCE

Defence industry in New South Wales

- a. maximise opportunities for NSW-based companies from Defence's growing exports and investment in defence capability – in both acquisition and sustainment
- b. encourage defence industry innovation, research and education including developing the future workforce
- c. identify targets, programs and projects for defence spending in New South Wales
- d. maximise the economic benefits of locating defence force bases and defence industry in the regions
- e. how to establish and sustain defence supportive communities
- f. further enhance collaboration between the NSW Government and Commonwealth agencies
- g. any other related matter.

a. maximise opportunities for NSW-based companies - Defence

- HM – Investment in new heavy lift shipyard facilities on the Clarence river NSW.
- HM 200 acre waterfront Shipyard, Slipway and future travel lifts suitable to construct, repair and maintain Defence vessels.
- Strategic central location on East Coast of Australia, with Road, Rail and Sea access.
- Large skilled local workforce

b. encourage defence industry innovation

- HM have been working with Japanese company RDE Engineering developing an energy and emission reduction technology for marine vessels and ships. The technology is called WAIP and is an air lubrication friction reduction technology for ship's hulls.
- <http://www.sciencedirect.com/science/article/pii/S0029801814004314>

c. identify targets, programs and projects for defence spending in New South Wales

- HM could be the East Coast equivalent of the Australian Marine Complex (AMC) at Henderson in Western Australia. AMC has had hundreds of millions of state and federal dollars injected to create the facility. HM have done this with private directors funds.
- Since its opening in July 2003, the AMC has delivered more than 373 major infrastructure projects worth in excess of **\$1.75 billion** and generated more than **26,700 jobs**.

<https://www.commerce.wa.gov.au/industry-and-innovation/australian-marine-complex-0>

d. maximise the economic benefits of locating defence force bases and defence industry in the regions

- HM have already provided the facility at no cost to the state government in regional NSW in the north where unemployment is high and jobs are scarce.
- The Port of Yamba is a designated First Port of Entry with uncluttered access as there is no commercial shipping, and Defence could have 24 hr operations in times of emergency.
- Operating, set up and logistical costs are low.
- Weather and climate are very suitable to marine operations.

e. how to establish and sustain defence supportive communities

- HM have been in operation for almost 50 years by offering well paying jobs and training large numbers of apprentices and trainees, in an area of high unemployment.
- Marine vocations in engineering and associated trades, can replace traditional agricultural and fishing, as these jobs diminish through mechanisation and industry downturns.
- Young people who traditionally have to leave the area when they leave school, due to the lack of employment opportunities will be able to forge new career paths.

f. further enhance collaboration between the NSW Government and Commonwealth agencies

- HM Marine Precinct and Slipway has been identified as a significant shipyard with a DNVGL certified shipbuilding workforce, the same International certification Navy ships are built to worldwide.
- Mr. Turnbull made the press release below, wanting more shipyards and more skilled shipbuilding workers. This is a great opportunity for state and federal to collaborate on our site as they did on the AMC site in WA.
- <http://www.smh.com.au/federal-politics/political-news/naval-shipbuilding-plan-needs-13b-for-yards-thousands-more-workers-20170515-gw5bs1.html>
- ***“Naval shipbuilding plan needs \$1.3b for yards, thousands more workers”*** Malcolm Turnbull SMH Press release May 16th 2017
- *The Turnbull government will need to spend \$1.3 billion on shipyards and oversee the creation of an army of skilled workers to realise a national naval shipbuilding industry.*
- *The Naval Shipbuilding Plan, released on Tuesday, outlines how the government will achieve one of its signature promises: the creation of a local industry that can build \$89 billion worth of ships over the coming decades.*

g. any other related matter.

- **How Can the NSW Government help HM?**
- Maintain/improve the current road access to the site, to the correct Australian standard to service a large shipyard.
- Alternate Road - build about 1 klm of new road or upgrade existing 3klm of road
- Pacific Highway \$4.36 Billion upgrade is happening 2klms from our shipyard, so all the road building machinery and materials are in our area for the next few years to carry out this work cost effectively.
- Dredge a small area of the river at a shallow spot to increase the depth by 1 mtr.
- State Significance – A modern newly refurbished Shipyard, with a skilled DNVGL certified shipbuilding/repair workforce is a National Security asset, state recognition would allow sensible development to suit the \$100 Billion Defence shipbuilding budget at our regional NSW site. A public /private partnership could be considered.

Shipyard

Upgraded Shipyard Re-Opened January 2017



Opportunities

- **Defence** – HM already has a letter of support from one of the Prime contract bidders who are shortlisted for the SEA 1180 OPV project-\$5 Billion.
- Existing commercial work
- Additional work from installing Travel Lifts
- Marine Precinct Expansion for our own existing clients, and to other business owners who wish to relocate from other areas or expand their business, where shipyards have been closed down.

Jobs

- Defence construction and repair could create hundreds of jobs in regional NSW where the unemployment rate is high but the infrastructure and operational costs are low.
- During our most difficult period over the last two and half years whilst closed, we kept 95% of our employees and paid them in full. On reopening the shipyard in the first 3 months we have employed an extra 14 people, and are soon engaging a further 4 apprentices.
- Currently we have 55 employees, but believe this number can expand greatly in the future to over 100 once travel lifts are operational, and to over 300 if our marine precinct expansion goes ahead.
- We are also trying to secure future Australian defence work, which of course could employ many more people, depending on the scope of work.

In water upgrades –
fully concreted and environmentally compliant.



New Slipway Cradle

– certified 8000t



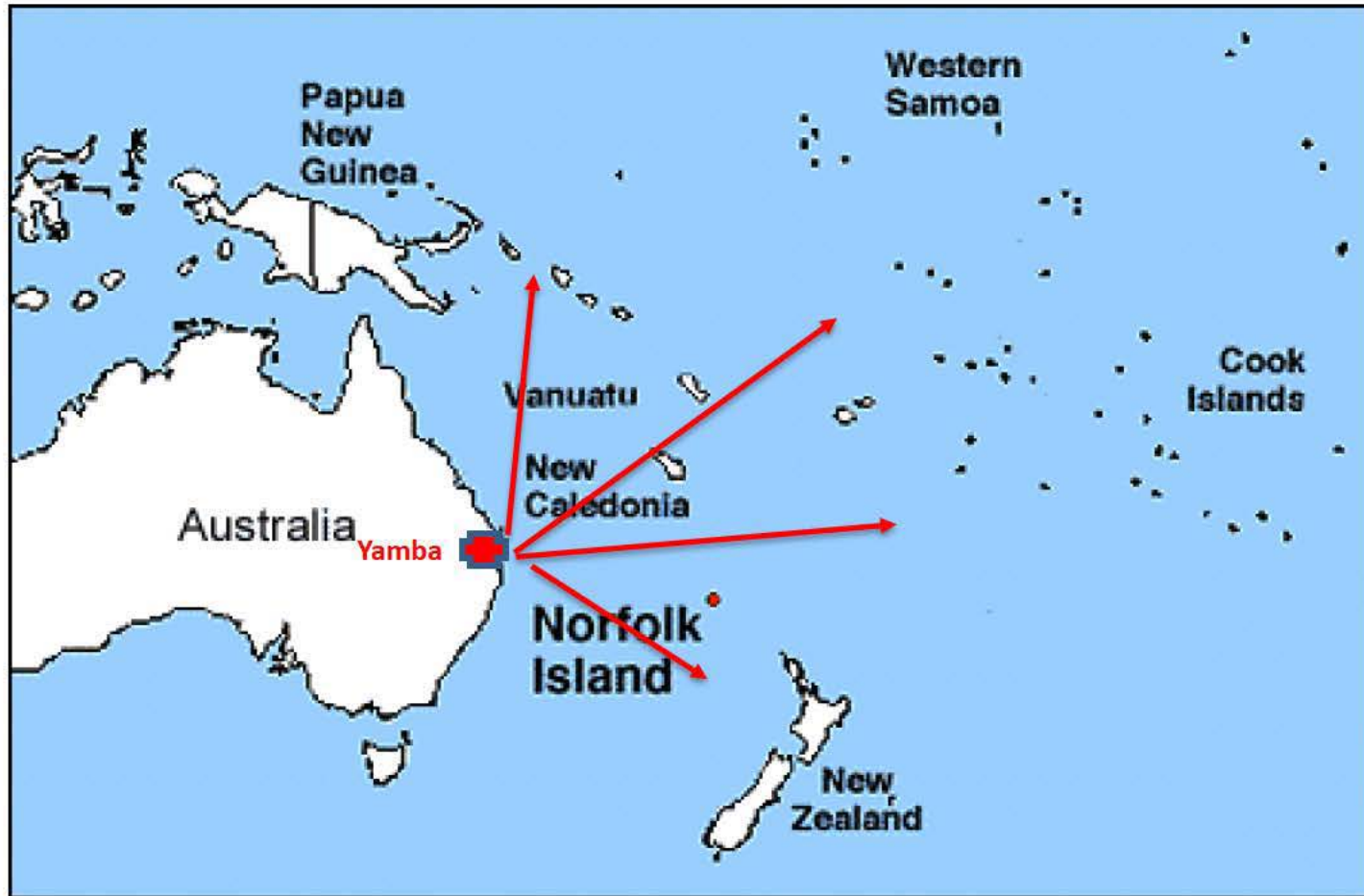
Environmental Compliance (no in water pollutants.)



Shipyard 2klm from Harwood bridge construction



Strategic Defence Location East Coast Australia and South Pacific.





CERTIFICATION TO ISO 9001: 2008

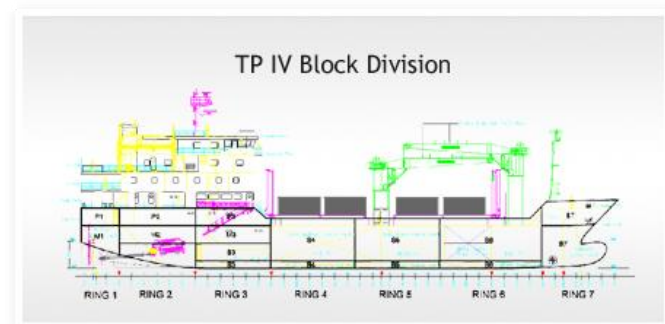
- May 5th 2017
- **HARWOOD MARINE ARE NOW CERTIFIED TO ISO 9001: 2008**
- Harwood Marine are pleased to announce that we have recently achieved certification to the standard for AS/NZS ISO 9001: 2008 with DNV-GL, one of the leading certification bodies in the world, who provide services to many sectors including the marine, mining and manufacturing industries.
- We have developed and implemented a Quality Management System to assist in providing our customers with the best possible products and services, while continually looking for ways to improve and grow.
- As each project we undertake is often unique, we offer our customers a service dedicated to ensuring their product requirements are achieved every time, and to their complete satisfaction.

Shipbuilding in Regional Australia

A Commercial approach to save and build Jobs in Australia's Marine Industry by Harwood Marine.

Proven records of Ship Construction on Budget and on Time.

80 mtr L.O.A. Tuhaa Pae IV built by Harwood Marine 2012



80 mtr Cargo/Pax French Vessel TP4 constructed by Harwood Marine



Tuhaa Pae IV (Built by Harwood Marine 2013)

FOCUS ON AUSTRALIA
FOCUS ON AUSTRALIA

'TUHAA PAE IV'

A VERY VERSATILE
CARGO/PASSENGER VESSEL
FROM HARWOOD MARINE
EVEN BOASTS A POOL





Australia's Harwood Marine has launched and completed sea trials on 'Tuhaa Pae IV', a passenger/cargo ship, built under its joint venture, with Colombo Shipyard Corporation in Cebu, the Philippines.

The vessel is a flexible-tugget, purpose built passenger-carrying, general cargo ship that can also carry limited rapid transit cargo, as well as some hazardous and dangerous goods. The vessel will be used in the South Pacific to enhance an existing remote island shipping service. The unique design, from French naval architect Melcor Design, has a shallow draught allowing access to remote areas of the French Pacific archipelago.

'Tuhaa Pae IV' measures 70.0 metres in length overall, and 13.6 metres across her

beam, with a draught of 3.8 metres and a depth of 6.0 metres. The 2,146GRT ship has a maximum displacement of 2,912 tonnes. The vessel's three cargo holds have a total carrying capacity of 1,380 cubic metres, while there is provision for container transportation with space for 200 containers. Deck, a 1,145sqm deck crane and a smaller live-load Mekal crane allow convey of heavy works and other heavy machinery.

The propulsion and steering systems were supplied by Daelik Engineering of Singapore. A pair of Daihatsu 6DLM-2631 main engines, each rated 1,776kW @ 750rpm, drive Kamome propellers via Daihatsu gearboxes to give the vessel a service speed of 12 knots. Auxiliary power

comes from two Cummins KTA-19H generators, along with a Cummins KTA885 emergency generator.

Designed for a crew of 23, 'Tuhaa Pae IV' can carry up to 98 passengers. It accommodates ranging from basic bunk/colony-type cabins through to luxury staterooms on the upper deck, with their own ensuite and balcony. The ship boasts an aft deck swimming pool, a sunbathing deck fit and a fully equipped galley suitable for cruise catering.

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Web: www.harwoodmarine.com.au



"Tuhaa Pae IV"	
Type of vessel:	Large passenger vessel
IN class No:	Bonus 40000
Flag:	Tuvalu
Owner:	2013 Tuhaa Pae, Tuvalu
Designer:	Melcor Design, France
Builder:	Harwood Marine, Australia
Construction material:	Steel
Length overall:	70.0 (metres)
Length waterline:	70.0 (metres)
Beam:	13.6 (metres)
Draught:	3.8 (metres)
Depth:	6.0 (metres)
Displacement:	2,912 (tonnes)
Tonnage:	2,146 GRT
Max engine:	2 x Daihatsu 6DLM-2631, 1,776kW @ 750rpm
Generator:	2 x Cummins KTA-19H, 1,900kW
Propulsion:	2 x Kamome
Automation:	2 x Cummins CEA 1000, 880V
Emergency power:	Cummins KTA885, 200kW
Wave filter:	Phosphor Bronze 450, 400T, 10000, 25000
Service speed:	12 knots
Radius:	10000, 100, 2117
Depth anchor:	10000, 10, 2000
Weather:	10000, 100, 100
Rating RUC:	10000, 1000
Design:	10000, 100, 100
CEMOS:	10000, 10, 2000
ICS:	10000, 100, 100
AG:	10000, 100, 100
Capex:	10000, 100, 100
Opex:	10000, 100, 100
Member of:	10000, 10, 2000
Total cargo hold capacity:	1,380m ³
Deck & container capacity:	2000m ³
Crew:	23
Passenger:	98

WORK BOAT WORLD 100 2013

Shipbuilding at Harwood Australia

Nord Nederland 48 Mtr - Holland



Tugs, Workboats, Multicats, Commercial built at Harwood.



Ship Repair



Green Technology Innovation

Media Australian Navy

dailysaminer.com.au

The Daily Examiner

Wednesday, March 27, 2013 | PAGE 7

Local news

Nationals in push to help Harwood firm

Visit welcomed by boss of boat-building firm

By LACHLAN THOMPSON

Lachlan.Thompson@dailysaminer.com.au

THE National Party converged on Harwood Marine yesterday to discuss opportunities for the boat-building firm to do contract work for the Australian Defence Force.

Opposition defence spokesman Senator David Johnston, Cowper MP Luke Hartsuyker and Nationals candidate for Page Kevin Hogan toured the facility. Ross Roberts, managing direc-

tor of Harwood Marine, said the business was contacted by the National Party and asked if it would like a visit.

He said Harwood Marine was one of the biggest employers in the lower Clarence, with more than 50 staff.

He said the business had employed 43 apprentices and 10 trainees since 2006, but the biggest problem was the boom-and-bust nature of the industry.

Senator Johnston said Defence contracts had been cut in

recent years. Page MP Janelle Saffin last month announced a Marine Precinct Workforce Development project to boost the workforce by upskilling up to 10 local casual workers with experience in the industry.

"This is what the industry has asked for," she said.

"This is stage one of my economic development strategy for the Clarence Valley and my aim is to build on this across other major industries."

Marine business returns to military roots

WHEN Harwood Marine started looking to get military contracts, it was in fact getting back to its roots, managing director Ross Roberts said.

Mr Roberts worked for the company during the 1980s, a time when much of Harwood Marine's business came from Defence contracts. He said the shipyard used to produce heavy landing craft, amphibious boats, vehicles and barges.

Mr Roberts said the advantage of government contracts for Harwood Marine was they would provide a steady flow of work.

He also said the business had plans to extend their wharf space so more repairs could be done in the water.

Mr Roberts said the business was perfectly located on the east coast next to the Pacific Hwy.



Harwood Marine in 1979.



CONTRACTS: Federal Member for Cowper Luke Hartsuyker (left), Nationals candidate for Page Kevin Hogan, Harwood Marine managing director Ross Roberts and Opposition defence spokesman David Johnston discuss possible opportunities for the lower Clarence business. PHOTO: CONTRIBUTED

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Media

dailyexaminer.com.au Tuesday, December 13, 2016

Hopes for defence work

Navy ships in the frame

Tim Howard
tim.howard@dailyexaminer.com.au

THE MASSIVE rusting wall holding back the Clarence River from the workers beavering away on the new Harwood slipway is just a month away from coming down.

For Ross Roberts, the managing director of slipway owners Harwood Marine, it won't be a moment to soon and something that should be celebrated.

"There's not a lot of good news stories around, but this is one of them," he said.

Ever since the cracked concrete and worm eaten pylons of the old slipway collapsed in October 2014 he and the management team have racked their brains finding ways to keep their workers on the job.

Mr Roberts said this had included doing such "un-marine" jobs like bringing the Coraki Bridge into the workplace in sections and repainting it or repairing a potential competitor's dry dock "just so we can keep paying wages".

"We've also used our people to rebuild the slipway," Mr Roberts said. Mr Roberts said the way

the workers have tackled everything thrown at them in such a huge job was a credit to them.

"Digging out all the mud, stabilising the walls and removing the cracked concrete was a huge job," he said.

The discovery of contaminants in the soil had created more problems, but with guidance from the Environmental Protection Agency, they have successfully removed them and put in place a program to stop contaminants from getting into the soil.

Mr Roberts said once work began more and more problems came to light.

"If we had known the final size of the job before work started, we might not have done it," he said. "But once we got into it, we just had to keep going."

Mr Roberts said all the work had been privately financed by one of Harwood Marine's backers, which is why the cost of the project cannot be made public.

Mr Roberts is confident the company's backer will get his money back.

"We have 18 jobs booked for the slipway already worth about \$10 million and we're quoting on a lot more,"



HURRAY: Harwood Marine workers appreciate the company has been able to keep them employed for the two years the slipway has been out of action. PHOTOS: TIM HOWARD

he said. "We've had inquiries from the owner of two super yachts. We've never had those sorts of inquiries."

Mr Roberts hopes a visit to the site last week by Federal Infrastructure Minister Darren Chester means the government is taking an interest.

Mr Roberts said the new slipway has the capacity to handle vessels up to 80m in length and with a draft around 4.6m.

"There's nothing the navy is building now that we couldn't handle," he said.



Harwood Marine managing director Ross Roberts near the massive wall holding back the Clarence River.

Media



Media



www.independentonline.ca

CLARENCE VALLEY INDEPENDENT OCTOBER 14, 2014

Bright future for slipway



The workers at the Harwood slipway in the Yukon, led by Minister for Harwood, Yukon and Northern Canada Minister Doug Kooze, have laid the first concrete for the slipway.

DOUG KOOZE

The words of Australian Minister for Infrastructure and Transport Thomas Chabon "greatful good luck ahead for Harwood Marine's slipway. Harwood following an inspection of the new completed work at the facility, he said the Independent: "All credit to the Harwood team for being the first to get to work on this project investment, which I think will have a long-term benefit to the region and the country, but for the water economy."

"We hope to make sure that the Department of Outdoor, is planning to have vessels serviced here and a marina maintenance in a location where there is a facility and anything along the coast."

"Now it's up to us as a government to work with the company to see any opportunities for them."

"The opportunity for District in particular, it is to provide a much as they would like from Australian industry and to spread the benefits of District presence across the region, which is regional area."

"It's an opportunity to see regional facilities without, which is for the manufacturing and equipment of manufacturing existing equipment."

"There are construction

slipway right now across the Yukon coast.

"The Prime Minister has made it very clear he's keen to see America keeping its defence and other to a self-sustaining level as much as we possibly can."

Minister for Pacific Kevin Hogan brought the Minister to the slipway following an inspection of the Pacific Highway upgrade works.

"This business has invested \$1.5 million into upgrading the slipway," Mr Hogan said. "I wanted to bring it to you while they are doing, because governments always have investments with them whether it is for defence or other joint work, or (knowing the) infrastructure - it has."

Harwood Marine's slipway has been one of the first since October 2014, as a result of the slipway's completion before the river's water level.

"Now, following a multi-million dollar upgrade, it is a state-of-the-art modern slipway of up to 100 metres in length and 400 tonnes in weight."

Harwood Marine's managing director Scott Roberts, said he expected the slipway to be operational in January sometime and that the upgrade has also allowed for upgrading conventional works.

"This slipway has been here for 50 years, since the end of the (last) for the year industry," he said.

"It has served very well, but the work we've made a number of improvements."

"We have also invested what is equivalent to about the facility up to a standard to meet the next 50 years."

"We are well aware that there is a perception that slipways are a dirty industry."

"When in reality, there are many very clean slipways."

"We really are very clean of the slipway - so that and we have worked with the EPA (and other agencies) to ensure our operations mean that we're not only clean but that we're also a good neighbour."

"We've cleaned the (slipway) area and installed the new tank and the system will treat the slipway."

"We've made the slipway much safer for the crew and the public and we've made it a much safer workplace for our employees, so that's a big benefit."

"We've also made it a much safer workplace for our employees, so that's a big benefit."

"We've also made it a much safer workplace for our employees, so that's a big benefit."

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Hon Chris Gulaptis MP Clarence, Hon Duncan Gay Minister for Transport.



NSW Government Support

Deputy Premier Visit 20.2.2017



Australian Federal Government Support-

Luke Hartsuyker MP Cowper Assist Minister Employment, Hon Kevin Hogan MP Page,
David Johnston MP Former Minister for Defence.



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