



**MARENICA  
ENERGY** LIMITED

February 2018



**MARENICA  
ENERGY** LIMITED

*A Mining Company with a  
Disruptive Beneficiation Process*

ASX : MEY



# Disclaimer & Important Information

## Disclaimer

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- *The information in this presentation which relates to Mineral Resources is based upon information compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Ian Glacken is an employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Glacken consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.*

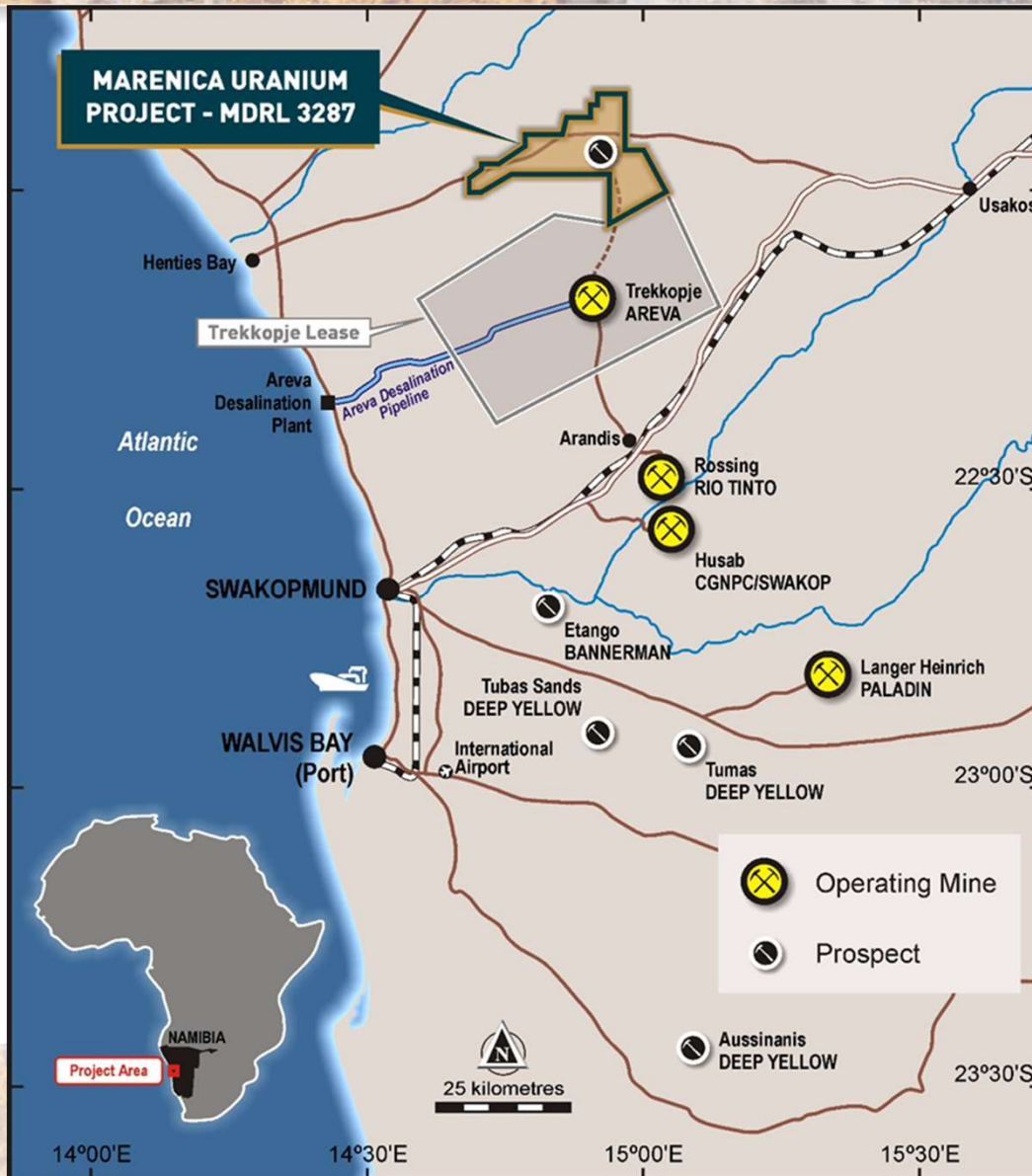


# Why Invest in Marenica?

- Not just one asset
  - ✓ 61 Mlb Marenica uranium deposit in Namibia
  - ✓ Patented ***U-pgrade***<sup>TM</sup> process that could reduce capital and operating costs by ~50%
- Goal to assemble portfolio of uranium mining interests, at the bottom of the uranium investment cycle, by utilising the advantages of ***U-pgrade***<sup>TM</sup>
- Multiple process commercialisation pathways – part / full ownership of assets, licensing and royalties
- Exposure to be spread across many projects
- Focus on Namibia – mining friendly, stable government, uranium province, low risk, many projects suitable for ***U-pgrade***<sup>TM</sup>



# Marenica Development Focus – Namibia, World Class Location



- Located in world class uranium province
- Historic mining jurisdiction
- Established uranium mining industry
- Excellent infrastructure
- Government supportive of mining industry
- Favourable African country in Fraser Institute Survey
- Marenica personnel are experienced in working in Namibia



## *U-pgrade*<sup>TM</sup> – Overview

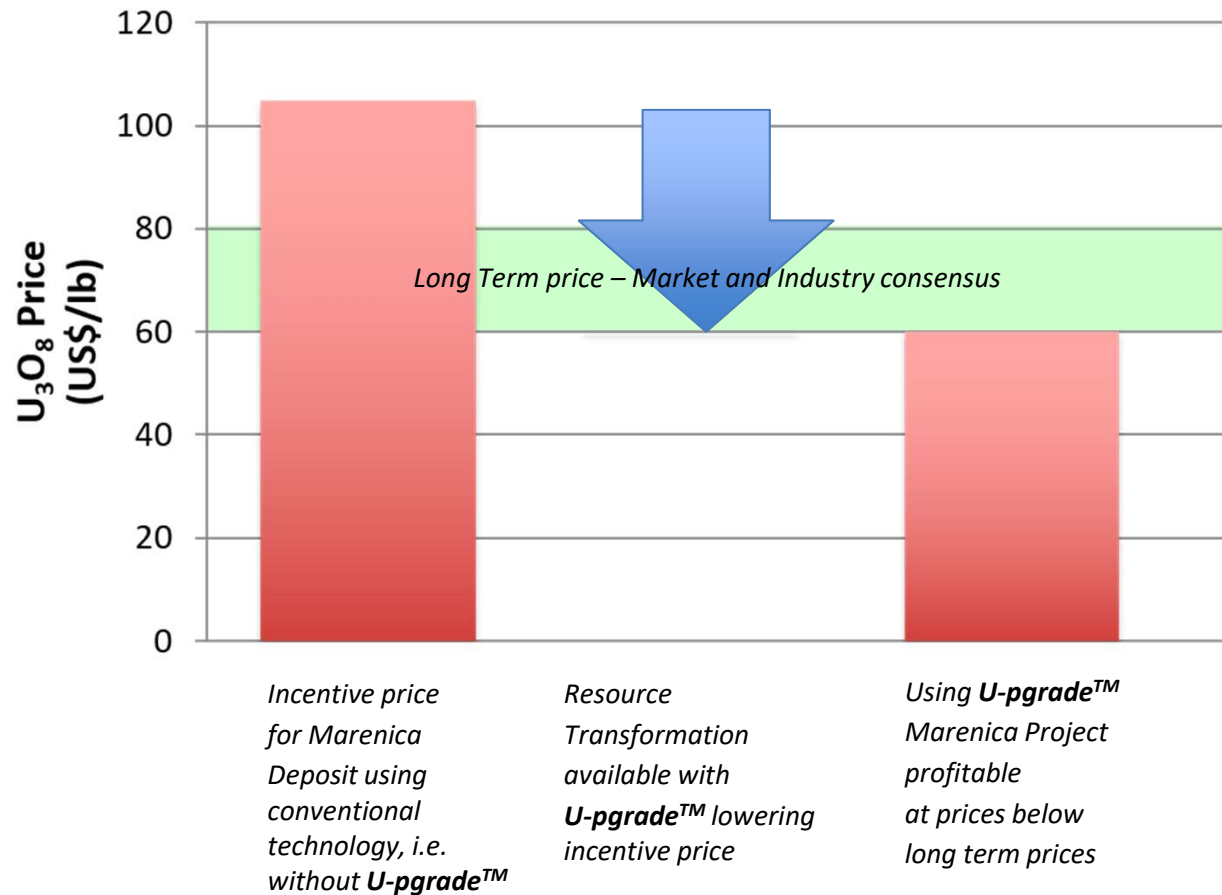
- Patented process owned by Marenica
- Beneficiation process that rejects >95% of mass prior to leach
- Produces high grade concentrate, benefits include
  - Truck or pump concentrate to an off site leach/refinery
  - Sell concentrate to existing producer
- Reduces CAPEX by ~50% if leaching concentrate on site
- Reduces OPEX by ~50%
- Process insensitive to water quality, can use sea water, reducing fresh water requirement
- Scalable to large tonnage operations



## Marenica Uranium Project – Large Resource

- Large-scale uranium deposit –  
299 Mt @ 93 ppm  $U_3O_8$  for 61 Mlbs  $U_3O_8$
- Project value is greatly increased using Marenica proprietary process technology – ***U-pgrade™*** (C1 OPEX of ~US\$40-45/lb)
- Estimated US\$90 M development cost for 7 Mtpa process plant
- Costs reduced by >50% compared to conventional technology
- Close to several existing processing plants that could process ***U-pgrade™*** concentrate, contributing to reduced development costs
- Excellent infrastructure

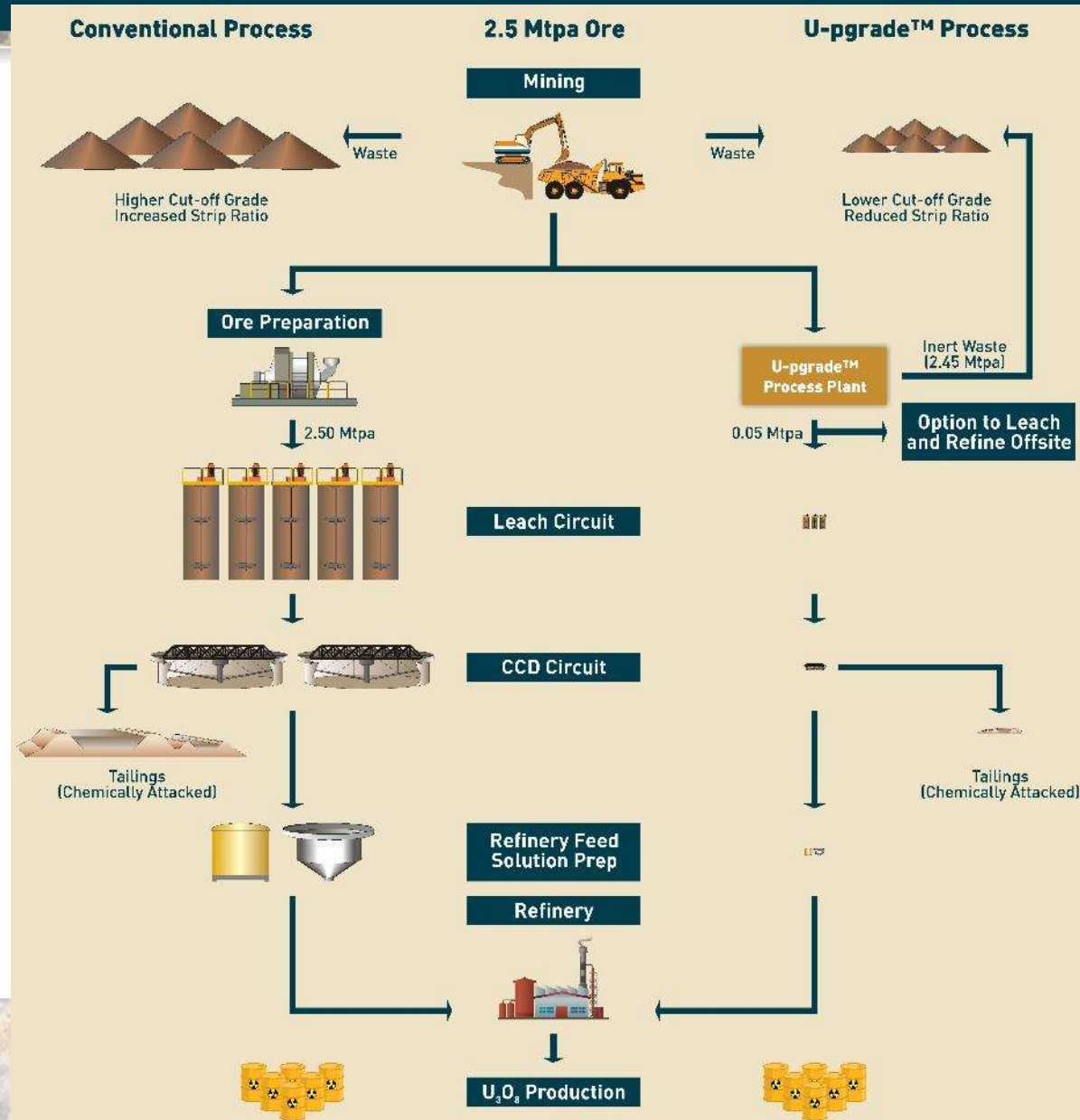
# Impact of *U-pgrade*<sup>TM</sup> on Marenica Project Incentive Price



*What can **U-pgrade**<sup>TM</sup> do to other projects?*



# U-pgrade™ Comparison







# U-pgrade™ Services Comparison

## Services

  
48 Trucks/Week  
Carrying Reagents



Reagents - Leach, CCD &  
Refinery Feed Solution  
Prep

Steam for Heating  
Leach Slurry

Power - Leach, CCD &  
Refinery Feed Solution  
Prep



None



  
5 Trucks/Week  
Carrying Reagents



## *U-pgrade*<sup>TM</sup> Highly Successful on Langer Heinrich

- Highly successful *U-pgrade*<sup>TM</sup> amenability testwork program
- Potential to create extremely low volume and high grade concentrate with high recovery
  - <2.5% of mined mass in concentrate
  - 35 times higher grade feeding leach plant
  - Mid to high 80% recovery range
- *U-pgrade*<sup>TM</sup> reduces one tonne of mined ore to 25 kg of leach feed
- Testwork confirmed substantial benefits expected from implementation of *U-pgrade*<sup>TM</sup> at Langer Heinrich
- Working with Paladin on developing a pathway for the potential application of *U-pgrade*<sup>TM</sup> at Langer Heinrich



## *U-pgrade*<sup>TM</sup> Applications

- *U-pgrade*<sup>TM</sup> applied to enhance assets owned by Marenica
- *U-pgrade*<sup>TM</sup> applied to third party ores
- *U-pgrade*<sup>TM</sup> applied to stranded assets
- *U-pgrade*<sup>TM</sup> applied to assets others don't see value
- *U-pgrade*<sup>TM</sup> is a catalyst for exploration

*U-pgrade*<sup>TM</sup> may be applicable to other commodities with similar gangue characteristics to surficial uranium deposits, such as copper, tungsten, iron ore, etc

## Capital Structure

- ASX listed – Code MEY
- Shares on issue: 46.8 M
- Convertible notes: \$1.65 M  
(converts at \$0.58/share 14/11/18)
- Market capitalisation: \$5.1 M\*
- Enterprise value: \$6.5 M
- Share price: \$0.11\*

\* As at 16 January 2018

## Board & Management

- Andrew Bantock, Chairman
- Murray Hill, MD/CEO
- Doug Buerger, NED
- Nelson Chen, NED
- Shane McBride, CFO

## Major shareholders

- |                      |     |
|----------------------|-----|
| ● Hanlong Energy Ltd | 16% |
| ● Board & Management | 10% |





## Conclusion

- Large uranium deposit in historic uranium mining country of Namibia
- Disruptive high value add process – attractive to current and future producers
- Robust protection through granted patents
- Not just one bet – uranium deposit and process
- Developer / producer / service provider
- Exposure spread across many projects
- Multiple process commercialisation pathways – licensing, royalties and part / full ownership of assets
- Economic advantage of applying the process will drive strong returns to MEY



# Marenica Uranium Project Resource

## Total Mineral Resources as at 30 June 2017 (at a 50ppm U<sub>3</sub>O<sub>8</sub> cut-off grade)

Resource Category	Tonnes (millions)	U <sub>3</sub> O <sub>8</sub> Grade (ppm)	U <sub>3</sub> O <sub>8</sub> Mlbs
<b>Marenica</b>			
Indicated	26.5	110	6.4
Inferred	249.6	92	50.9
<b>Total</b>	<b>276.1</b>	<b>94</b>	<b>57.3</b>
<b>MA7</b>			
Inferred	22.8	81	4.0
<b>Total</b>	<b>22.8</b>	<b>81</b>	<b>4.0</b>

In November 2011, Optiro Pty Ltd first completed this Mineral Resource estimate for the Company. The Company has not completed any drilling subsequent to preparation of the Mineral Resource estimate. The Mineral Resource is reported in accordance with JORC (2004) guidelines and ASX Listing Rules. The Mineral Resource estimate follows standard industry methodology using geological interpretation, downhole gamma probe readings and assay results from samples obtained through drilling. The Mineral Resource estimate was overseen by suitably qualified Marenica personnel, with competent persons completing the estimate. A review of the estimate and the estimation process for the Mineral Resources was conducted by a consultant who also has sufficient experience to qualify as a Competent Person.