# BIRIMIAN



Introducing the Goulamina Lithium Project

Greg Walker

Executive Director & Chief Executive Officer



Africa Down Under – 6 September 2017

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#### **Competent Persons Statement**

The information in this report that relates to exploration results and Exploration Targets is based on information compiled by or under the supervision of Dr Andrew Wilde, who is the Exploration Manager of Birimian Limited and a Member of the Australian Institute of Geoscientists. Dr Wilde has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results. Dr Wilde consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources is based on information compiled by or under the supervision of Mr. Matt Bampton, who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Bampton is a full-time employee of Cube Consulting Pty Ltd and has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results. Mr Bampton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Previous Reported Results**

There is information in this presentation that relates to previously reported Exploration Results. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.



# RECENT DEVELOPMENTS

- New Board and Management team in place
- Company reinstated on ASX after four-month due diligence review<sup>1</sup>
  - Appropriate governance protocols installed
  - Remediation actions in process
- Strategy for growth established
- Company well funded A\$6m cash at 30 June 2017
  - Randgold/Morila gold deal will inject US\$1m and royalty income stream
- Lithium resource base recently upgraded and more potential
  - Significant prospective targets identified in the project area
  - Further RC drilling program commencing in October on high priority targets
- Lithium PFS on schedule for release this month
  - Environmental Impact Study well advanced
  - No material physical or social impediments identified todate

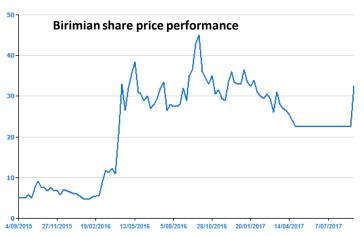
1. See ASX release 16 August 2017, Findings of Corporate Review



# **CORPORATE SUMMARY**

Birimian is a Perth-based, ASX-listed explorer with a significant lithium project and gold interests in the West African country of Mali

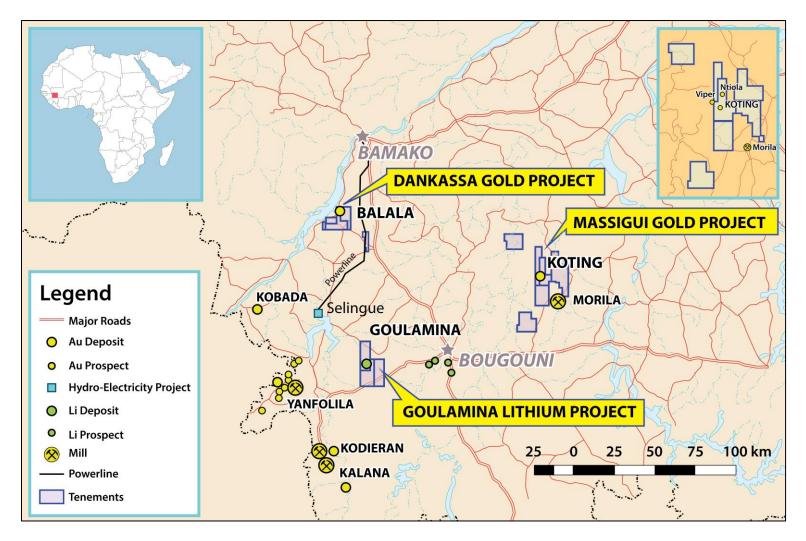
Capital structure (BGS.ASX)	
Shares on issue (m)	194.2
Options and performance rights (m)	11.2
Share price (A\$)	0.37
Market capitalisation at 05 Sept 2017 (A\$m)	71.9
Cash at 30 June 2017 (A\$m)	6.0



Board & Management	Background and experience
James McKay – Executive Chairman	+25 years commercial and funding experience Finance, business management and legal experience over a range of sectors and board compositions
Greg Walker – Executive Director & CEO	+35 years resource sector experience African-based project development and operations, industry-government relations and strategic planning
Gillian Swaby – Executive Director	+30 year experience in resource-focused listed companies Corporate, governance, finance and management, including development and production in Africa
Darryl Butcher – Project Manager	+35 years experience in process design and African project development Substantial hydrometallurgical experience
Dr Andy Wilde – Exploration Manager	+35 years experience in industry and academia, including exploration in Mali Fellow of the Australian Institute of Geoscientists and of the Society of Economic Geologists



# LITHIUM AND GOLD IN MALI





## GOULAMINA PROJECT OVERVIEW

- 100%-owned spodumene lithium project
  - 32.9mt @ 1.37% Li<sub>2</sub>O Measured and Indicated
  - PFS to only include Measured Resource
- Exploration potential confirmed
  - Substantial new targets identified by geological mapping and auger programs
- PFS will examine 2mtpa operation & potential secondary processing facility
  - On track to be released in the month
  - Integrated mine/refinery strategy has potential to greatly increase value of high quality resource
- Environmental and regulatory permitting progressing in parallel to project studies

### Goulamina MRE @ 0.4% Li<sub>2</sub>O cut-off

	Tonnes (mt)	Li₂O (%)	Li₂O (kt)
Indicated	25.3	1.37	347
Inferred	7.6	1.37	104
Total	32.9	1.37	451

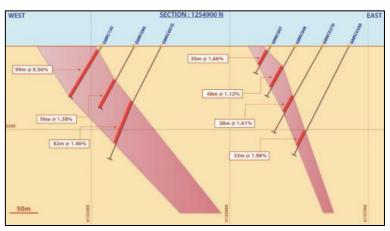


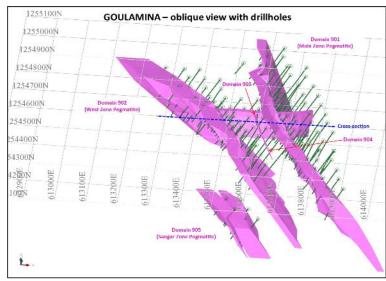


## ROBUST RESOURCE TO GROW

- Lithium-bearing pegmatite Resource
  - Three parallel zones: Main, West & Sangar
  - Open at depth and along strike
  - Fresh material: 96% of Resource
- Resource estimate completed by Cube Consulting
  - 142 drill holes for 17,105m
  - 25m x 25m spacing to establish continuity
- RC drill program to start in October
  - Targeting resource to support a >20 year LOM
  - RC program to determine the grade, orientation and width of new targets
- Wide and continuous pegmatites support bulk, low cost mining with low strip ratio

#### Cross sections showing consistent, thick Main & West zones







# THREE NEW TARGETS IDENTIFIED

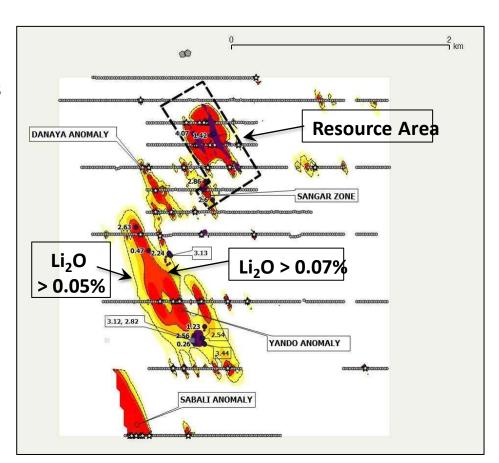
- Recent auger program identified three new pegmatite zones<sup>1</sup>
  - Program over known Resource indicates
    0.05% Li<sub>2</sub>O boundary is predictive

#### Yando

- Lithium anomaly >1.5km long
- Rock chip samples indicate potential for economic grades

## Danaya

- >600m anomaly 350m west of Sangar
- Sabali
  - Numerous anomalies on a single line
  - Open to the north, south and west



1. See ASX release 5 September 2017, Goulamina Lithium Project Exploration Results



# SIMPLE PRIMARY PROCESS MODEL

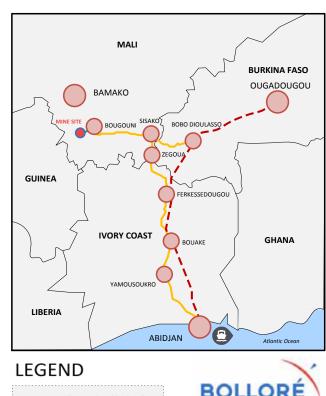
- Scoping Study shows potential to produce a 6% Li<sub>2</sub>O concentrate at >75% recovery
- PFS evaluating 1mtpa and 2mtpa throughput scenarios
  - Three stage crushing
  - Wet screening
  - Dense Media Separation
  - Flotation
  - Low levels of deleterious minerals such as mica identified and low Fe
- PFS metallurgical text work undertaken on diamond core composites<sup>1</sup>

1. See ASX release 26 April 2017, Goulamina Testwork Results



# LOGISTICS & INFRASTRUCTURE

- Established route to market
  - Road and rail route defined to port at Abidjan
- Bulk handling solution facilitated by established providers Bolloré and Antrak Logistics
- Significant scope to optimise handling and loading to reduce total product shipping costs
- Scoping Study based on conservative diesel power supply assumption
  - Goulamina located 20km from the existing Mali power grid
  - Additional hydro power may be added to the grid to improve grid power availability



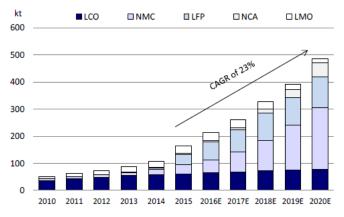




# MARKETING & PRODUCT STRATEGY

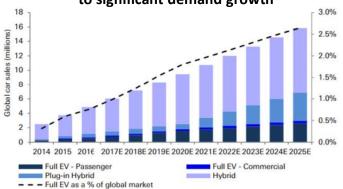
- Focus on maximising value of Goulamina resource
- Integrated refinery model being evaluated as an option in Goulamina PFS
  - Higher sustainable long term margins offsets additional upfront capex
  - Diversifies geographical customer base, larger proportion of Japanese/Korean cathode producers vs China dominated spodumene conversion facilities
- Potential to create of an alternate seaborne lithium supply source outside of established production hubs
- Increased market share of NMC & NCA battery chemistries supports lithium hydroxide demand growth

#### Increasing % of NCA & NMA supportive of Lithium hydroxide demand



Source: Deutsche Bank estimates, GBII, CIAPS, Avicenne, industry data

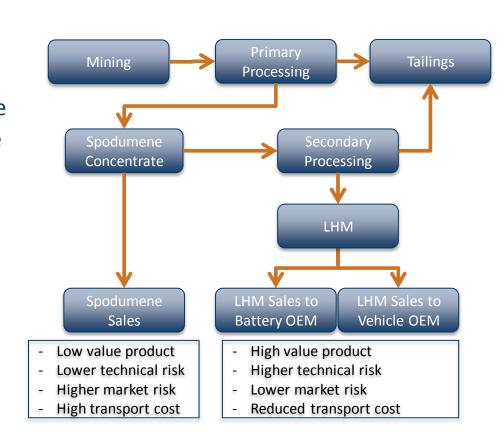
## Entering the first phase of a "megatrend" leads to significant demand growth





## INTEGRATED REFINERY STRATEGY

- Strategy incorporates flexibility to meet customer demand
- Insulates against potential price squeeze for spodumene concentrate when brine production responds
- Concentrate is the largest cost/volume input into the conversion process
- Scoping Study estimated transport to port was circa 50% of spodumene cash operating cost (\$US162 of \$US326/t of concentrate)
- Secondary processing reduces shipping weight by a factor of approx. 15.





## PROJECT TIMELINE

- Clear pathway defined to a permitting and development decision on the project
- RC drilling program on the newly identified targets potential to establish Goulamina as a globally significant lithium producer

Activity	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2019	2020
Maiden JORC statement	✓									
Project Scoping Study	✓									
Phase 2 exploration and resource definition drilling		✓								
Resource estimate update and expansion		✓								
Pre-feasibility study										
Phase 3 exploration and resource definition drilling										
Definitive Feasibility Study										
Project funding										
Mine permitting										
Detailed Cost Estimate										
Construction and Commissioning										



## BIRIMIAN – IN SUMMARY...

- Corporate review completed and recommendations implemented
- Strong in-house corporate and technical team to progress Goulamina
- Significant recent exploration results highlight potential for Goulamina to become a globally significant lithium deposit
- Strong lithium demand growth underpinned by structural shift in energy and transport sectors
- Our development strategy seeks to give us sale flexibility within the lithium supply chain



