

### Lithium Supply and Market: Past, Present and Future

Pablo Cortegoso - SRK Consulting

pcortegoso@srk.com

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American Exploration & Mining Association

# Outline

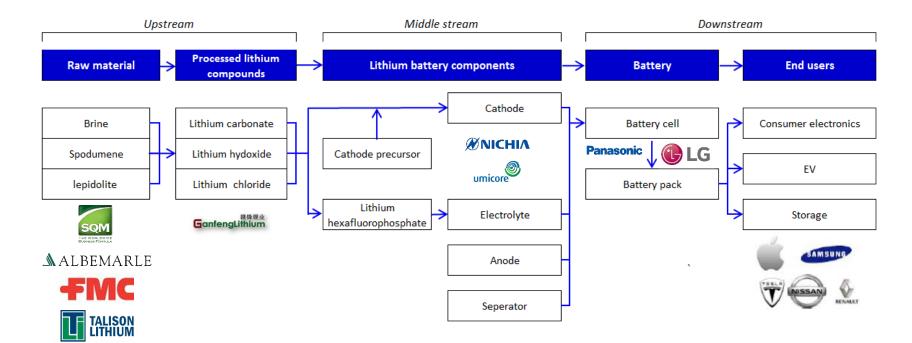
- Why do we care about lithium?
- Lithium Pricing
- Lithium Supply
- Lithium Demand
- Market Balance
- Who will make it?
- What about Nevada?
- Take home message



# Why do we care about Lithium?

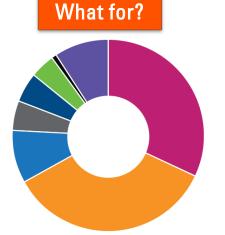


# **Lithium Industry Chain**



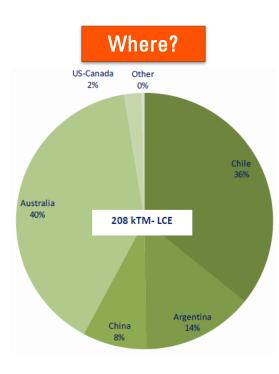
Source: Modified from Deutsche Bank, 2016

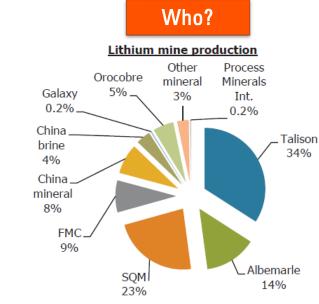
## Li Production



Ceramics and glass	 	 .32%
Batteries	 	 .35%
Lubricating greases	 	 
Continuous casting .	 	 
Air treatment		
Polymers	 	 4%
Primary aluminium .	 	 1%
Other uses		
		Source: USGS

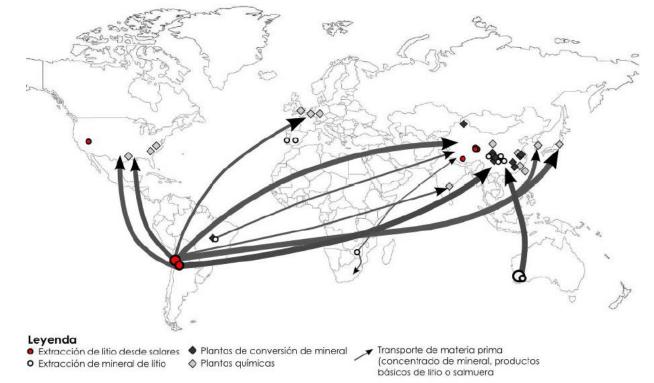
Source: IndMin, 2016, Roskill 2017







# **Geographical Distribution**



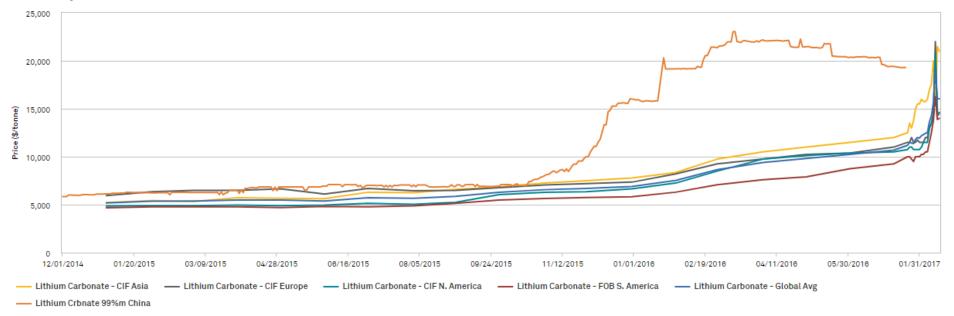
Source: COCHILCO, 2013

# Ok, but seriously why?



# **Lithium Pricing**

#### **Commodity Price**



Source: S&P Global Intelligence - December 6, 2017



# Supply

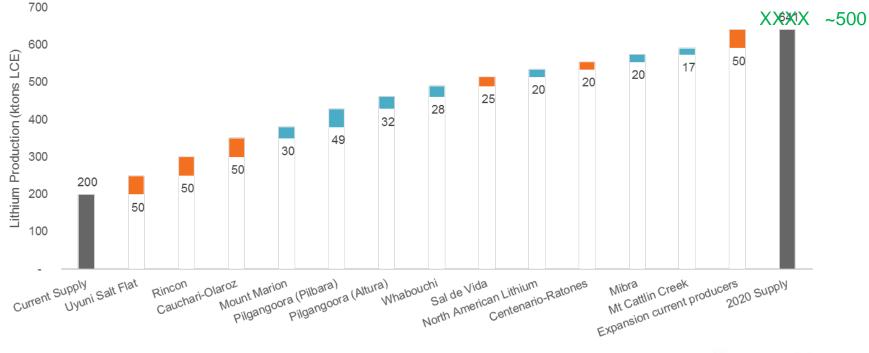


# Lithium Supply: Past



# **Lithium Supply Forecast**

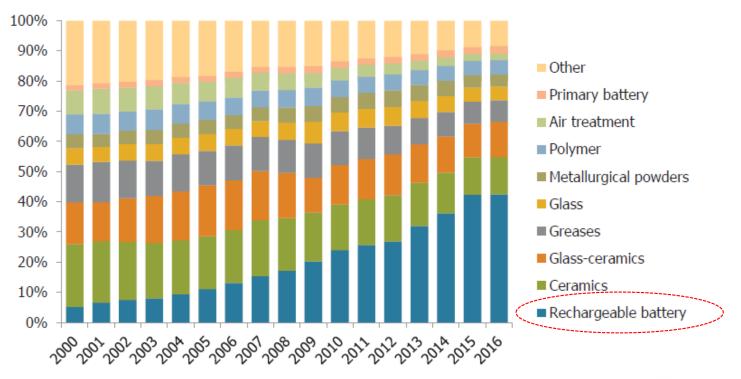
Lithium Supply Growth Forecast 2017-2020



# Demand

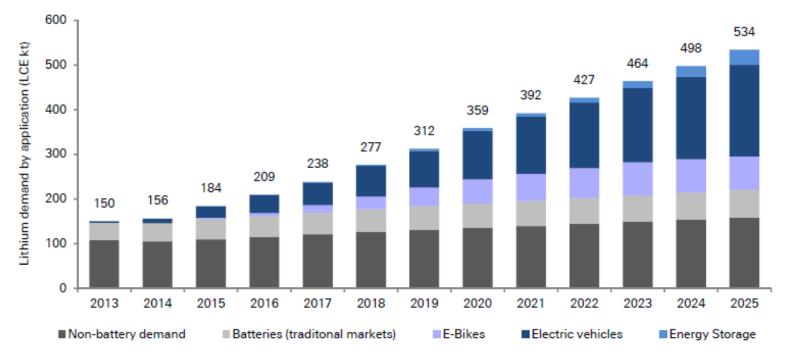


### **Lithium Demand Distribution**



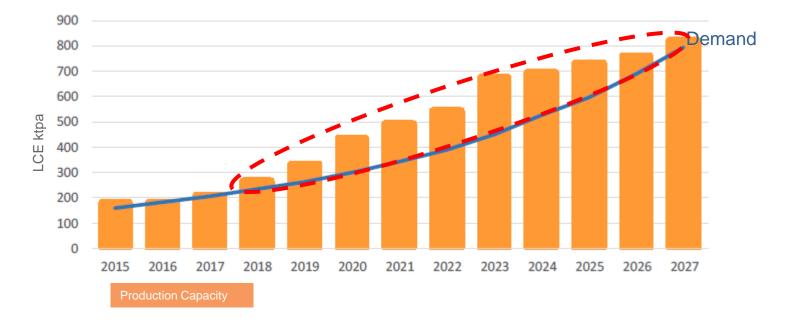
Source: Roskill, 2017

#### **Lithium Demand**



Source: Modified from Deutsche Bank, 2016

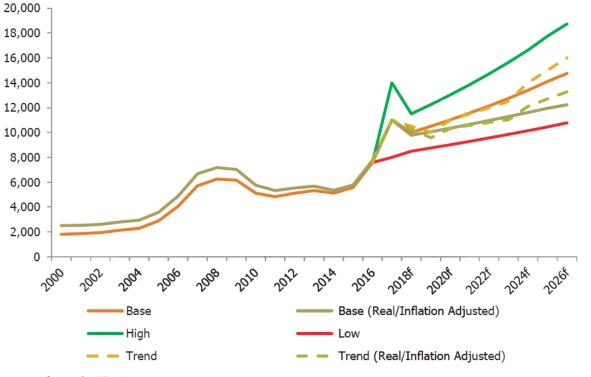
#### **Market Balance**



Source: SQM, 2017

### **Lithium Pricing Forecast**

Battery Grade LCE (US\$/t CIF Asia)

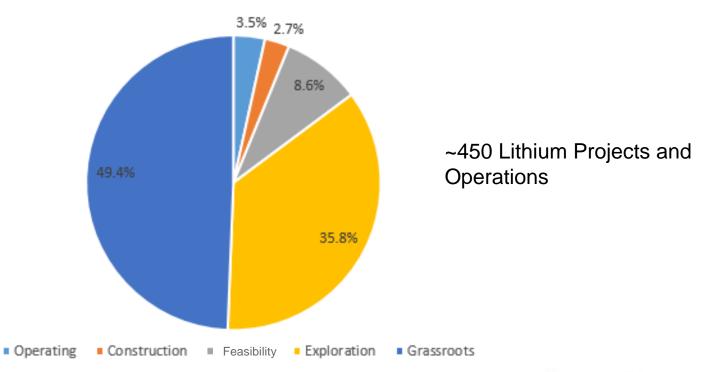


Source: Roskill, 2017

# Who will make it?

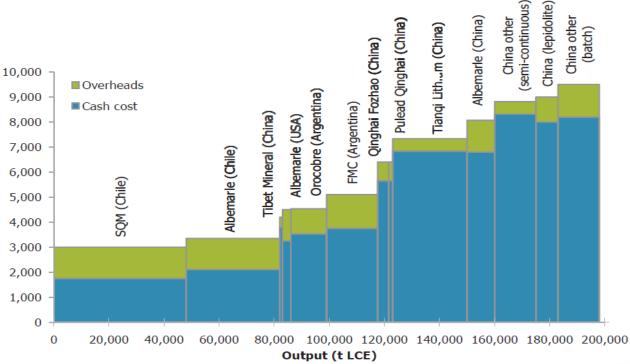


### Lithium Projects



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#### **Lithium Cost Curve**



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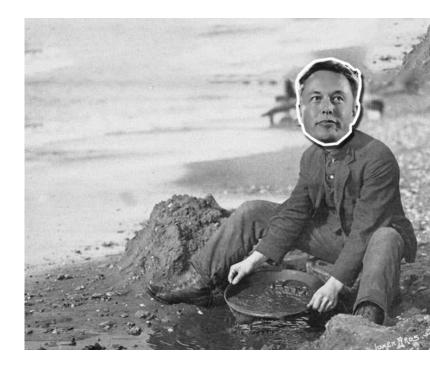
Source: Roskill, 2017

# Lithium Rush?



# Is there a lithium rush?

- Are we focusing solely on demand and ignoring the supply side of the equation?
- Is there an expanding supply side without substantial barriers to entry?
- Are there technological innovations that could potentially halve costs and boost the reserve base?









# Why Nevada? ... Why Not?



- Consistent permitting protocols
- Variety of existing operations
- ✓ Lithium is already present
- ✓Access to public land
- ✓Low Mg/Li

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# Take Home Message

- There is a pricing bubble; hang tight
- Oversupply may happen in the short term but future demand will balance the lithium market
- Many projects trying to make it happen; only a few will become a reality
- Operation Cost/Process is key
- There is room for NV

Additional comments, questions? pcortegoso@srk.com



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