

Das Zinnwald-Lithium-Projekt: Lithiumverbindungen aus Deutschland









DERA Industrieworkshop 27. Juni 2017, Berlin

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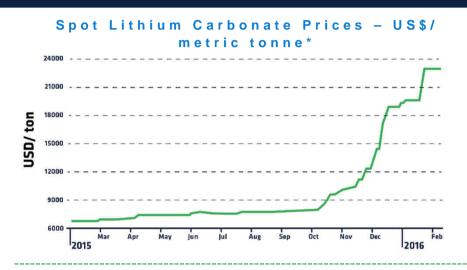
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Forward-looking information in this presentation includes, but is not limited to, the estimated future value of the Sonora Lithium Project. Disclosure pertaining to such projects is derived from resource estimates and a Preliminary Feasibility Study ("PFS") prepared in accordance National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and applicable Canadian securities laws and regulatory policies. Please refer to Bacanora's corporate profile on SEDAR at www.sedar.com. Readers are encouraged to review such reports in their entirety. Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic vability. The NI 43-101 report in respect of the Sonora Lithium Project includes estimates for both indicated resources. Inferred mineral resources are those that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorised as mineral reserves. In order to complete the aforementioned NI 43-101 report and PFS, the Qualified Persons in respect of such reports have used forward looking information including, but not limited to, assumptions concerning lithium commodity prices, cash flow forecasts, project capital and operating costs, commodity recoveries, mine life and production rates. Readers are cautioned that actual results, should they be realised, may vary from those presented in the PFS and the NI 43-101 report. Further testing will need to be undertaken in order to confirm the economic feasibility of the Sonora Lithium Project other than as disclosed in the Company's news release dated 3 March 2016 and updated via news release dated 7 July.

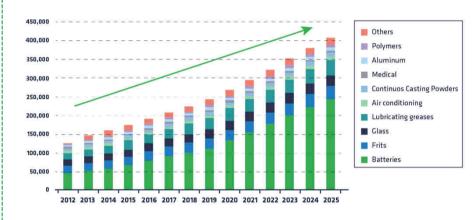
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### LITHIUM SUPPLY & PRICING

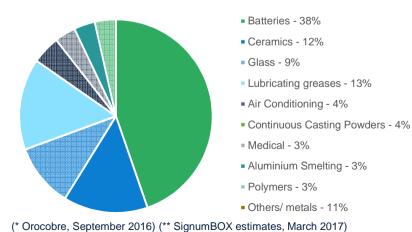
2017 pricing from China indicates >\$11,000/t\*



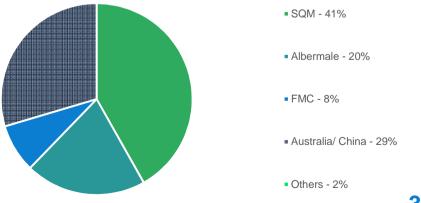
#### Growth Across all Applications to 2025\*\*



#### Lithium Demand by Application\*



### Lithium Carbonate Production Capacity 2015\*



### **ELECTRIC VEHICLES TO GRID STORAGE**

Lithium Consumption Estimated at 410,000 tpa\* by 2025





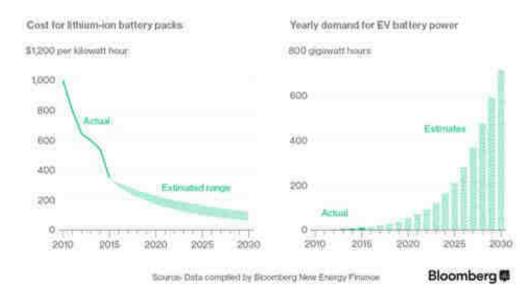






#### It's All About the Batteries

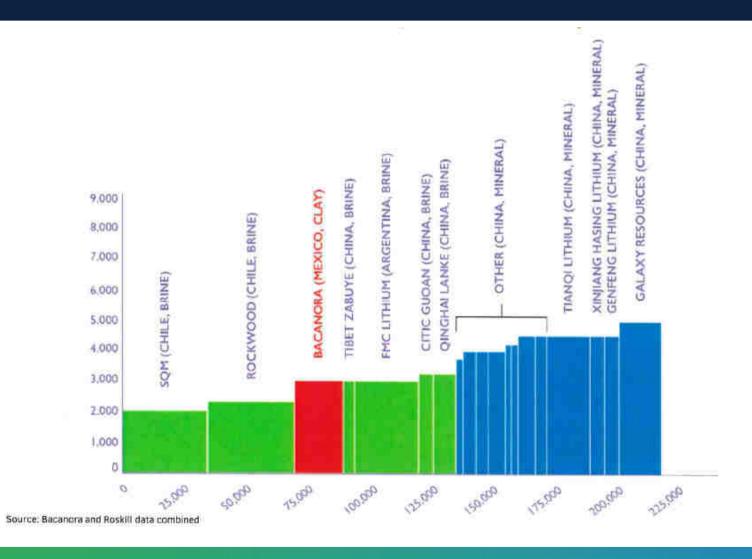
Batteries make up a third of the cost of an electric vehicle. As battery costs continue to fall, demand for EVs will rise.



(\*SignumBox)

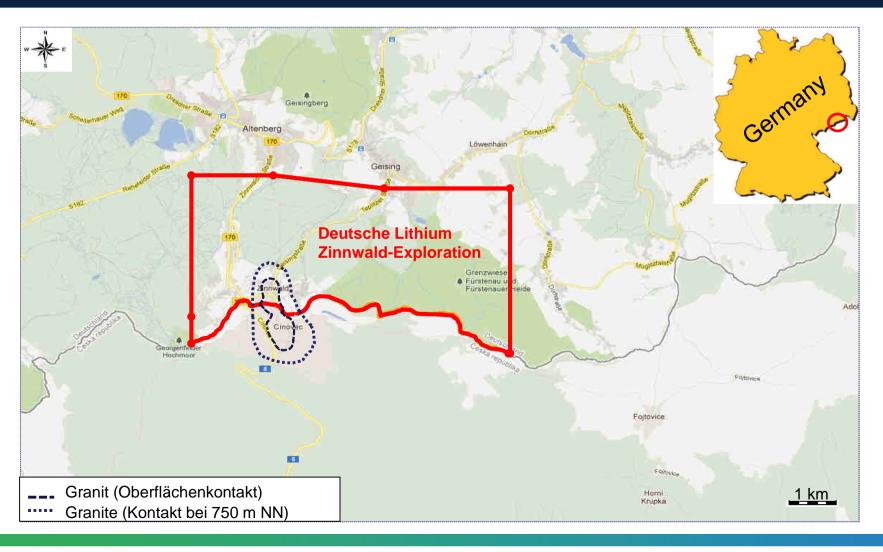
### PEER ANALYSIS

Bacanora's projected low operating costs positions is very favourably in comparison to its peers



# LITHIUM DEPOSIT IN GERMANY

#### Zinnwald/ Altenberg in Saxony



## ZINNWALDIT MICA

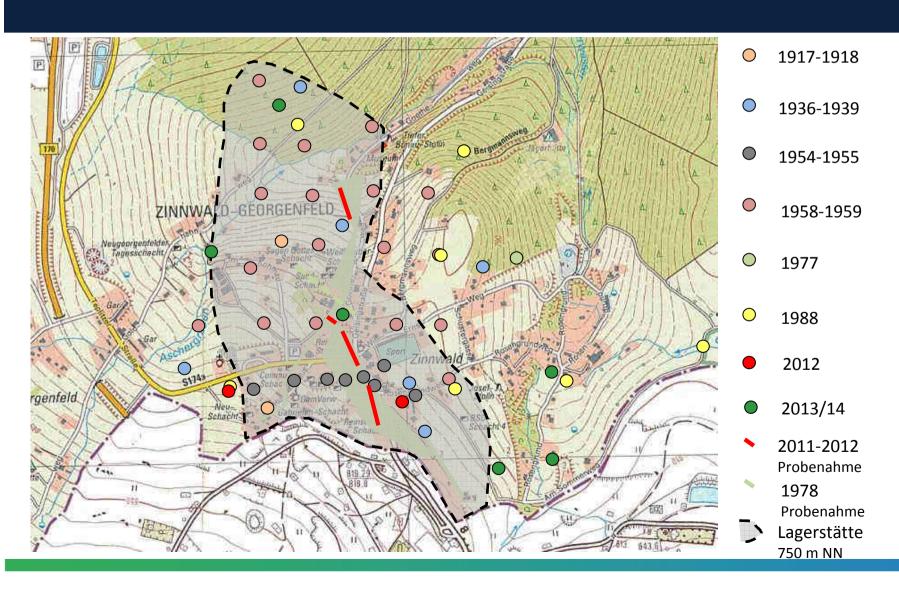
- Zinnwaldite is a mixture of two minerals: Siderophyllite and Polylithionite
- Layer silicate with the chemical formula KLiFeAl(AlSi<sub>3</sub>)O<sub>10</sub>(OH, F)<sub>2</sub>



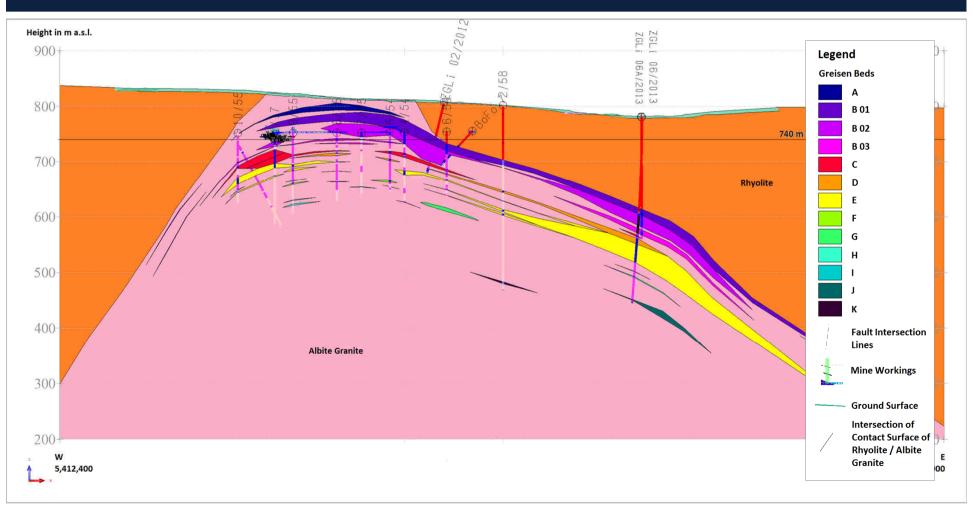
Chemical Composition (wt%)		
Lithium Potassium Aluminium Iron	1.59 % 8.94 % 12.35 % 12.78 %	
Fluorine Rubidium Cesium Manganese	6.52 % 0.95 % 0.04 % 0.9 %	
Others (Si, O, H,)	55.93 %	

# **EXPLORATION DRILLING CAMPAIGNS**

#### Zinnwald-Lithium Deposit

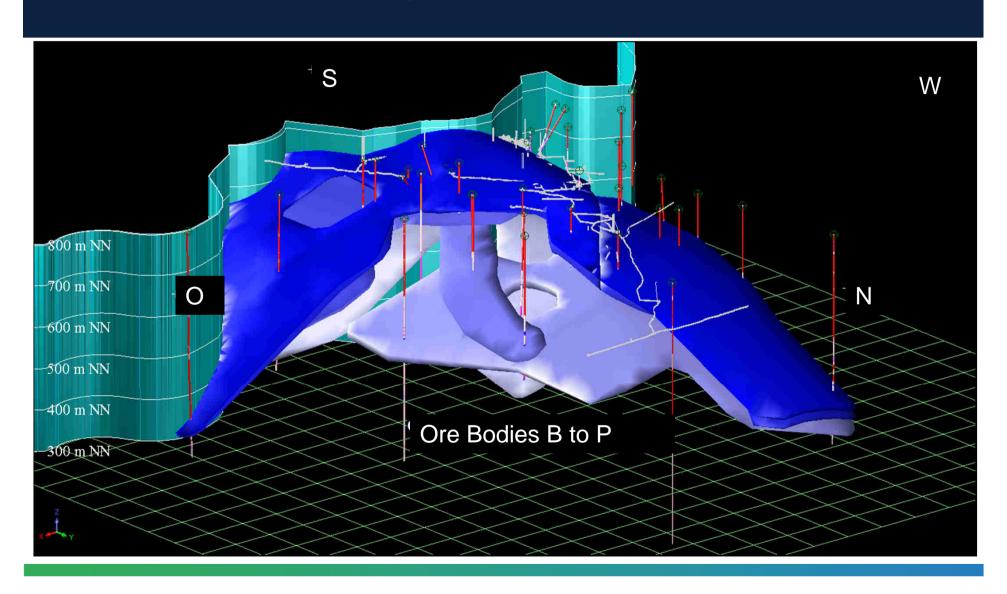


# W-E CUT OF ZINNWALD DEPOSIT 09/2014



# 3 - D- MODEL OF ZINNWALD-DEPOSIT

#### Ore Bodies B- P



### ZINNWALD LITHIUM PROJECT

Historic work and the geological context of the deposit demonstrates its potential for economic extraction

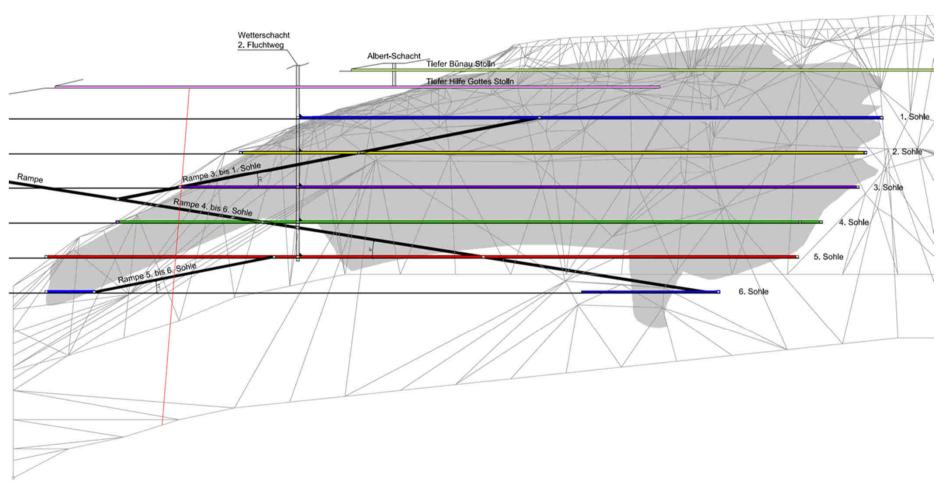
- Zinnwald has an Indicated and Inferred PERC resource of 36.4Mt at grade of 3,600ppm Li
- Additional drilling will make this resource NI-43-101 compliant
- Excellent infrastructure: road, rail, energy
- Close to German auto industry: VW EV
   Transparent Design Centre, BMW, Daimler

Resource Category	Tonnes* (000)	Li Grade (ppm)	Contained LCE** (Tonnes)
Measured	10,283	3,661	200,277
Indicated	16,287	3,594	311,408
Inferred	9,867	3,705	194,484

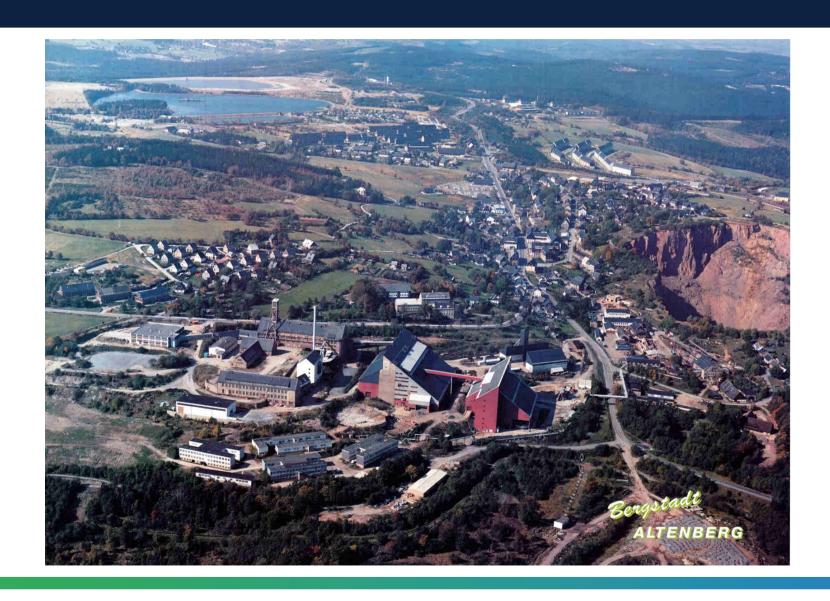


# MINING SCENARIO

#### North - South Cut

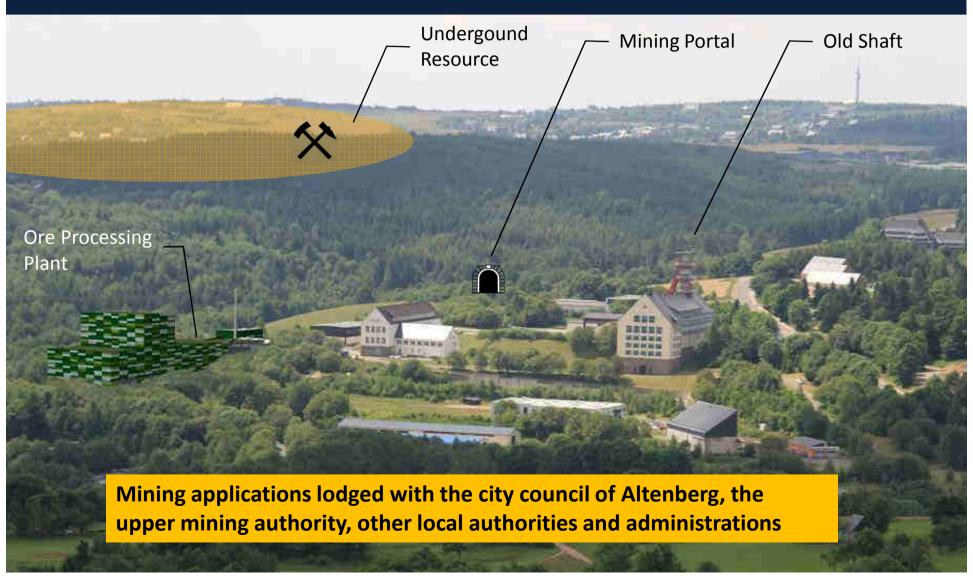


# **TIN MINE IN ALTENBERG 1991**



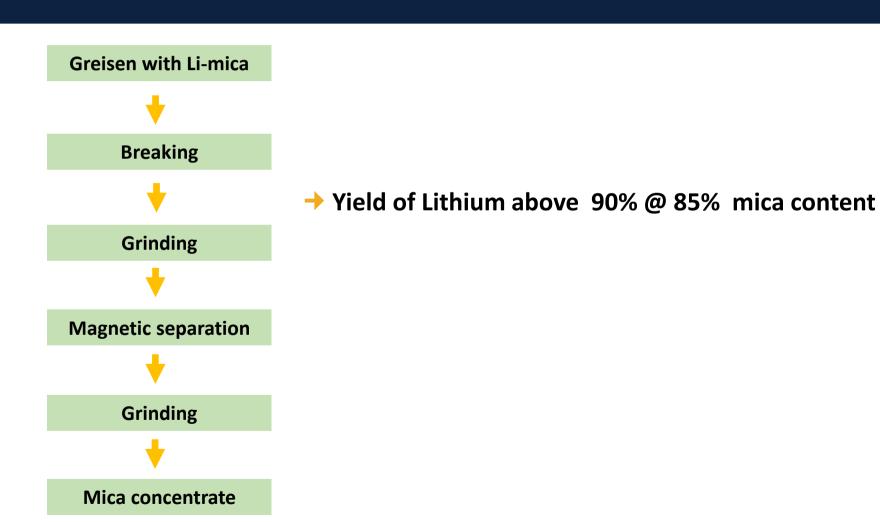
## DEPOSIT, MINE GATE AND ORE PROCESSING PLANT

#### Zinnwald - Altenberg Area



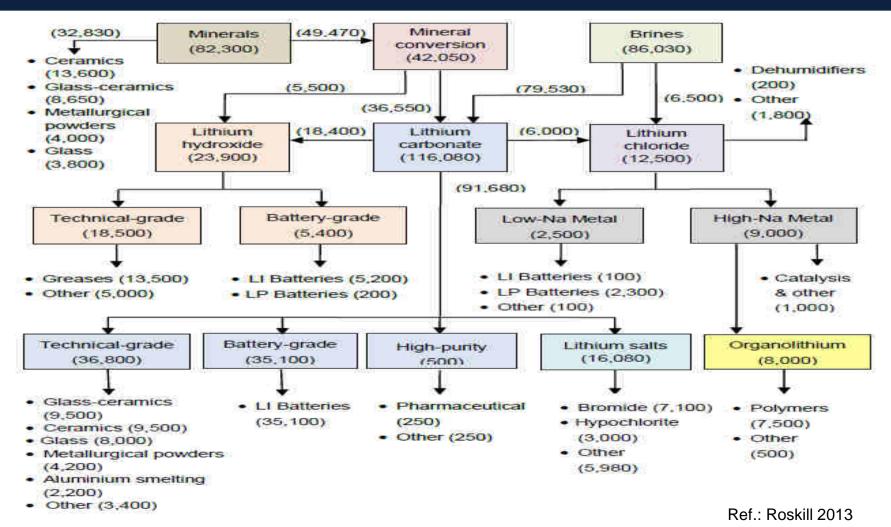
# **ORE PROCESSING**

From ore to mica concentrate



### LITHIUM CHEMISTRY

#### Downstream activties of Bacanora and Deutsche Lithium



## **VALUE ADD STRATEGY**

Focused on producing downstream, high value lithium products for the fast growing German automotive electrification strategy





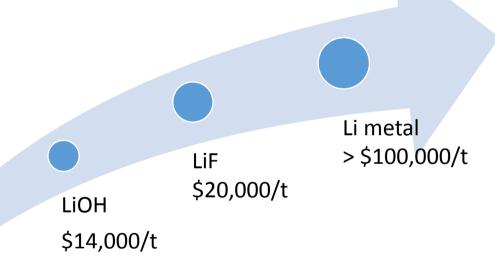




Li<sub>2</sub>CO<sub>3</sub>

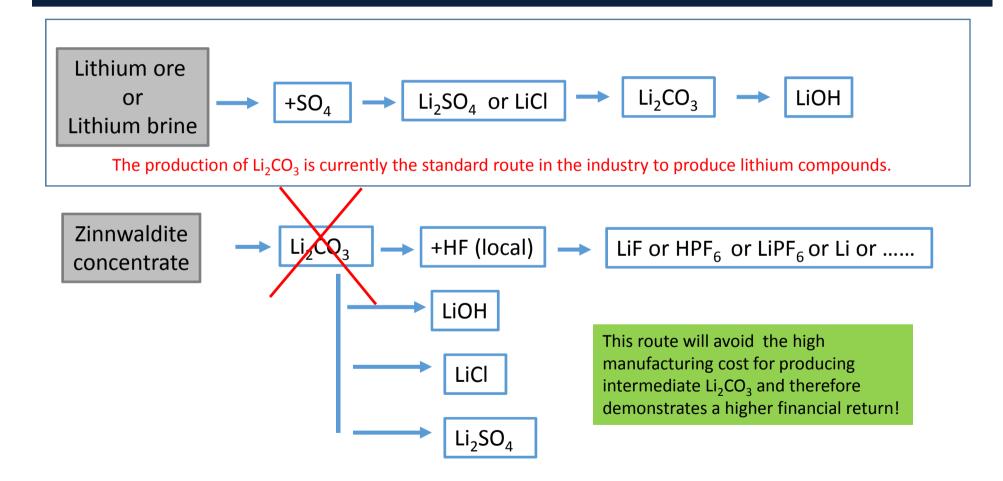
\$10,000/t



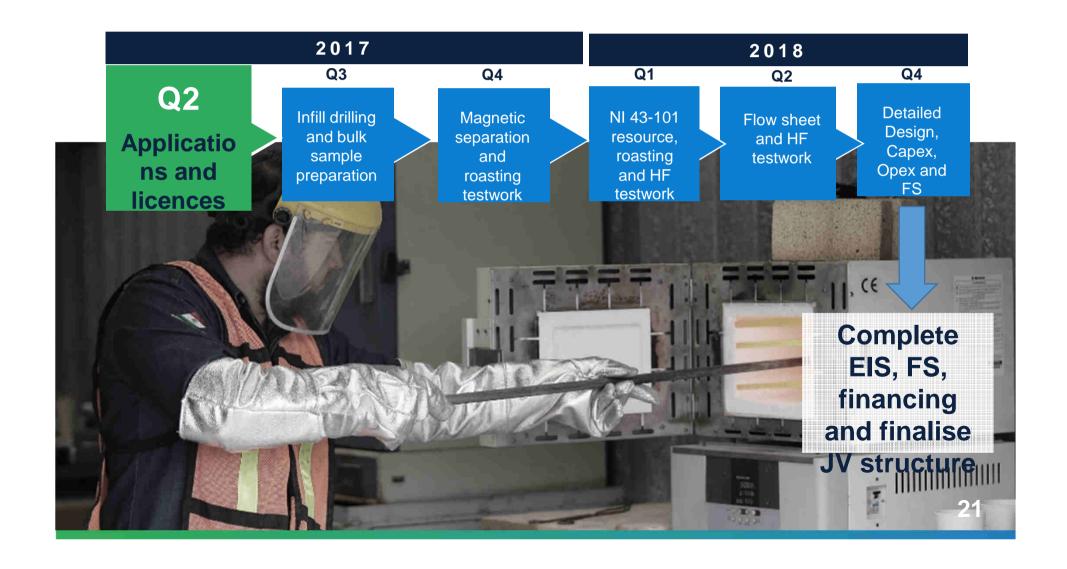


### LITHIUM FLUORIDE ROUTE

By-pass intermediate stages to target higher value Li products directly



#### FEASIBILITY AND PRE-PRODUCTION MILESTONES



### ZINNWALD LITHIUM PROJECT

Zinnwald represents a strategic asset for lithium products in Europe

#### For further information please contact:

Prof. Dr. Armin Müller CEO
Deutsche Lithium GmbH

Berthelsdorfer Straße 111 A 09599 Freiberg

Tel. +49 3731 301 3001 Mobil 01607339479

Email: armin.mueller@solarworld.com



# THANK YOU VERY MUCH FOR YOUR ATTENTION!

Zinnwald - Lithium -Project of

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