

# + COBALT & RECHARGEABLE BATTERIES -

**COBALT CHEMICALS ARE USED TO MANUFACTURE RECHARGEABLE BATTERIES.** In fact, this application for cobalt represents the single largest use of cobalt and is the primary driver of the cobalt market. The rechargeable battery market is experiencing rapid growth due to the continued proliferation of portable electronic devices. The emergence of electric vehicles and the need for stationary storage of power from intermittent renewable energy sources is anticipated to further boost the demand for cobalt in batteries.

## LITHIUM-ION BATTERIES: Advanced, Higher Energy Density, Lighter

Lithium Cobalt Oxide (LCO)



**60%**  
COBALT BY WEIGHT

Ideal for cell phones, laptops, cameras.



Lithium Nickel Manganese Cobalt Oxide (NMC)



**10-20%**  
COBALT BY WEIGHT

Use in power tools, e-bikes, EV, medical, hobbyist.



Lithium Nickel Cobalt Aluminum Oxide (NCA)



**9%**  
COBALT BY WEIGHT

Gaining importance in electric power train & grid storage



BY THE YEAR **2020** Cobalt use in battery applications alone could be greater than the entire world market for refined cobalt in 2015!



Photo credit: Tesla Motors

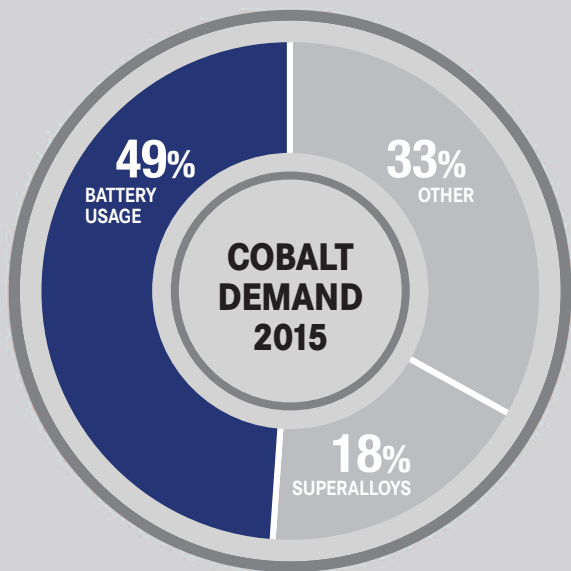
► **Fortune Minerals** proposed refinery near Saskatoon in western Canada, the Saskatchewan Metals Processing Plant, will stand out as a fully vertically integrated North American facility dedicated to the production of cobalt chemicals needed to manufacture rechargeable batteries used in portable electronic devices and electric vehicles.



# RECHARGEABLE BATTERIES *DRIVING* COBALT DEMAND

## BATTERY USAGE ACCOUNTS FOR 49% OF COBALT DEMAND

(Source: Darton Commodities)



## NICKEL-METAL HYDRIDE BATTERIES

**15%**

UP TO 15%  
COBALT BY WEIGHT

**1-4kg**

1-4KG OF COBALT  
IN A CAR BATTERY

## LITHIUM-ION BATTERIES

**60%**

UP TO 60%  
COBALT BY WEIGHT

**2-8kg**

2-8KG OF COBALT  
IN A CAR BATTERY

Cobalt is recognized as strategically important by both the US and European Union as it is critical to a number of metallurgical and chemical products but is susceptible to supply concerns.



**65%** of mined cobalt is sourced from the Congo

China refines **52%** of the world's cobalt

**Tesla's Model S uses the NCA chemistry which has the highest energy density among current lithium-ion chemistries.**

Tesla is constructing a \$5 billion lithium-ion plant in Nevada, U.S.A. that is expected to produce 500,000 lithium-ion batteries by 2020 – more than were produced globally in 2013! These batteries will be used in their electric vehicles and stationary storage applications for homes, companies and utilities.



Photo credit: Tesla Motors

This document contains forward-looking information. This forward-looking information includes statements with respect to, among other things, the proposed development of the Saskatchewan Metals Processing Plant ("SMPP"), Tesla's plans to develop a lithium ion plant in the United States and the anticipated production of lithium ion batteries from such plant. Forward-looking information is based on the opinions and estimates of management as well as certain assumptions at the date the information is given (including, in respect of the forward-looking information contained in this press release, assumptions regarding the ability of Fortune Minerals Limited (the "Company") to arrange necessary financing for its NICO gold-cobalt-bismuth-copper project and the SMPP and obtain all necessary permits for the NICO project and the SMPP and assumptions regarding Tesla's development of and production from its proposed lithium ion plant). However, such forward-looking information is subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. These factors include the inherent risks involved in the exploration and development of mineral properties, the risk that the Company may not be able to arrange the necessary financing to construct and operate the NICO mine or the SMPP, uncertainties with respect to the receipt or timing of required permits for the development of the NICO project or the SMPP, the possibility of delays in the commencement of production from the NICO project or construction of the SMPP, the risk that Tesla may not complete the construction of its proposed lithium ion plant, the risk that the production from such plant even if it is completed will be less than anticipated and other factors. Readers are cautioned to not place undue reliance on forward-looking information because it is possible that predictions, forecasts, projections and other forms of forward-looking information will not be achieved by the Company. The forward-looking information contained herein is made as of the date hereof and the Company assumes no responsibility to update or revise it to reflect new events or circumstances, except as required by law.



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