

**14th Shanghai Derivatives Market Forum  
Non-ferrous Session**

# **Global Market Outlook Lead & Zinc**

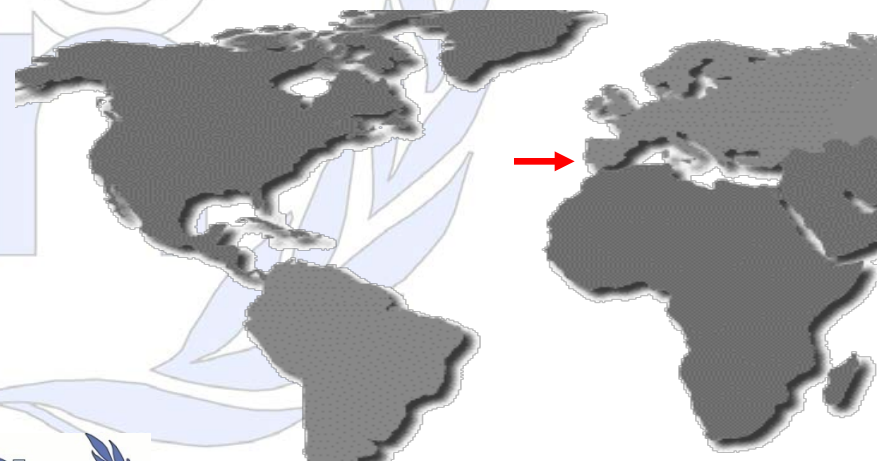
**Meng Jianbin**

**Director of Economics and Environment  
International Lead and Zinc Study Group (ILZSG)**

**25 May 2017, Shanghai**

# ILZSG Overview

- Intergovernmental organization set up within the UN system
- Significant level of industry representation
- Established by UN in 1959 in New York
- Moved to London in 1977
- From start of 2006 ILZSG, ICSG & INSG co-located in Lisbon, Portugal



[www.icsg.org](http://www.icsg.org)



[www.insg.org](http://www.insg.org)

# ILZSG Membership

- Membership open to any country involved in lead and/or zinc production, usage, or trade.
- 28 members (>85% of global lead/zinc industry):

 **Australia**

 **Belgium**

 **Brazil**

 **Bulgaria**

 **China**

 **Finland**

 **France**

 **Germany**

 **India**

 **Iran**

 **Ireland**

 **Italy**

 **Japan**

 **Korea Rep.**

 **Morocco**

 **Namibia**

 **Netherlands**

 **Norway**

 **Peru**

 **Poland**

 **Portugal**

 **Serbia**

 **Sweden**

 **Turkey**

 **United States**

 **European  
Community**

 **Russian Fed.**

 **Mexico**

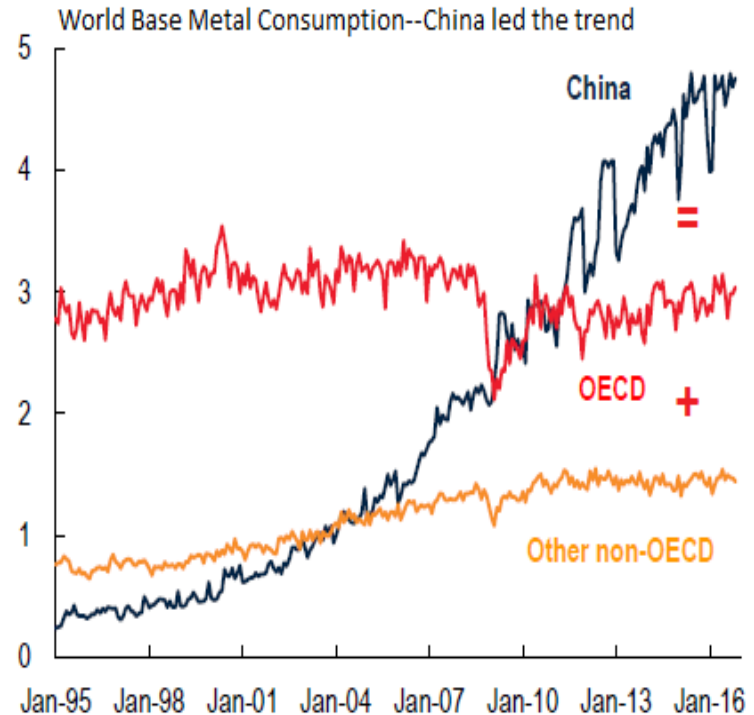
# ILZSG Overview – Work of the Group

- 
- **Promote Market Transparency**
    - Closely monitor production, consumption, prices, stocks, trade flows and market balances
    - Reports and directories
  - **Facilitate Co-operation Between Government and Industry**
    - Twice yearly meetings
    - Special conferences/seminars
  - **In-depth Research into Issues of Interest/Concern to Members**
    - Environmental legislation
    - Economic developments

# Base Metal Price & Consumption



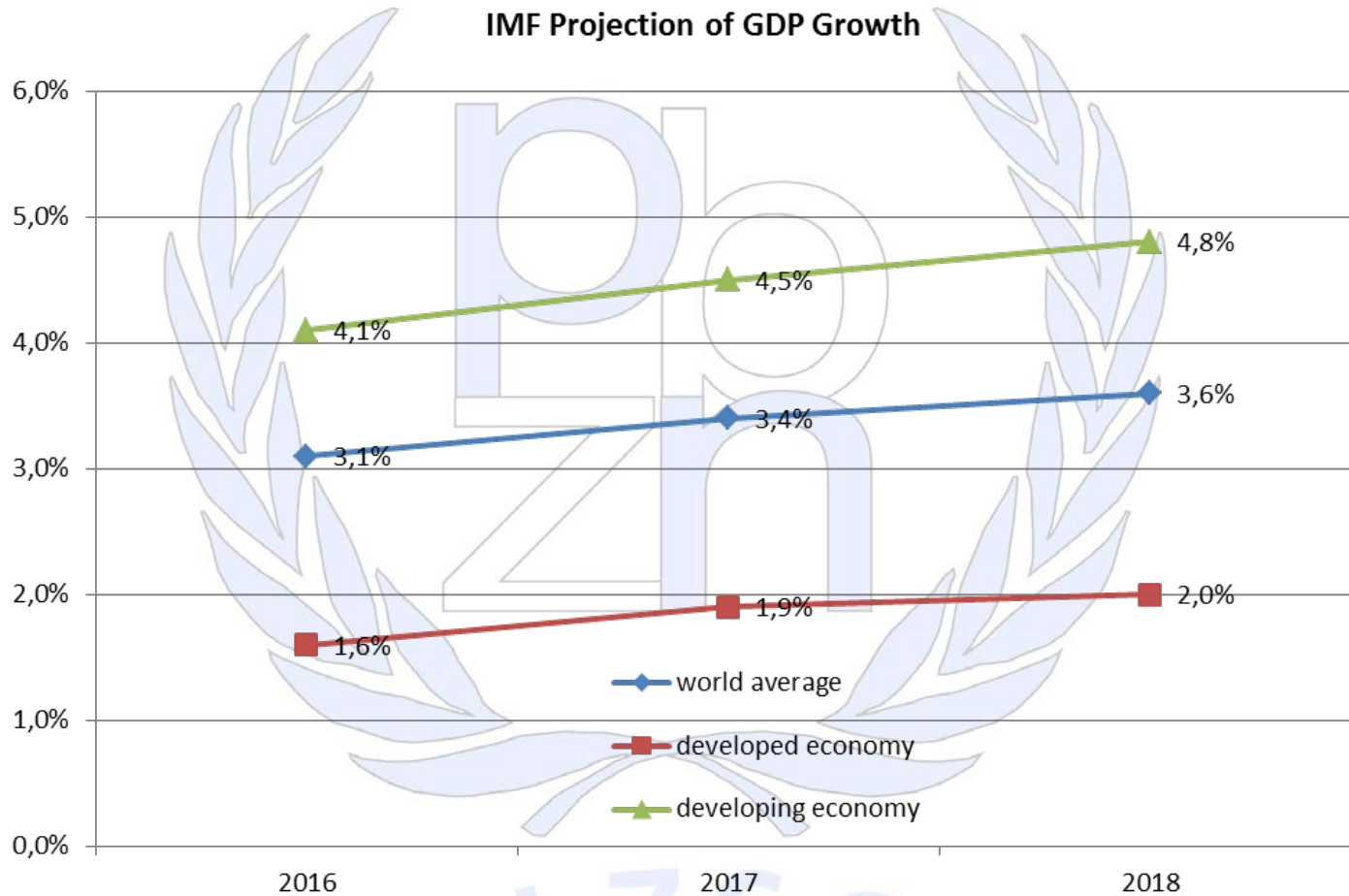
source: WB 2010USDconstant



source: WBMS

ILZSG

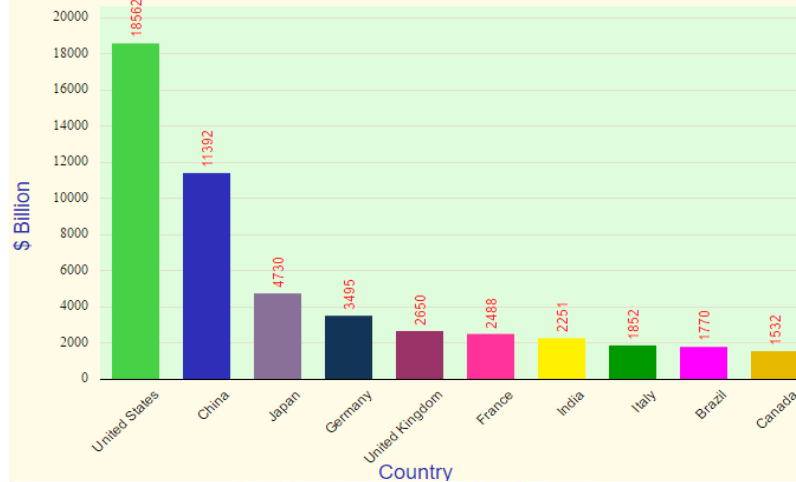
# World Economic Growth Projection



# World Economic Growth Projection

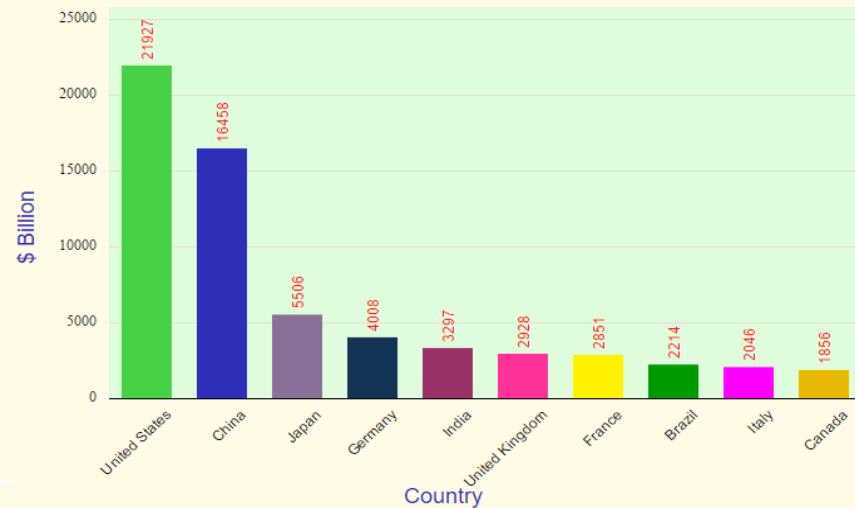
Top 10 countries by GDP (Nominal) 2016

Source : IMF (Outlook October 2016)



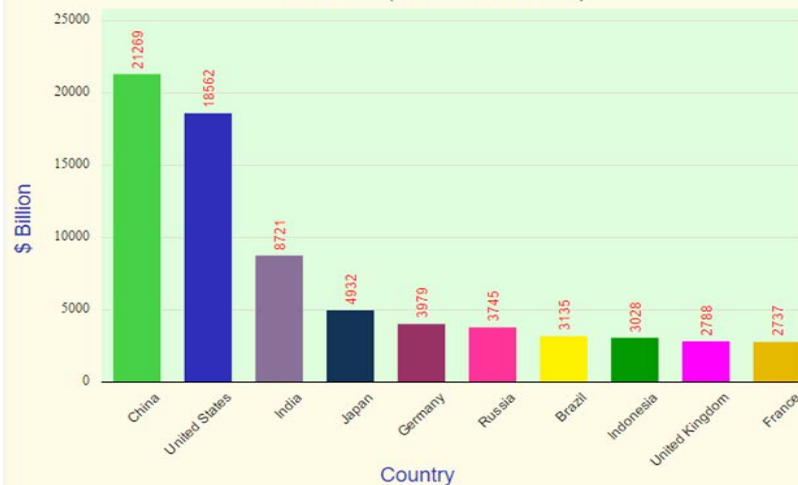
Top 10 countries by GDP (Nominal) 2020

Source : IMF (Outlook October 2016)



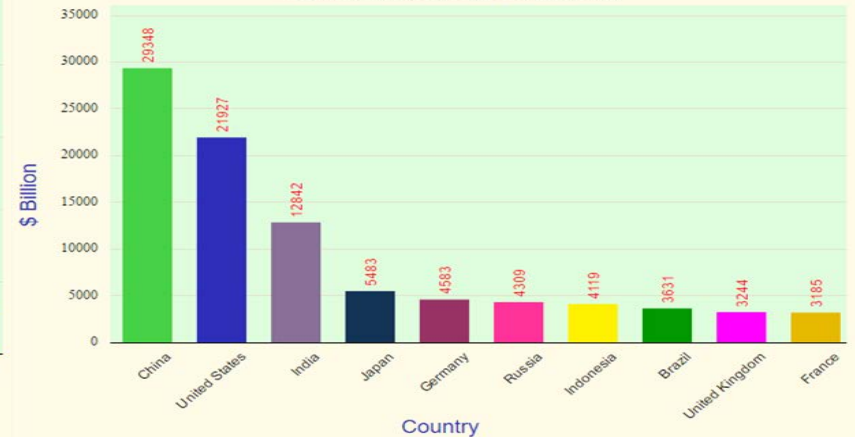
Top 10 countries by GDP (PPP) 2016

Source : IMF (Outlook October 2016)



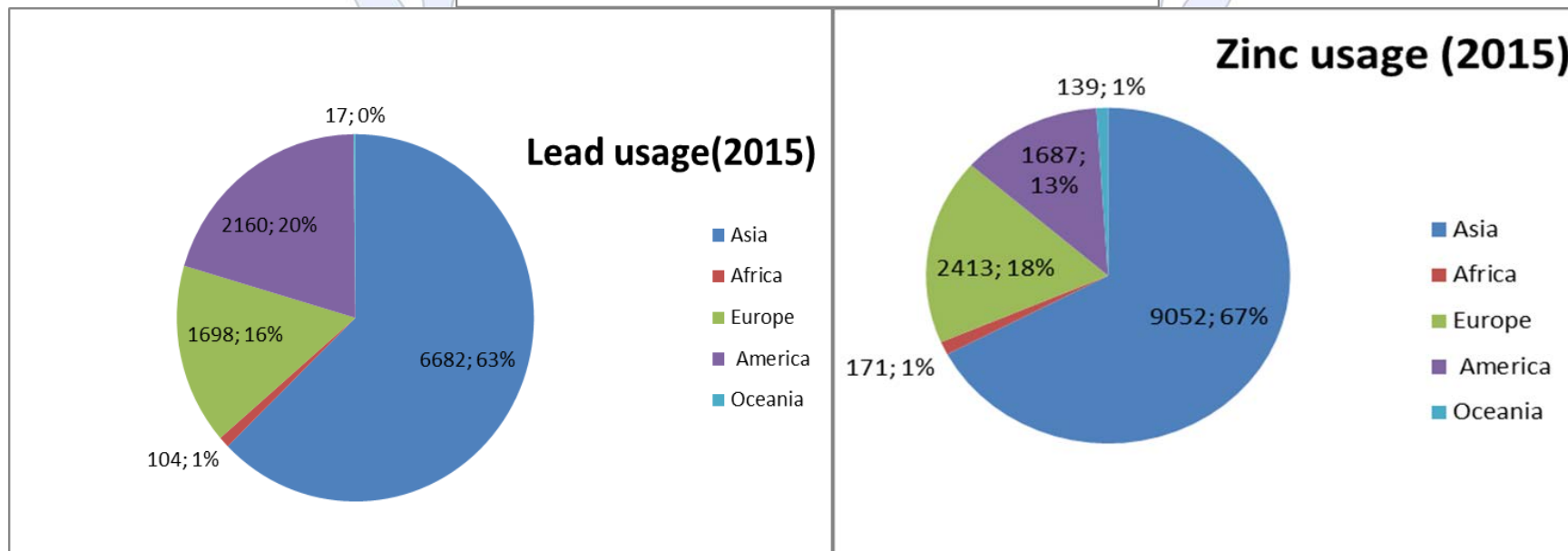
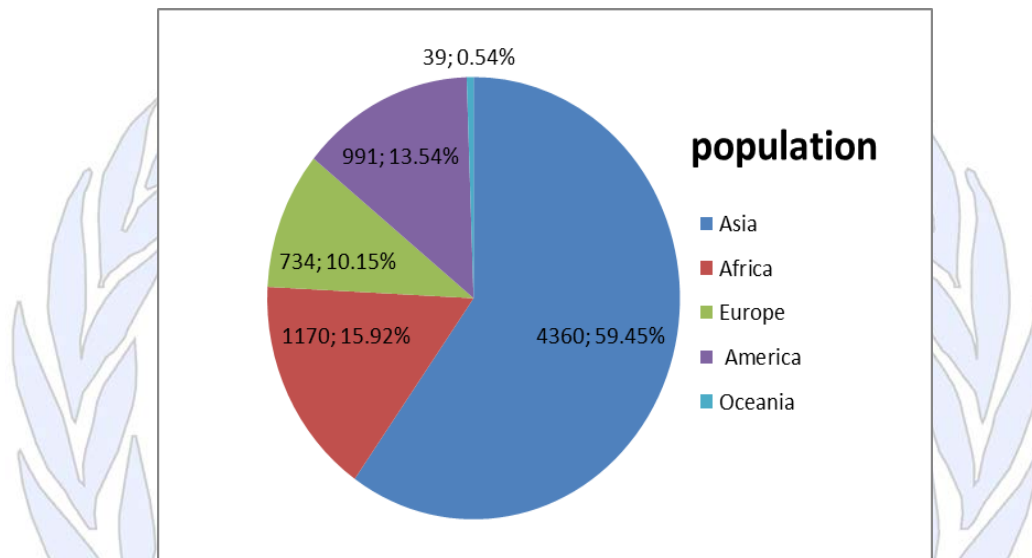
Top 10 countries by GDP (PPP) 2020

Source : IMF (Outlook October 2016)



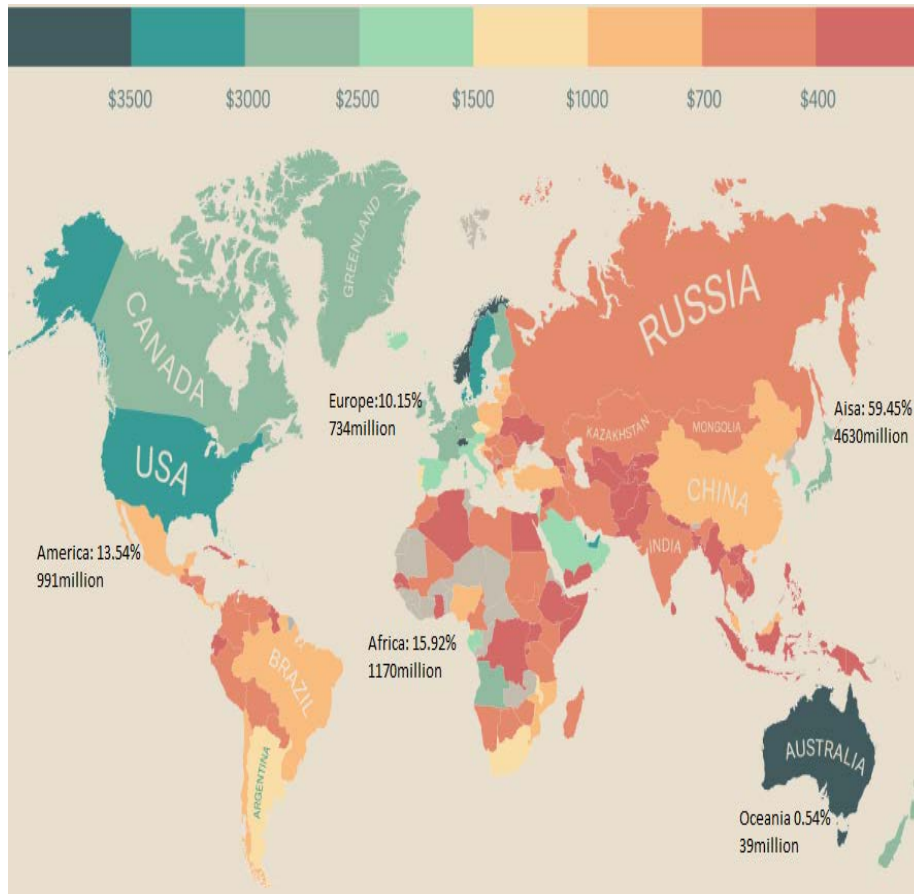


# World Demography & Lead/Zinc Consumption





# World Per Capita Income & Car Consumption Trend



Today consumers use their vehicles for all purposes; in the future, they will choose an optimal mobility solution for each specific purpose

Today:  
One vehicle for every trip purpose

Avg. share of annual driving time



2030:  
A solution for each specific purpose<sup>1</sup>

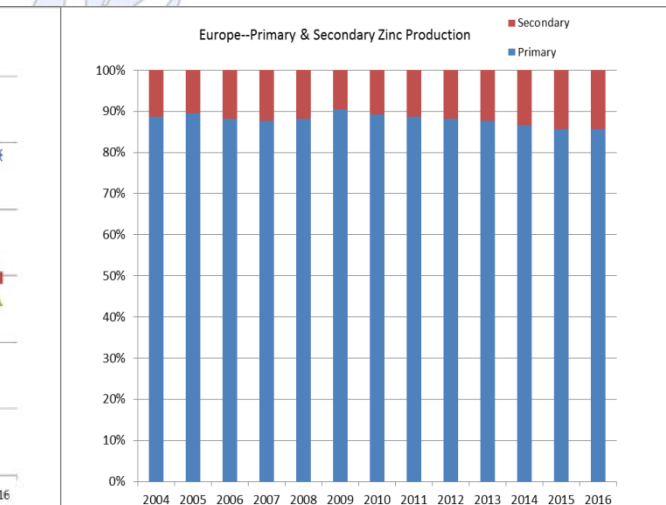
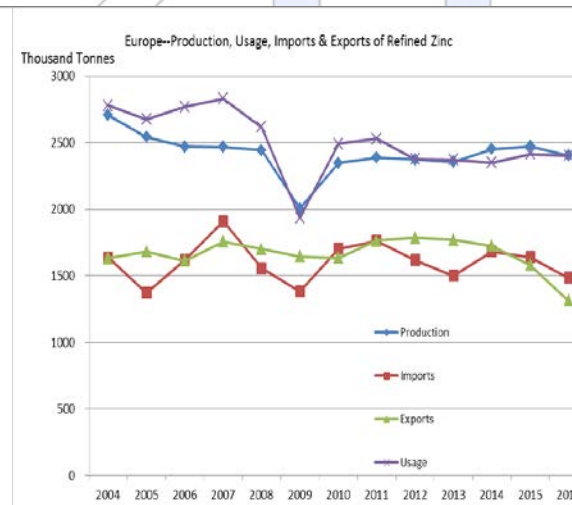
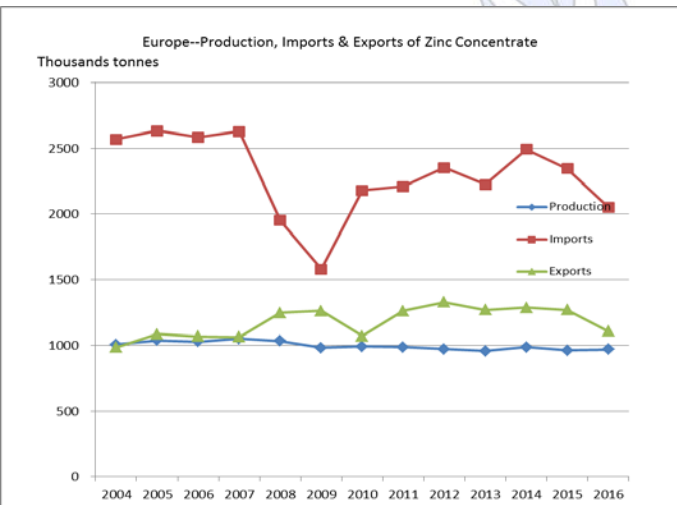
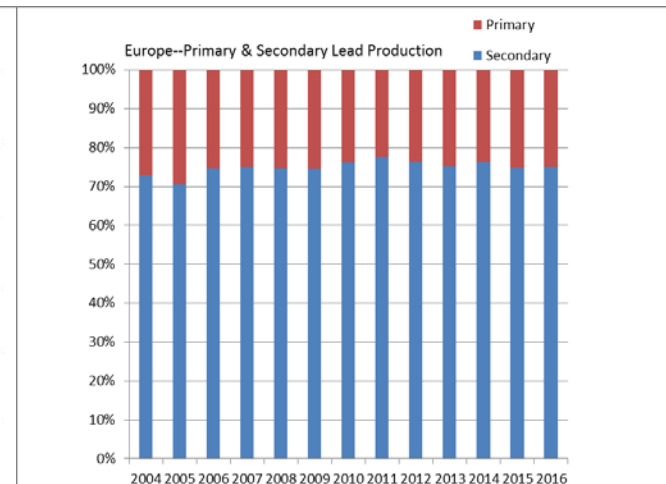
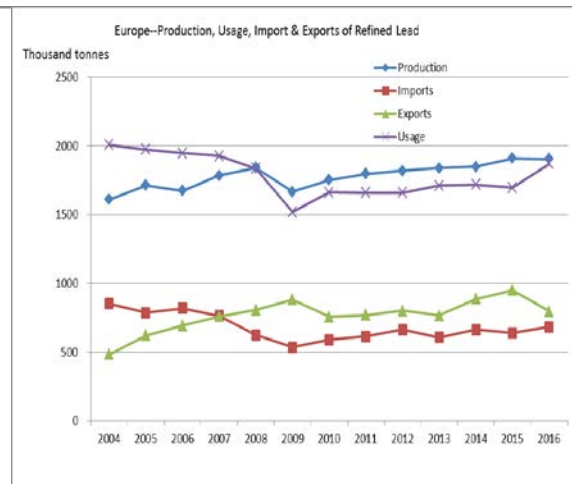
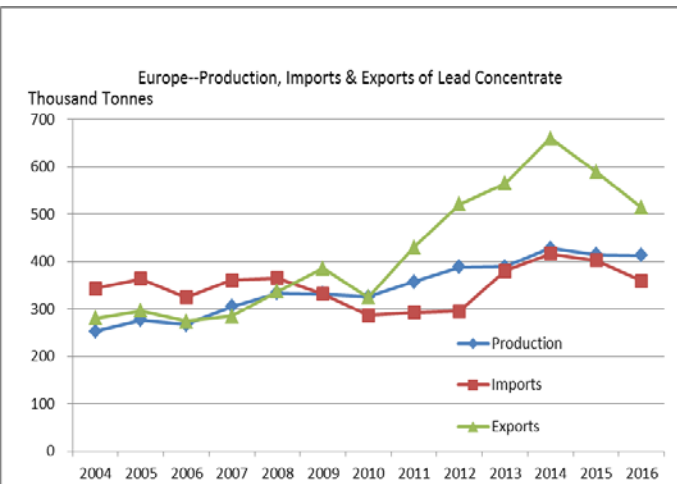


# Car Production and L&Z Usage

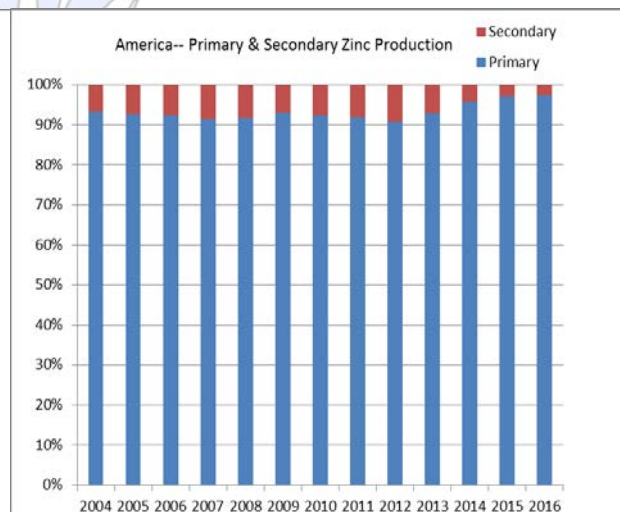
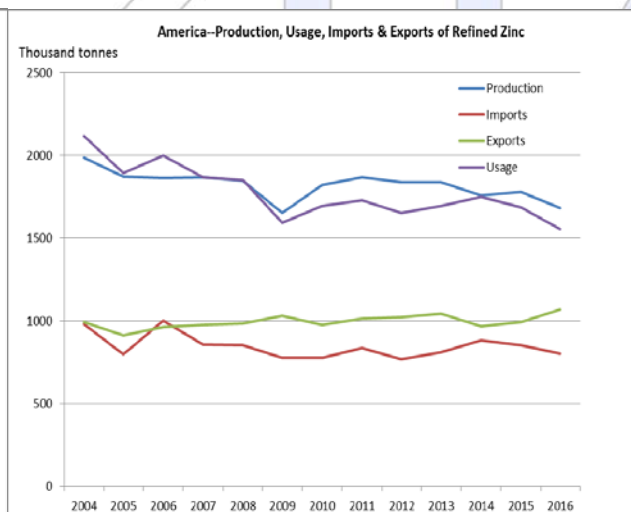
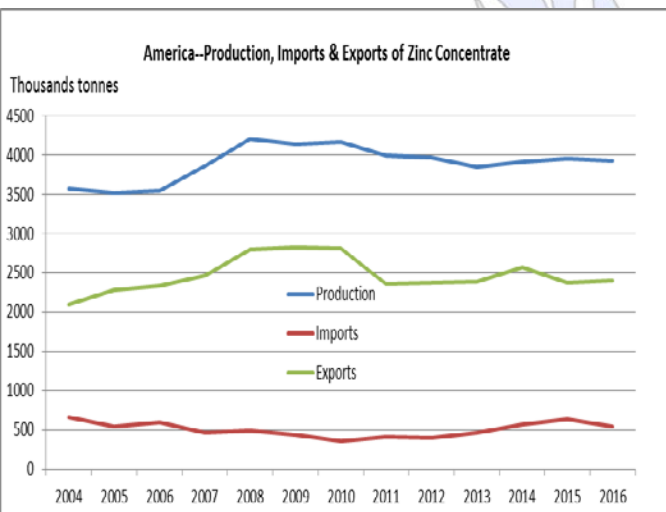
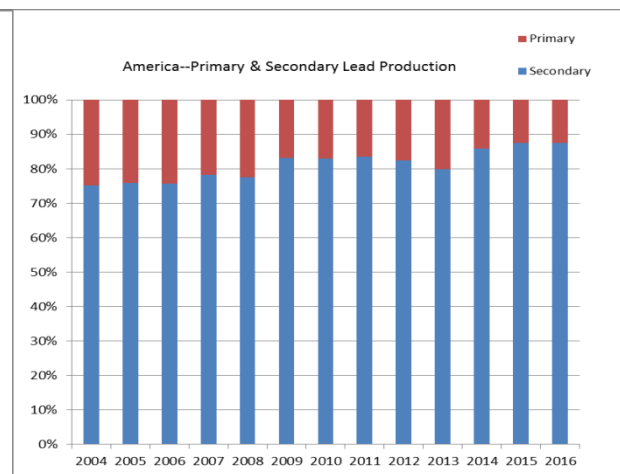
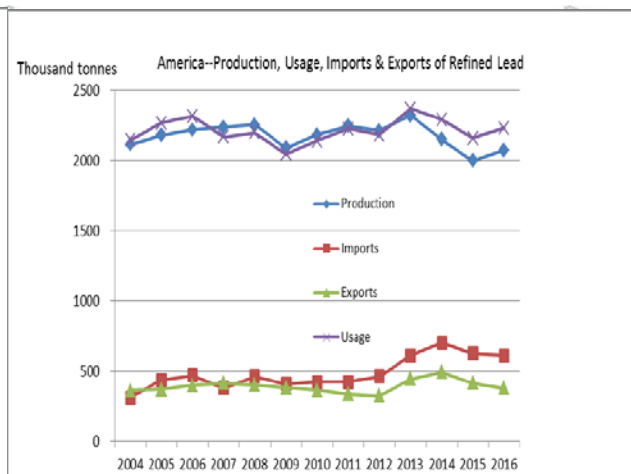
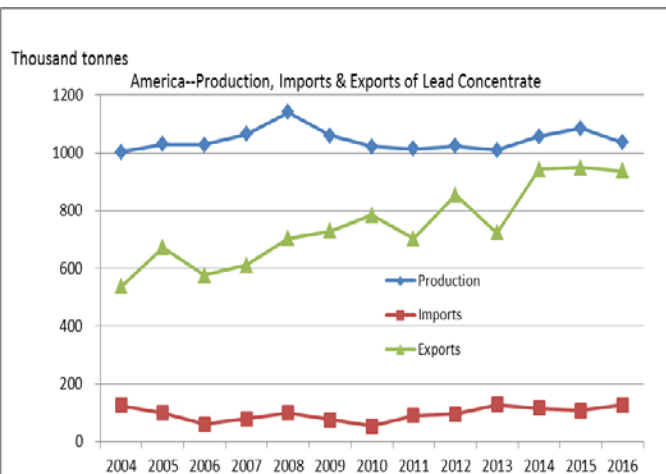
World Vehicle Production and L&Z Usage							
Year	2015	2014	2013	2012	2011	2010	2005
Car output	90,780,583	89,747,430	87,507,027	84,141,209	80,092,840	77,629,127	66,482,439
Lead usage	10,859	10,946	11,149	10,583	10,530	9,876	7,988
Zinc usage	13,462	13,735	13,160	12,378	12,727	12,610	10,567

- Zinc is still the major coating material for facade and frames
- Tech Advancement leads to thinner coating consuming less zinc
- Comparison with 05 Z usage shows a substitution by Aluminium, Carbon Fiber etc.
- Lead usage volume change since 2014 shows an apparant substitution by other batteries
- E-bike output in 2015 was between 34-36 million
- E-tricycle output in 2015 was estimated at 12 million

# Europe Lead&Zinc Industry

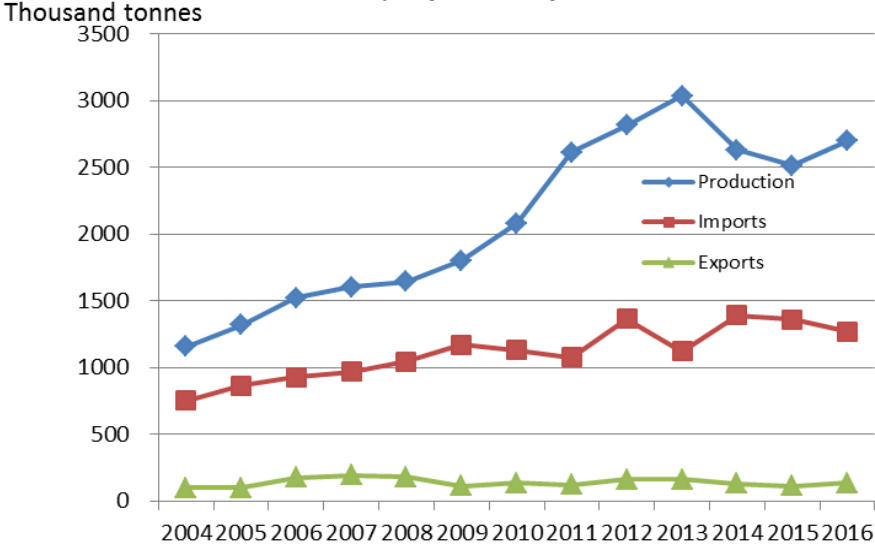


# America Lead&Zinc Industry

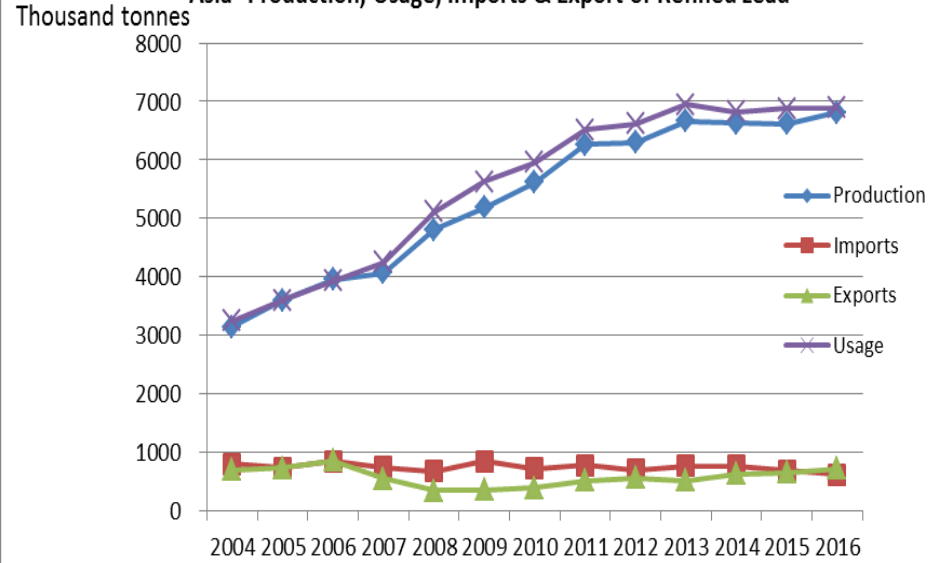


# Asia Lead Industry

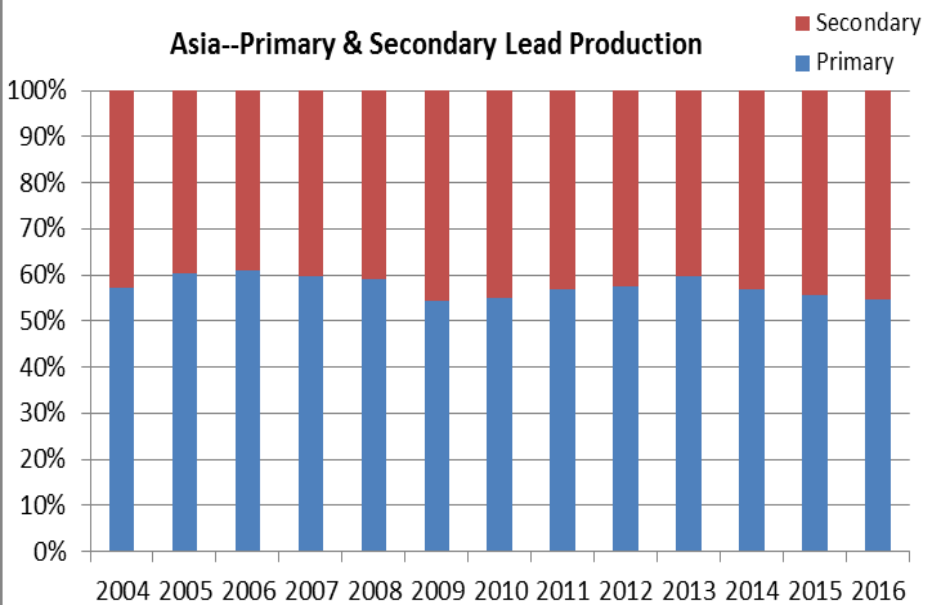
Asia--Production, Imports & Exports of Lead Concentrate



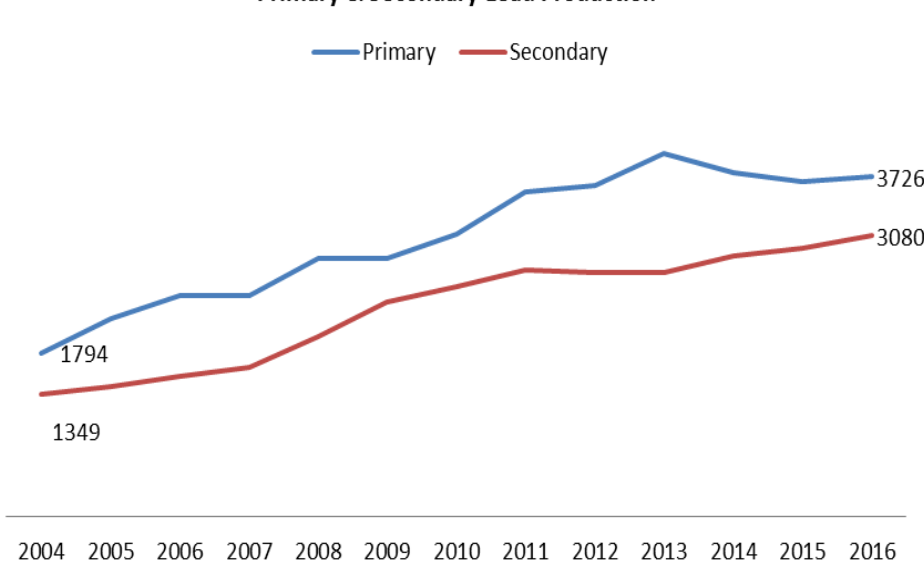
Asia--Production, Usage, Imports & Export of Refined Lead



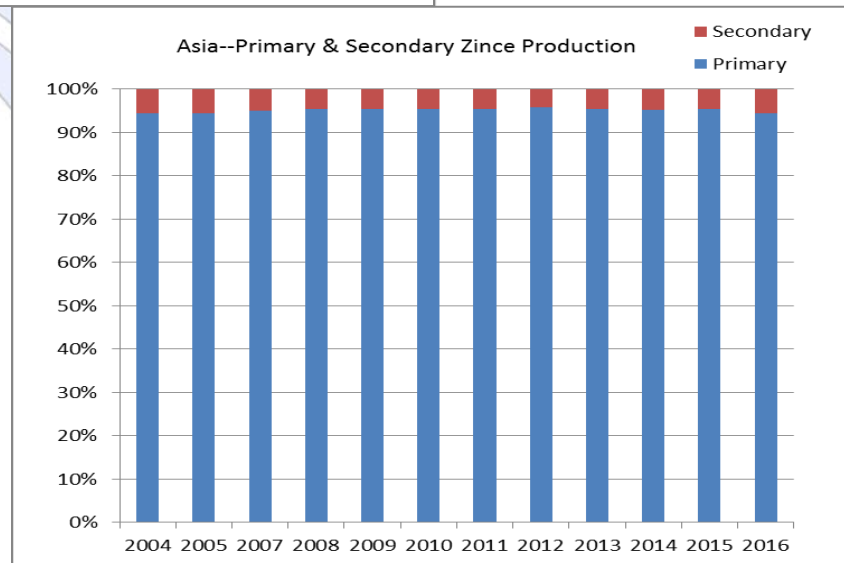
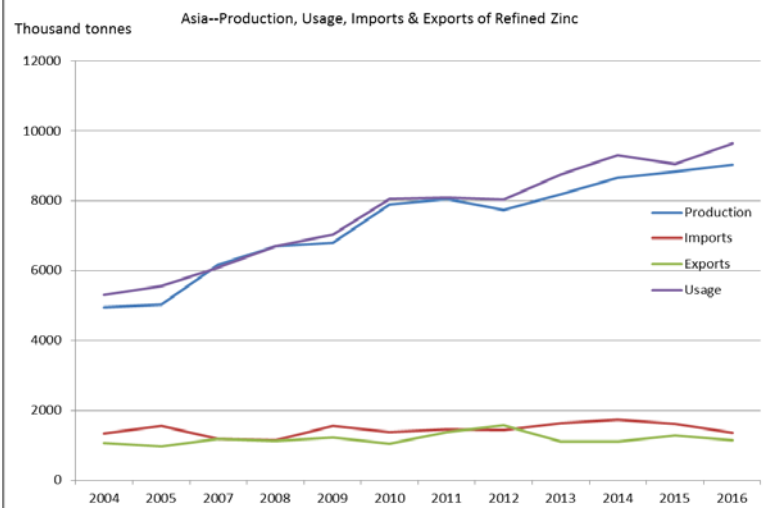
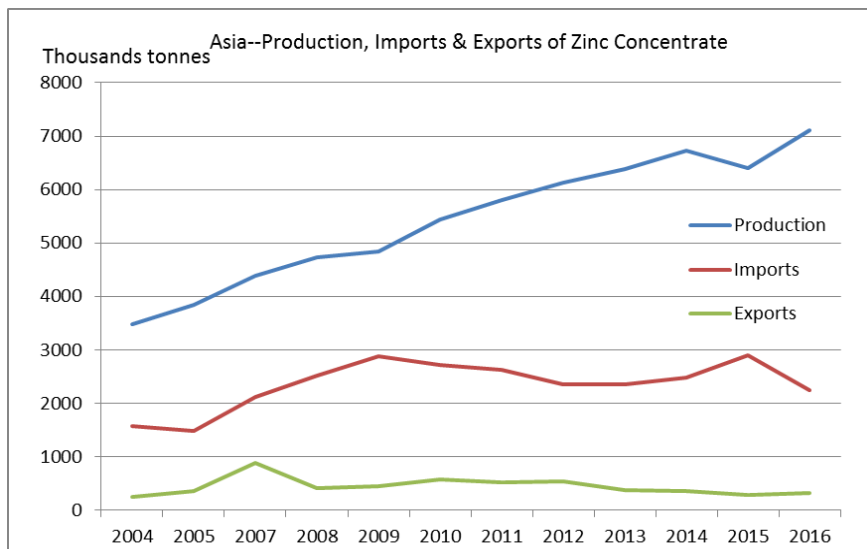
Asia--Primary & Secondary Lead Production



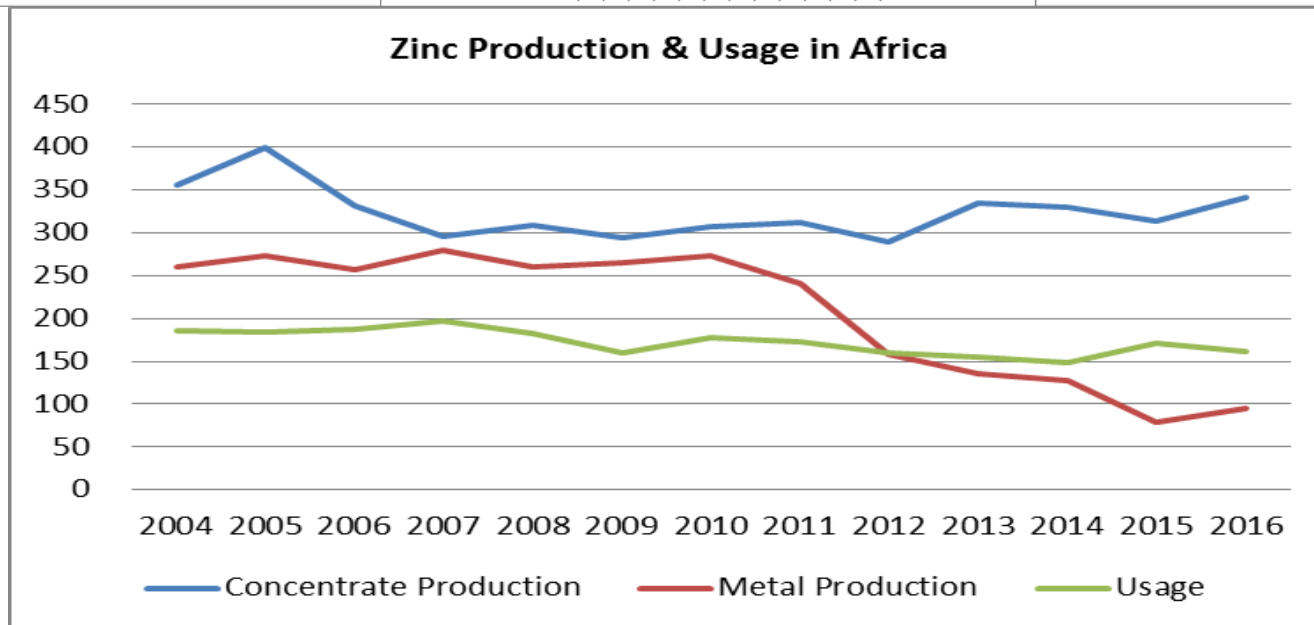
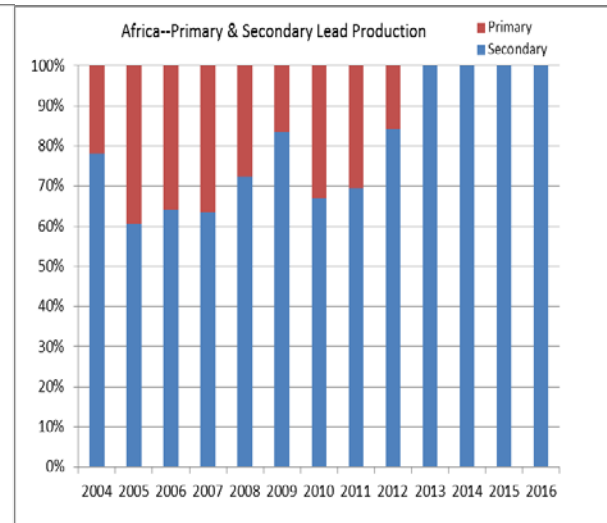
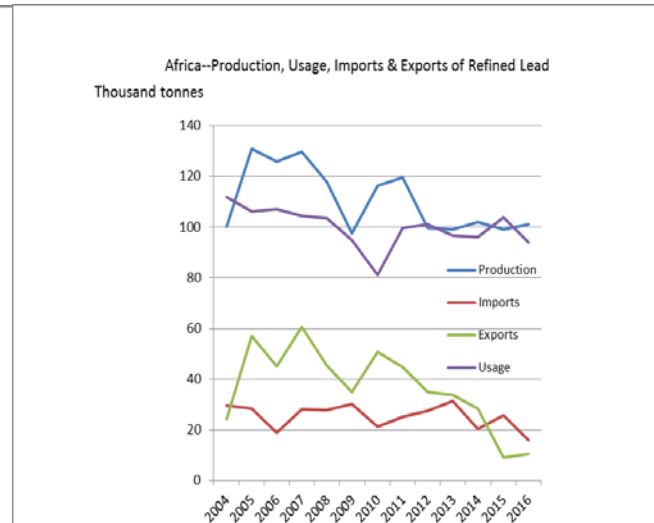
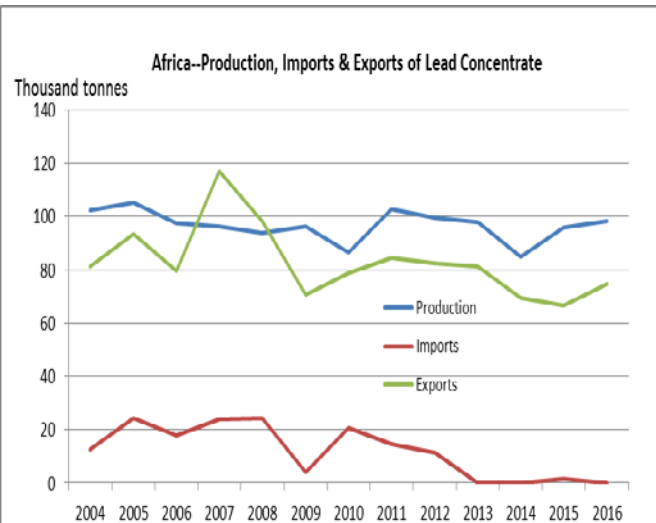
Primary & Secondary Lead Production



# Asia Zinc Industry



# Africa Lead&Zinc Industry

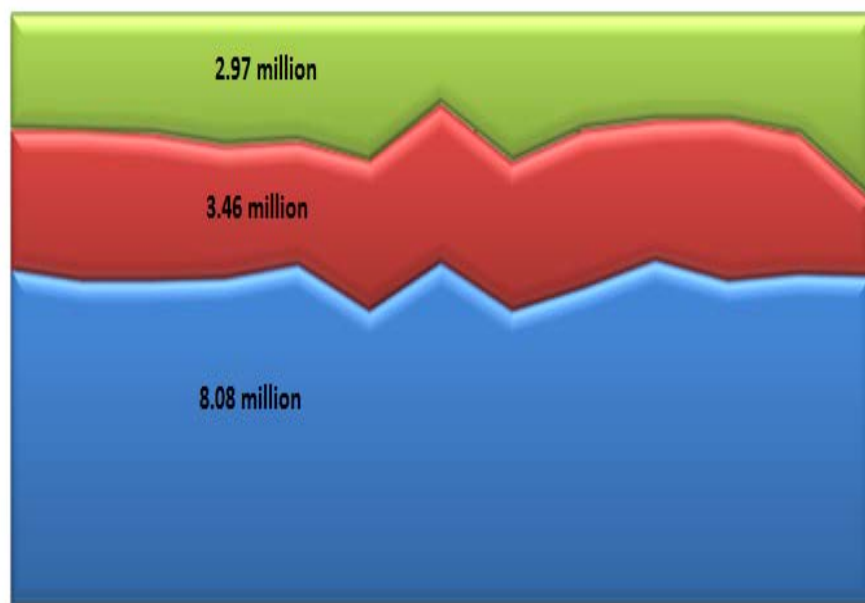




# Australia Lead&Zinc Industry

## Australian Lead Industry

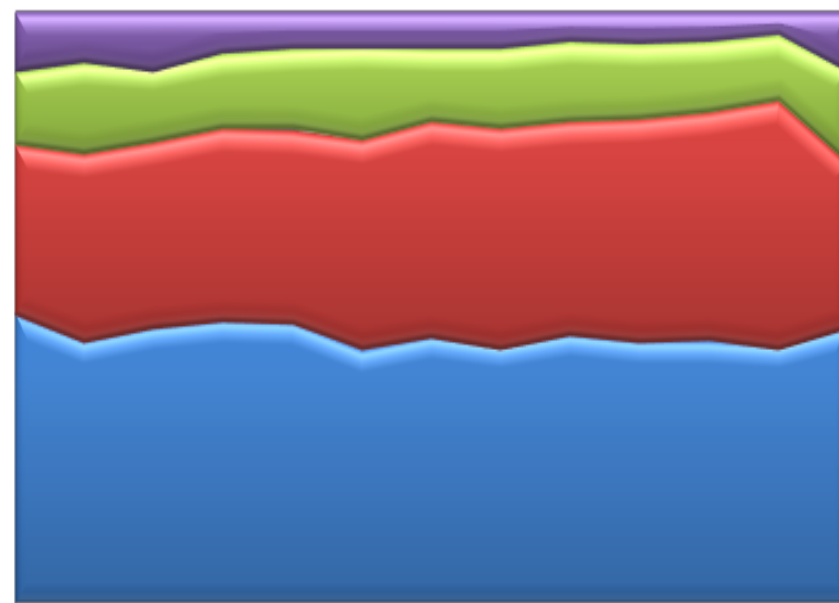
Concentrate Production Concentrate Export Metal Export



2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

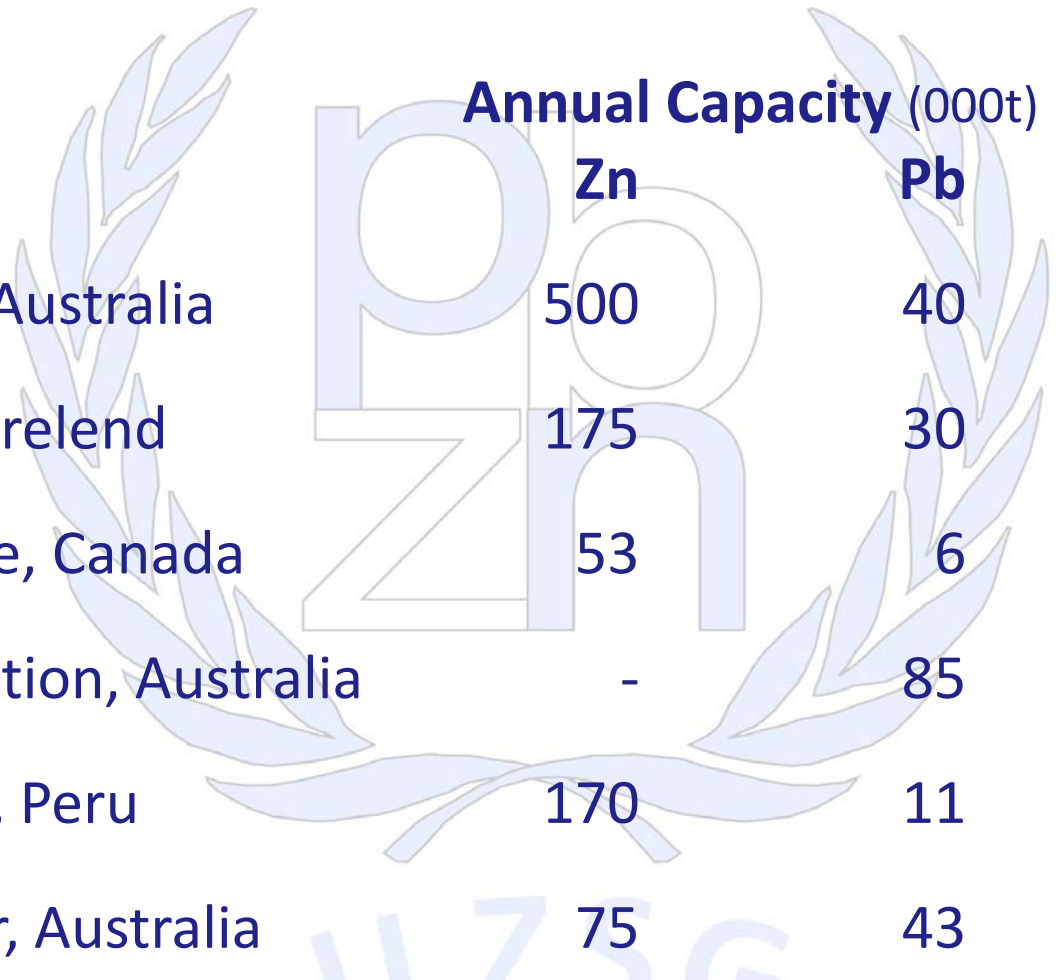
## Australian Zinc Industry

Concentrate Production Concentrate Export Metal Export Usage



2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

# Selected Recent Mine Closures



Mine	Annual Capacity (000t)		Year
	Zn	Pb	
Century, Australia	500	40	2015
Lisheen, Ireland	175	30	2015
Wolverine, Canada	53	6	2015
Paroo Station, Australia	-	85	2015
Isaycruz, Peru	170	11	2015
Black Star, Australia	75	43	2015

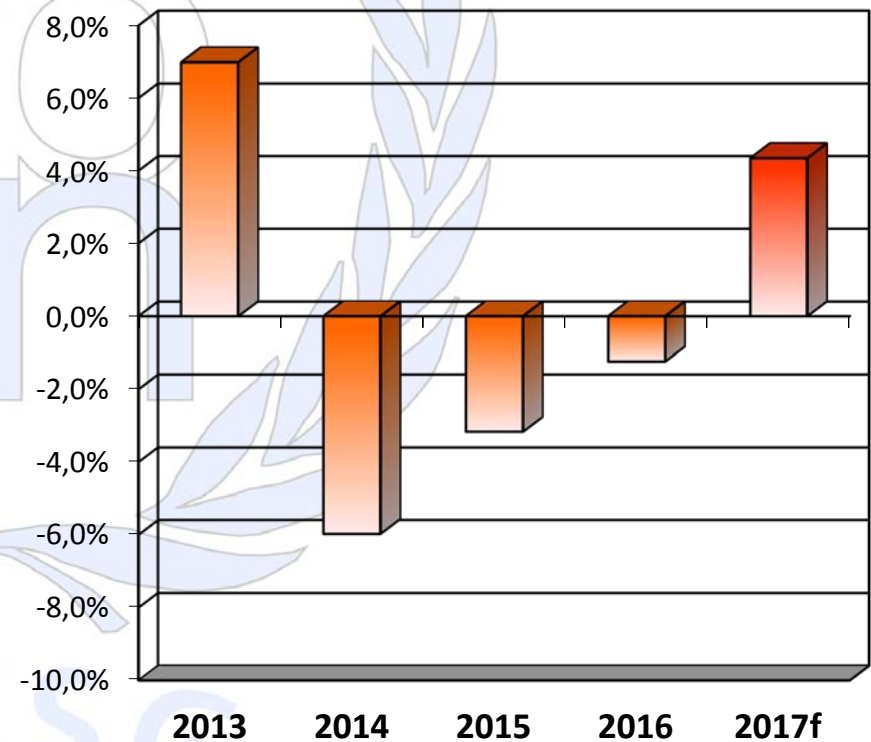
Source: New Mines and Smelters 2016/2017 Reports ,ILZSG

# World Lead Mine Supply Forecast

## ILZSG Forecast

- **2017**
  - **Global** **4.3%**
  - **China** **5.1%**
  - **Ex China** **3.6%**

## Global Annual Change

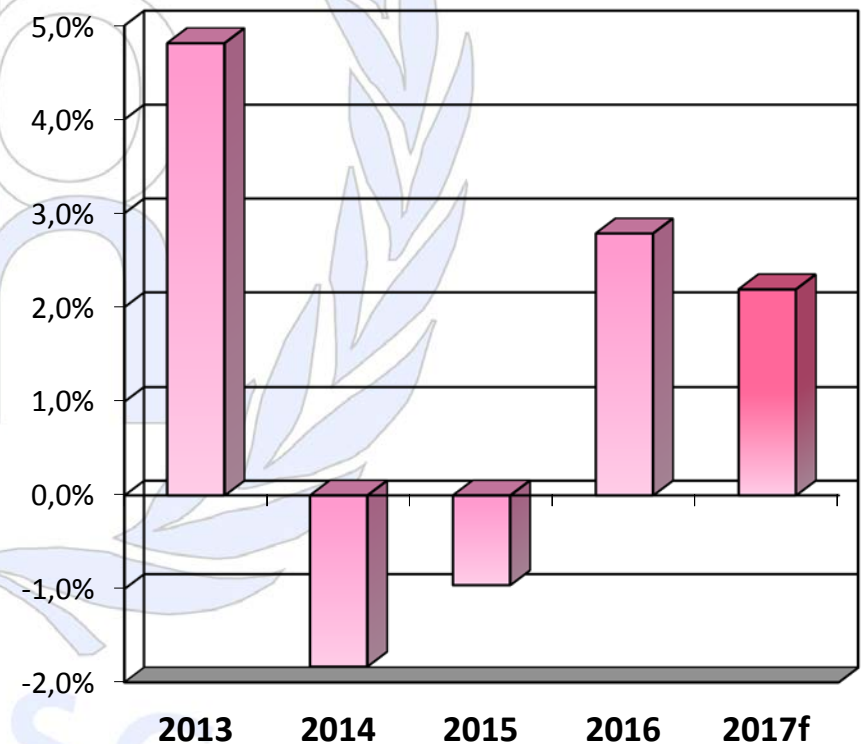


# World Lead Metal Supply Forecast


## ILZSG Forecast

- **2017**
  - **Global** **2.2%**
  - **China** **4.0%**
  - **Ex China** **0.9%**

## Global Annual Change



# World Lead Metal Supply Forecast 2017



The background of the slide features a large, light blue watermark of the ILZSG logo. It consists of a laurel wreath encircling the chemical symbols 'Pb' (lead) and 'Zn' (zinc), with the acronym 'ILZSG' printed in large letters below the wreath.

➤ China	+185kt	(4.0%)
➤ India	+48kt	(9.2%)
➤ Belgium	+13kt	(9.2%)
➤ United States	+13kt	(1.2%)

# Port Pirie, Australia



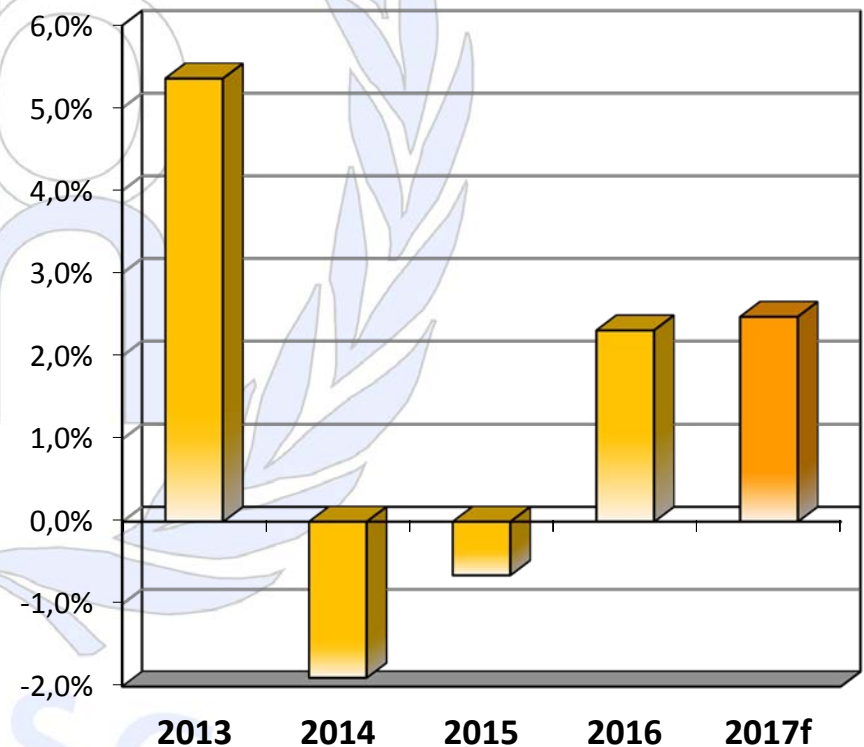
- Redevelopment into flexible metals recovery facility using Ausmelt technology
- Plant capacity remains at 235kt per year
- Benefits include lower operating costs and a reduction in metal and dust emissions

# World Lead Metal Demand Forecast

## ILZSG Forecast

- **2017**
  - **Global** **2.5%**
  - **China** **4.3%**
  - **Ex China** **1.1%**

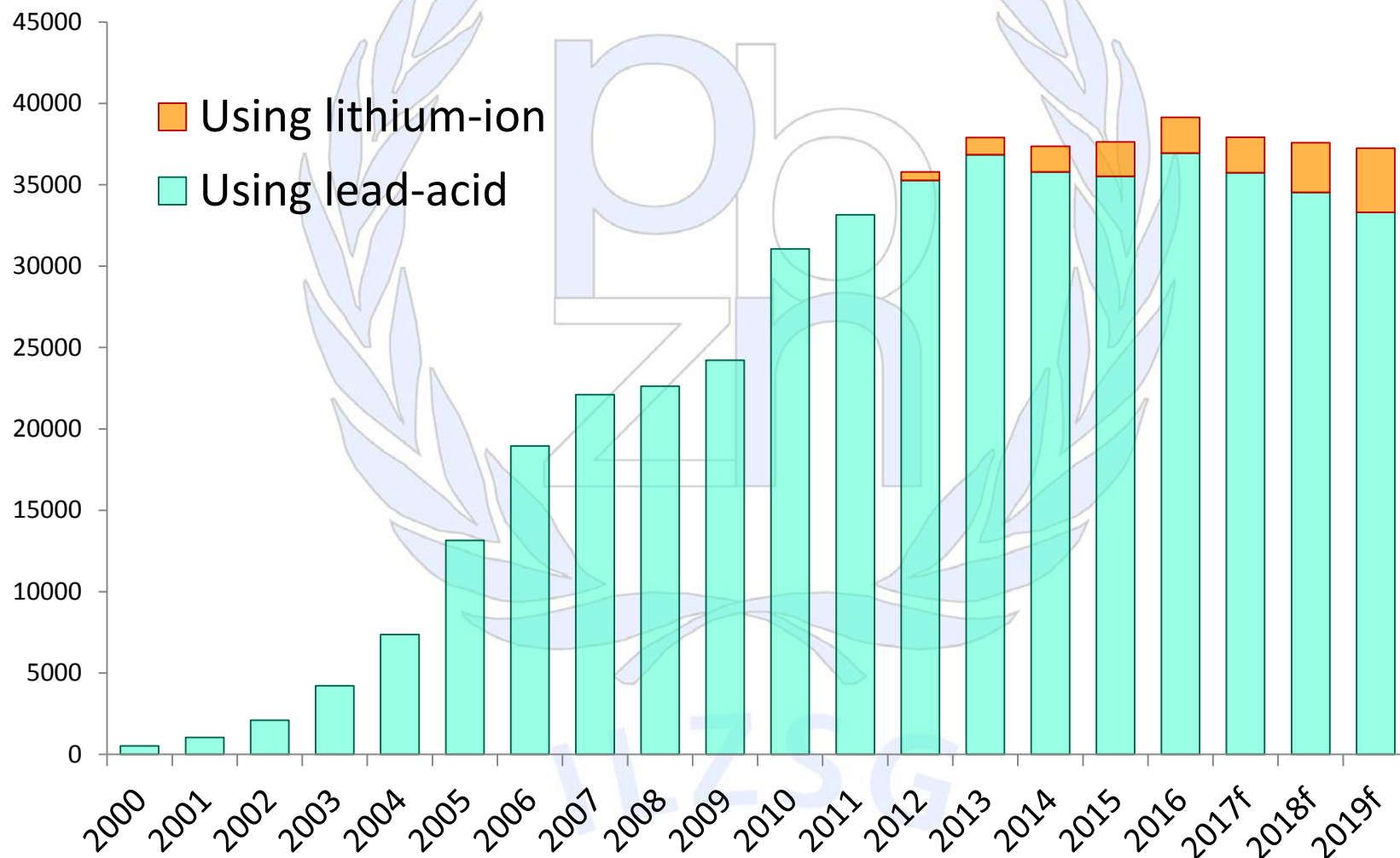
### Global Annual Change





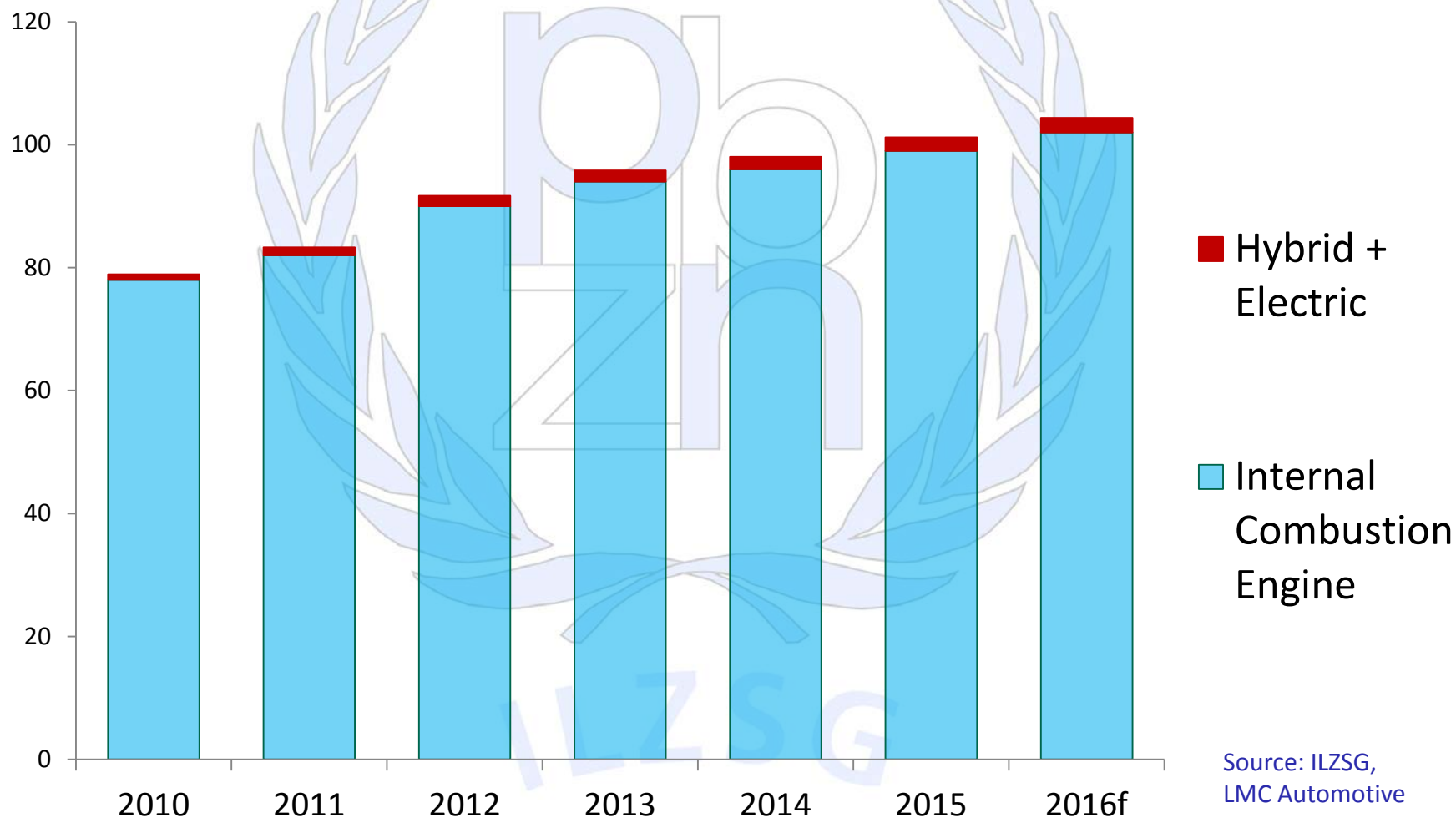
# Demand from E-bike Sector May Have Peaked

E-bike production, China '000 units



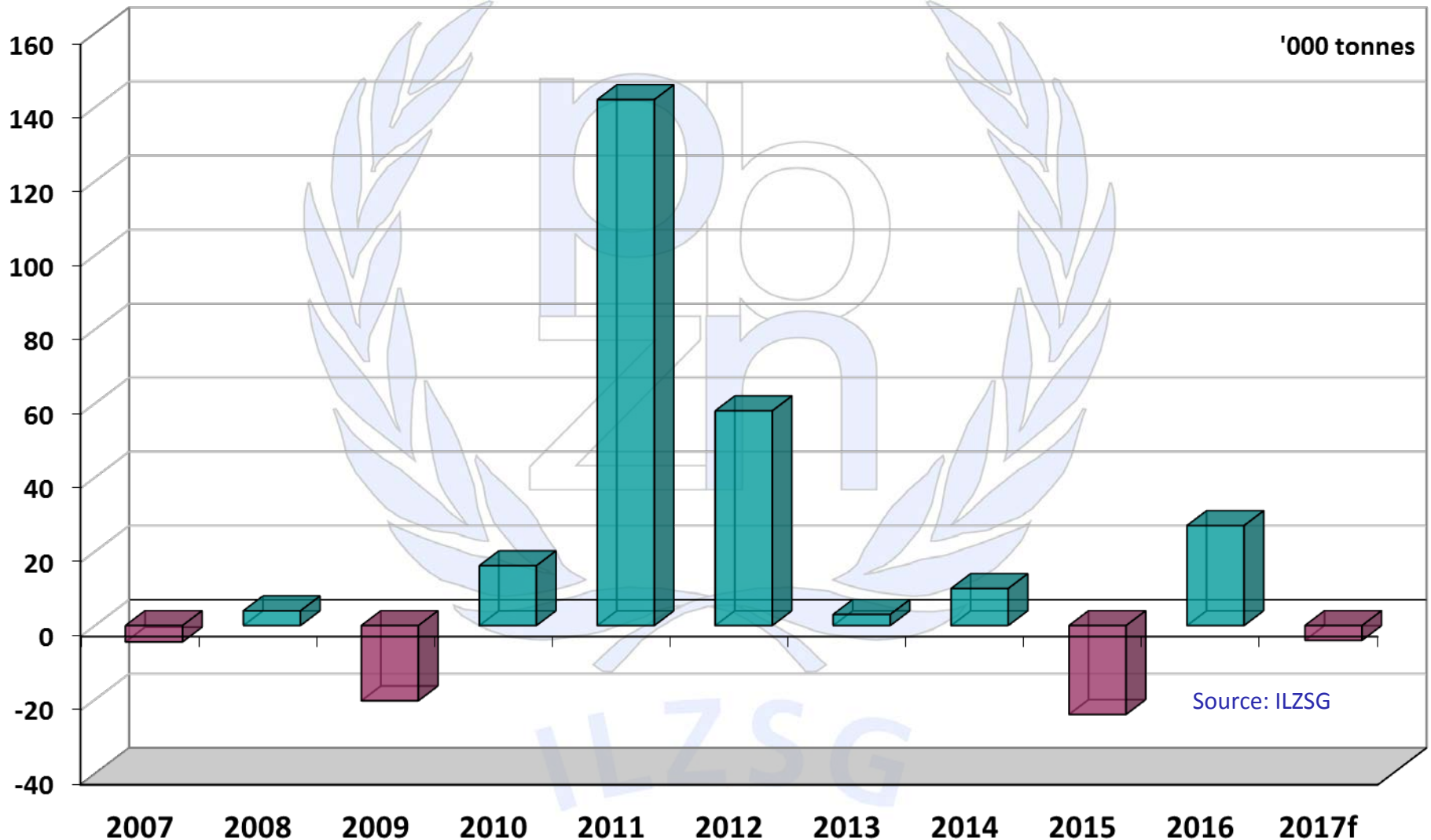
# Lead-Acid Retains Dominant Position in Auto Sector

Light Vehicle Production by Powertrain, World (million units)



Source: ILZSG,  
LMC Automotive

# World Refined Lead Metal Balance



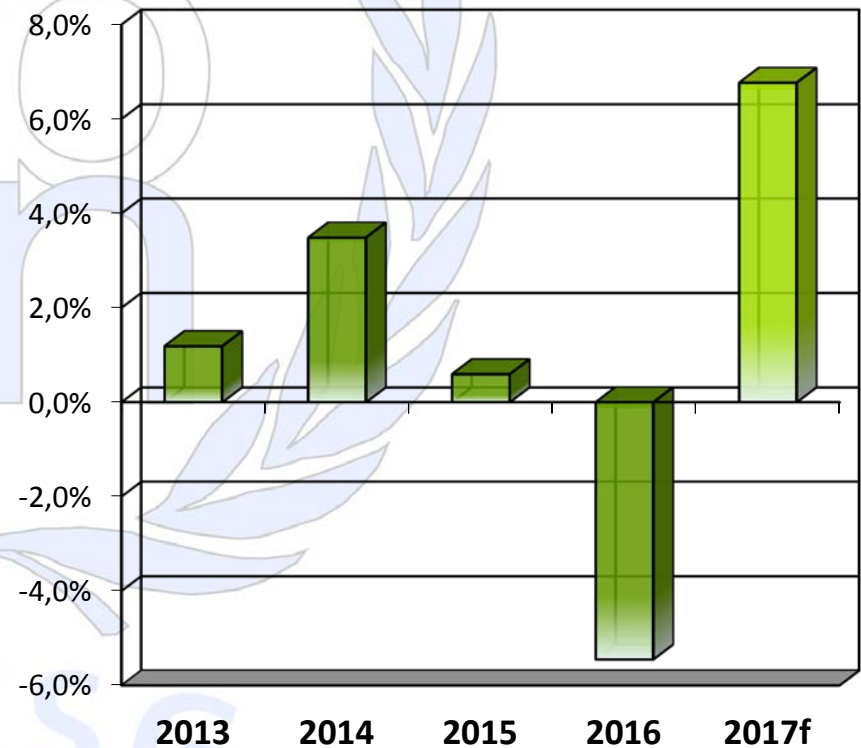
Source: ILZSG

# World Zinc Mine Supply Forecast

## ILZSG Forecast

- **2017**
  - **Global** **6.7%**
  - **China** **4.6%**
  - **Ex China** **8.1%**

## Global Annual Change



# Recovery in Indian Zinc Mine Output in 2017



# World Zinc Mine Supply Forecast 2017



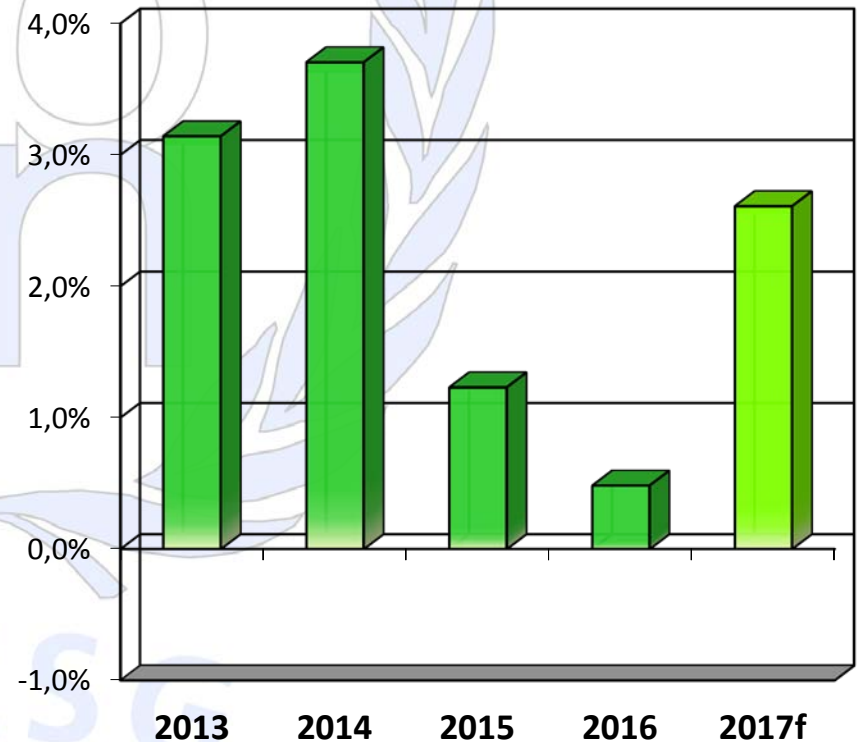
➤ Peru	+113kt	(8.5%)
➤ Finland	+26kt	(56.5%)
➤ China	+235kt	(4.6%)
➤ Australia	+219kt	(25.5%)
➤ Eritrea	+69kt	(328.5%)

# World Zinc Metal Supply Forecast

## ILZSG Forecast

- **2017**
  - **Global** **2.6%**
  - **China** **3.6%**
  - **Ex China** **1.8%**

## Global Annual Change





# World Zinc Metal Supply 2017

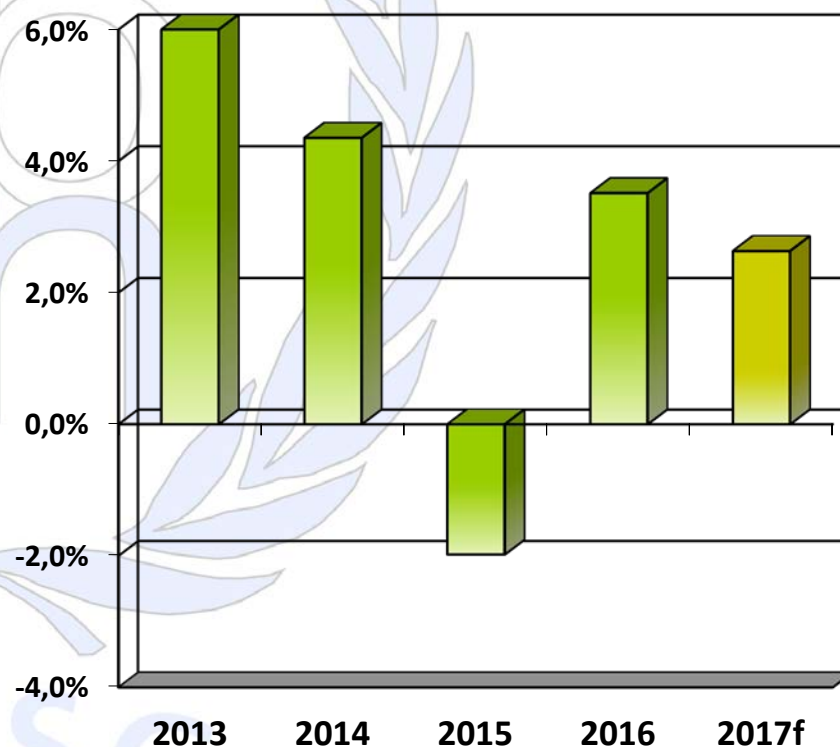
- Ongoing Strike at Valleyfield refinery will negatively impact Canadian output
- Floods have damaged water plant at Cajamarquilla in Peru
- Padaeng's Tak refinery in Thailand to close this year
- Lower output at Korea Zinc's operations in Republic of Korea

# World Zinc Metal Demand Forecast

## ILZSG Forecast

- **2017**
  - **Global** **2.6%**
  - **China** **2.3%**
  - **Ex China** **2.9%**

### Global Annual Change



Source: ILZSG

# Positive Chinese Indicators for Start of 2017

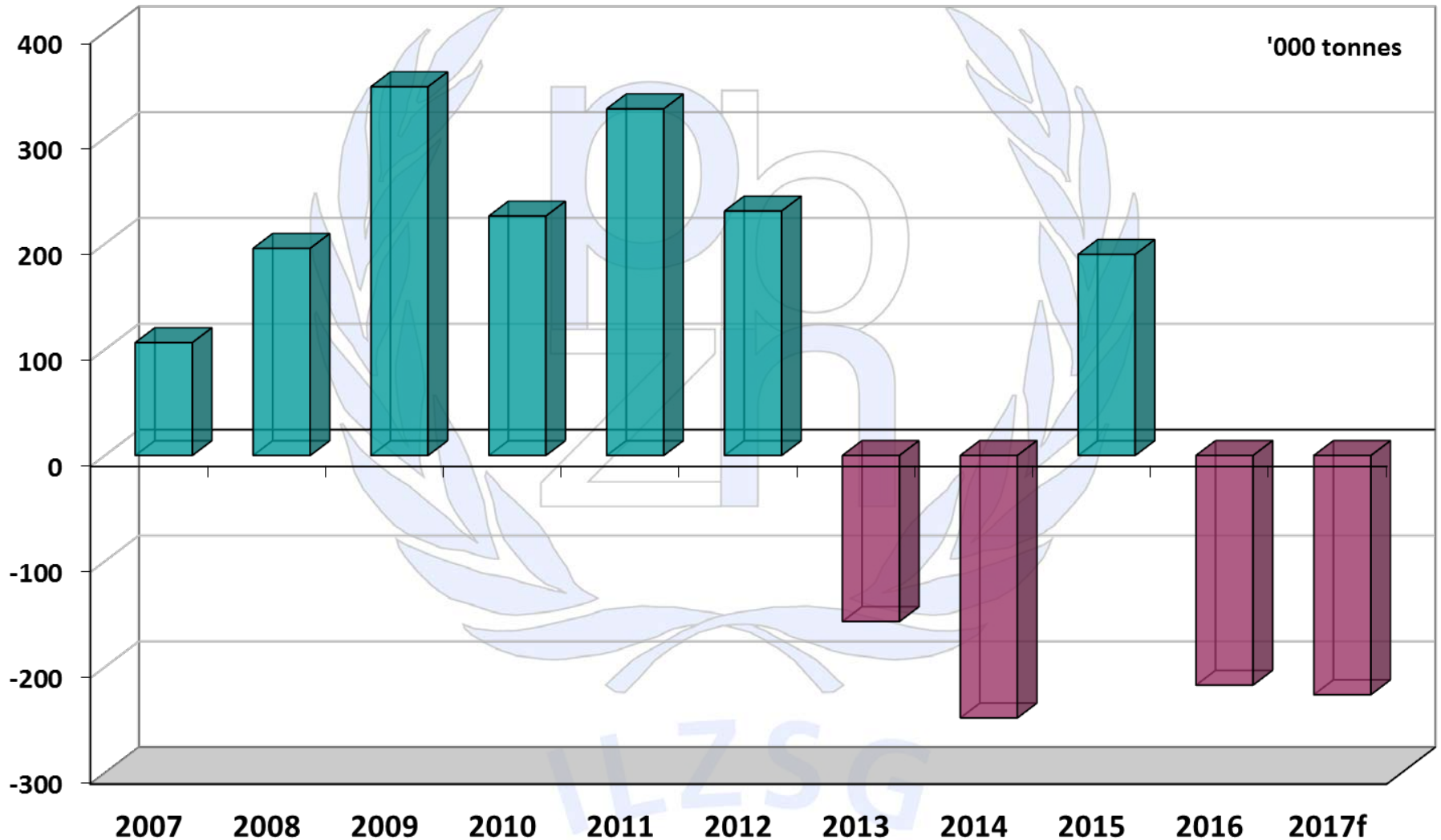
- Property Sales ↑ 15%
- Property Investment ↑ 9.4%
- Air Conditioner output ↑ 16.3%
- Refrigerator output ↑ 18.6%
- Washing Machine output ↑ 4.5%
- Power Consumption ↑ 7.9%
- Automotive sales ↑ 5.1%
- GDP ↑ 6.9%

# China Selected Infrastructure Targets for 2017



➤ New highway	5000km
➤ Rural road upgrades	200000km
➤ High quality river channel	500km
➤ New public mailing centers	20000 units
➤ New railways	2100km
➤ Railtrack upgrades	2500km
➤ Electric railway upgrades	4000km
➤ New city transits	1581km
➤ New stations for city transits	826 units
➤ New airports	10 units
➤ Airports under construction	34 units

# Zinc Metal World Balance



# THANK YOU!

**Mr. Meng Jianbin**

**孟建斌**

**Director of Economics and Environment**

**经济和环境总监**

**International Lead And Zinc Study Group**

**国际铅锌研究组**

**International Nickel Study Group**

**国际镍研究组**

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