

## Indium: Global industry markets & outlook

### ARE YOU FACING BIG DECISIONS INVOLVING INDIUM?

The market for indium is global, and local events can make waves across the world. If you're involved with indium in any way, you know that everything's important – both the small details and the big picture. A complete perspective is essential, whether you're preparing a company strategy, planning exploration, bringing new products to market, buying, selling or investing.

### MAKE THE RIGHT CHOICE

Whatever your challenge, this report gives you deep insights to help you make well-informed recommendations or decisions. It's a detailed account of:

- World production and consumption
- The operations of the major producers
- End-use market applications
- Price trends
- International trade patterns
- Forecasts for supply, demand and prices

### IS THIS REPORT FOR YOU?

Our clients include anyone with an interest in the evolving indium market, anywhere in the world. Readers of past reports have come from a wide range of relevant industries – from extraction to end-use, from mines to factories to banks, from existing players to new entrants. And they range from analysts and researchers to operational managers and chief executives.

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### WHAT READERS SAY

“When we review project or company opportunities, the most important area of review is the marketplace. We have always deferred to Roskill reports and their services for the prime benchmark reference point.”

Michael Kiernan,  
Consolidated Minerals Limited,  
Australia

“Roskill has been a key reference to our industry for a long time...the best reference about the market and industries.”

Bayram AnKarali  
Etimine SA, Turkey

“One of the few sources available for critical, detailed and reliable information on the industrial minerals markets.”

Emilio Lobato,  
Technical Marketing Manager,  
Magnesita Refrataria SA, Brazil

### GET ACCURATE ANSWERS FROM INDEPENDENT EXPERTS

- What proportion of indium supply is derived from secondary sources?
- How have Chinese export controls affected world supply of primary indium?
- Which companies produce by-product indium from their refining operations?
- What percentage of consumption in 2009 was accounted for by ITO in thin film applications?
- What are the main markets for indium compound semiconductors?
- Will prices for indium return to the record levels seen in 2005?

### WHY READERS CHOOSE ROSKILL

**We're approachable.** Our sources include a large network of industry contacts: the key players talk to us because we're approachable and because they know us well.

**We're independent.** The information and insights in “Indium: Global industry markets & outlook” are completely independent. We're privately-owned and not beholden to anyone. Our expert researchers make a thorough and objective analysis of all available data, from sources across the globe.

**We're expert.** You want facts from people who know what they're talking about. Roskill's experts have been analysing the Indium industry for over 30 years and this is our 9th report on this sector.

### **Approachable. Independent. Expert.**

That's why no other report can match the accuracy, depth and expertise of “Indium: Global industry markets & outlook”.

### WHAT ELSE CAN WE DO FOR YOU?

We also offer expert bespoke consultancy to help you tackle specific complex challenges, such as feasibility studies, market assessments or due diligence reports.

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## What's included?

Contents: 141 pages, 51 tables, 8 figures plus trade appendix

## Overview

Consumption of indium grew at an ever-increasing rate from 1990 to 2005 as new applications for indium, notably its use in indium tin oxide (ITO) stimulated demand. Growth slowed a little from 2005 to 2008 and the industry was badly hit by the global downturn in 2009. Market fundamentals began to improve in early 2010.

Indium is usually derived as a minor by-product of zinc smelting and refining. Primary production peaked at just over 600t in 2007, falling back to around 520t in 2009. China has emerged as the world's leading producer of indium as output has increased from 73t in 1999 to a peak of 320t in 2006. In 2009, China accounted for just over half of total world

output. Growth in demand has prompted an increase in recycling; indium is most commonly recovered from ITO sputtering targets. The Japanese industry has the capacity to recover around 300tpy from waste generated in the manufacture of electronic components and display screens.

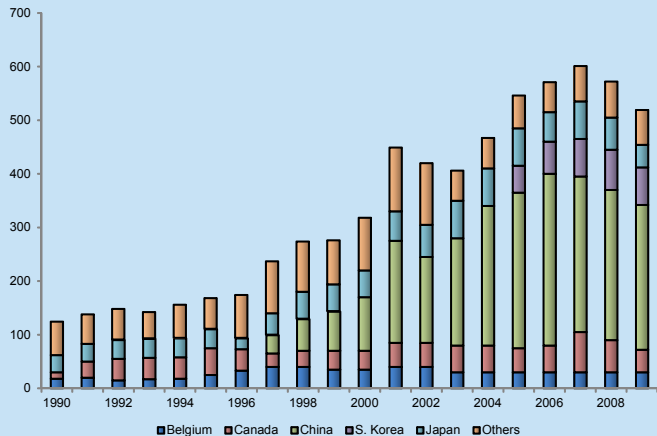
The main applications for indium are in indium tin oxide, low melting point alloys and compound semiconductors. The use of ITOs in transparent electrodes for LCD screens has been the main driver for the growth over the last decade as demand grew for flat panel monitors and televisions, as well as screens for cell phones, tablet computers and other portable electronic devices. Non-

consumer demand from digital signage displays is also growing. Indium prices surged in 2010, buoyed by purchasers from Japanese producers of LCDs, after a period of destocking, with prices reaching a high of US\$630/kg in May of that year.

Existing primary capacity is in excess of current production so output could meet the forecast growth in demand in the short term. However, if total indium demand grows at the forecast rate of 15%py to 2015, production could struggle to keep pace. In this scenario prices for indium could reach US\$850/kg by 2013.

This report gives you a full analysis of the key trends, issues and developments in the market, a clear insight into all areas of the industry and an authoritative analysis of its prospects.

World primary Indium production



1. SUMMARY
2. INDIUM; PROPERTIES, OCCURENCES AND RESERVES
3. INDIUM RECOVERY
4. PRODUCTION OF INDIUM
5. NOTES ON INDIUM PRODUCING COUNTRIES AND COMPANIES
6. INTERNATIONAL TRADE IN INDIUM
7. CONSUMPTION OF INDIUM
8. INDIUM SUPPLY / DEMAND BALANCE
9. END USES CONSUMING INDIUM-TIN OXIDE
10. END-USES FOR OTHER INDIUM COMPOUNDS
11. END-USES CONSUMING INDIUM METAL AND ALLOYS
12. INDIUM PRICES

Full table of contents @ [www.roskill.com/indium](http://www.roskill.com/indium)

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## Question?

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