

Perspectives on the market outlook for packaging metals

Aluminium, steel and tin

May 31 2007



Impress 10 year anniversary

Stresa, Lake Maggiore, May 31 – June 1 2007

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Hatch Consulting

Contents

- Introduction
- Setting the scene
- The market outlook
- Summary and conclusions
- Appendix: Hatch and Hatch Consulting

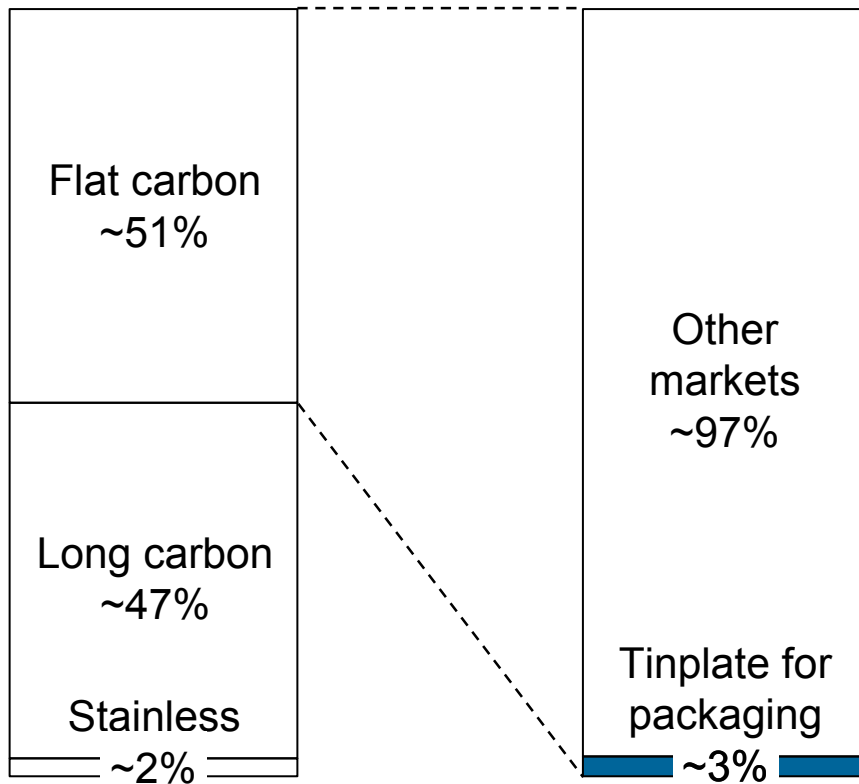
Contents

- Introduction
- Setting the scene
- The market outlook
- Summary and conclusions
- Appendix: Hatch and Hatch Consulting

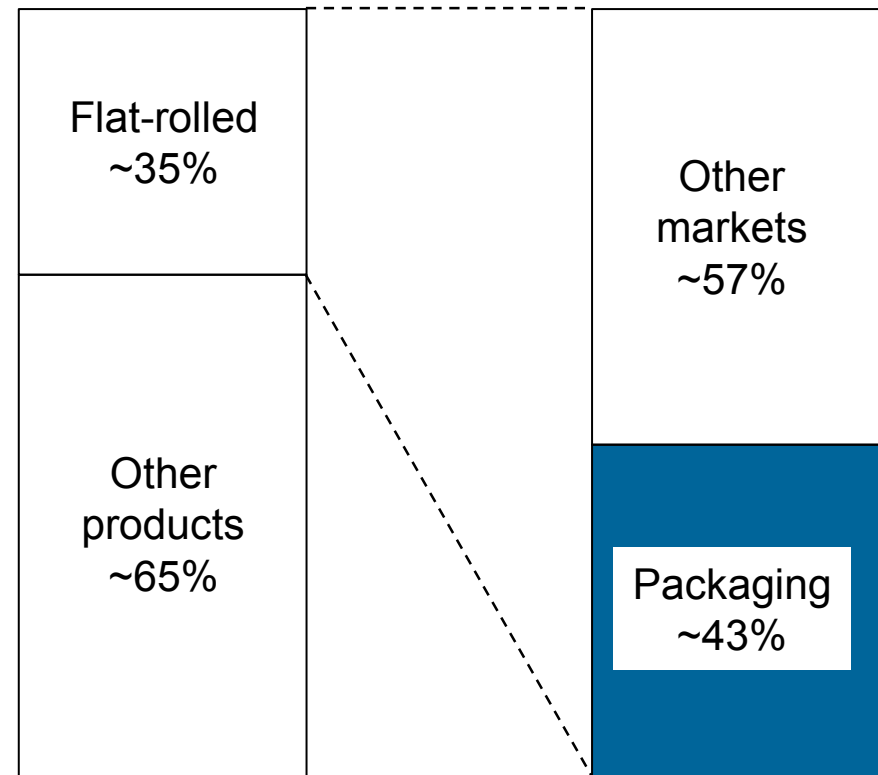
INTRODUCTION

The purpose of this presentation is to share some of our perspectives on the market outlook for packaging metals

**World finished steel consumption
~1,050Mt in 2005**



**World aluminium consumption
~45Mt in 2005**



Data: Hatch Beddows, AA, Alcan, EIU, IISI, ISSF. Note: 2005 data. Data are based on apparent consumption. Aluminium includes secondary metal

Themes and issues

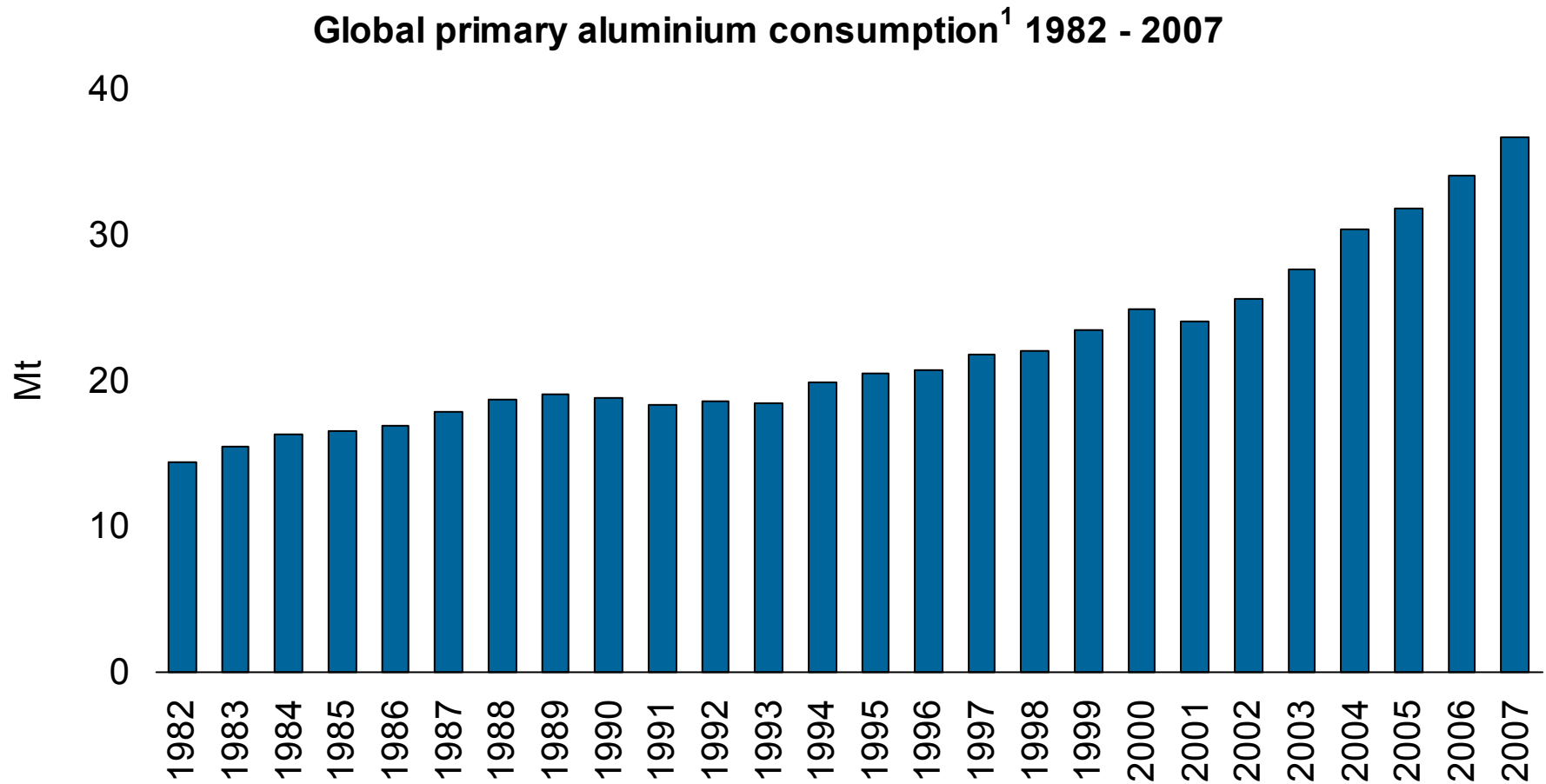
- Strong demand, high and rising prices
- Scope for further substantial and sustained long-term growth in metals consumption
- Supply-side challenge: investment in new production and capacity needed
- In the past, the principal challenge was to producers in selling output profitably
- In future, the principal challenge may be to consumers in sourcing materials competitively
- Supply-side risk: too many producers chase the same opportunities and make too much

Contents

- Introduction
- Setting the scene
- The market outlook
- Summary and conclusions
- Appendix: Hatch and Hatch Consulting

SETTING THE SCENE

The rate of growth in primary aluminium demand has accelerated over the last decade

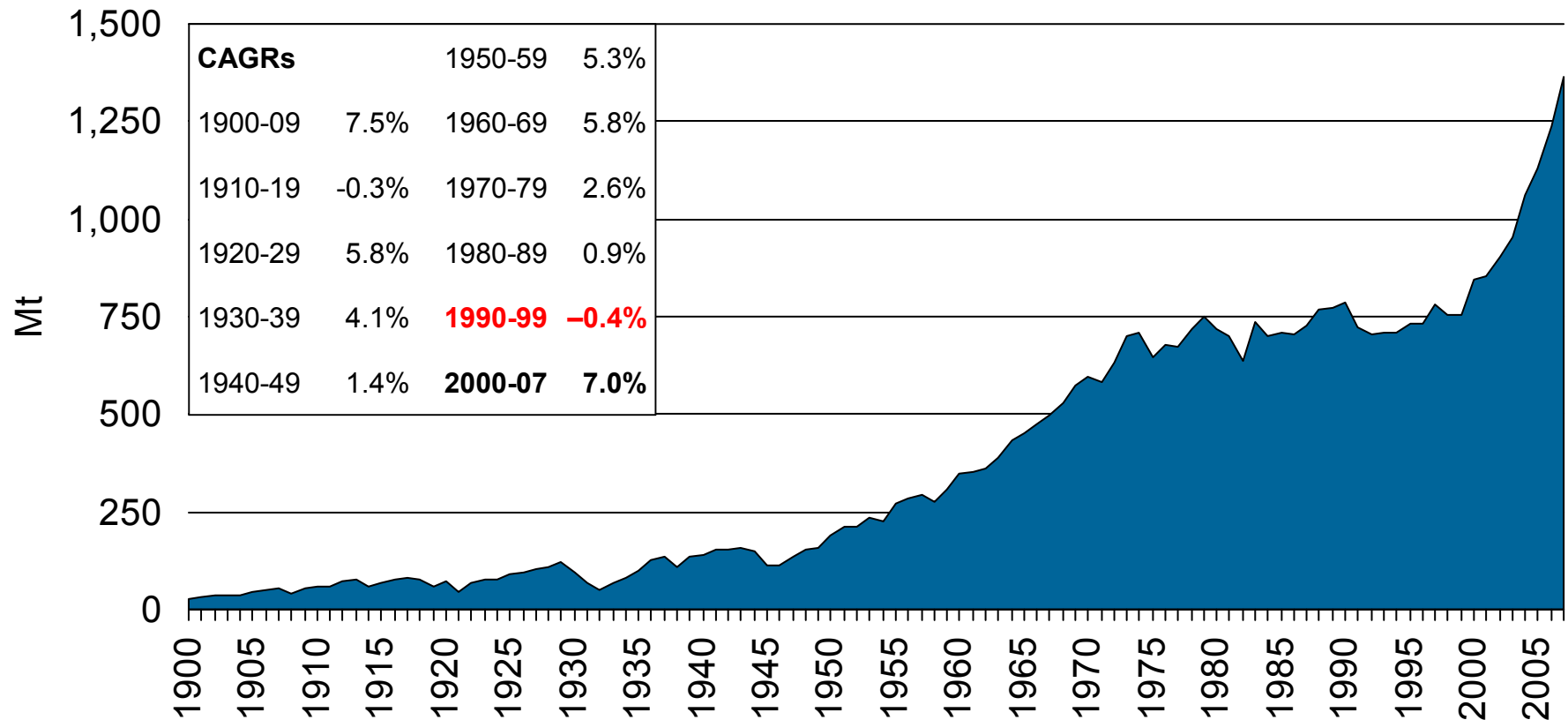


Data: Hatch Beddows, AA, WBMS. Note: 2007 data estimated based on y-o-y change from Jan. to Apr

SETTING THE SCENE

Strong growth in steel demand has attracted much attention in recent years. It is not unprecedented but it stands in stark contrast to the negative 1990s

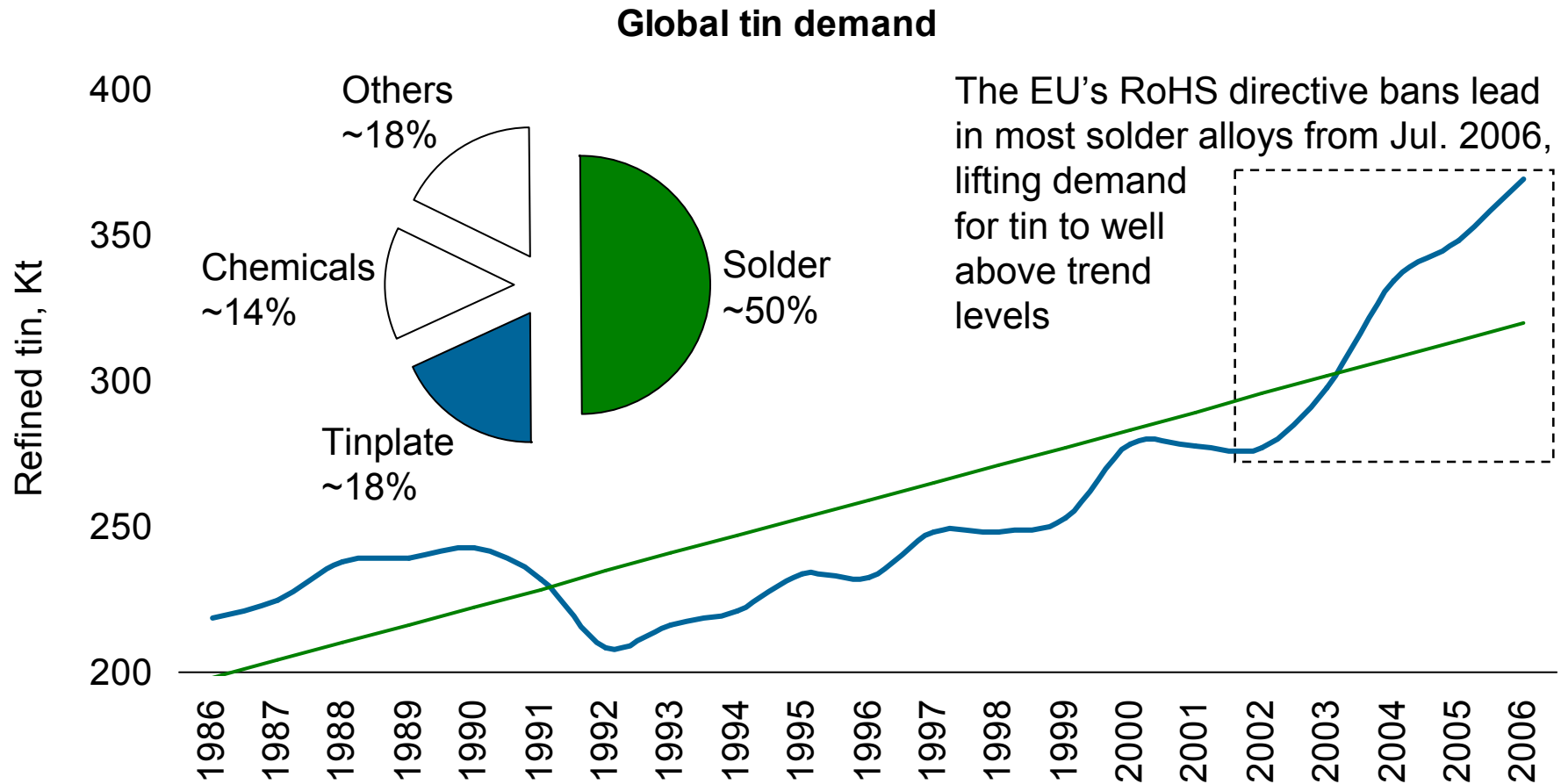
Global steel demand¹ 1900 - 2007



Data: Hatch Beddows, IISI. Note: 1. Measured by crude steel production. 2007 data estimated based on y-o-y change in output from Jan. to Apr.

SETTING THE SCENE

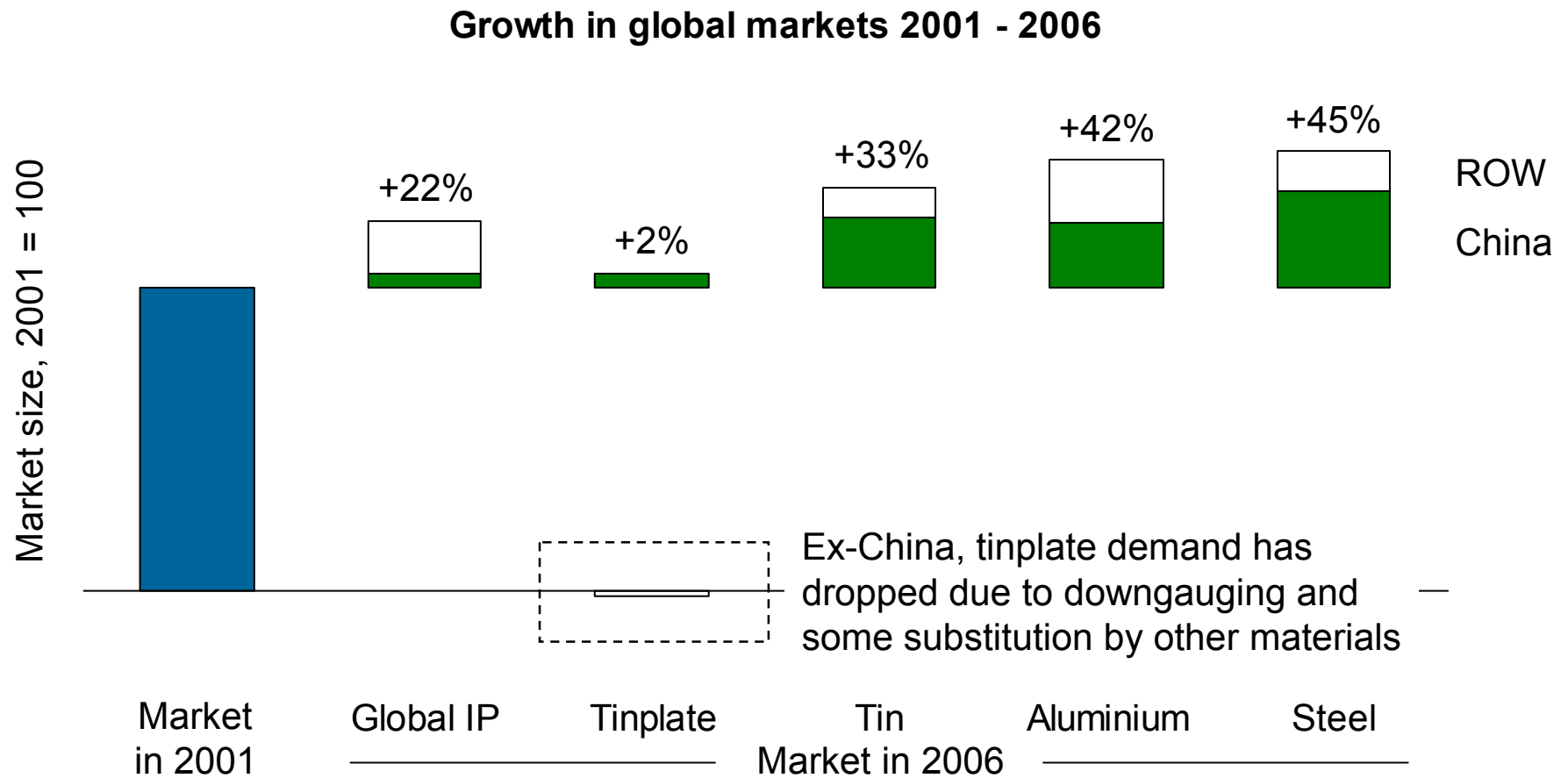
There has been a step change in global tin demand in the last three years with the legislative-led switch to lead-free solder alloys in manufacturing



Data: Hatch Beddows, ITRI, WBMS. Note: Trendline is for 20 years from 1986 2006. End use data are for 2005

SETTING THE SCENE

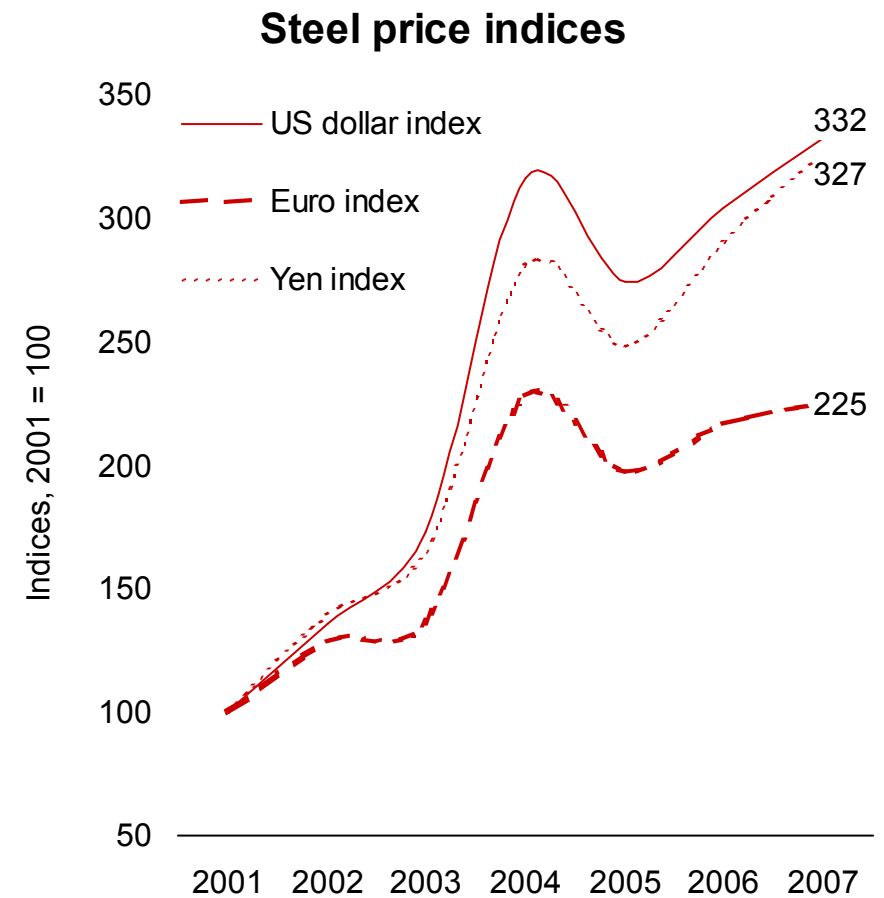
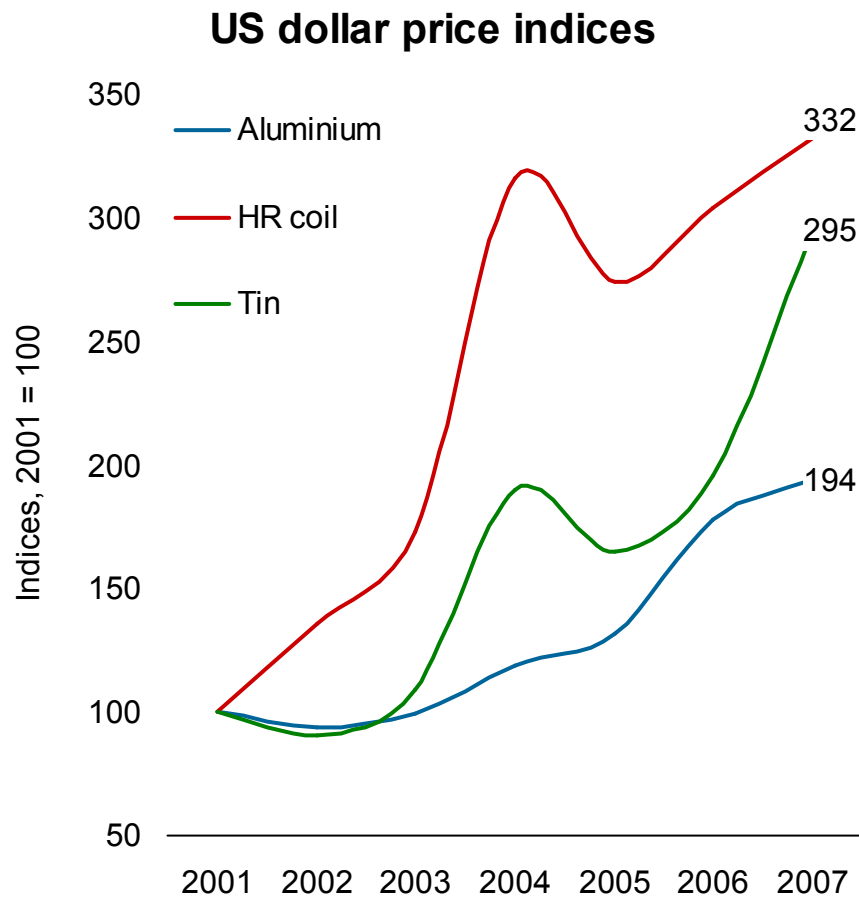
Metals demand has recently been rising faster than industrial production, driven by developments in China



Data: Hatch Beddows, AA, IISI, OEF, WBMS. Note: Metals data based on apparent consumption of refined tin, primary aluminium and crude steel

SETTING THE SCENE

Responding to strong demand growth, metals prices have risen to historically high levels ... but don't forget the dollar

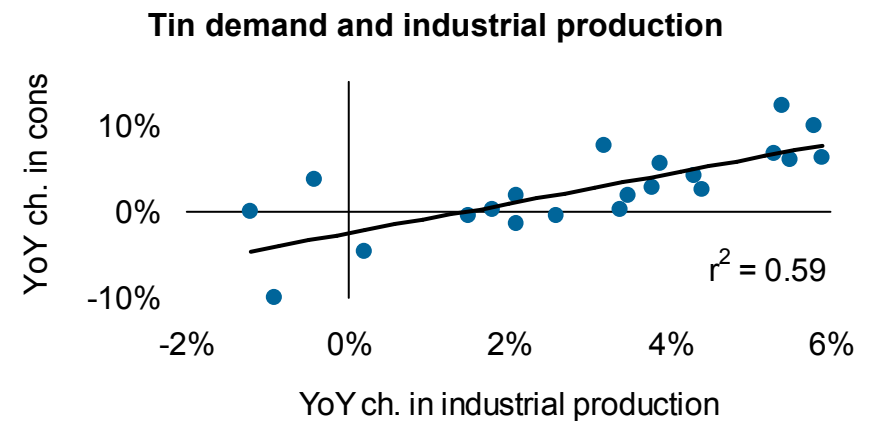
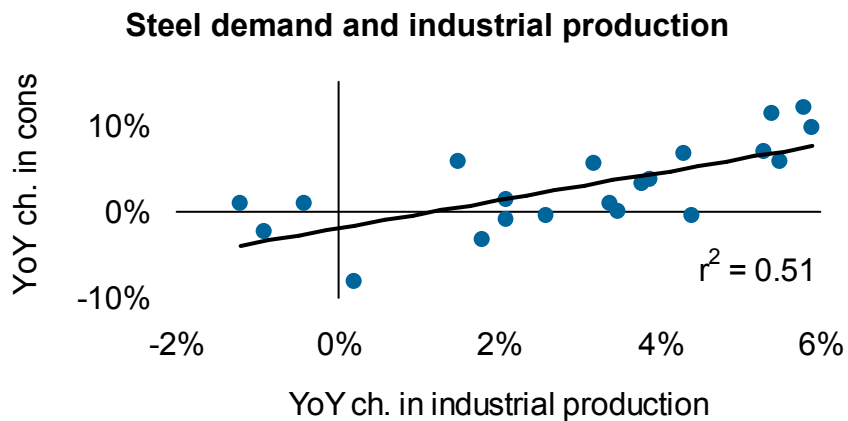
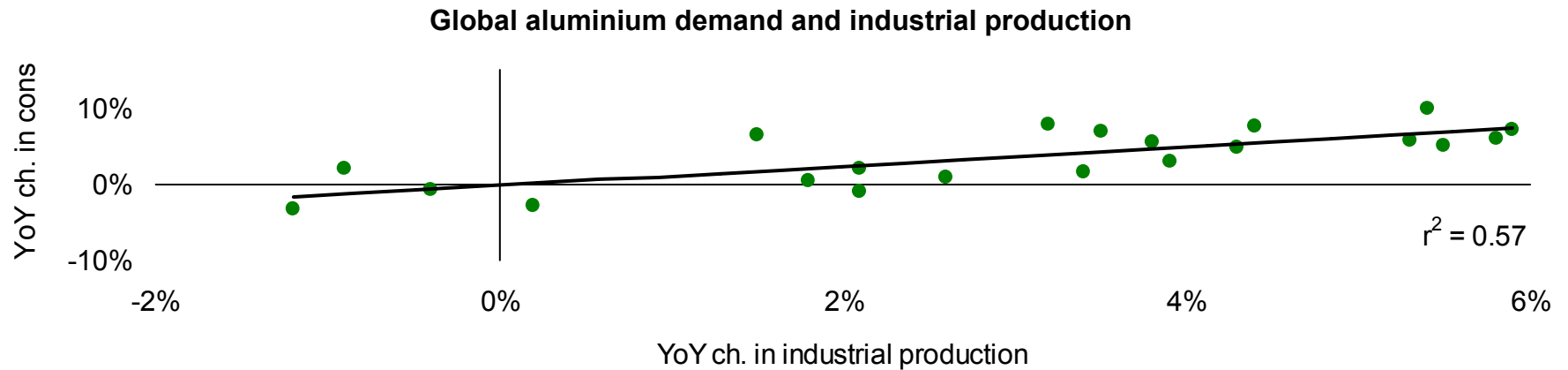


Data: Hatch Beddows, LME, MB, www.oanda.com. Note: Aluminium and tin – LME cash settlement prices. HR coil – CIS exports, fob Black Sea

Contents

- Introduction
- Setting the scene
- The market outlook
- Summary and conclusions
- Appendix: Hatch and Hatch Consulting

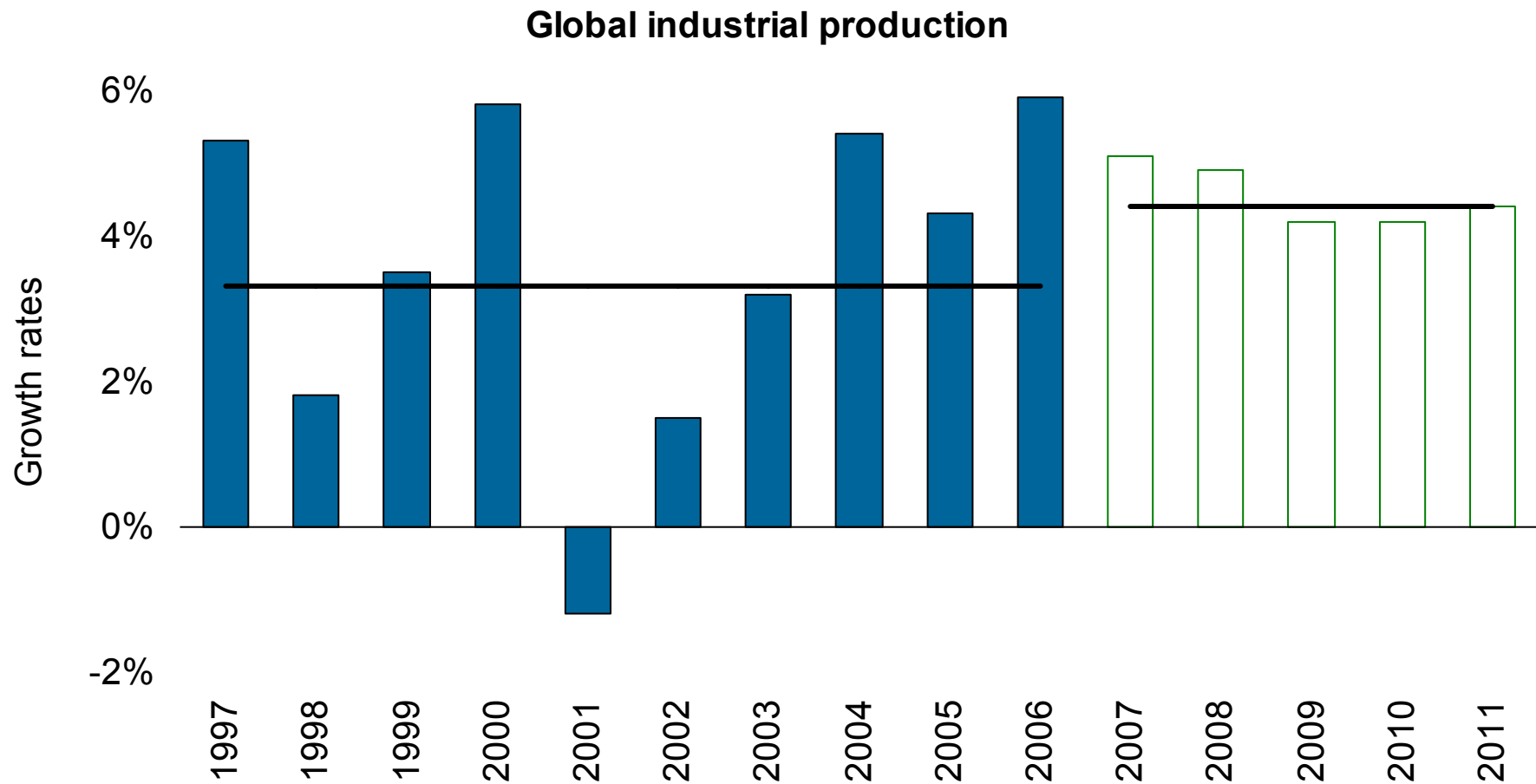
There is a clear correlation between growth in industrial production and metals consumption



Data: Hatch Beddows, IISI, OEF, WBMS. Note: annual data for global demand and industrial production from 1986 - 2006

THE MARKET OUTLOOK

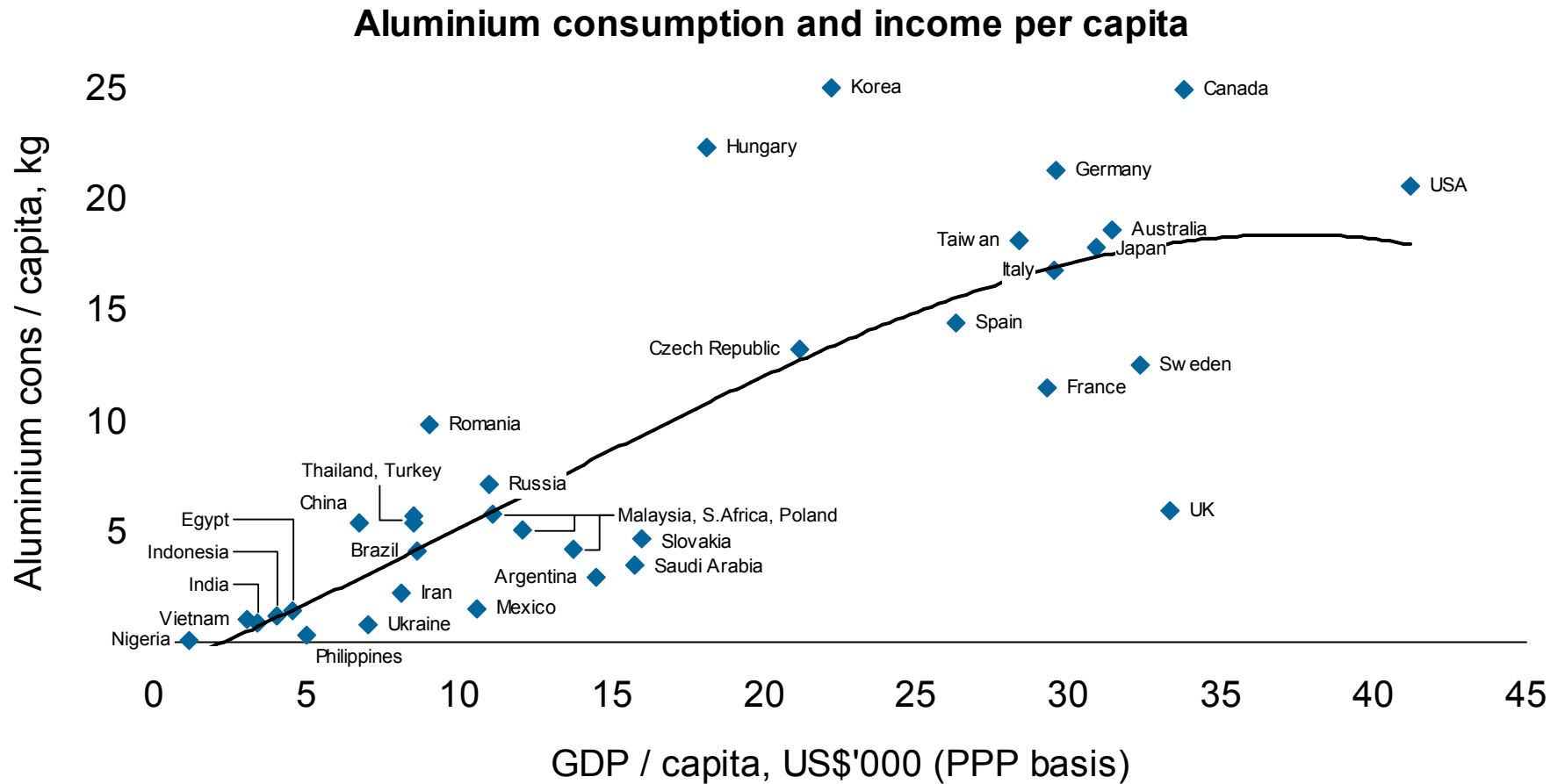
The rate of growth in global industrial production over the next five years is forecast to be faster than the average of the last decade



Data: Hatch Beddows, OEF

THE MARKET OUTLOOK

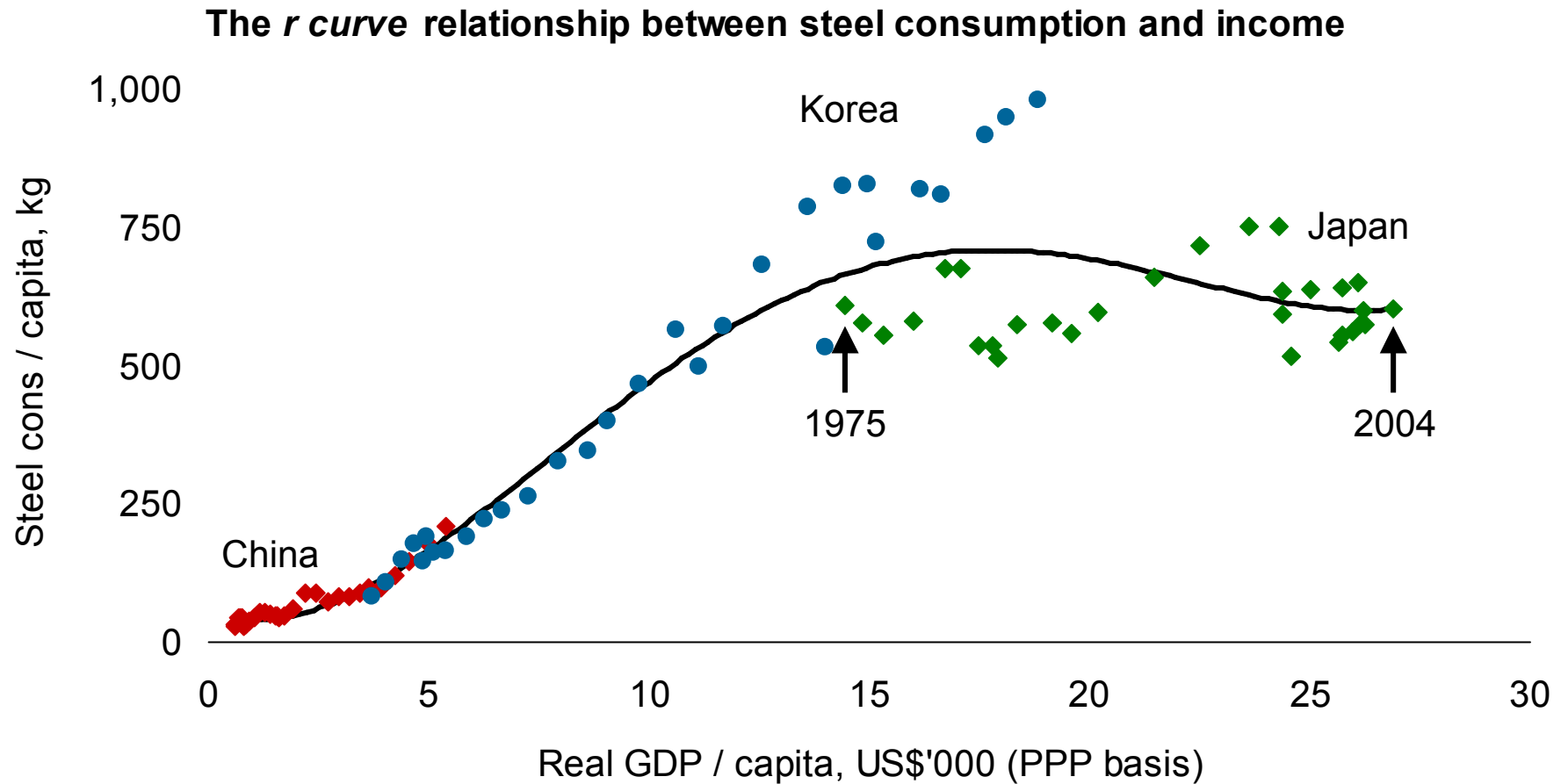
There is a close relationship between average income levels and aluminium consumption per capita



Data: Hatch Beddows, IMF, WBMS. Note: 2005 data. Primary aluminium consumption only

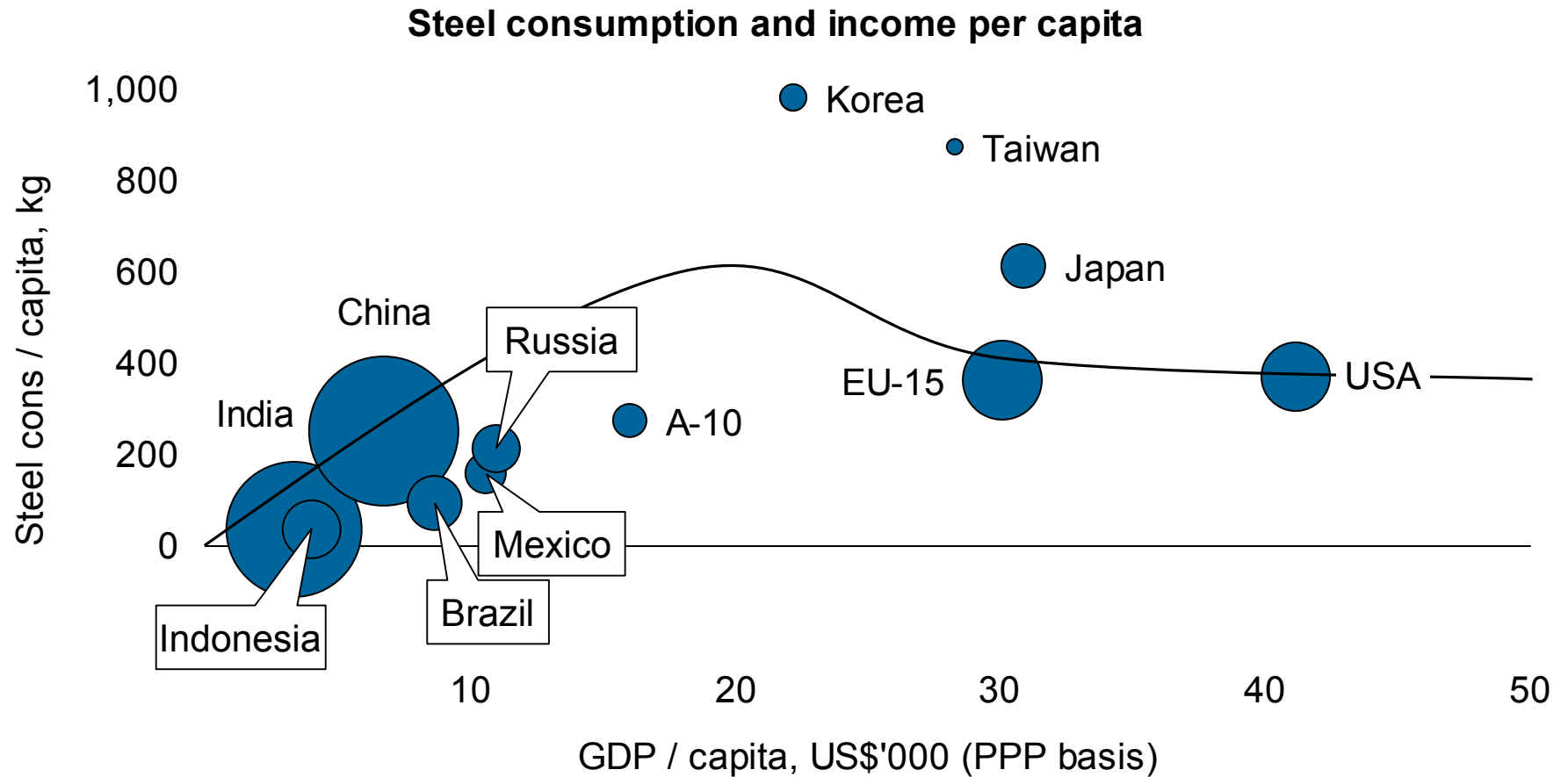
THE MARKET OUTLOOK

**A similar pattern can be seen in the use of steel and it is sustained over time.
As average incomes rise, steel consumption per capita tends to increase**



Data: Hatch Beddows, IISI, IMF

Adding another dimension underlines potential for growth in metals demand. Half of the world's population lives in high growth, developing countries



Data: Hatch Beddows, IISI, IMF. Note: 2005 data. Size of bubbles is proportional to population in each country or region

THE MARKET OUTLOOK

**Prospects for significant and sustained metals demand growth are good.
Almost 25Mt of additional primary aluminium demand within a decade...?**

Long-term outlook on aluminium demand¹, Mt

Region	2006	CAGR ²	~2016	Key differences
North America	7.8	2.2%	9.6	1.9
South America	1.1	3.9%	1.7	
Europe	8.2	2.4%	10.4	2.2
CIS	1.0	5.6%	1.8	
China	8.7	10.0%	22.5	13.8
India	0.9	7.2%	1.9	
Japan	2.1	1.5%	2.5	
Other Asia	2.8	4.5%	4.3	
Rest of world	1.5	3.6%	2.1	
World total	34.1	5.2%	56.8	22.7

Data: Hatch Beddows, WBMS. Note: 1. Primary aluminium consumption. 2. CAGR – compound annual growth rate. N.America includes Mexico. Rest of world includes Africa, Middle East and Turkey

THE MARKET OUTLOOK

**The potential for long-term growth in steel demand is also substantial.
Maybe ~500Mt of finished steel in the next ten years or so...?**

Long-term outlook on steel demand¹, Mt

Region	2006	LT CAGR ²	~2016	Key differences
North America	143	1.7%	170	
South America	34	3.9%	50	
Europe	173	0.7%	185	
CIS	53	3.5%	75	
China	351	4.3%	535	184
India	44	9.6%	110	66
Japan	109	0.1%	110	
Other Asia	121	7.7%	255	134
Rest of world	107	4.7%	170	
World total	1,135	3.9%	1,660	525

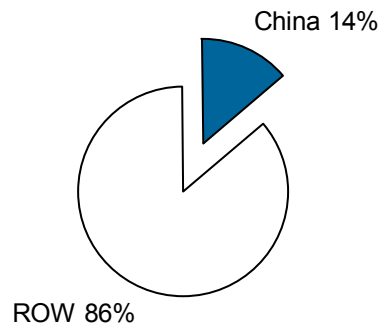
Data: Hatch Beddows, IISI. Note: 1. Finished steel consumption. 2. CAGR – compound annual growth rate. N.America includes Mexico. Rest of world includes Africa, Middle East and Turkey

A rising proportion of the world's aluminium, steel and tin is being made in China and other Asian countries to meet the rise in regional demand

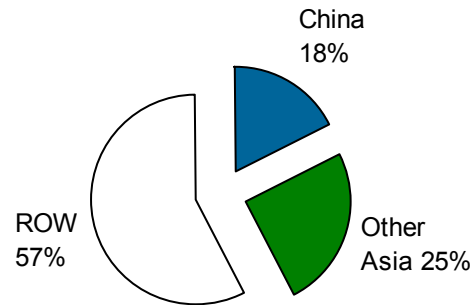
Aluminium, steel and tin production by region

2001

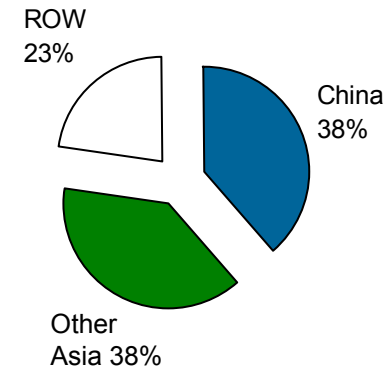
Aluminium



Steel

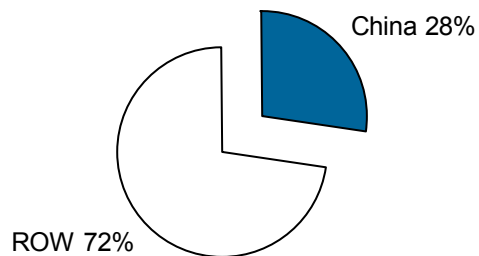


Tin

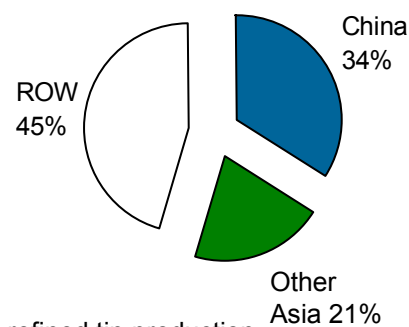


2006

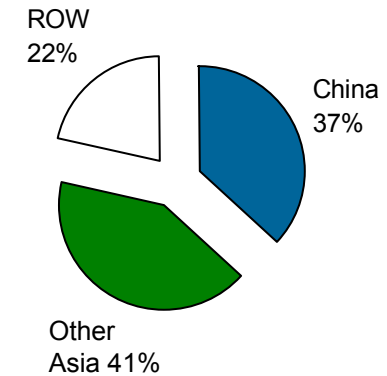
Aluminium



Steel



Tin



Data: Hatch Beddows, IISI, WBMS

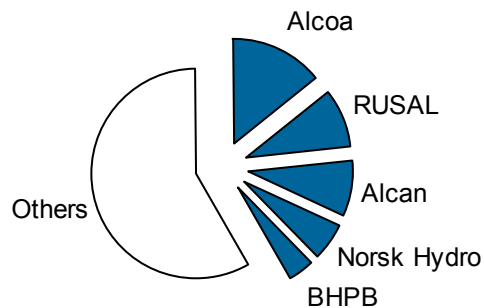
Note: Data based on primary aluminium, crude steel and refined tin production

**Consolidation of production in metals industries continues to increase.
ArcelorMittal opens another chapter in steel but it is still more fragmented**

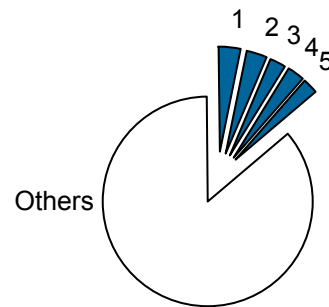
Market share of world's leading producers of aluminium, steel and tin

2001

Aluminium ~42%

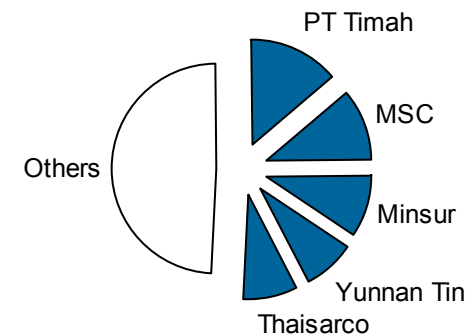


Steel ~14%



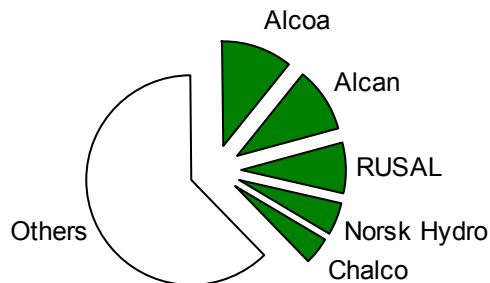
1. Posco
2. Nippon
3. Arbed
4. NKK
5. Usinor

Tin ~51%

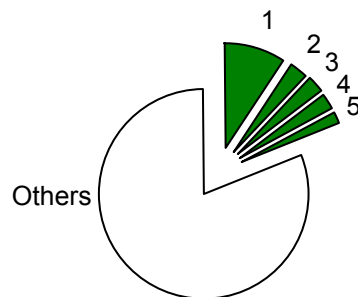


2006

Aluminium ~ 38%

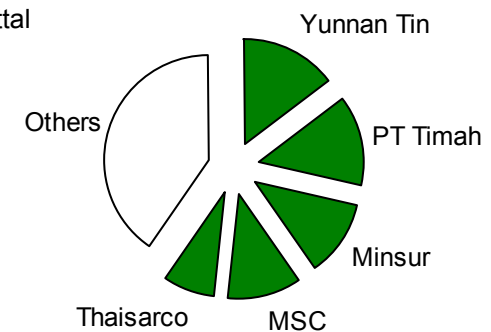


Steel ~19%



1. ArcelorMittal
2. Nippon
3. JFE
4. Posco
5. Baosteel

Tin ~59%



Data: Hatch Beddows, Factiva, IISI, WBMS. Note: Data based on primary aluminium, crude steel and refined tin production

Contents

- Introduction
- Setting the scene
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- **Summary and conclusions**
- Appendix: Hatch and Hatch Consulting

Perspectives on the market outlook for packaging metals: aluminium, steel and tin

- Metals consumption is running at record levels; nominal prices are at or near historic highs
- A powerful development-driven demand dynamic in populous industrialising countries points to the potential for further substantial long-term growth in metals consumption
- Asia in general, and China in particular, will supply an increasing share of world markets, although other emerging regions will also be important (CIS, M.East, S.America)
- Metals industries continue to consolidate. In future, customers will generally be dealing with a smaller number of larger suppliers
- Supply-side challenge: investment in new production and capacity is needed. Consolidated, private companies need to be persuaded of the merits of such investment
- In the past, the principal challenge was to producers in selling their output profitably. In future, the principal challenge may be to consumers in sourcing materials competitively
- Supply-side risk: too many producers chase the same opportunities and make too much

Contents

- Introduction
- Setting the scene
- The market outlook
- Summary and conclusions
- Appendix: Hatch and Hatch Consulting

Our organisation

- Hatch supplies business, process and technology consulting, design and engineering and construction, operations and project management to the mining and metals, energy and infrastructure industries worldwide
- Established 1955 and employee owned
- 7200 highly skilled people serving clients worldwide
- US\$16BN of projects now under management in 60 countries

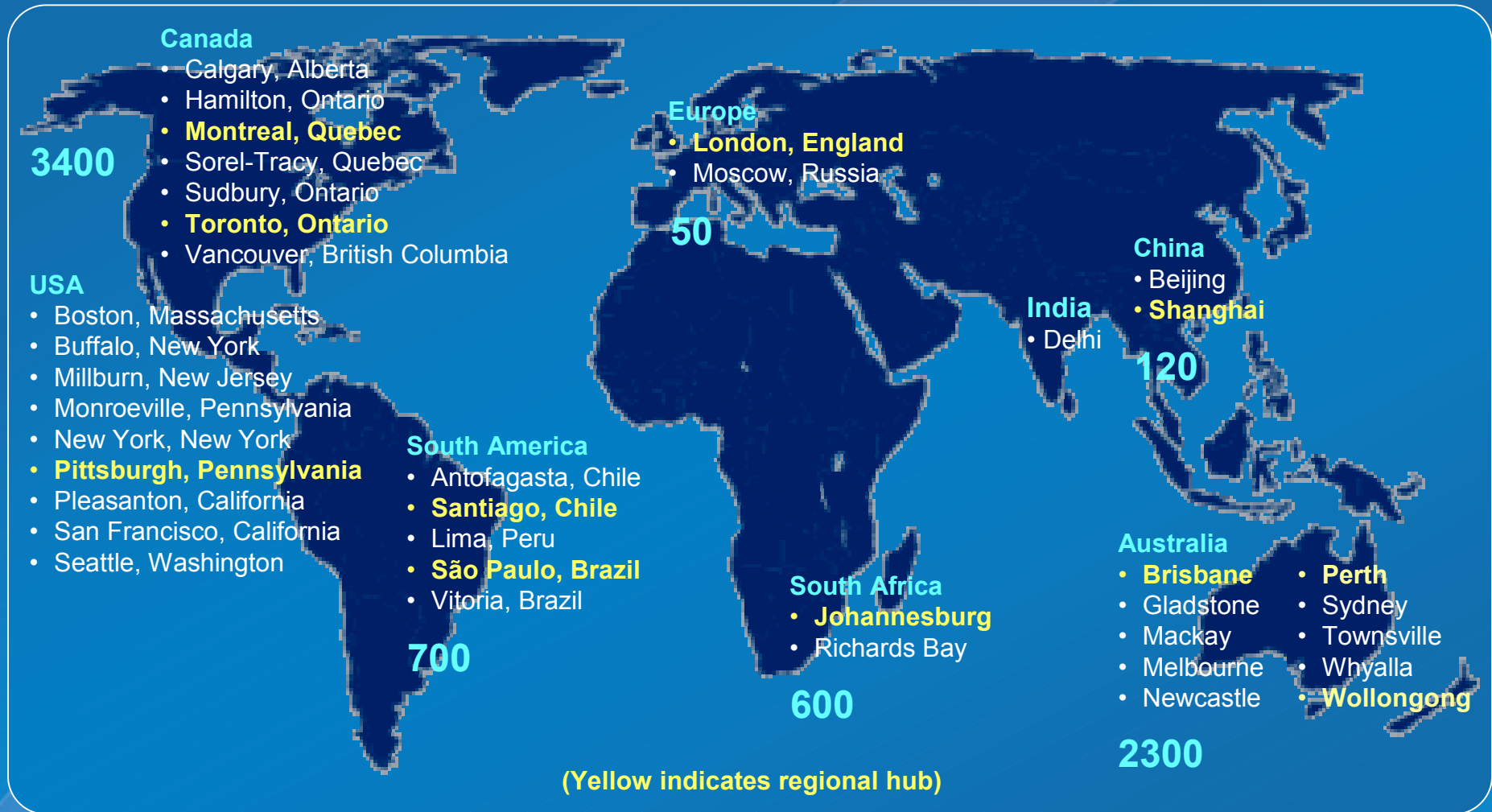
Our values

- Safety
- Quality
- Innovation
- Sustainable development
- Effective risk management

We deliver unprecedented and sustained results for our clients

Global reach and resources

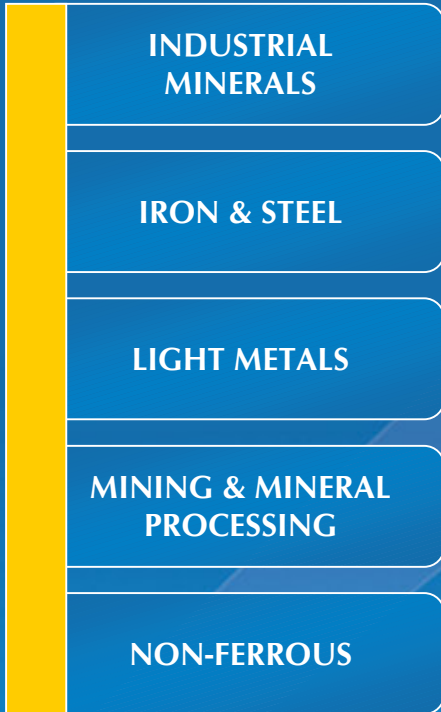
7200 people May 2007



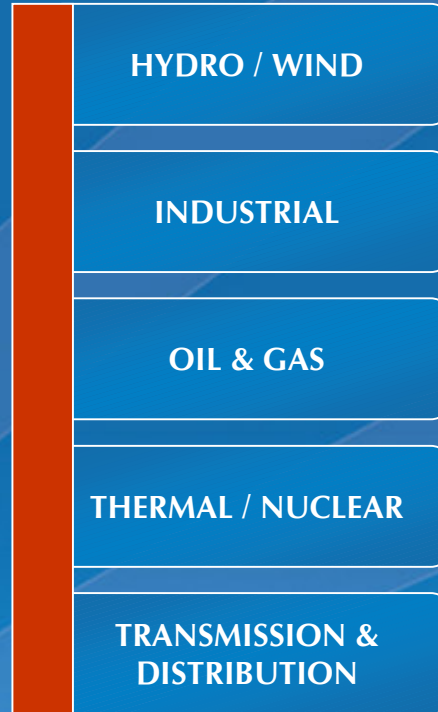
HATCH

Hatch business units

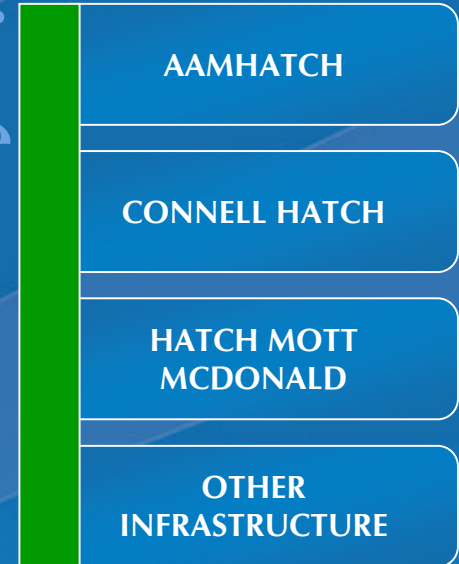
metals



energy



infrastructure



Hatch Consulting is the leading management consultancy dedicated to the mining and metals industries

- **Hatch Consulting** is the world's leading management consultancy specialising in the mining and metals industries and provides high level support services, ranging from corporate and business strategy development through strategic market studies to implementation of new technologies, management and operating practices
- Hatch Consulting is organised into specialised practices by industry and service, combining to provide precise solutions, expertly delivered to the exact needs of each individual client
- **Hatch Beddows** is the strategy and market development practice, specialising in steel and ferroalloys industries, and providing strategy development and implementation services
- **Investment and Business Planning** (IBP) provides economic, environmental and technical evaluations of minerals properties and processing facilities, due diligence, pre-feasibility and feasibility studies and related investment planning and appraisal services
- **Hatch Corporate Finance** (HCF), a FSA-regulated joint venture company, provides corporate finance advisory and transaction execution services

Hatch counts many of the world's major mining, aluminium and steel companies among its core client base

Alcan	ENRC	QIT
Alcoa	Evraz Group	PT Timah
Algoma Steel	Gerdau Group	POSCO
Anglo American	Glencore	Privat Group
ArcelorMittal	Impala Platinum	Rio Tinto
Assmang	Lonmin	Severstal
BHP Billiton	Mechel	Shougang
BlueScope Steel	Metalloinvest	Tata Group (Corus)
Celsa	MMK	ThyssenKrupp Stahl
Century Aluminium	Newmont Mining	TMK
Commercial Metals	Noranda	United Company RUSAL
CVRD (Inco)	Norsk Hydro	U.S. Steel
De Beers	Nucor	Xstrata (Falconbridge)

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