



Presentation to Analysts / Investors Johnson Matthey in China

London Stock Exchange
27th / 28th January 2010



Johnson Matthey

A close-up, side-profile shot of a male worker wearing a white hard hat and clear safety glasses. He is looking down at a complex piece of industrial machinery, which appears to be a catalyst converter or similar chemical processing equipment. The machinery features several vertical white cylindrical components held together by black metal flanges and bolts. The background is slightly blurred, showing more of the industrial environment.

Cautionary Statement

This presentation contains forward looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the countries and sectors in which Johnson Matthey operates. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated.



Johnson Matthey



Overview and Trading Update

Neil Carson
Chief Executive



Johnson Matthey

JM Executive Board

- Neil Carson - Chief Executive
- Robert MacLeod - Group Finance Director
- Larry Pentz - Executive Director, Environmental Technologies
- Bill Sandford - Executive Director, Precious Metal Products

Other Senior Management

- John Walker Division Director, Emission Control Technologies
- Neil Whitley Division Director, Process Technologies
- Nick Garner Division Director, Fine Chemicals
- Geoff Otterman Division Director, Catalysts, Chemicals and Refining
- Linky Lai General Manager, Emission Control Technologies, China
- Henry Liu Commercial Director, Emission Control Technologies, China
- Peng Zhang Sales Director, Power Plant Industries, China
- Wolfgang Schuettenhelm Director, Worldwide Power Plant Industries
- Andrew Wright Managing Director, Syngas and Gas to Products
- David Tomlinson President, Davy Process Technology
- Vikram Singh Country Head (AMOG) - China
- Robert Huang Territory Executive China - Refinery & Gas Processing, AMOG
- Andy Hiles Senior Vice President, Davy Process Technology
- Atul Shah Vice President, Oxo Alcohols, Davy Process Technology
- Mark Sutton Vice President, Methanol, Davy Process Technology

Other Senior Management

- Elaine Shao Office Manager, Johnson Matthey Shanghai
- Helen Zhou General Manager, Catalysts and Chemicals, China
- John Chen Commercial Director, Catalysts and Chemicals, China
- Robert Bullen-Smith Managing Director, Chemical Products
- Jian Zhang Managing Director, Alfa Aesar Synmax
- Barry Singelais President, Global Research Chemicals
- Ian Godwin Director, Investor Relations
- Sally Jones Public Relations Manager

Programme

- 11.00 Overview and Interim Management Statement (Neil Carson)
- 11.05 Johnson Matthey in China (Neil Carson)
Environmental Technologies in China
- 11.15 Introduction and Overview (Larry Pentz)
- 11.20 Emission Control Technologies in China (John Walker)
- 11.25 Mobile Emissions Control – Light Duty and HDD (Linky Lai)
- 11.55 Stationary Emissions Control – Power Plant Industry (Peng Zhang)
- 12.15 Questions
- 12.35 Lunch in The Atrium
- 1.20 Process Technologies in China (Neil Whitley)
- 1.25 Syngas Catalyst Growth in China (Andrew Wright)
- 1.55 Licensing Technology in China (David Tomlinson)
- 2.25 Questions
- 2.45 Process Technologies Break Out Sessions

Programme

- 3.15 Coffee Break
- Precious Metal Products Division**
- 3.25 Operations in China (Bill Sandford)
- 3.35 The Chinese Jewellery Market (Bill Sandford, Elaine Shao)
- 4.05 Catalysts and Chemicals Business in China (Helen Zhou, John Chen)
- 4.35 Questions
- 4.55 Coffee Break
- Fine Chemicals Division**
- 5.05 Fine Chemicals Division and Research Chemicals Business in China (Nick Garner, Jian Zhang)
- 5.20 Summary and Wrap up (Neil Carson)
- 5.30 Q&A
- 6.00 Drinks Reception (Le Café du Marché)
- 7.00 Dinner

Interim Management Statement

- Summary results for third quarter of 2009/10
 - Sales excluding precious metals 9% ahead
 - Operating profit* 10% up on last year
 - Profit before tax* 20% higher than last year
 - Cash generation continued to be strong

* Before amortisation of acquired intangibles

Estimated Light Vehicle Sales and Production

for the three months to 31st December 2009

		Quarter ended 31 st December		
		2009 millions	2008 millions	Change %
North America	Sales	3.1	3.0	+3.3
	Production	2.7	2.7	-
Total Europe	Sales	4.3	4.6	-7.0
	Production	4.7	4.1	+14.6
Asia	Sales	8.0	6.4	+25.0
	Production	9.5	7.6	+25.0
Global	Sales	14.7	12.7	+15.7
	Production	17.7	14.7	+20.4

Interim Management Statement

- Environmental Technologies
 - Sales (ex pms) 22% ahead of last year and slightly ahead of the second quarter. Operational leverage and good cost control resulted in operating profit more than 30% ahead in quarter
 - Emission Control Technologies' sales ahead of last year in North America, Europe and Asia. China continues strong performance. Global car production 20% up in third quarter compared with last year and 22% up on Q2 2009/10
 - HDD sales in North America slightly ahead of last year due to small pre-buy ahead of US 2010 legislation
 - Process Technologies' performed well in third quarter with steady growth in ammonia and methanol catalyst sales. DPT secured two further contracts, both in China. Others in the pipeline

Interim Management Statement

- Precious Metal Products
 - Profits, as expected, lower than Q3 last year. Quarter saw steady improvement in platinum group metal prices. Demand for fabricated products and precious and base metal catalysts and chemicals steady in quarter and now showing signs of recovery
- Fine Chemicals
 - Sales slightly lower in third quarter but operating profit in line with last year. API sales broadly in line with last year but sales of research chemicals slightly lower

Outlook for Fourth Quarter of 2009/10

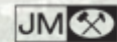
- Environmental Technologies expected to continue to make progress. Light duty vehicle production expected to remain stable but impact of end of government incentives uncertain. Short term prospects for HDD remain subdued
- Precious Metal Products will benefit from increased commission income and higher profits from refining and recycling business if higher pgm prices are maintained
- Fine Chemicals performing in line with expectations but its results will be slightly impacted by restructuring of speciality contract research and manufacturing services business
- Overall, group results for the full year are expected to be slightly ahead of current market consensus expectations

Johnson Matthey in China

- Investing in the growing markets of the Asia region and especially in China is a key element of our strategy
- Fixed assets:
 - First investment in 2000/01 £5m
 - By 2007/08 £11m
 - By end 2009/10 £40m
 - Further expansion to follow
- Today we have:
 - Five manufacturing plants
 - Two distribution centres
 - Ten sales offices
- ~ 400 employees
- Much of our business served by JM operations outside China

Environmental Technologies in China

Larry Pentz
Executive Director



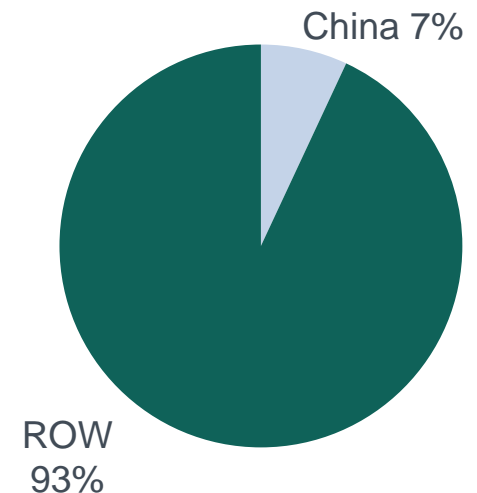
Johnson Matthey

Environmental Technologies in China

Overview

- ET sales ex pms in China of £85m (2008/09)
- Strong vehicle sales, market share growth and tightening regulations in light duty
- Short to medium term opportunities for power plant catalyst sales and HDD
- Energy security and changing fuel specifications benefit AMOG
- DPT benefits from a growing chemical industry

ET Sales ex pms



The background image shows a large industrial facility, likely a power plant or refinery. It features a complex network of pipes, tanks, and structural steel. A prominent yellow safety railing runs across the upper level of the structure. In the lower, semi-transparent portion of the image, a person in dark clothing is seen working at a table with various pieces of equipment, possibly a laboratory or control room. The overall scene is brightly lit with industrial lights.

Emission Control Technologies in China

John Walker

Division Director, Emission Control Technologies

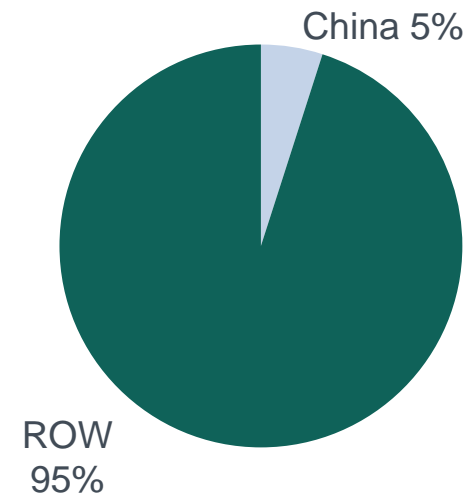


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Emission Control Technologies in China

- A rapidly growing vehicle market:
 - 13.5 million vehicles sold in 2009
 - 44% increase over 2008
- Tightening emission regulations for light vehicles
- HDD regulations requiring catalyst fitment in the world's largest truck market
- NOx control mandated on all new power plant construction
- Adding capacity to meet demand:
 - Doubled autocatalyst capacity in 2009
 - Start up of plate type SEC catalyst plant in 2010

ECT Sales ex pms 2008/09



Emission Control Technologies in China

Light Vehicle Production

Million vehicles	2008	2009	%
China	8.6	12.5	45
Asia	28.7	28.4	-1
Europe	21.2	16.8	-21
N America	12.6	8.5	-32
GLOBAL	68.2	59.2	-13

- China continues at rapid pace despite global economy
- It is now the largest single country for sales of automobiles
- Growth expected to continue

Emission Control Technologies in China

- Market is predominantly gasoline vehicles
- Engine size on average is 1.4 - 1.5 litres
- Environmental regulations, hence catalyst technology, lags Europe and US
- Pricing consistent with global average for light duty, flow through (non-filter) catalysts
- Catalyst product and application development done outside China
- Production cost base:
 - Materials
 - Manufacturing costs
- JM is growing share in a growing market



Emission Control Technologies in China

Mobile Emissions Control – Light Duty and HDD

Linky Lai
General Manager



Johnson Matthey



Agenda

1 Emission Control Technologies in China

2 China market key highlights

3 Business plan and strategy

4 China business growth potential

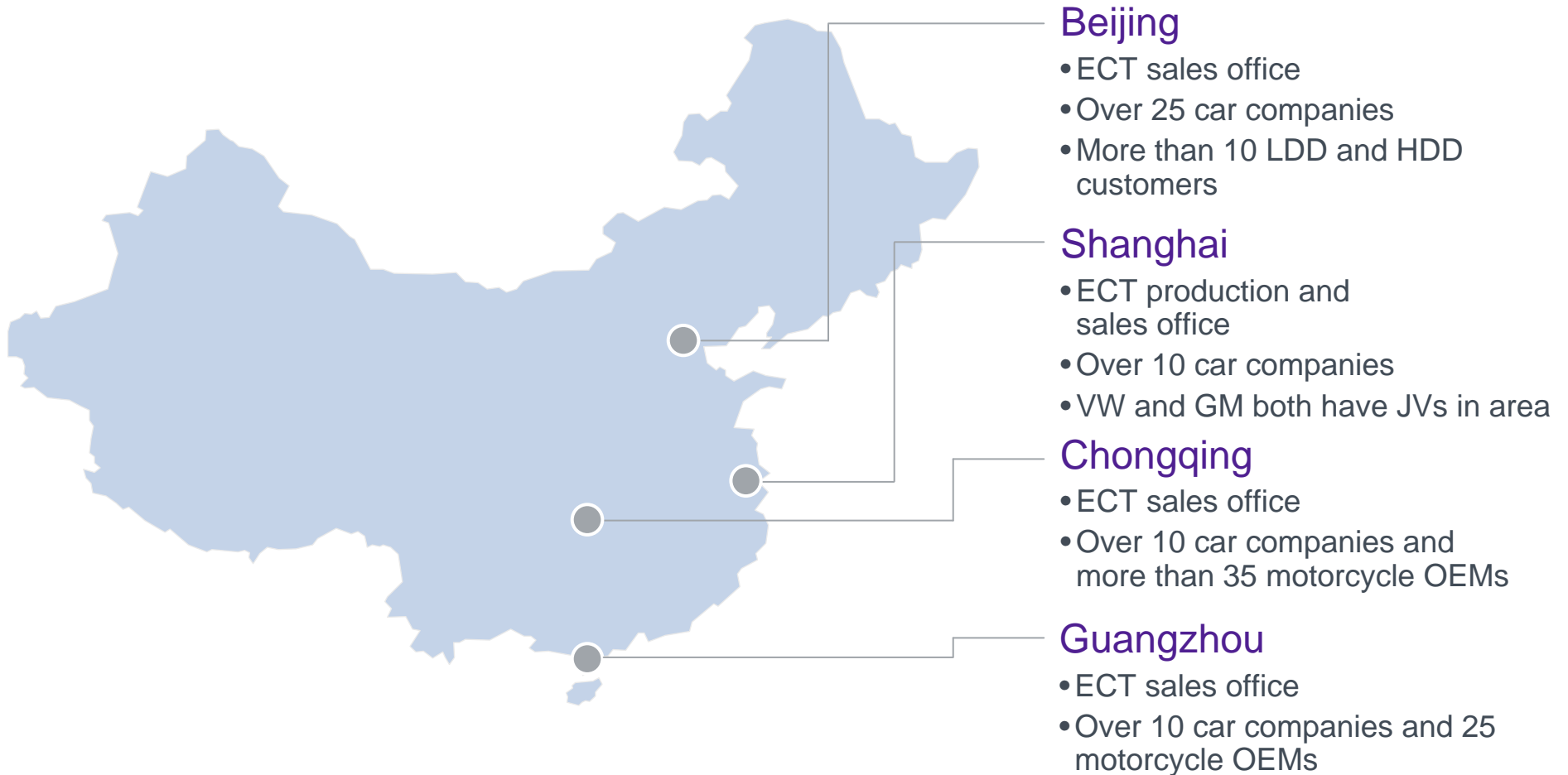
Emission Control Technologies in China

- Production started in July 2001. Wholly owned
- Land size
 - Current 23,500 m²
 - A further 30,000 m² purchased in June 2008 (with existing building)
- Capacity
 - Current:
 - Approximately 5 million autocatalysts per year
 - TWC, HDD SCR and DOC lines
 - Future:
 - Catalyst ageing and testing facilities under construction. Due for completion in September 2010
- Around 170 employees



ECT China

Nationwide Presence

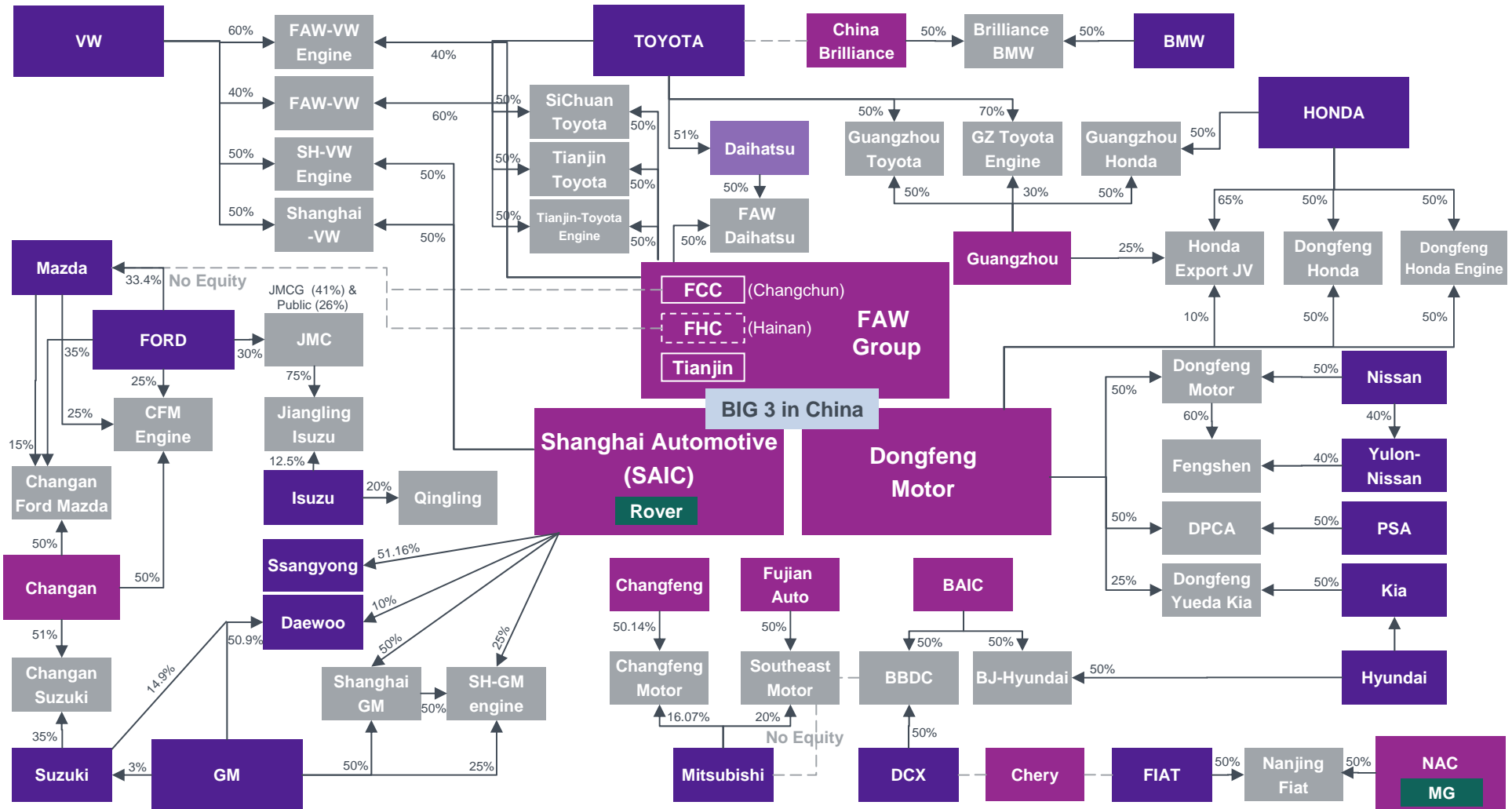


China Economy

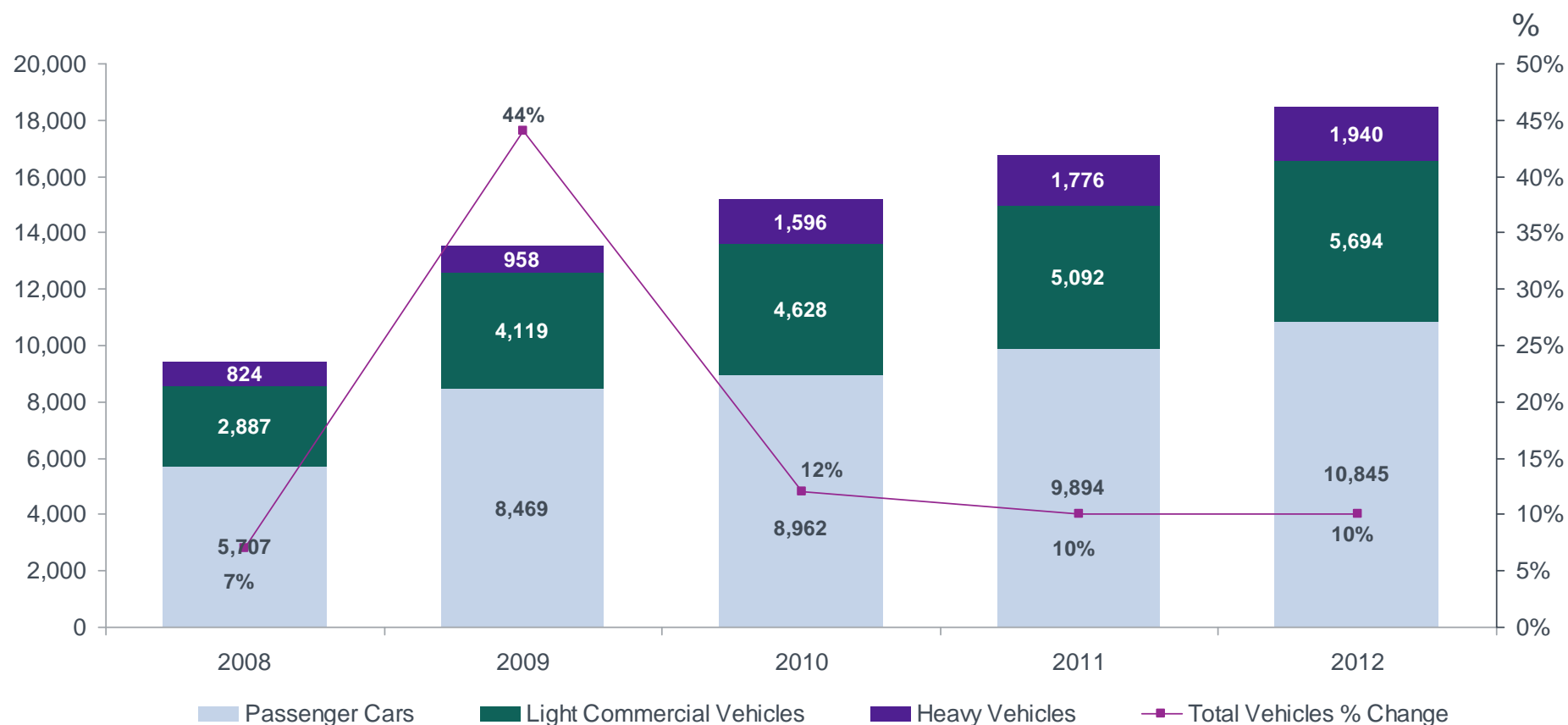
Key Highlights

	2007	2008	2009
Cars sold	5,270k	5,707k	8,469k
CPI %	4.8	5.9	-0.7
GDP %	11.4	9.0	8.7
USD/RMB	7.30	6.82	6.83

China Major JV / OEM Affiliation



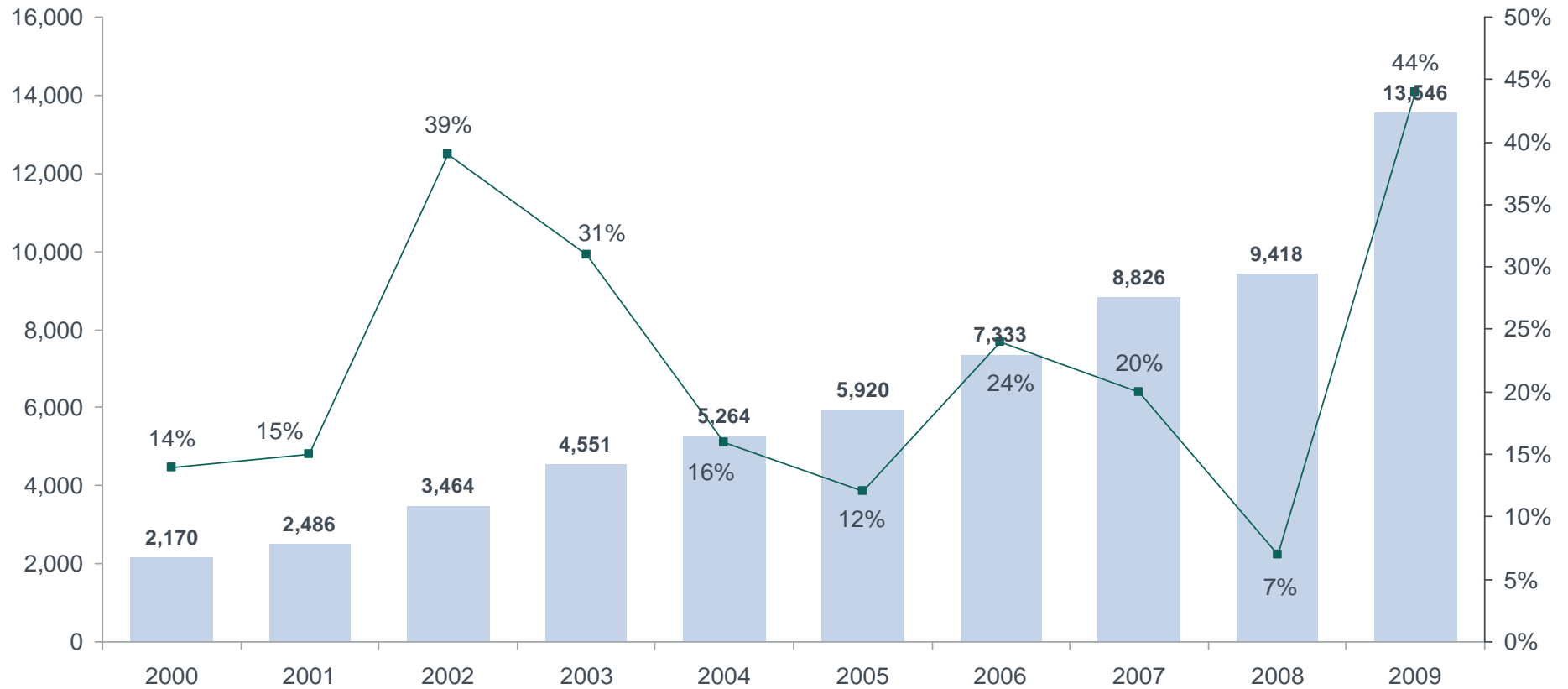
Vehicle Sales in China



(1) In k units

(2) Source: China automotive association and IHS Global Insight

China Vehicle Sales 2000 - 2009



(1) In k units

(2) Source: China automotive association and IHS Global Insight

China Emissions Legislation

Light Duty Gasoline

	2007	2008	2009	2010	2011	2012
China - Beijing	Euro 3	Euro 4				
China - Shanghai	Euro 3					
China - Nationwide	Euro 2	Euro 3			Euro 4	

Heavy Duty Diesel

	2007	2008	2009	2010	2011	2012
China - Beijing	Euro III	Euro IV				
China - Shanghai	Euro II	Euro III		Euro IV		
China - Nationwide	Euro II	Euro III			Euro IV	

China Automotive Industry is Undergoing Fundamental Shifts

- Joint ventures are doing very well but growth will slow in the longer term
- Locals are doing extremely well (Geely, BYD, Changan, Great Wall etc.) supported by improving R&D capabilities
- Sales slowing down in mega cities. Local brands are more recognised in second tier cities
- Car models are changed more frequently than in any other part of the world
- Merger and consolidation
- Fierce competition leading to higher demands on suppliers from OEMs

Johnson Matthey's Business Strategy

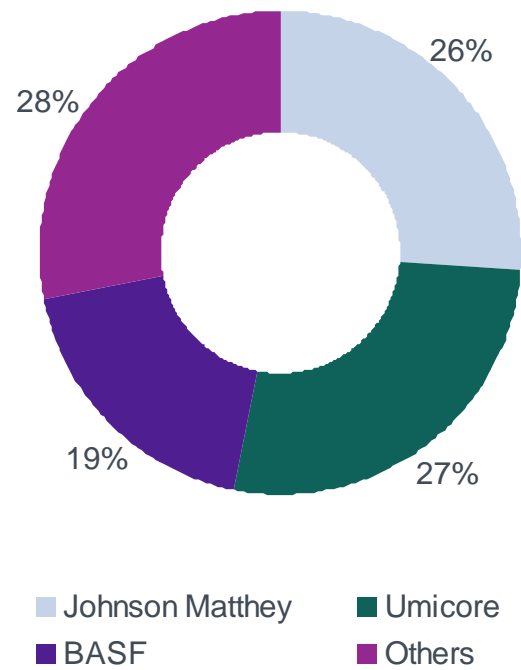
Addressing the Shift in the China Automotive Industry

- State of the art technology to all customers
- Growing share with local companies
 - Providing industry leading customer service and support to their programmes
 - Increasing our local technical support and infrastructure
- Providing lowest cost solutions as legislation tightens

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Growing Market Share in China

Estimated Market Share 2008/09



Summary

- Focused on long term, profitable growth in China
- Sales ex pms growth should continue to be strong
- We will deliver:
 - Best quality products in China
 - Tailored service to all OEMs
 - Preferred employer in China
 - Superior business growth

Delivering Service. Delivering Growth.

Virtual Tour of China Autocatalyst Plant



庄信万丰（上海）化工有限公司成立八周年



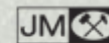
The background image shows a large industrial power plant. On the left, two large, dark, cylindrical cooling towers are visible, with white steam or smoke rising from them. To the right, a tall, slender smokestack with alternating red and white horizontal bands stands out against the sky. The plant's complex structure, including various pipes, scaffolding, and smaller buildings, is visible in the mid-ground. The sky is a clear, pale blue with some light, wispy clouds. The overall scene is a typical representation of a large-scale industrial facility.

Emission Control Technologies in China

Stationary Emissions Control – Power Plant Industry

Peng Zhang

Sales Director, Power Plant Industries, China



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Agenda

- 1 Johnson Matthey's power plant industries business
- 2 SCR catalyst market for coal fired power plants in China
- 3 New investment – SCR catalyst plant in China
- 4 Current developments in SCR catalysts
- 5 Summary

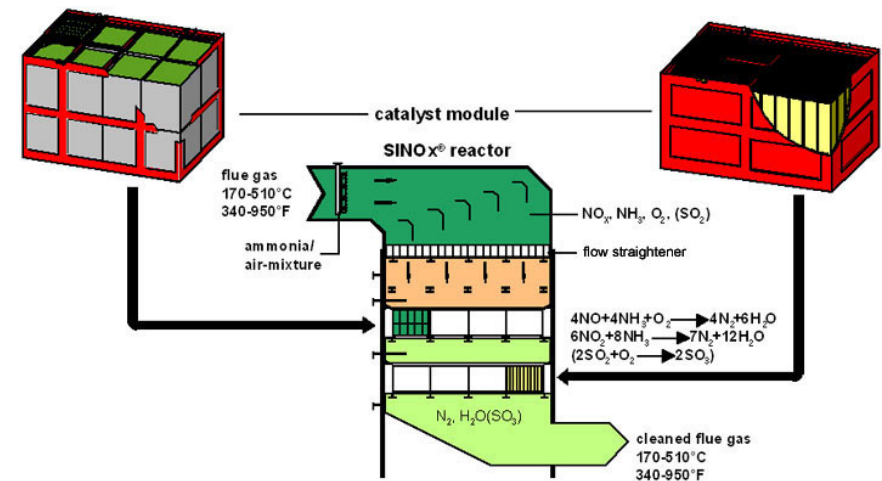
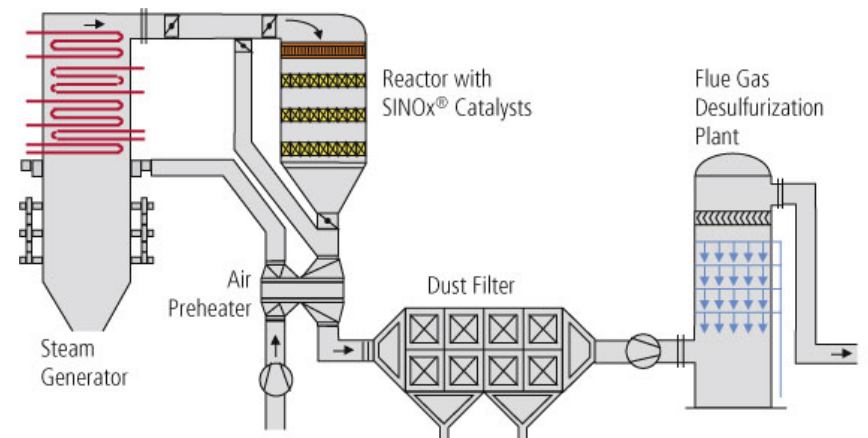
Johnson Matthey's Power Plant Industries

Catalysts for reduction of nitrogen oxides (NO_x) in power generation industry

Decades of experience in SCR catalyst / systems R&D and manufacturing

Johnson Matthey's catalysts are installed in more than 500 fossil fired power plants worldwide

JM is the only supplier of both plate type and extruded honeycomb catalysts



JM PPI Locations Worldwide

Germany (Redwitz)

- Sales
- Engineering
- Service
- Manufacturing

USA (Alpharetta)

- Sales
- Engineering
- Service

China (Shanghai)

- Sales
- Service
- Manufacturing (from 2010)

China (Beijing)

- Sales

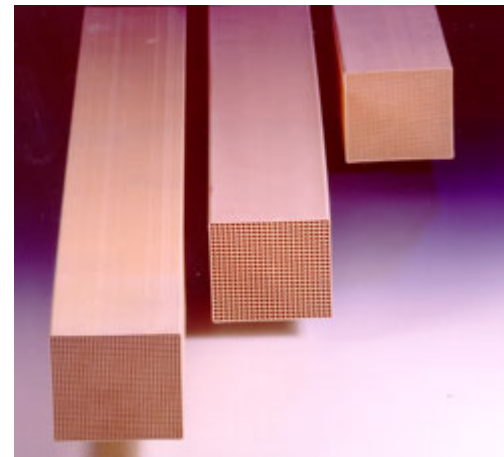
Malaysia (Kuala Lumpur)

- Sales



Catalyst Products

- Plate type catalyst
 - For high dust flue gas applications and special applications (coal fired power plants, industrial process plants, oil refinery power plants, etc.)
- Extruded honeycomb catalyst
 - For low dust flue gas applications (plants firing high grade coal, oil or gas; waste incineration plants, diesel applications, etc.)

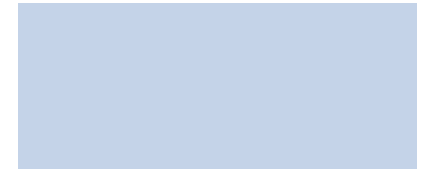


JM Reference Projects in China



PPI Development in China

- Reference projects summary
 - Installed capacity: >14,000 MW
 - Catalysts sold: >10,000 m³
 - Treated flue gas volume: >23,700,000 Nm³/h
 - Orders received since 2007: >300 million RMB
- Market position in China
 - No. 3 position achieved despite a later market entry (2007)
- Large customer base:
 - Members of the 'Big Five' power generation group
 - Main boiler manufacturers
 - Most active SCR general contractor companies



NO_x Emission Control for Power Plants

A Growing Market in China



Power Plant NOx Emissions Control in China

- Market drivers:
 - China is the world's largest coal producer and consumer
 - 75% of power plants in China are coal fired
 - Total installed coal fired power plant capacity ~ 680 GW in 2010
 - ~ 280 GW new coal fired power plants to be installed by 2015
 - Big power groups aim to achieve an environmental friendly image
- Regulation drivers:
 - Ministry of Environmental Protection (MEP) of PRC requires new and existing power plants to be equipped with NOx removal system
 - Official regulation expected to be effective in 2010/2011
 - Emission limit is 200 mg NOx/Nm³ exhaust (same as European ELV)

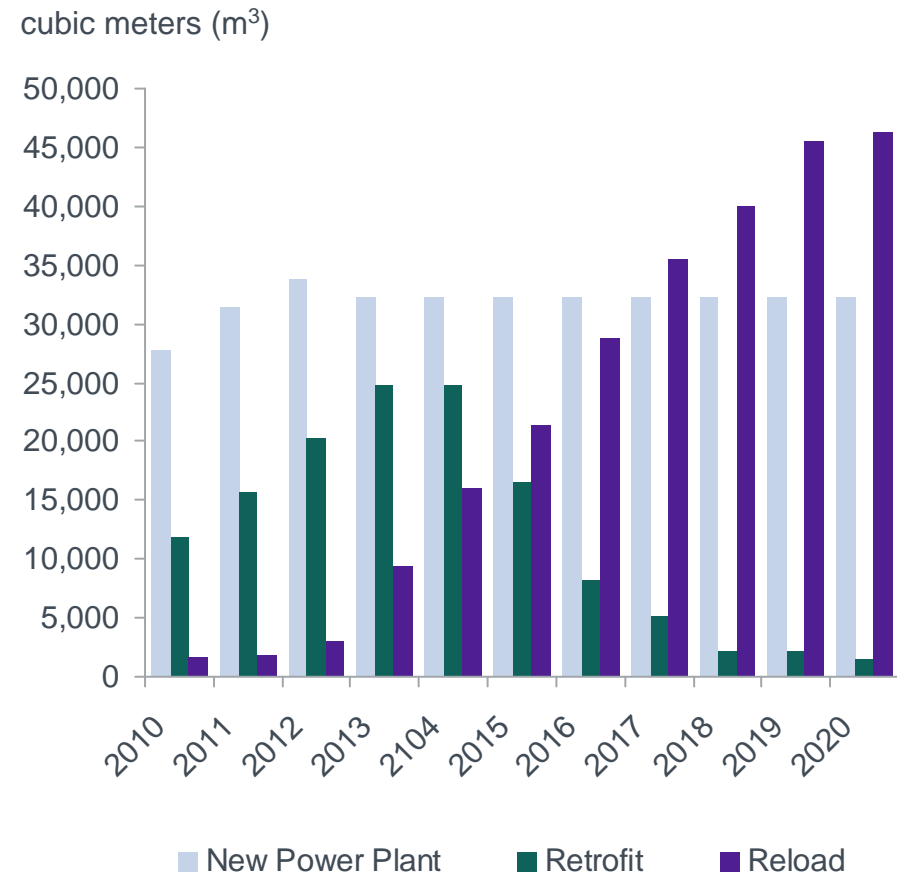
Power Plant NOx Emissions Control in China

- Technology drivers:
 - JM is the only supplier able to produce both plate type and honeycomb SCR catalysts for power plant applications
 - Plate type catalysts are particularly suitable for coal with high ash content (typical for China)
 - Numerous successful reference applications

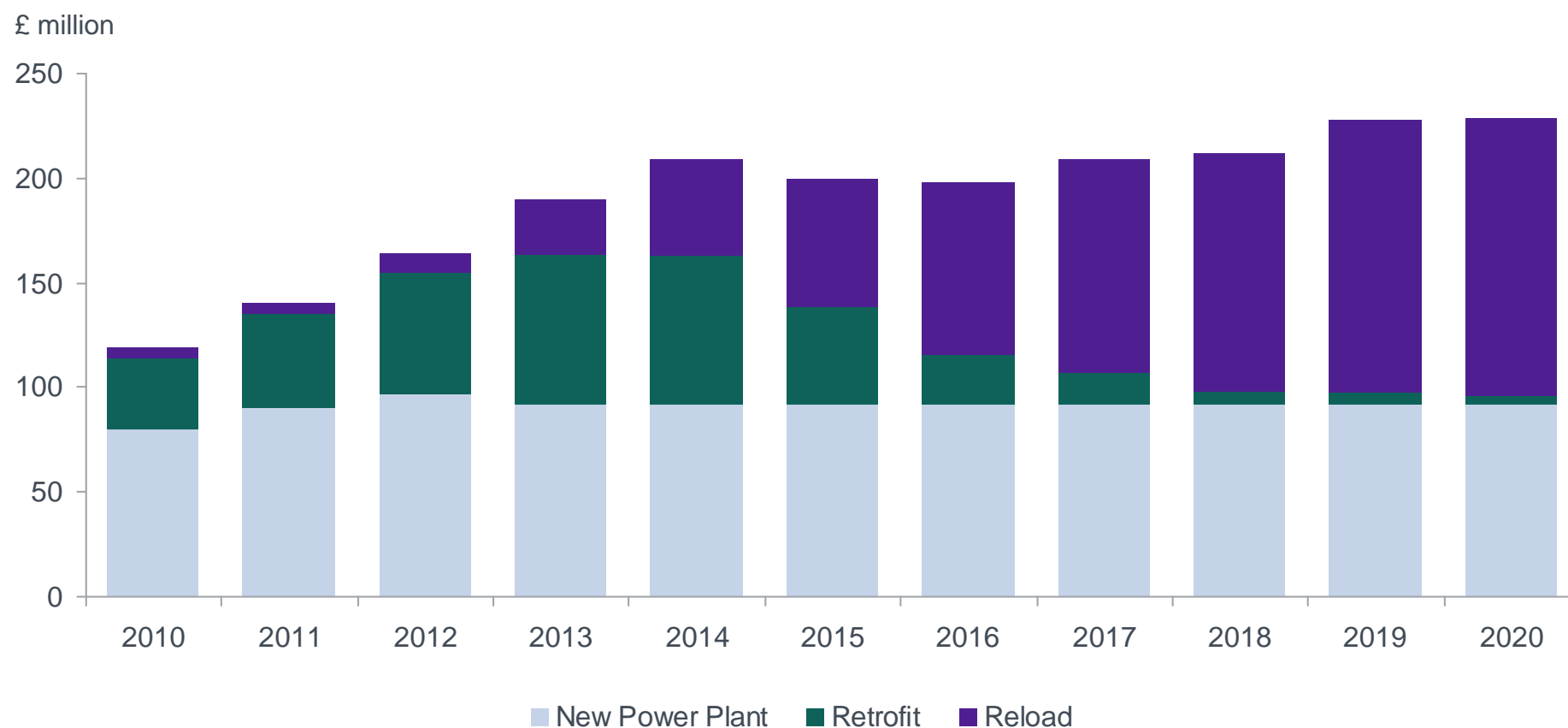


Estimation of China SCR Catalyst Market Size

- Since 2008 new power plants have been required to install SCR systems
- Existing power plants are required to be retrofitted with SCR
- After all power plants have been fitted with SCR catalysts, the market will be driven mainly by reloads and replacement



Estimation of China SCR Catalyst Market Size



New Investment in China

JM's SCR Catalyst Plant



New Investment in China

JM's SCR Catalyst Plant

- Plate type SCR catalyst plant
 - **Location:** Songjiang, Shanghai
 - **Plant area:** 20,000 m²
 - **Capacity:** 9,000 – 10,000 m³ / year
 - **Employees:** 108
 - **Start up:** Spring 2010
- All permits in place
- Plant will operate to JM Quality and EHS standards
- JM's experienced ECT Shanghai management team will be responsible for the new production plant

Current Development of SCR Catalysts

- Catalyst development for power plant and industry applications:
 - SCR catalysts for high ash applications – Chinese high ash coals and lignite coal applications
 - Further development of low SO_x catalysts
 - Mercury oxidation capabilities of SCR catalysts
 - Investigation of ammonia bisulphate (ABS) formation – minimum operation temperature
 - SCR catalyst for biomass applications (e.g. co-firing) – GHG-initiative
 - SCR catalysts for a variety of other industrial applications

Summary

SCR Technology

- Well established technology for NOx emissions control
- Successfully proven in Europe and USA
- Plate type catalyst superior in high dust applications

NOx Emissions Regulation in China

- NOx emissions control on its way to being enforced by MEP of China
- Regulations / standards similar to Europe and USA
- Promising market demand for SCR catalysts

JM Activities in China

- Successfully entered the Chinese market
- Investing to improve our SCR catalyst market position for the power plant industry in China
- Chinese customers will benefit from JM's continuing R&D activities

- China is the most important market for JM's Power Plant Industries SCR catalyst business
- JM is well positioned to achieve substantial growth in this rapidly emerging market



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Process Technologies in China

Neil Whitley

Division Director, Process Technologies



Johnson Matthey

Agenda

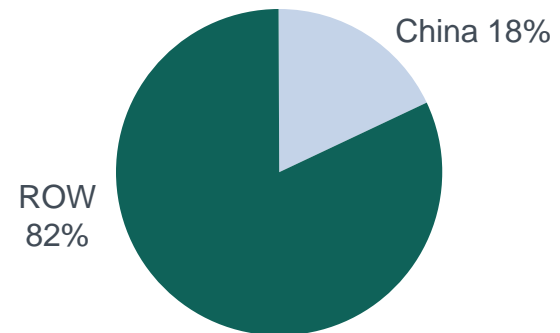
- 1 Process Technologies - China Overview - Neil Whitley
- 2 Syngas Catalyst Growth in China - Andrew Wright
- 3 Technology Licensing in China - David Tomlinson
- 4 Breakout groups:
 - Technology licensing in China
 - Coal to products in China

Process Technologies

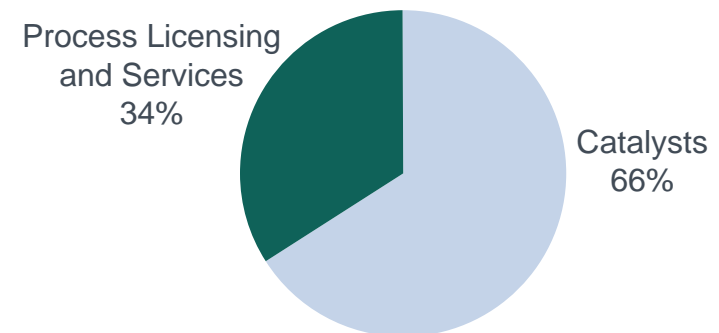
China Overview

- Sales in China >50% up on prior year
- AMOG sales up 70% on prior year
 - Strong methanol catalyst sales
 - Sales of sour shift catalysts
 - Hero JV – additional investment in land
- DPT sales up ~ 50% on prior year with six plants licensed in 2008/09
 - Butanediol
 - Oxo alcohols
 - Methanol
- Latest projects in China
 - First world scale SNG plant at Datang
 - Oxo alcohols plant at Daqing

PT Sales ex pms 2008/09
(Regional)



PT Sales ex pms 2008/09
(Segmental)

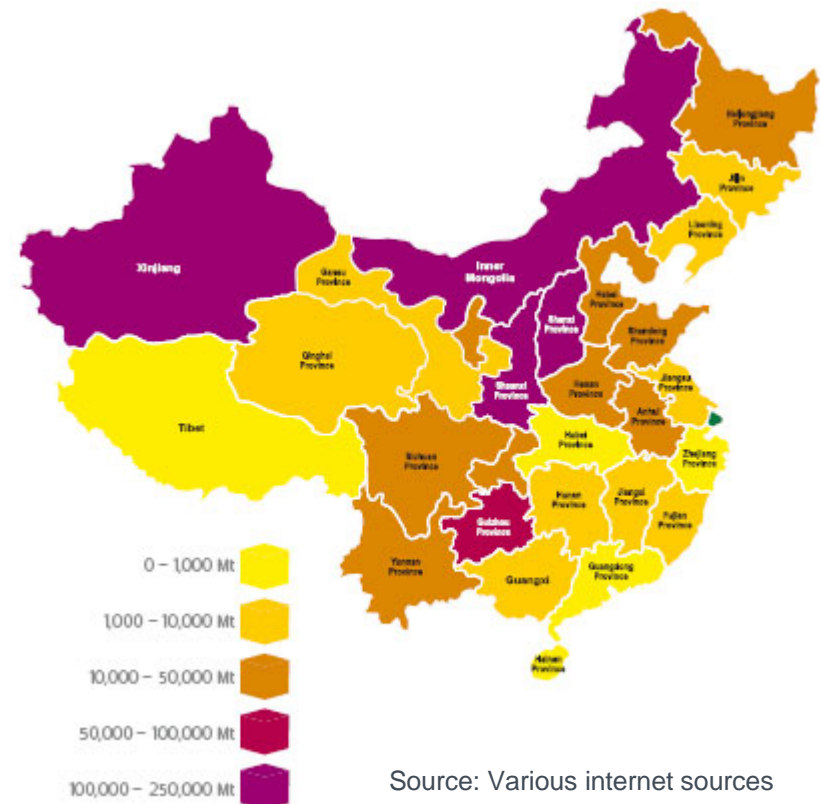


Process Technologies

China Overview

- Growth in China driven by:
 - Abundance of coal resources which is a strategic source of synthesis gas
 - Increasing demand for fuels and petrochemicals
 - Use of methanol as a gasoline additive
 - Tightening environmental regulations
- China demanding the best available technologies

Coal Reserves in China



Source: Various internet sources

A man in a white hard hat and safety glasses is working on industrial equipment. The background is blurred, showing other parts of the facility.

Syngas Catalyst Growth in China

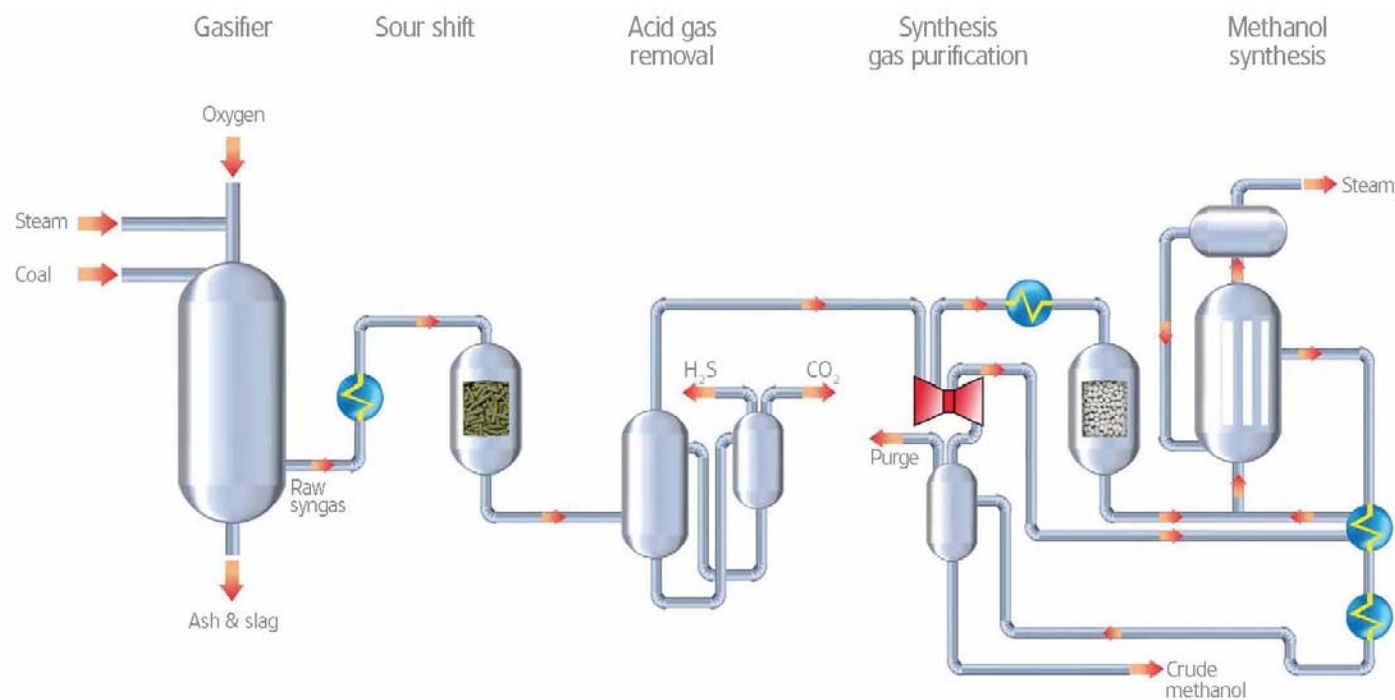
Andrew Wright

Managing Director, Syngas & Gas to Products



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Synthesis Gas (Syngas) from Coal

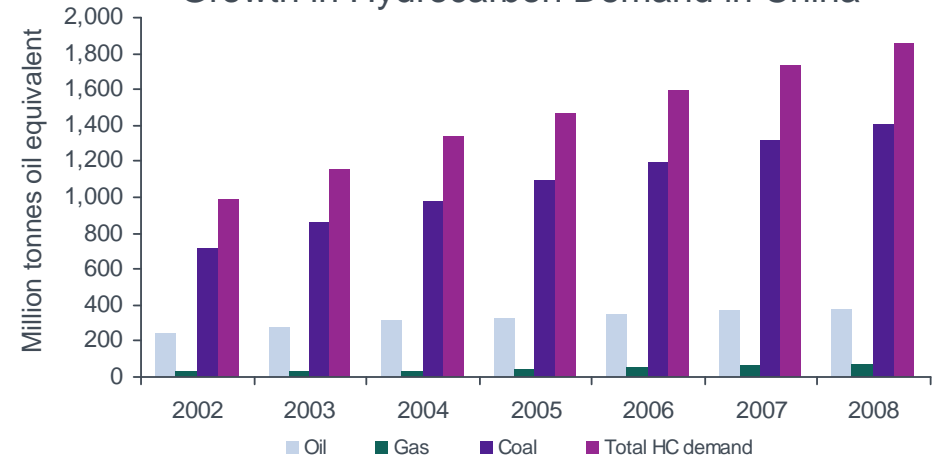


Syngas in China

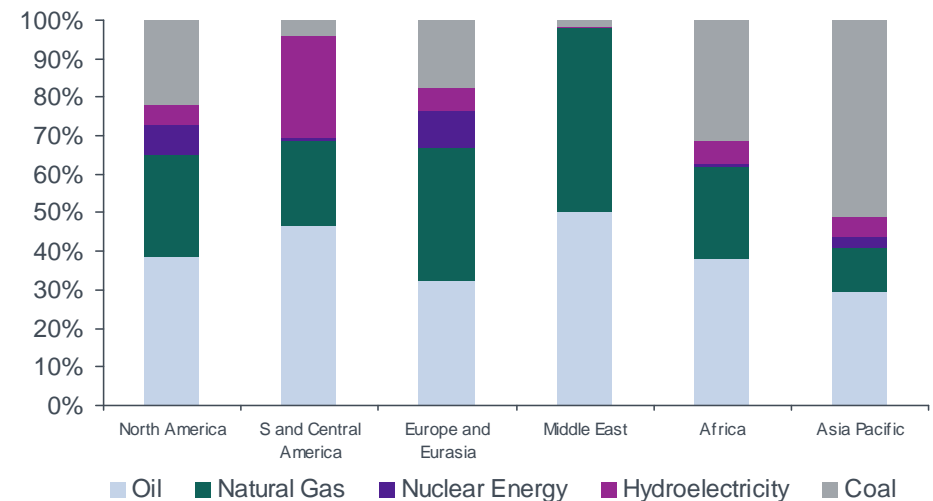
- Coal is an abundant and key strategic resource
- Energy consumption growing rapidly in China
- Increased regulations for cleaner fuels
- Greater focus on larger, more economic plants
- Emphasis on reducing emissions

Sources: BP Statistical Review of World Energy 2009

Growth in Hydrocarbon Demand in China

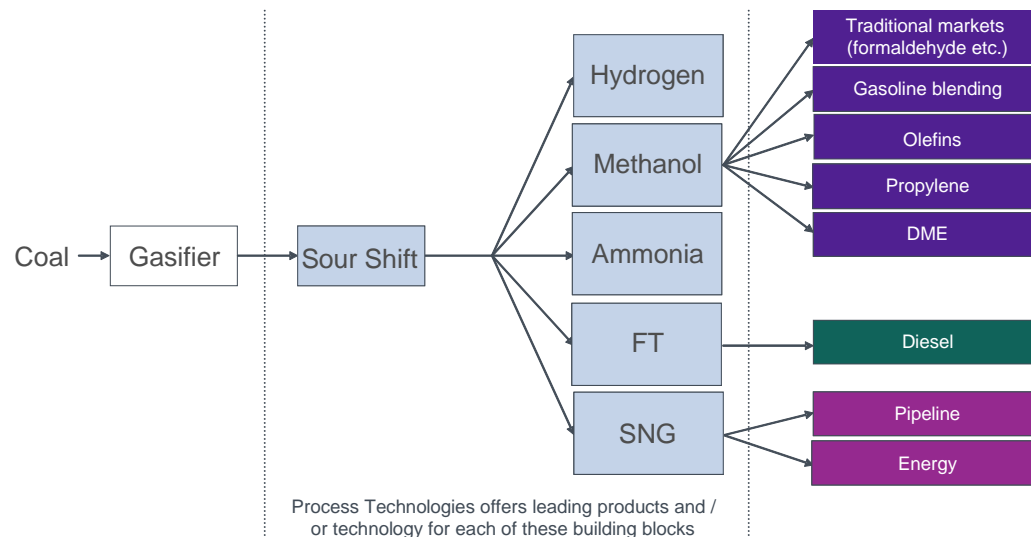


Regional Primary Energy Consumption Pattern 2008



Syngas in China

- Methanol
- Ammonia
- Hydrogen
- New syngas markets in China:

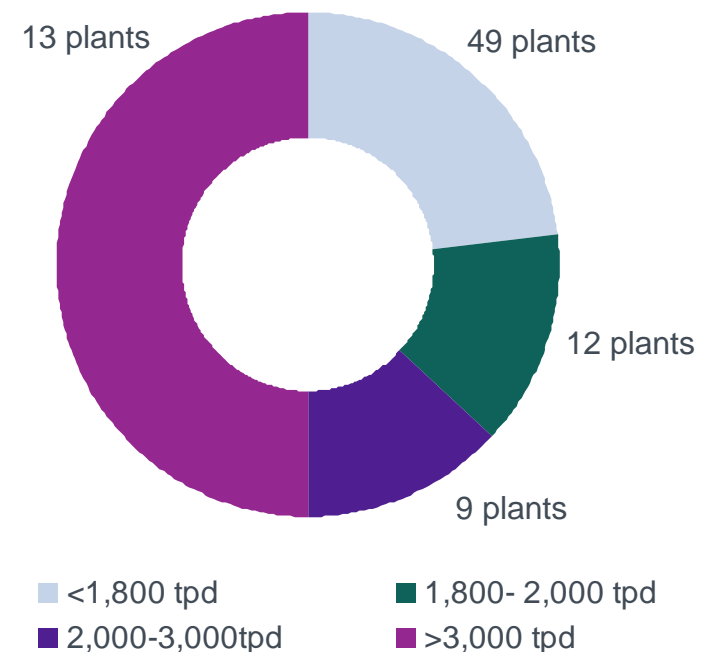


Methanol fuel in China

Syngas in China

- China Syngas catalyst market estimated at £180 million – 11% of global market
- Smaller uneconomic ammonia, hydrogen and methanol plants not run at full rates
- 22 from 83 methanol projects planned or under construction are >2,000 tpd
- JM focuses on the larger projects which accounts for more than 60% of new capacity
- 40% of methanol plants >2,000 tpd in China uses JM / DPT technology
- China Government is prioritising large methanol project investments

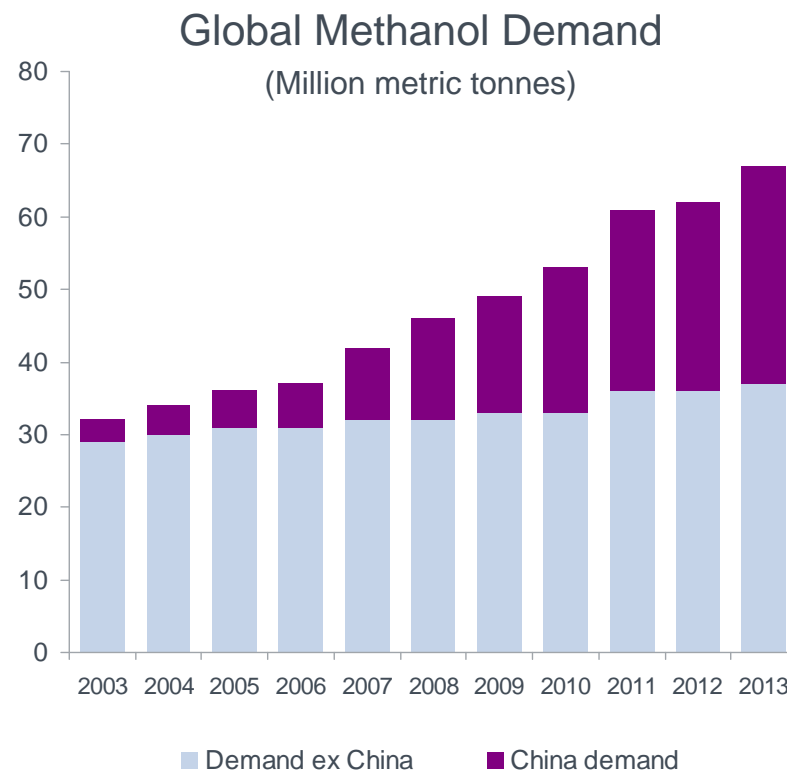
New Methanol Capacity in China
Projects under construction or planned



Sources: Asia Chem, China Coalchem, ChinaCTL, JM internal analysis

Methanol in China

- Shift to energy molecule
- Fuel blending – M5, M15, M85, M100
- DME for LPG substitution
- China demand forecast to double over next five years - focus on larger more efficient plants
- Catalyst volumes installed range from 50 to 250 tonnes
- New market leading JM Apico catalyst delivers strong benefits to customers



Source: CMAI / 2008 World Methanol Conference

Ammonia in China

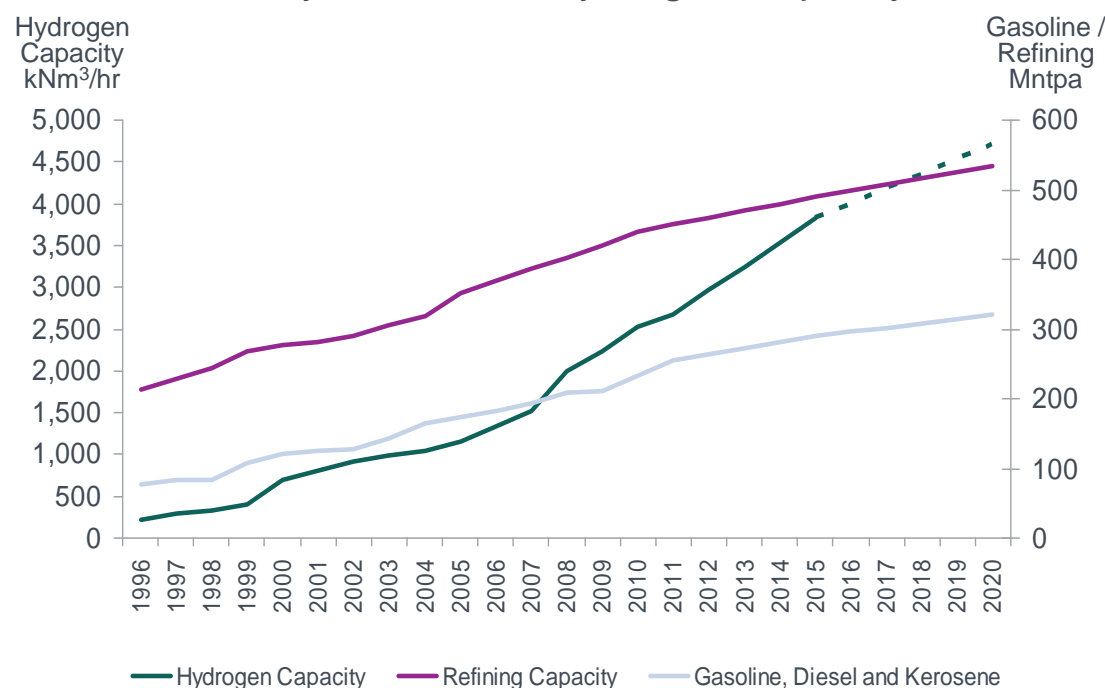
- Population growth
- Switch to larger, more efficient plants
- One third of global fertiliser market size (56 million tonnes p.a.)
- Growth rate: 1.5% p.a.
- Catalyst volumes installed range from 50 to 200 tonnes



Hydrogen in China

- Fuel specifications
- New refineries and hydrogen plants
- Hydrogen plant investment gaining momentum
- Marketing venture with Sinopec on hydroprocessing catalysts
- Catalyst volumes installed range from 60 to 200 tonnes

Refinery, Oil versus Hydrogen Capacity



Source: Sinopec figures

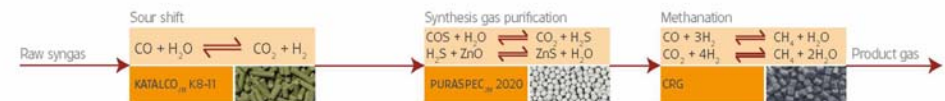
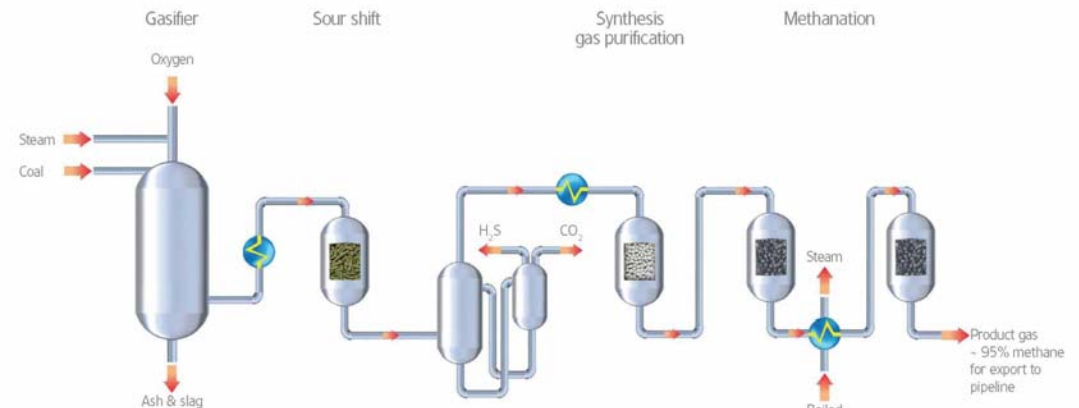
Substitute Natural Gas in China

- China short of natural gas
- SNG can utilise natural gas pipeline infrastructure
- Potential for “clean coal”
- JM recently won the first commercial SNG plant at Datang



China gas pipeline – completed 2009

Source: China Daily, AP



Syngas Team in China

- Hero Joint Venture incorporated in 2007 to manufacture sour shift catalyst
- JM recently increased ownership to 51% and is investing in adjacent land
- Will continue to develop manufacturing capability in China
- Beijing sales and technical service office established in 2006
- High quality technical and professional staff



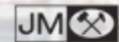
JM Syngas in China

China: Economic and Social Drivers	Levers to meet needs	JM Capability
Fuel growth	Methanol fuel blending, DME	Lead methanol licensor: large scale, leading edge flowsheets
Plastics consumption increasing	Produce plastics via MTO / MTP	As above
Fuel growth and tightening regulations	New capacity and improved refineries including hydrogen plants	Technology and catalyst know how, market leader in industrial gas segment
Expanding food supplies for growing population	Increase size of new ammonia plants	Strong ammonia licensor with Uhde, deep operating experience, local manufacturing
Expand sources of hydrocarbon to meet GDP growth	Monetise coal	Local sour gas manufacturing and market leadership
Reducing dependence on imported natural gas	Build SNG facilities	Only catalyst supplier with >20 years operating experience



Licensing Technology in China

David Tomlinson
President, Davy Process Technology



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Growth of China Petrochemical Industry

Ethylene Production Million tonnes per year	1978	2006	2011 (Forecast)
China	0.4	8	18
World	33	121	156
China %	1%	7%	12%

Source: China Government sources

Plants using DPT technologies

Plants	1978	2006	2011 (Estimated)
All technologies	2	6	22

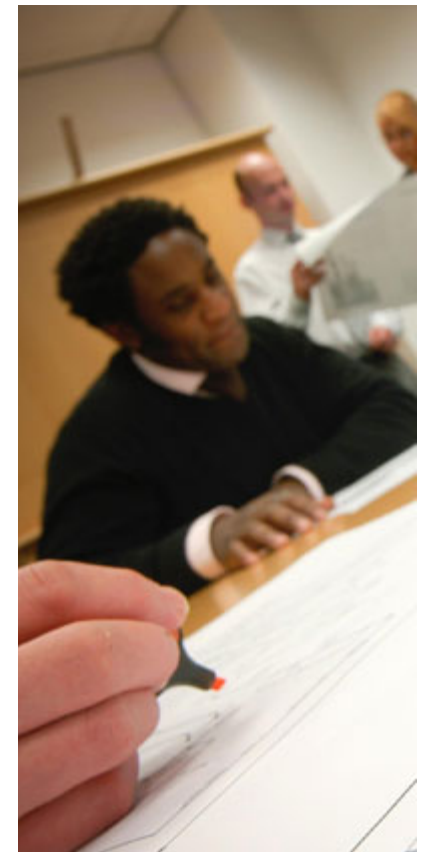
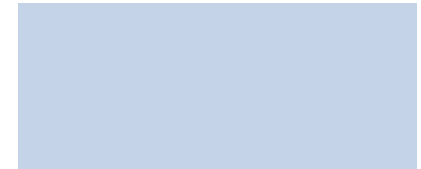
- First licences 1978 – oxo alcohols
- Growth in licensing reflects expansion of petrochemical industry and coal utilisation

Locations of Plants and Licences in China



Licensing Components

- Licence contract (phased and running royalty)
- Basic engineering package
- Supply of proprietary equipment
- Supply of catalyst
- Commissioning services
- Underpinned by ongoing investment in process improvement and development of the IP portfolio
- Strong market share resulting from this investment

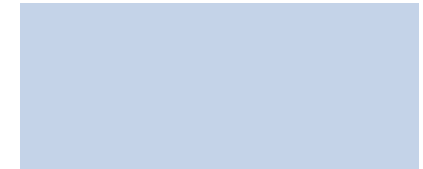


Chinese Design Institutes (CDIs)

- DPT has worked with ten CDIs nominated by the end user:
 - China Chengda Engineering Company Ltd
 - Sinopec Ningbo Engineering Company Ltd
 - China Tianchen Chemical Engineering Corporation
 - China Tianjin Chemical Engineering
 - China Hualu Engineering Company
 - China Petrochemical Engineering Company
 - China Huanqiu Contracting and Engineering Corporation
 - East China Engineering Science & Technology
 - Sedin Engineering Company Ltd
 - Sinopec Shanghai Engineering Company Ltd
- Basic engineering package workscope has been tailored to suit CDIs
- DPT retains a minimum scope of work to ensure technology reliability, plant safety and DPT reputation

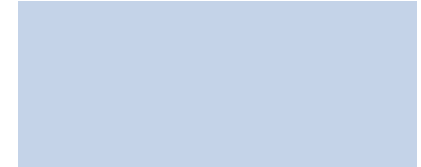
High Proportion of Staff Familiar with China Market

- Key departments involved in licensing and delivery of projects
 - Business management, marketing and business development
 - Process
 - Engineering
 - Project management
 - (140 people out of DPT total 220)
- 90% have worked on projects for China
- 60% have made (short and long) business visits



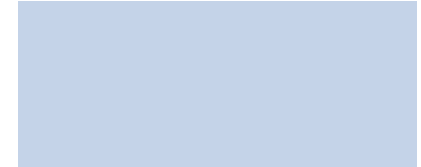
Oxo Alcohols

- World market:
 - 7 mtpa Butanols, 2EH
- Growth:
 - 3% p.a.
- Drivers:
 - Local market growth, propylene feedstock
- Uses:
 - Solvents, plasticisers
- DPT / Dow licensed capacity in China:
 - 1.8 mtpa
- Market share (licensed technology) 2000 – 2010:
 - Global 100% China 100%
- Marketing and technology strengths:
 - Upgrading and expansion of initial projects
 - Large capacity plants; latest processes



Methanol

- World market:
 - 50 mtpa (20% fuels)
- Growth:
 - Chemicals 2.5% p.a., fuels 30% p.a.
- Drivers:
 - Fuel use; MTO
- Uses:
 - Chemicals, MTO, fuels
- JM licensed capacity in China:
 - 10 mtpa
- Market share 2000 – 2010:
 - Global 40% China 40%
- Marketing and technology strengths:
 - Large capacity plants
 - Use of gasified coal and acetylene off gas as feedstocks
 - Product for fuel and MTO use



Butanediol (BDO)

- World market:
 - 1.8 mtpa
- Growth:
 - 6% p.a.
- Drivers:
 - End use growth, raw materials in Middle East
- Uses:
 - Spandex fibres, industrial plastics, solvents
- Licensed capacity in China:
 - 230 ktpa
- Market share 2000 – 2010:
 - Global 50% China 55%
- Marketing and technology strengths:
 - Improved co-product flexibility (THF and GBL)
 - Use of coal based benzene feedstocks



Marketing Success in China

- Market leading technologies worldwide
- Long history of licensing in China
- Good project delivery
 - Working with Chinese Design Institutes
 - Proven track record / repeat business
- Maintained value of technologies
- Continued improvement of technologies
 - Increased plant capacities
 - Improved raw material and energy efficiencies
 - Flowsheets for China feedstocks
 - Product spectrum for market needs
- Growing respect in China for international principles protecting intellectual property



Latest Plant Using DPT Technology in China


Bluestar (Nanjing) 55 ktpa BDO plant

- Effective contract November 2006
- Start up May 2009 - acceptance July 2009



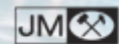


Johnson Matthey



Precious Metal Products Division – Operations in China

Bill Sandford
Executive Director



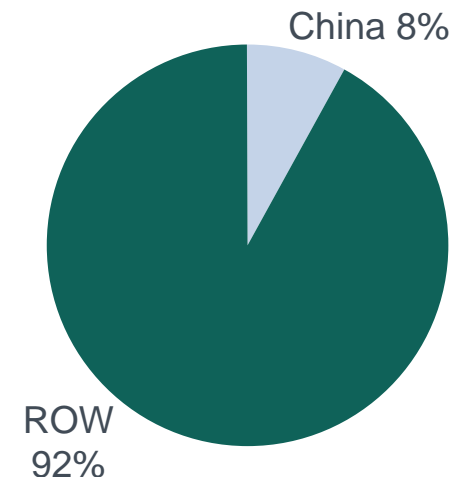
Johnson Matthey

PMPD in China

Two key activities:

- JM Shanghai
 - Chemicals and catalysts
 - Chemical, petrochemical and pharma industries
- JM Hong Kong / Shenzhen
 - Resale of other PMPD products
 - Pgm trading and marketing
- Represents 8% of total PMPD sales ex pms

PMPD Sales ex pms



PMPD Hong Kong

- Regional HQ for business in SE Asia
- Six offices in four countries
- Three major functions
 - JM group product resale
 - Pgm trading and distribution
 - Pgm marketing

PMPD Hong Kong

JM Group Product Resale

- Products made in Europe, USA and Korea
- Sales, warehousing and distribution in Hong Kong, Shenzhen and Shanghai
- Major product groups
 - Metallurgical products (Noble Metals)
 - Colour Technologies
 - Emerging markets e.g. fuel cells



PMPD Hong Kong

Metallurgical Products

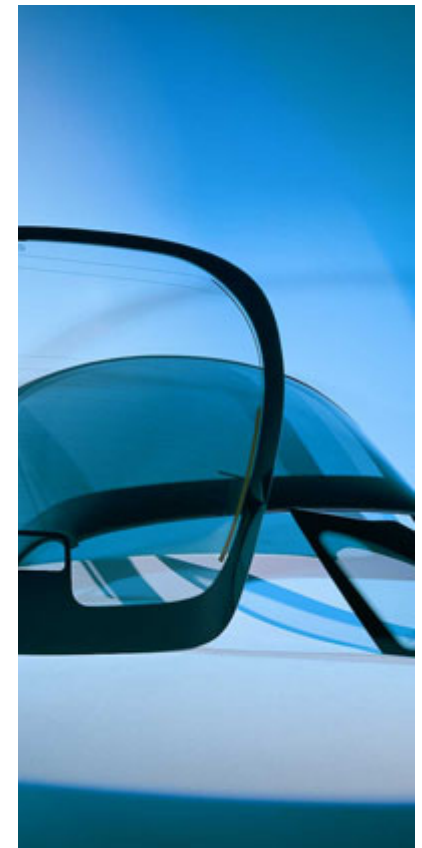
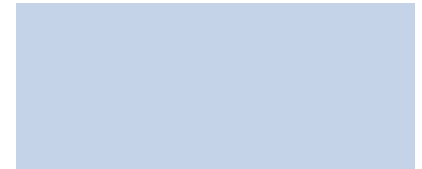
- Products made in UK and USA
- Pgm alloys for industrial applications
 - Nitric acid catalysts, glass furnaces, medical etc.
- Catalysts for N_2O destruction
- Competitors – Heraeus, local Chinese, in-house mfr



PMPD Hong Kong

Colour Technologies

- Products developed and manufactured in Maastricht and Korea
- Enamels and inks for automotive glass
 - Became world's largest market in 2009
 - Technology and quality are key
 - Competitors – Ferro, Okuno, Pemco, local Chinese
- Large range of decorative products
 - Large number of local Chinese competitors



PMPD Hong Kong

Pgm Trading

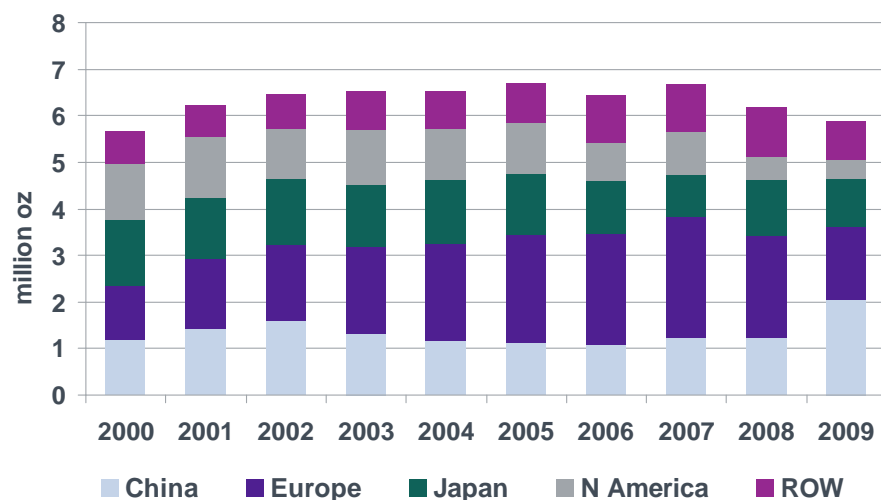
- Gives JM 24-hour coverage
- Trading in US\$ and local currency
- China has become major consumer of all Pgms
 - Biggest demand market for both Pt and Pd



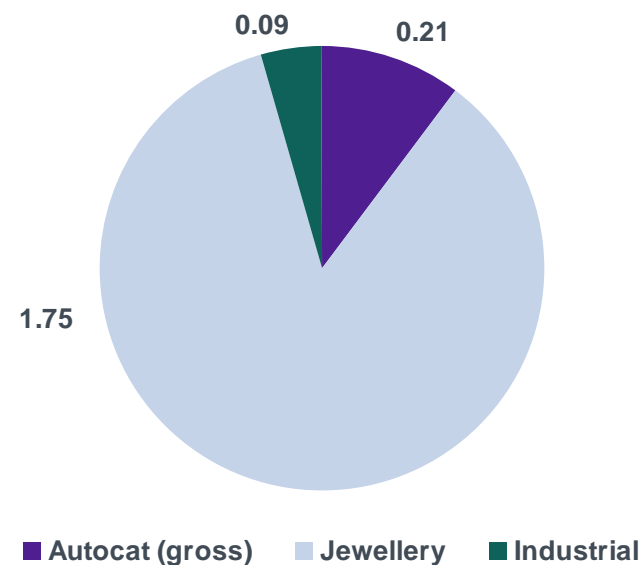
PMPD Hong Kong

Platinum Demand 2009

Pt Demand by Region (m oz)



China Pt Demand by Application (m oz)

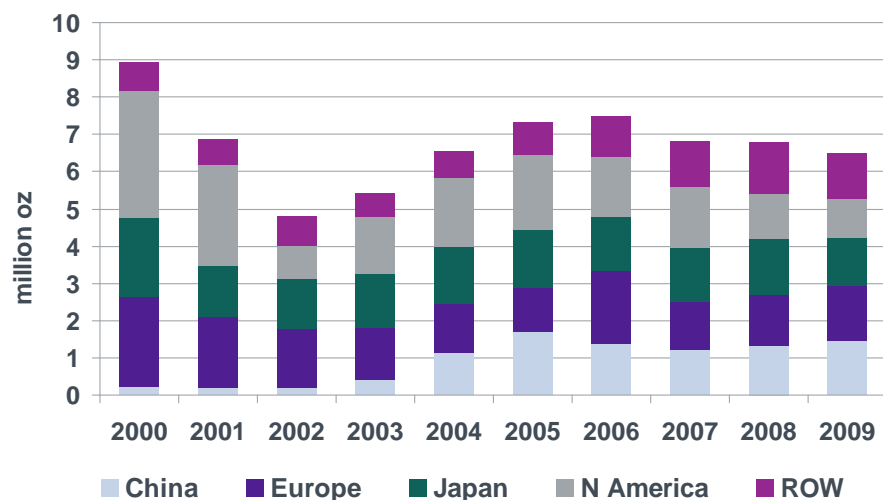


Total China Market 2.05m oz

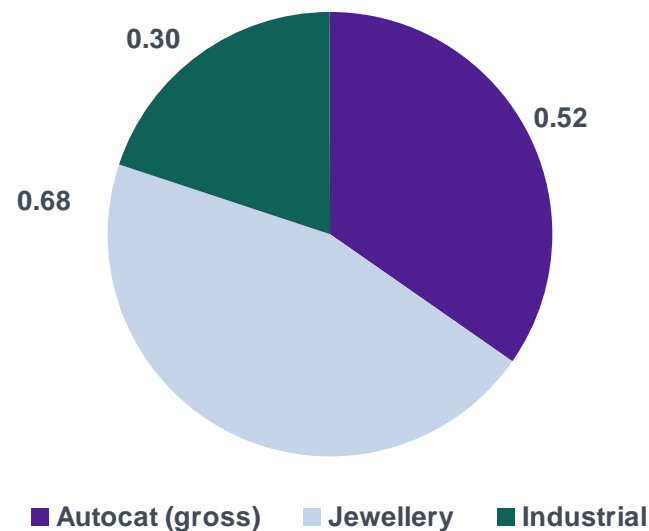
PMPD Hong Kong

Palladium Demand 2009

Pd Demand by Region (m oz)



China Pd Demand by Application (m oz)



Total China Market 1.5m oz

PMPD Hong Kong

Pgm Marketing

- Part of our Anglo Platinum relationship
 - JM is Anglo's Marketing Agent
- Market research
- Market development





The Chinese Jewellery Market

Bill Sandford
Executive Director

Elaine Shao
Office Manager, JM Shanghai

Platinum Jewellery

Early Success Factors

- Perceived as being western, fashionable, young
- Helped by one child policy
- Preference for “white” jewellery
- High purity
- Strict control on gold fabrication
- Higher manufacturing margins

Johnson Matthey's Role

- Early 1990s - market evaluation, early marketing
- Lobbying for quality standards
- Support for jewellery testing centres
- Support for Pt listing on Shanghai Gold Exchange
- Technical training for manufacturers
- Provision of local metal stocks / trading
- Measurable sales began in 1993



Market Features

- Good quality, high purity, quality assured
- Lightweight, affordable, low mark-up
- Metal intensive
- Aspirational
- Price sensitive market
- Large, well financed manufacturers / retailers



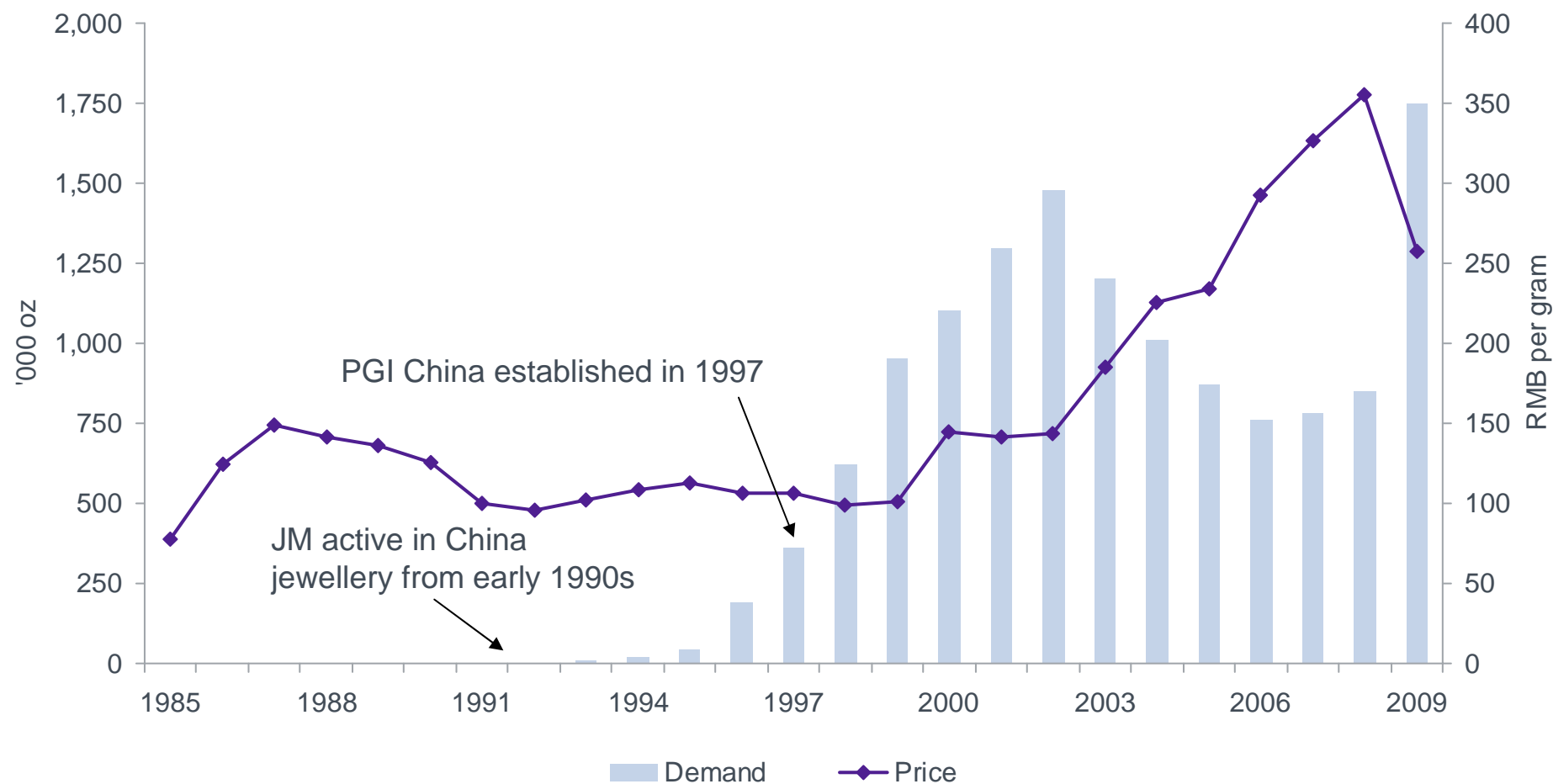
Ongoing Market Development

- Coordination with Platinum Guild International (PGI)
 - Funded by major Pt producers
 - JM a sponsor
- PGI China established 1997
- Consumer marketing campaigns launched



Platinum Jewellery Demand – China

Purchase of new metal by manufacturers



World Platinum Demand

- Jewellery 40% total demand in 2009
- China biggest jewellery market
- Price sensitive – provides support when industrial demand slows
- Sales in 2009 up 900k oz



Growing Consumer Base

- Population 1.34 billion
- Middle class population estimated at 100 - 250 million
- Urban population 575 million in 666 cities
- Continuing high savings rates
- Majority of sales in 1st and 2nd tier cities
- Significant scope for further market penetration

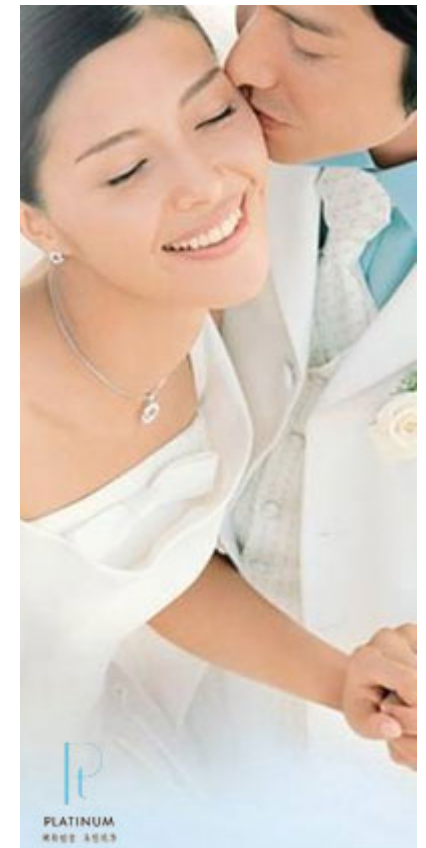


The Platinum Jewellery Industry in China



Future Market Drivers

- Chinese economic growth
- Manufacturing premiums
- Marketing – expanding the customer base
- Platinum price

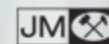






Catalysts and Chemicals Business in China

Helen Zhou, General Manager
John Chen, Commercial Director



Johnson Matthey

Agenda

- 1 China site history and development
- 2 Organisation
- 3 Operations
- 4 Platinum group metal (pgm) chemicals review
- 5 Sponge nickel catalyst review
- 6 Summary

History

Catalysts and Chemicals China

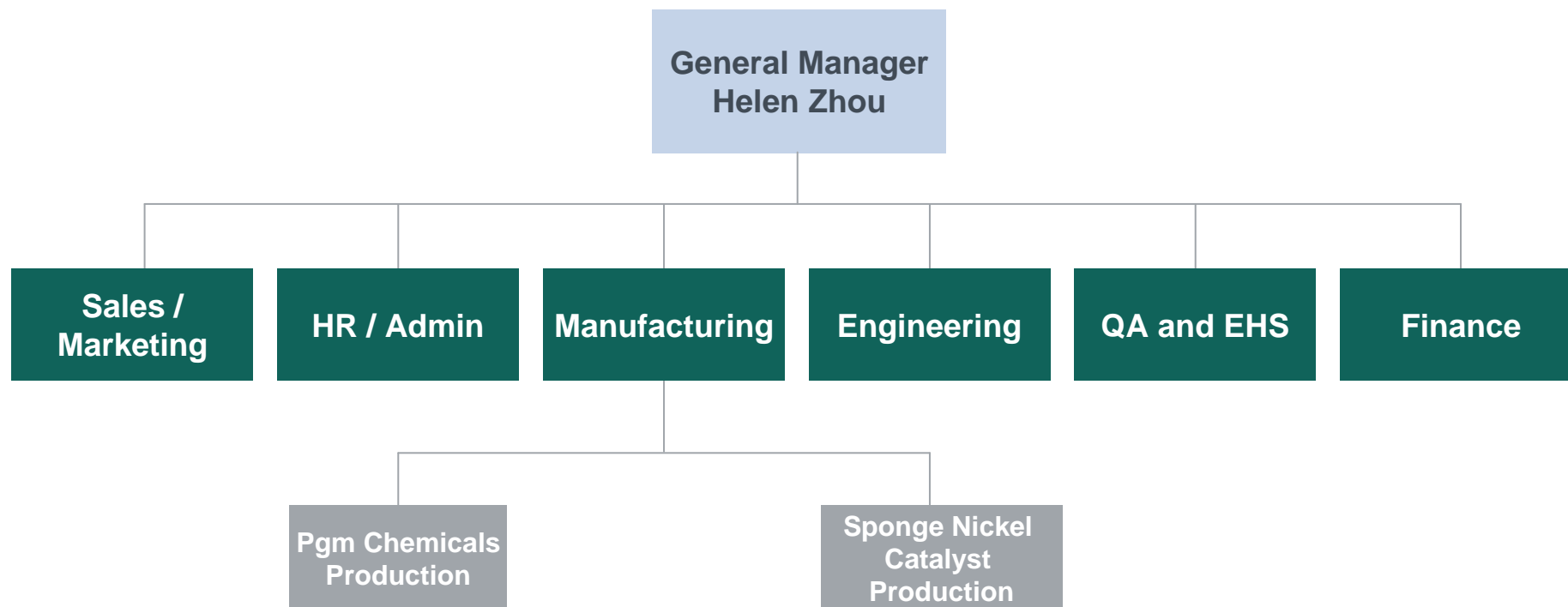
- 1980s – Johnson Matthey established sales office in Hong Kong
 - Covers all JM products
- 1990s – development / commercial visits in China
 - JM established sales office in Shanghai
- 2002 – constructed chemicals manufacturing plant to support ECT and external markets
 - Expanded market development / commercial visits to support future growth of pgm and base metal catalysts in China
- 2005 – Established trading company in Shanghai to distribute edible oil and oleochemical catalyst products
- 2008 – New pgm chemicals manufacturing facility opened on Shanghai site
- 2009 – Nickel catalyst plant commissioned on the chemicals site

Shanghai Site Bird's-eye View

Songjiang – 40km from Shanghai city centre

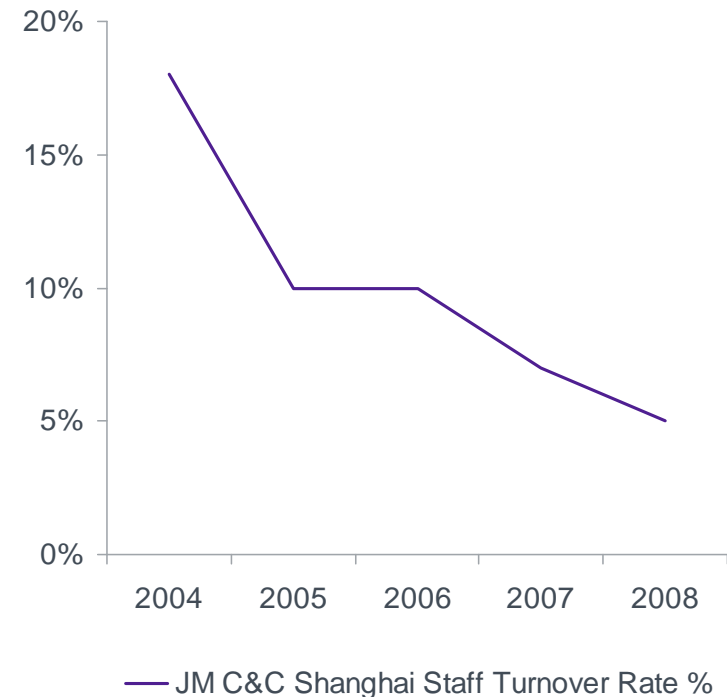


Catalysts and Chemicals Manufacturing China



Operational Focus

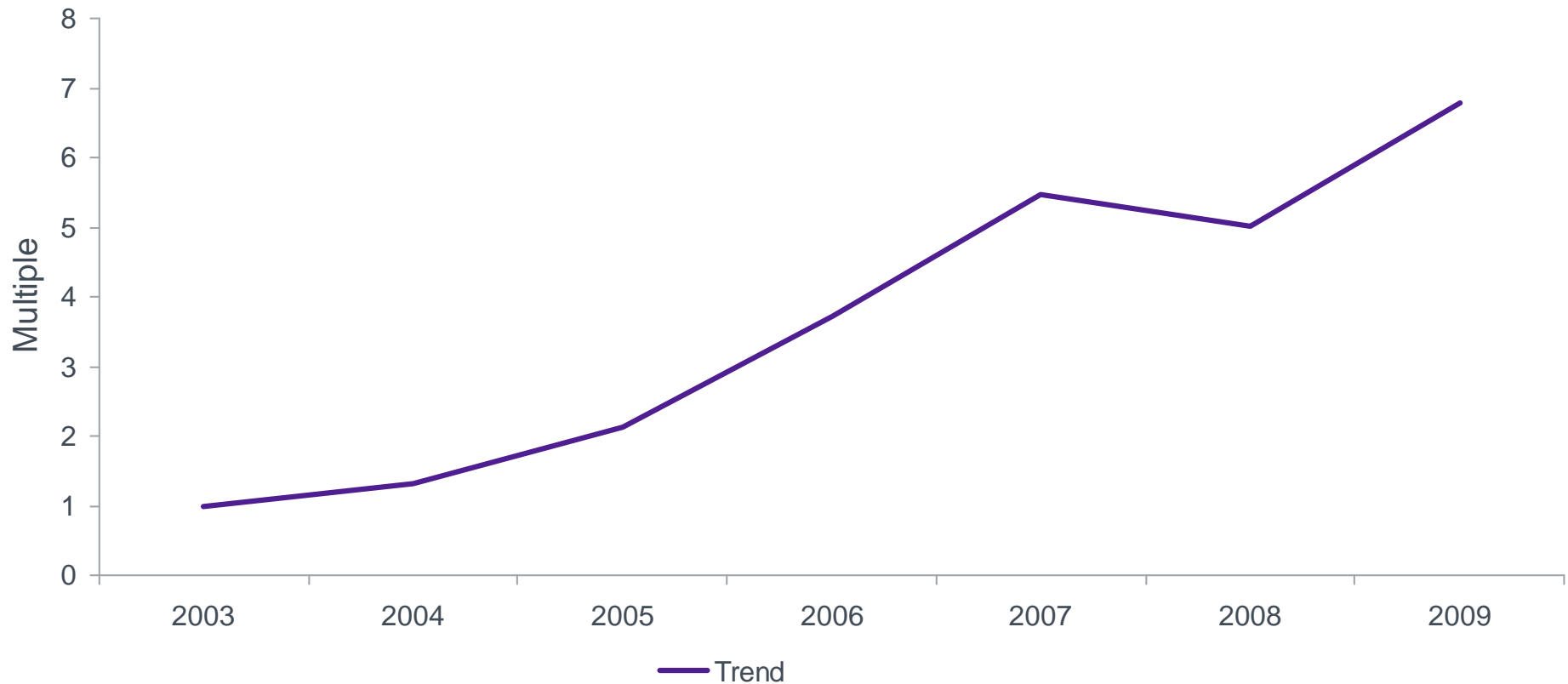
- Products and processes transferred from JM USA
- Optimisation in China – two way technology transfer
- Modern, highly efficient factory
 - Meets highest international specifications
 - Consistent with JM Sustainability 2017
- Recruit high quality staff
 - 104 employees
 - 65% with first degree or higher
- Train, motivate and encourage employees
 - 5% staff turnover
 - Chinese industry 14.2%, Chemical industry 10.7%



Catalysts and Chemicals Manufacturing

- Platinum group metal (pgm) chemicals
 - Full range of platinum, palladium and rhodium based products
 - Simple binary salts (e.g. platinum nitrate, palladium chloride, rhodium iodide)
 - Pgm coordination complexes and organometallic compounds
- Sponge nickel catalysts
 - Nickel in highly activated form
 - Used as catalyst for hydrogenation reactions
 - Wide range of catalyst types

Pgm Chemicals Production Trend



Volumes CAGR 38% in past 6 years

Market Growth – 2009

	%
Automotive* ¹	43.9
Petroleum* ²	6.4
Chemicals* ³	7.4
Pharma* ⁴	23.0

1 IHS Global Insight

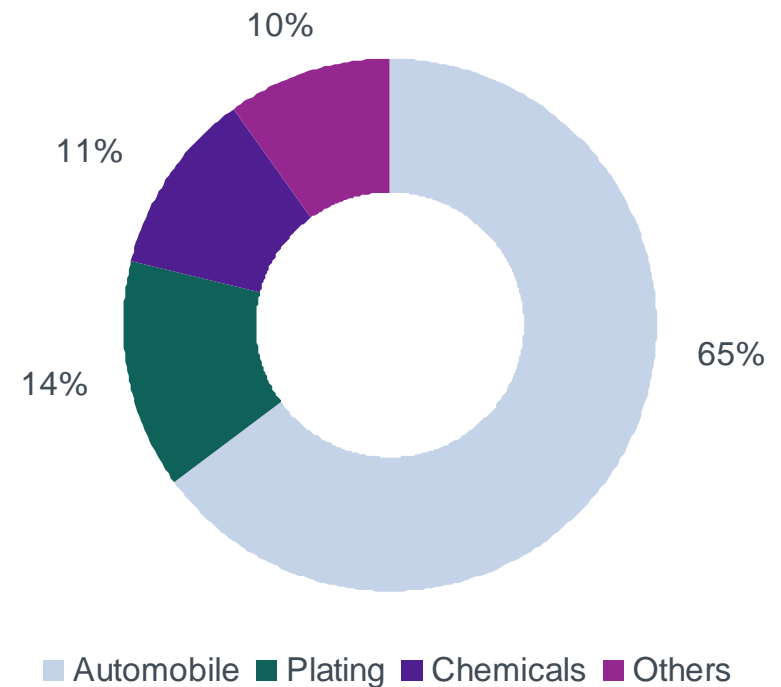
2, 3 China Petroleum and Chemical Industry Association

4 Wind, Bloomberg, Yuanta research September 2009

China Chemicals Market

- Pgm chemicals for autocatalysts
- Plating for decorative and electronic applications
- Catalysts and catalyst precursors for petroleum, petrochemical, chemical and pharma industries
- Others – aerospace, electronics
- Competitors
 - Heraeus, Umicore
 - Sino-Platinum, Grikin + numerous local Chinese

Markets by Revenue



Chemical Catalysts and Precursors

Pgm Salt	Application	Product
Pt	Petroleum	Gasoline
Rh	Acetic acid	PVA / plastics
Rh	Oxo alcohols	Plasticisers
Pd	Pharma	APIs

Sponge Nickel Products and Technologies

- Products – sponge nickel
 - Often promoted by other metals
 - Catalyst tailored for discrete chemical reactions
- Used as hydrogenation catalyst in a range of processes
- Products and process transferred from JM Tennessee, USA
- Plant commissioned in Q4 2009
- Johnson Matthey only western manufacturer in China

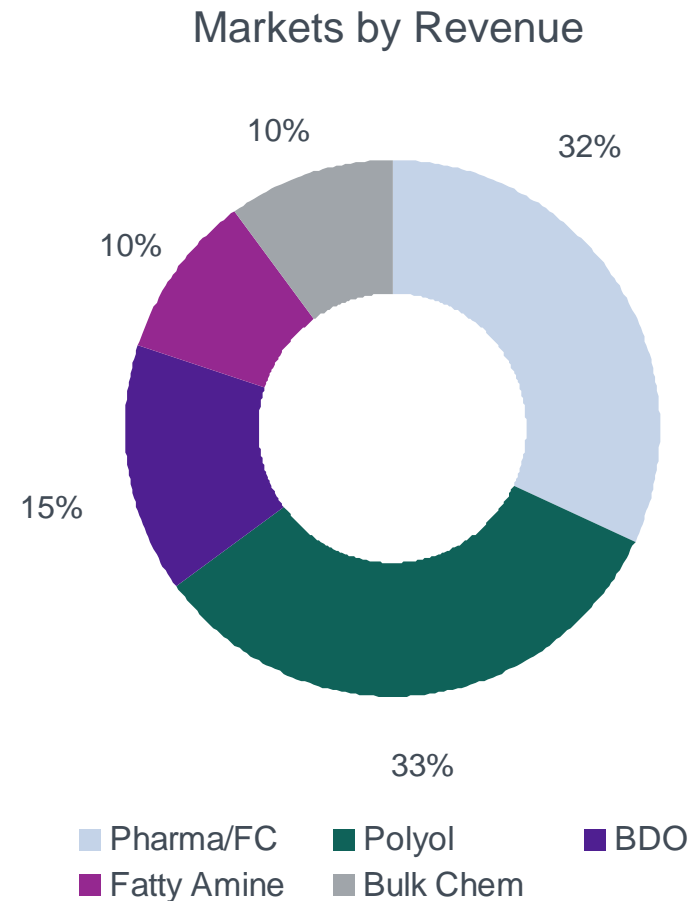


China Sponge Nickel Market 2010

- Hydrogenation catalyst
- Polyol – current largest market, will grow 10.6% in 2010*¹
- Pharma and Fine Chem – growing 24%*². Largest sector in 2011
- Variety of chemical and speciality chemical application
- Competitors
 - WR Grace, Evonic
 - Dalian Toyouger + other locals

1 Global Insight forecast China

2 Bloomberg, Yuanta research Sept 2009



Supported Catalysts

- Resale of supported catalysts made by Johnson Matthey in Europe and USA
- Active metals can be pgm or base metals
- Variety of support materials
 - Carbon, alumina, silica etc.
- Used in the pharma, chemical and petroleum industry
- Market growing quickly
 - Chinese pharma industry expected to be the world's fifth largest market in 2010 and the world's largest by 2040

Virtual Tour of Catalysts and Chemicals, Shanghai



Summary

- Invested in strong manufacturing presence and management infrastructure at the Shanghai site
- Established capability to manufacture a wide range of products tailored to local requirements
- The business has shown good growth over last few years
- The markets for our products are expected to grow strongly offering significant growth opportunities in the future
- Plans under consideration to expand operations
- Strong team of highly qualified and motivated staff
- Quality, product development and strong relationships key to success in this market

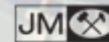


Johnson Matthey



Fine Chemicals Division

Nick Garner
Division Director



Johnson Matthey

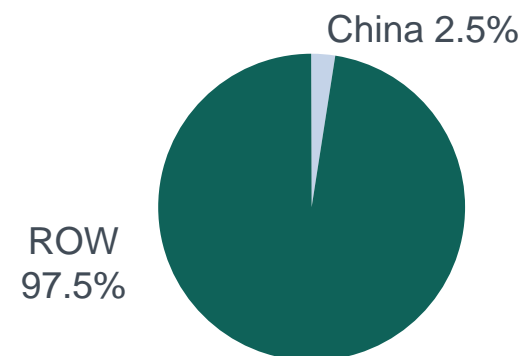
Agenda

- 1 Fine Chemicals Division Overview
- 2 Fine Chemicals developments in Asia
- 3 Research Chemicals in Asia - Yantai

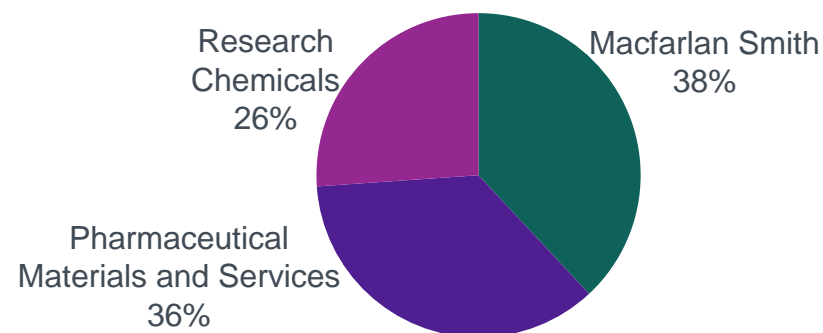
Fine Chemicals Division

- Division formed April 2009
- Comprises Research Chemicals and the Active Pharmaceutical Ingredients (API) businesses:
 - Macfarlan Smith – Edinburgh
 - Pharmaceuticals Materials and Services – NJ and MA, USA

FC Sales ex pms 2008/09



FC Sales ex pms 1H 2009/10



Research Chemicals

- Catalogue range of 30,000 products. Grown from 11,000 in 1995
- Catalogue sizes (over 80,000 items). Usually shipped same or next day from stock in all markets
- Sell to academic, industrial, R&D, high tech, analytical, and pharma accounts
- Business has averaged double digit operating profit growth since 2000



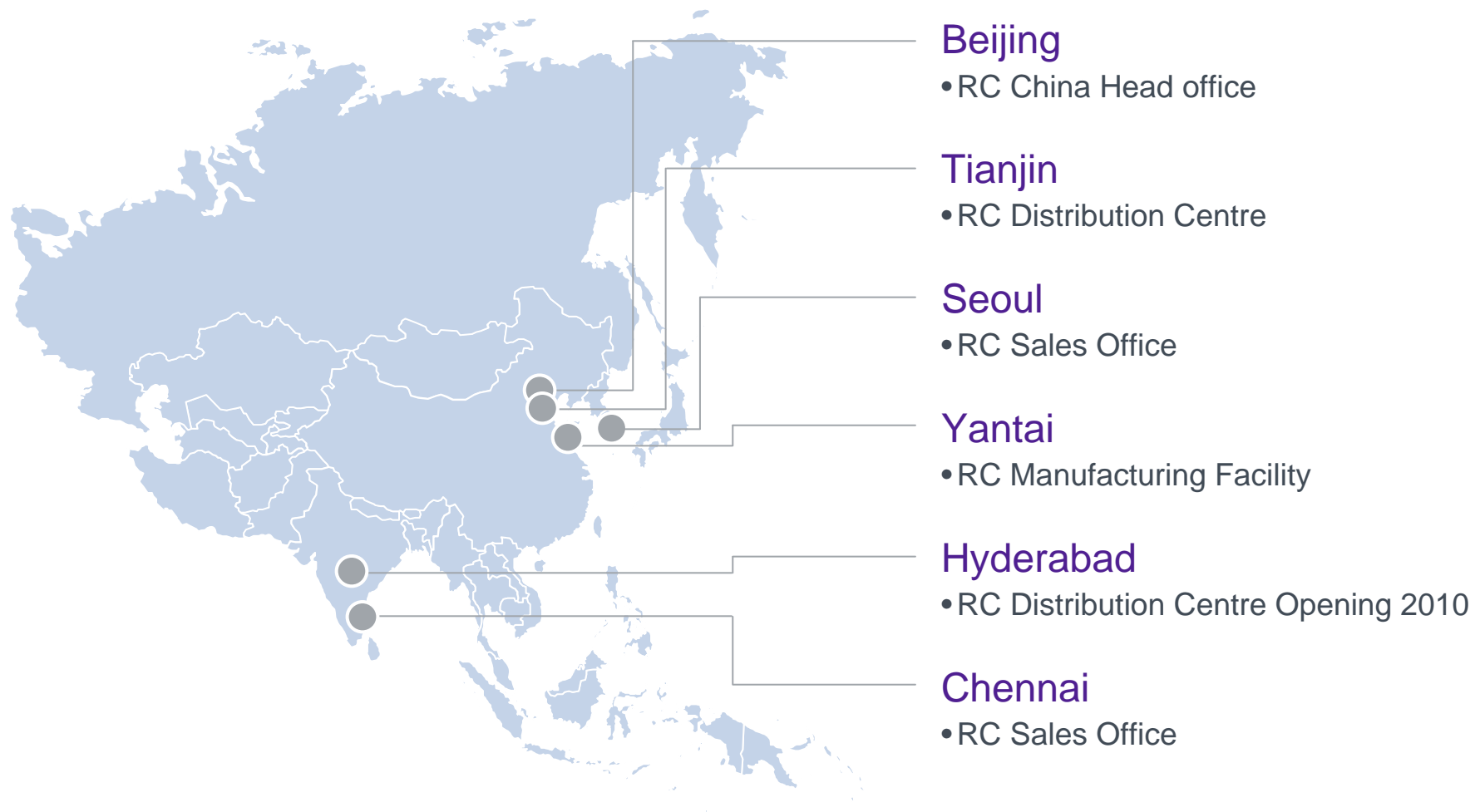
2008/09 Catalog

Research Chemicals

- Current products are inorganics, organics and metals (not life science)
- Research Chemicals' new global web site (www.alfa.com) launched in October 2009
- Bulk or custom items represent a minority of transactions but account for a significant percentage of sales

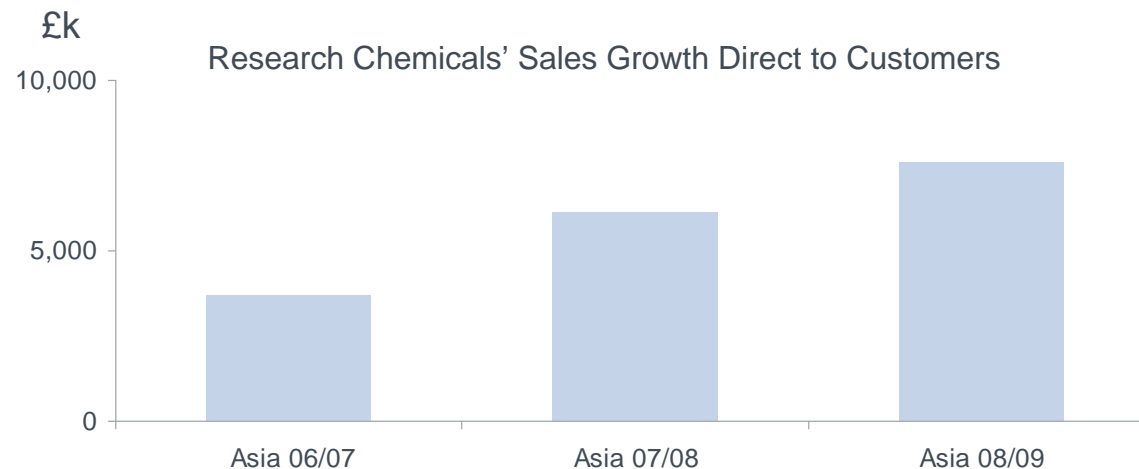


Fine Chemicals in Asia

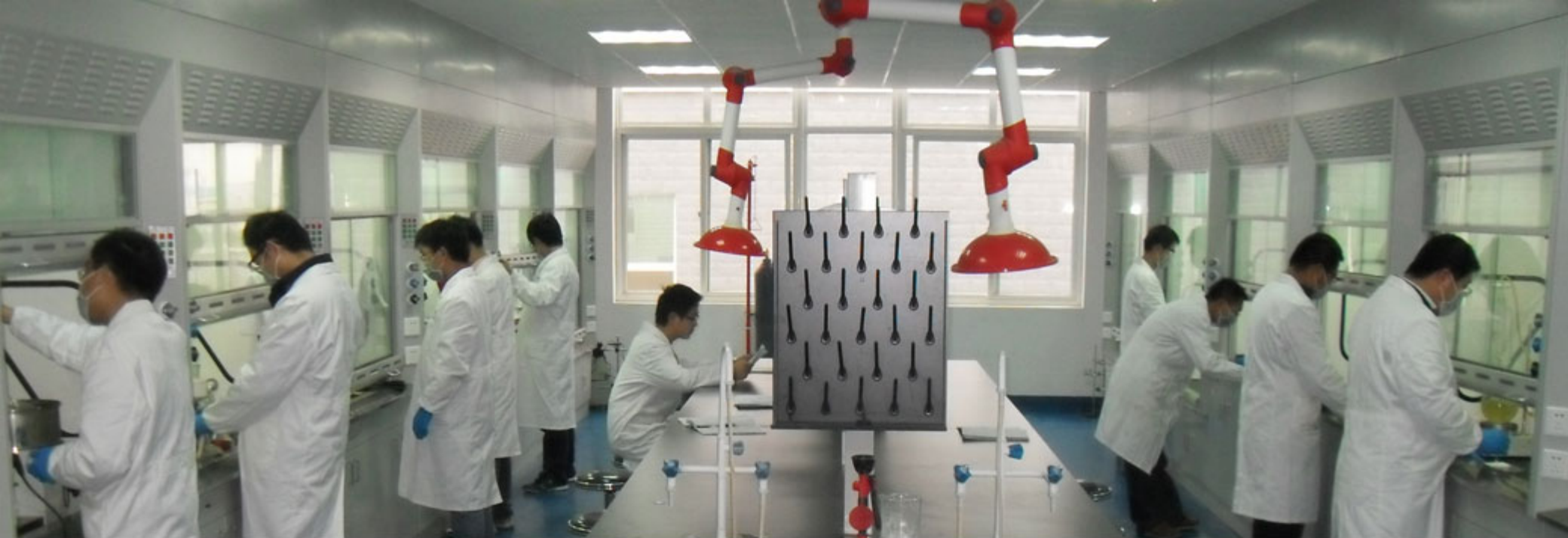


Research Chemicals in Asia

- Research Chemicals' major focus to develop Asian markets



- Asia sales approx 15% of Research Chemicals' total sales
- Particular emphasis on the Chinese and Indian markets
 - Distribution centre in Tianjin close to key markets of Beijing and Shanghai
 - New bonded warehouse and distribution centre opening 2010 in Hyderabad
 - New manufacturing facility opened end 2009 in Yantai



Alfa Aesar Synmax Yantai China Laboratories and Pilot Plant

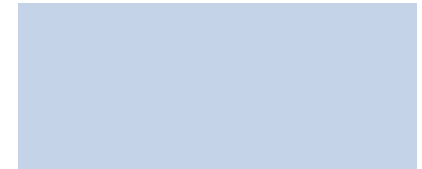
Jian Zhang
Managing Director



Johnson Matthey

Location: Yantai, Shandong Province

- Coastal city southeast of Beijing and north of Shanghai
- One hour flight from Beijing or Shanghai
- Located in YEDA - Yantai Economic and Technical Development Zone
- Low cost but desirable location in general proximity to resort areas

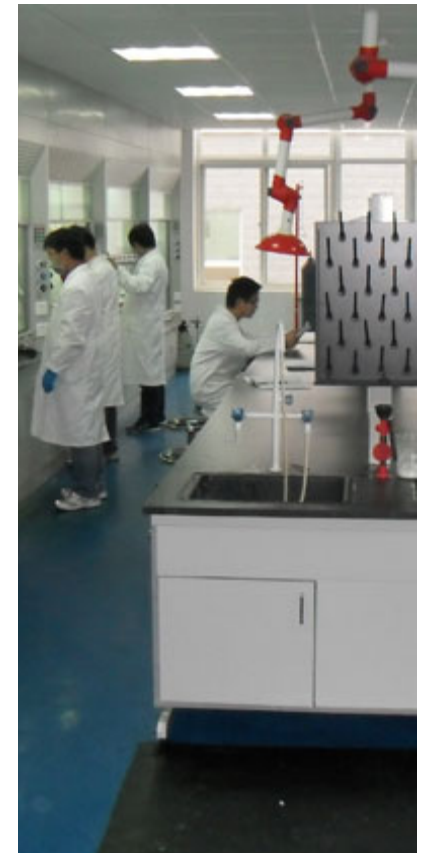


Virtual Tour of Alfa Aesar Synmax, Yantai



Strategy: The Kilo Lab

- In-house manufacture of current product range at lower cost
- Manufacture hundreds of new and competitor listed products
- Develop new and interesting processes to make products for new markets
- Keep opportunities, quality control and intellectual property in-house



Strategy: The Pilot Plant

- Opportunities to expand bulk capabilities to supply external customers and for in-house manufacturing of intermediates for wider JM group
- 100 to 2,000 litre capacity - presents enhanced capability to supply
- Keeps opportunities, quality control, and intellectual property in-house
- Ensures batch efficiency via scaling up and low cost (local) raw materials
- Low overheads allow highly competitive pricing



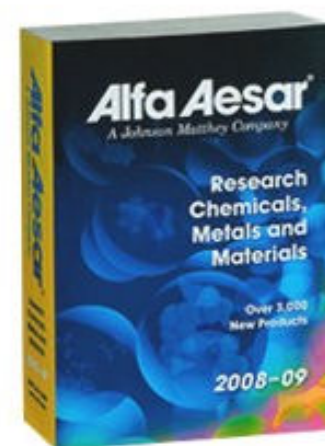
World Class Chemistry

- Alfa Aesar Synmax Board Member, Guomin Zhang, former Head of the Chinese Chemical Society
- Team leaders with decades of experience and >100 literature references
- Knowledge to perform and manage several hundred types of reactions
- Excellent local and national contacts with diverse chemistry knowledge



Sales and Marketing

- Yantai products will be offered via global catalogue and established sales network
- Sales and marketing will be managed by Alfa Aesar regional facilities
- Alfa Aesar regional bulk sales teams will convert quotes into orders for Yantai



2008/09 Catalog



Research Chemicals Growth Strategy

Building on Strengths and Synergies, Keeping Costs Low

- Strategy enables us to address opportunities which we were unable to pursue in the past
- Low cost materials and low overheads enables competitive pricing
- Local presence strengthens our position in Chinese research / chemicals industry
- Johnson Matthey's global reach allows us to leverage our capabilities



Johnson Matthey

A man in a white lab coat, hard hat, and safety glasses is working on industrial equipment. The equipment features several vertical glass tubes held by metal clamps. The man is looking down at the equipment with a focused expression.

Wrap Up and Q&A

Neil Carson
Chief Executive



Johnson Matthey

Glossary

ABS	Ammonia bisulphate	ECT	Emission Control Technologies
AMOG	Ammonia, Methanol, Oil and Gas	EHS	Environment, Health and Safety
API	Active pharmaceutical ingredient	ELV	Emission limit value
BDO	Butanediol	ET	Environmental Technologies Division
C&C	Catalysts and Chemicals	FC	Fine Chemicals Division
CDI	Chinese Design Institute	FT	Fischer-Tropsch
CH ₄	Methane	GBL	gamma Butyrolactone
CH ₃ OH	Methanol	GDP	Gross domestic product
CO	Carbon monoxide	GHG	Greenhouse gas
CO ₂	Carbon dioxide	GTL	Gas to liquids
COS	Carbonyl sulphide	GW	GigaWatt
CPI	Consumer price index	H ₂	Hydrogen
DME	Dimethyl ether	H ₂ S	Hydrogen sulphide
DMF	Dimethyl formamide	HDD	Heavy duty diesel
DOC	Diesel oxidation catalyst	JM	Johnson Matthey
DPT	Davy Process Technology	JV	Joint venture
EA	Ethyl acetate	LDD	Light duty diesel
2EH	2-ethyl hexanol	LPG	Liquefied petroleum gas

Glossary

MEP	Ministry of Environmental Protection	R&D	Research and development
MTO	Methanol to olefins	RC	Research Chemicals
MTP	Methanol to propylene	RMB	Renminbi
MW	MegaWatt	ROW	Rest of the world
NDA	Natural detergent alcohol	Rh	Rhodium
N ₂ O	Nitrous oxide	SCR	Selective catalytic reduction
NO _x	Nitrogen oxides	SEC	Stationary emission control
OEM	Original equipment manufacturer	SNG	Substitute natural gas
Pd	Palladium	SO _x	Oxides of sulphur
PGI	Platinum Guild International	Syngas	A mixture of hydrogen and carbon oxides
Pgm	Platinum group metal	THF	Tetrahydrofuran
Pms	Precious metals	Tpd	Tonnes per day
PMPD	Precious Metal Products Division	TWC	Three way catalyst
PPI	Power plant industry	ZnO	Zinc oxide
PRC	People's Republic of China	ZnS	Zinc sulphide
PT	Process Technologies	YEDA	Yantai Economic and Technical Development Zone
Pt	Platinum		



Johnson Matthey