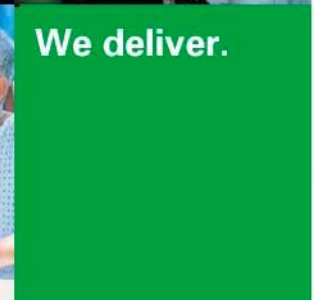
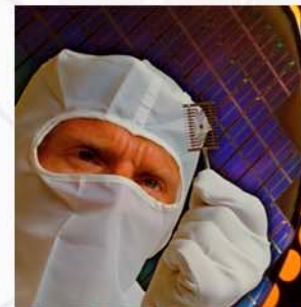




# Goldman Sachs Global Industrial Gases Conference 2005

**Stephen F. Angel**  
**Executive Vice President**

April 13, 2005



The forward-looking statements contained in this announcement concerning demand for products and services, the expected macroeconomic environment, sales, margins, earnings growth rates, and other financial goals involve risks and uncertainties, and are subject to change based on various factors. These include the impact of changes in worldwide and national economies, the cost and availability of electric power, natural gas and other materials, development of operational efficiencies, changes in foreign currencies, changes in interest rates, the continued timely development and acceptance of new products and processes, the impact of competitive products and pricing, the impact of tax, accounting and other legislation, litigation, government regulation and the effectiveness and speed of integrating new acquisitions into the business.

# Financial Outperformance



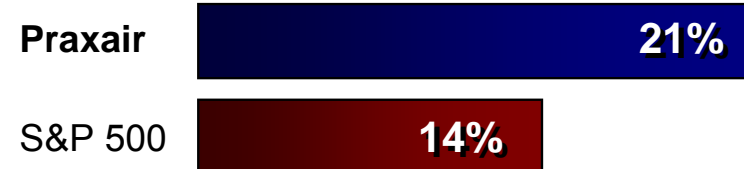
## Sales

(10-year compound annual growth rate)



## Return on Equity

(10-year average)



## Earnings

(10-year compound annual growth rate)



## Total Shareholder Return

(10-year compound annual growth rate)



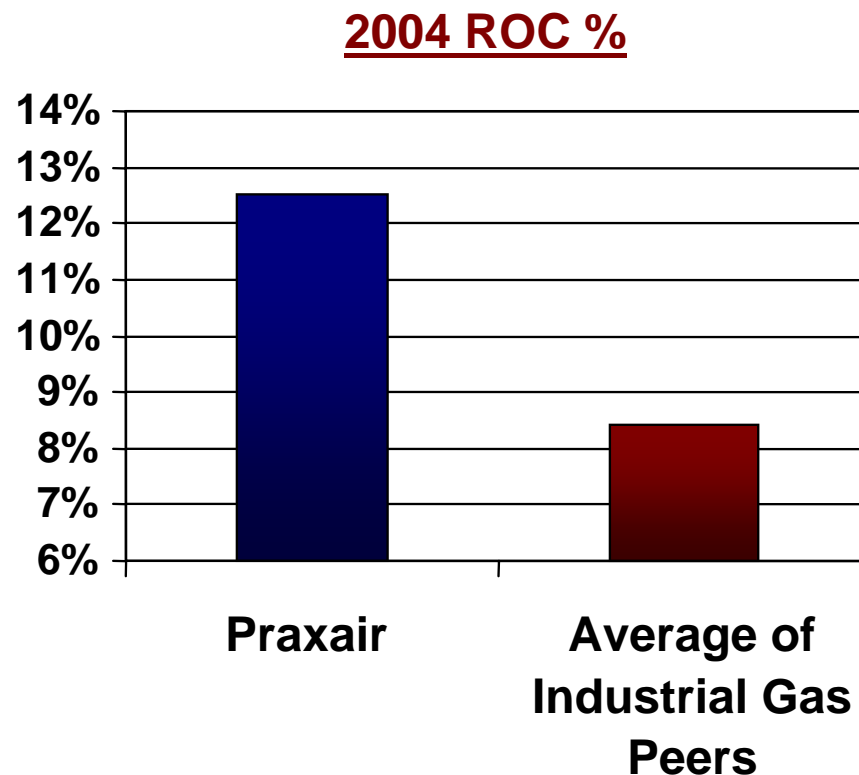
**Praxair has outperformed the S & P 500 over a 10 year period**

Source: Based on Standard & Poor's Investment Services information and company data.

# Driving Sustainable Growth



- Focus on 11 core geographies
- Application technologies
- Key growth platforms
  - Hydrogen
  - Healthcare
  - China
  - Electronics
- New growth opportunities
  - Oil/gas well services
  - Enhanced oil recovery
  - Brazil energy markets
  - India
- Productivity / Six Sigma
- Flawless project execution

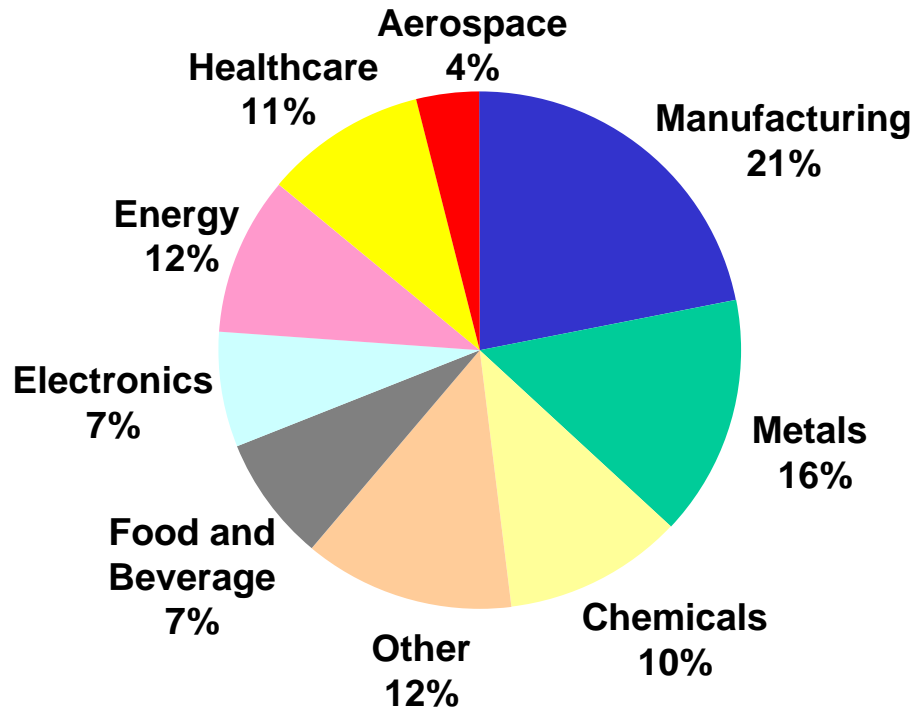


ROC=Net Operating Profit After Tax/Average Capital

Source: Bloomberg and company reports

2004 Sales \$6.6 Billion

## End Markets



## Organic Growth (YOY)\*

Manufacturing + 10%

Metals + 21%

Energy + 18%

Healthcare + 6%

Chemicals + 8%

\* Ex currency, nat gas, and acquisitions

2004 Global GDP +4%

**Sales grow faster than our end markets**

# Why Gases Are Not Commodities!

## On-Site/Pipeline Supply

- ◆ Price recovers capital and fixed costs
- ◆ 15 year Take or Pay contracts
- ◆ Escalation formulas
  - Electricity/gas
  - Inflation
  - Currency exposure

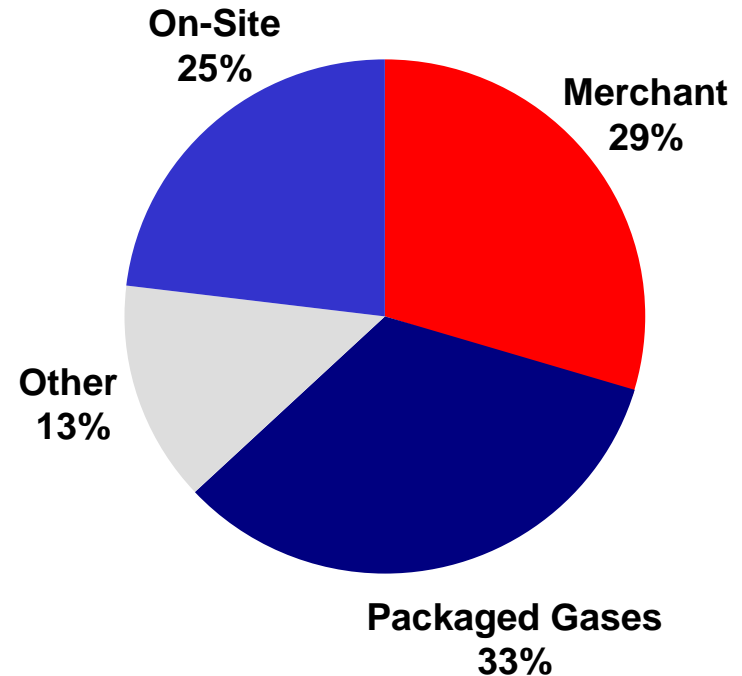
## Merchant Liquid Delivery Supply

- ◆ Sourced as by-product from on-site
- ◆ Requirements contracts
- ◆ Open/escalation

## Packaged and Medical Gases

- ◆ Sourced as by-product from bulk
- ◆ Service provider
- ◆ Cylinder rental

## Distribution Method



**Our business model  
delivers a higher return on  
capital and greater stability**

# Hydrogen

## 2004 Global Sales - \$690 MM

### North America

- Strong demand from refiners
- 310 miles of pipeline on US Gulf Coast, with production capacity of 600 MMSCFD
- Significant growth areas outside of Gulf Coast

### Europe

- Hydrogen production in Italy and Spain
- Sulfur reductions in fuels scheduled for 2009

### China

- Caojing hydrogen plant start-up in 2005



**2005 Sales forecast to approach \$900 MM and expected to grow 20% p.a. through 2010**



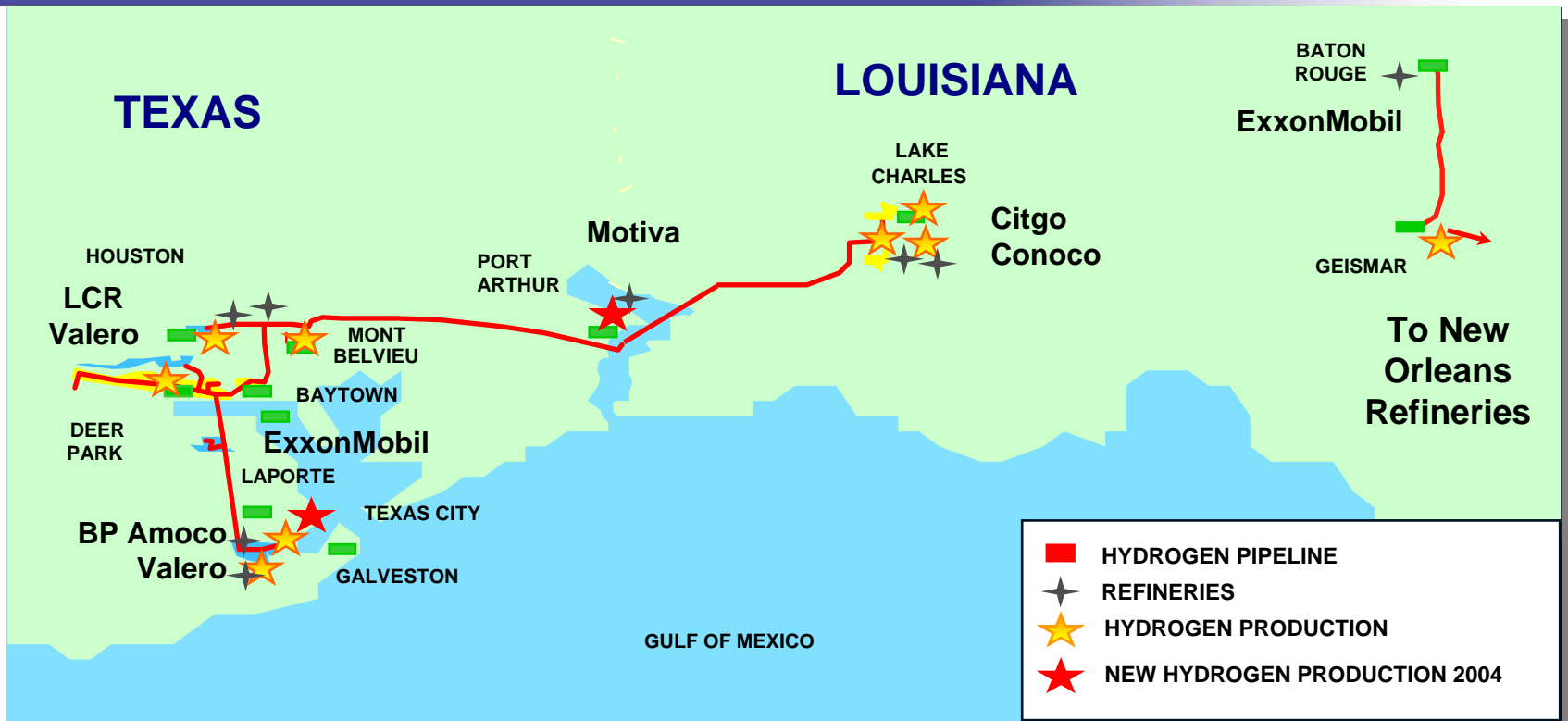
- Low sulfur fuel regulations
- Strong demand for gasoline and diesel
- Heavy crude upgrading
- Outsourcing hydrogen supply
- Upgrading hydrogen production technology
- Canadian synthetic crude
  - Upgrading bitumen
  - Refining

| Sulfur Fuel Specifications |          |                |                 |                     |
|----------------------------|----------|----------------|-----------------|---------------------|
|                            | Gasoline | On-Road Diesel | Off-Road Diesel | Locomotive & Marine |
| 2004                       | 120ppm   |                |                 |                     |
| 2005                       | 30ppm    |                |                 |                     |
| 2006                       | ↓        | 15ppm          |                 |                     |
| 2007                       | ↓        | ↓              | 500ppm          | 500ppm              |
| 2008                       | ↓        | ↓              | ↓               | ↓                   |
| 2009                       | ↓        | ↓              | ↓               | ↓                   |
| 2010                       | ↓        | ↓              | 15ppm           | ↓                   |
| 2011                       | ↓        | ↓              | ↓               | ↓                   |
| 2012                       | ↓        | ↓              | ↓               | 15ppm               |

**Strong demand growth will continue**



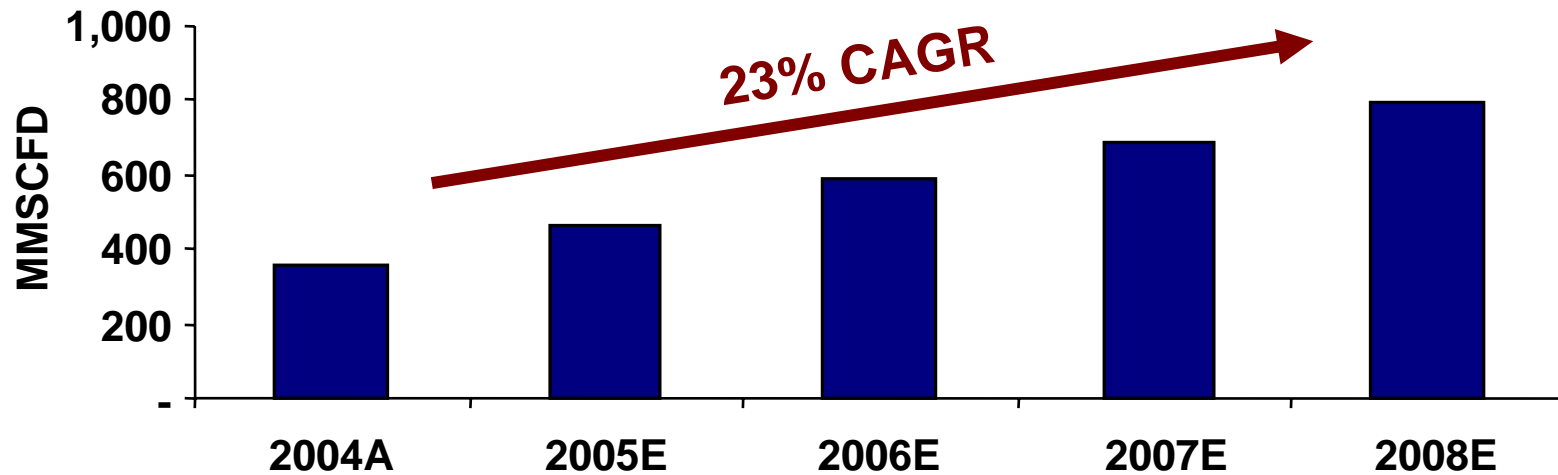
# Gulf Coast Hydrogen System



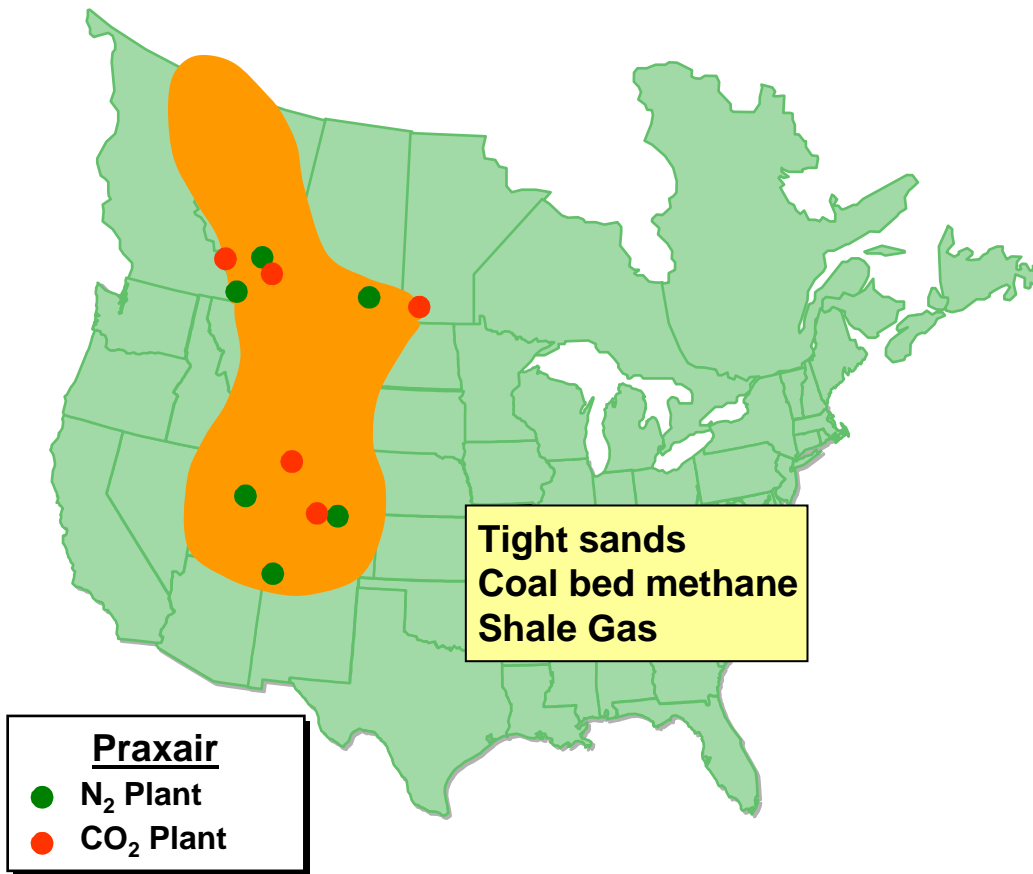
- 310 miles of pipeline
- 50 customers – refining and chemicals
- Connected to 3.3 MM bpd of refining capacity
- 600 MMSCFD production capacity – TX and LA

**Well positioned for customer growth**

## Average Daily Volume



**Expect several additional SMR's to be sited in 2005**

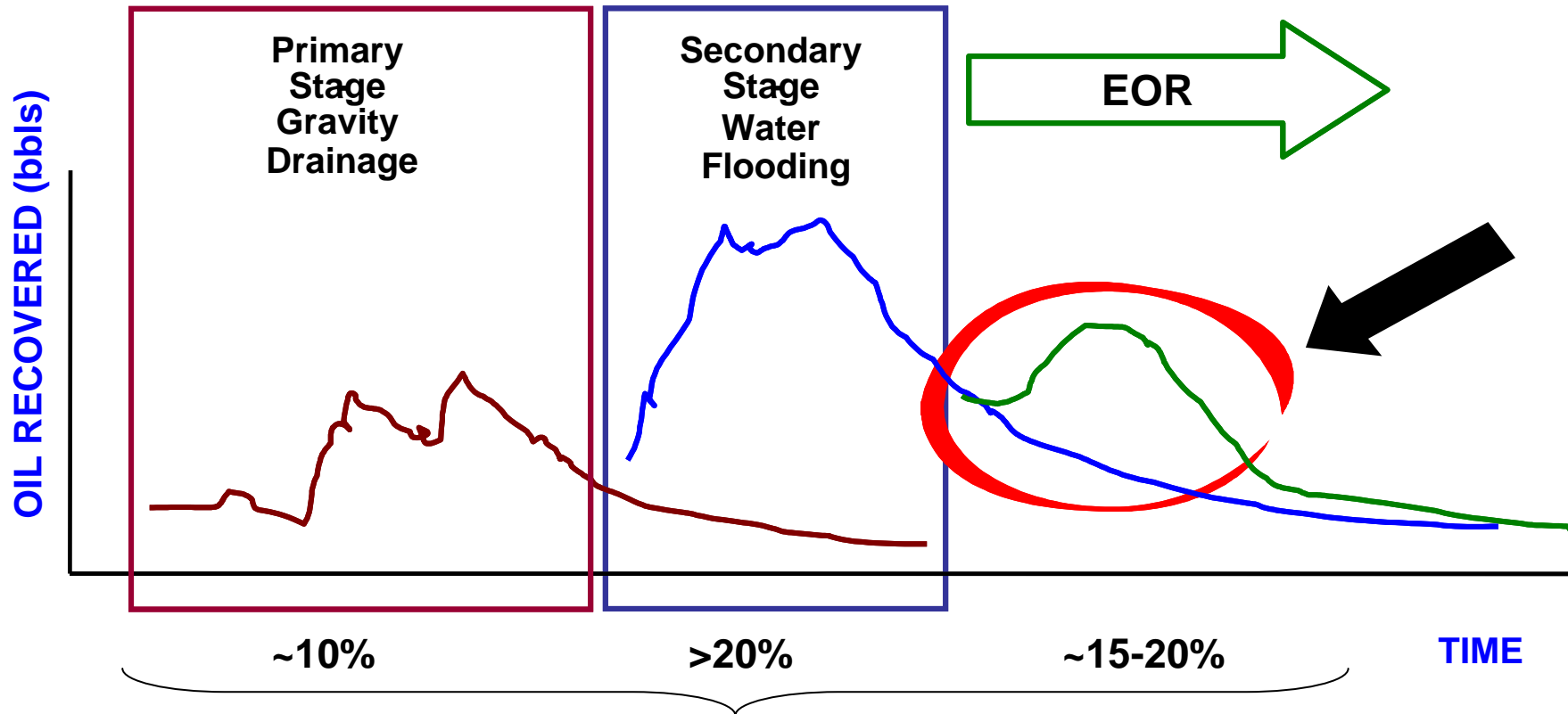


- ◆ US Rockies rig count has increased 75% since 2002
- ◆ CO<sub>2</sub> and N<sub>2</sub> widely used to fracture low permeability formations during well completion
- ◆ Praxair best positioned
  - Location
  - Expertise
  - Relationships
- ◆ Additional pipeline services

**\$200 MM revenues expected to grow 25% p.a.**

# Enhanced Oil Recovery (EOR)

## Typical EOR Production Curve



Sources: Falcon Environmental

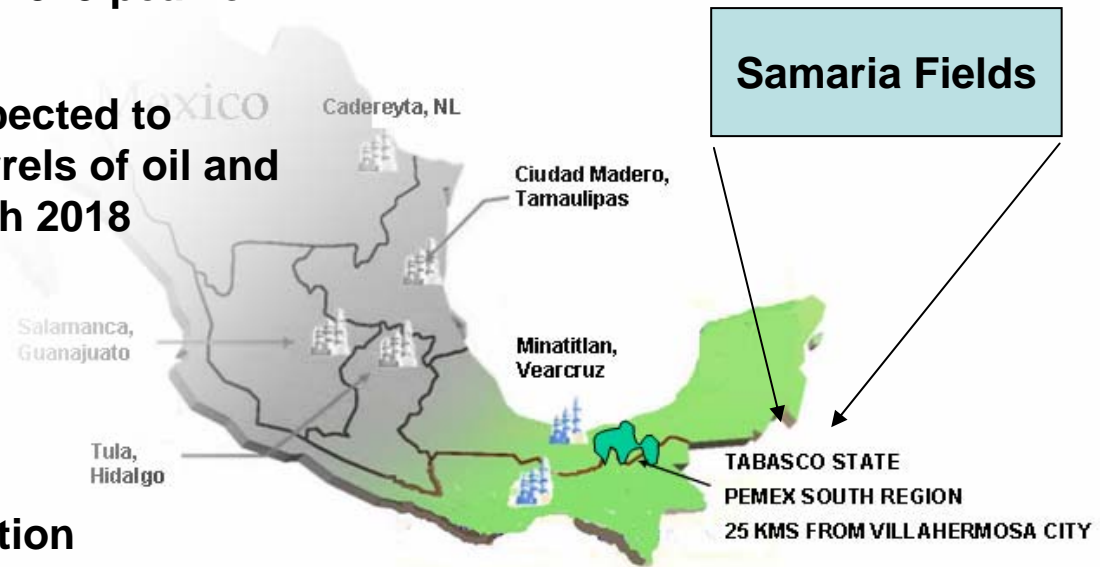
**Long term potential to recover 120 B barrels of oil in NA**

## PEMEX Samaria Oil Fields

- PEMEX's main source of light crude
- Current production approx. 150 MBPD
- Production has declined from 1979 peak of 600 MBPD
- N<sub>2</sub> injection and new wells expected to recover additional 470 MM barrels of oil and 540 BCF of natural gas through 2018

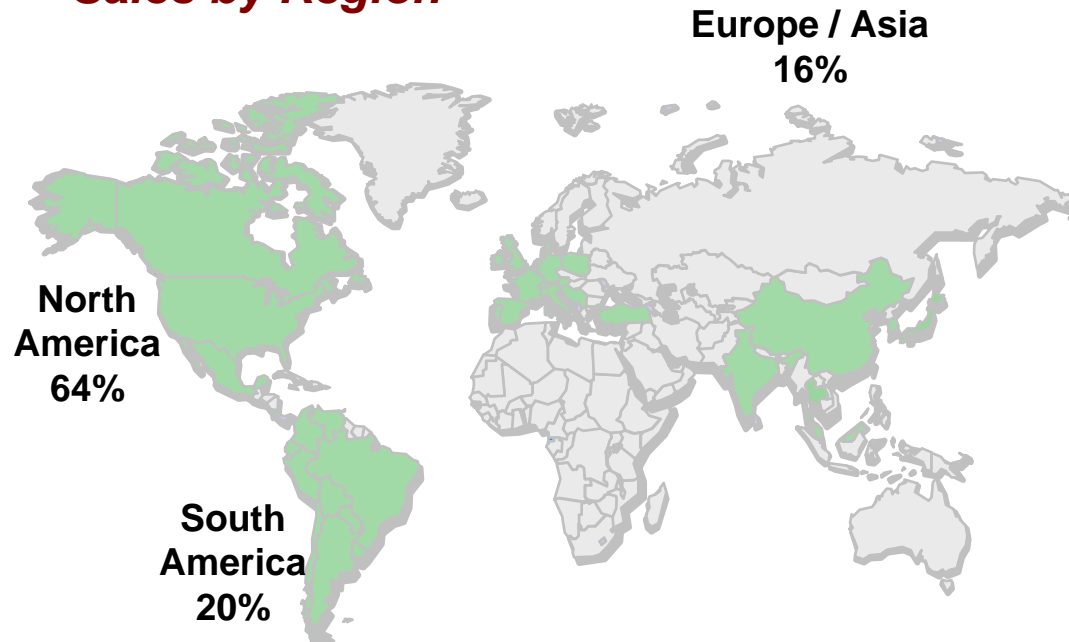
## Praxair

- 15 year Take or Pay contract
- >6500 TPD of nitrogen production
- Delivered via pipeline to multiple injection wells
- Start-up Q1 2007



**2004 Global Sales - \$740 MM\***

## **Sales by Region**

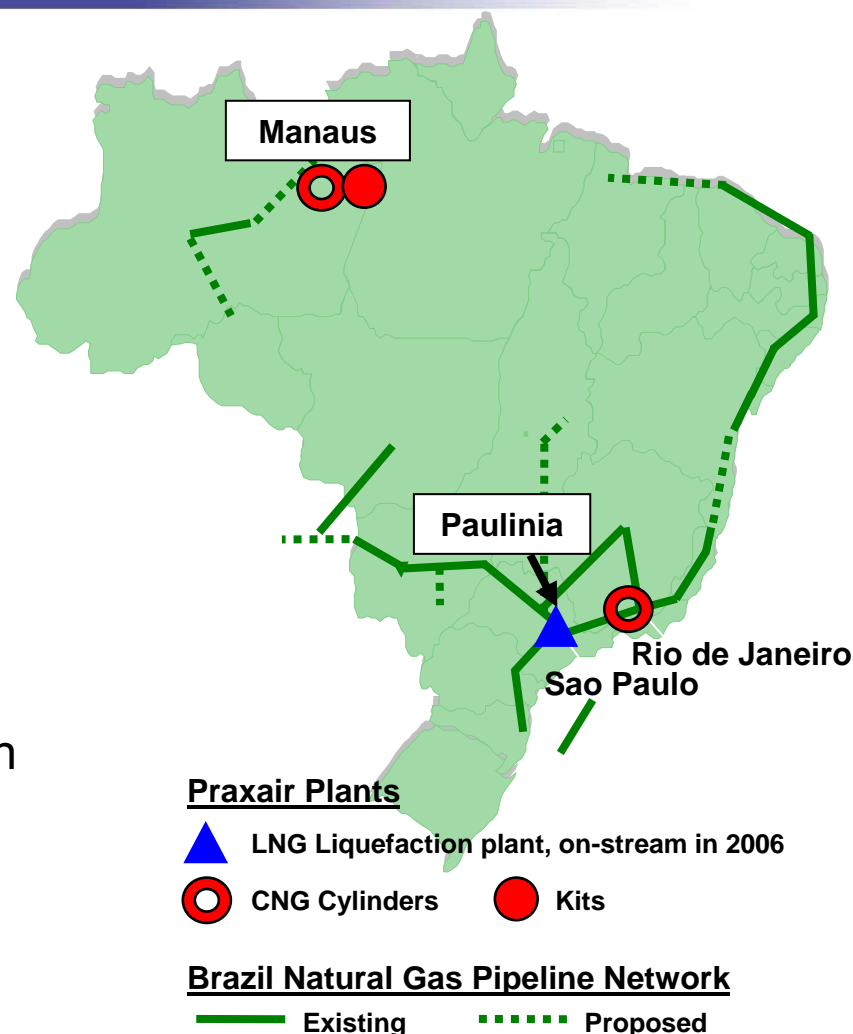


- **Homecare 60%**
  - Home oxygen
  - Sleep therapy
  - Home medical equipment
- **Hospital Services 40%**
  - Oxygen supply systems
  - Portable *Grab 'n Go*<sup>®</sup> cylinders
  - Analytical gases
  - MRI helium and servicing
  - Cryo preservation
- **Transition patients from hospital to home**
- **Strong organic growth**

**Expect sales of \$900 MM in 2005**

\*includes 6 mos. HCS acquisition

- **Increasing role of natural gas**
  - Greater availability / supply
  - Govt. promoting natural gas use
  - Competitive prices
- **Conversions from alternative fuels**
  - 3.5% of cars converted and growing
  - Replacing industrial/commercial LPG
- **Praxair participating actively**
  - CNG cylinders & conversion kits
    - Market growing at 6-7% p.a.
  - JV with Petrobras for LNG distribution
    - Areas not served by pipeline
    - First plant: Q1 2006 start-up



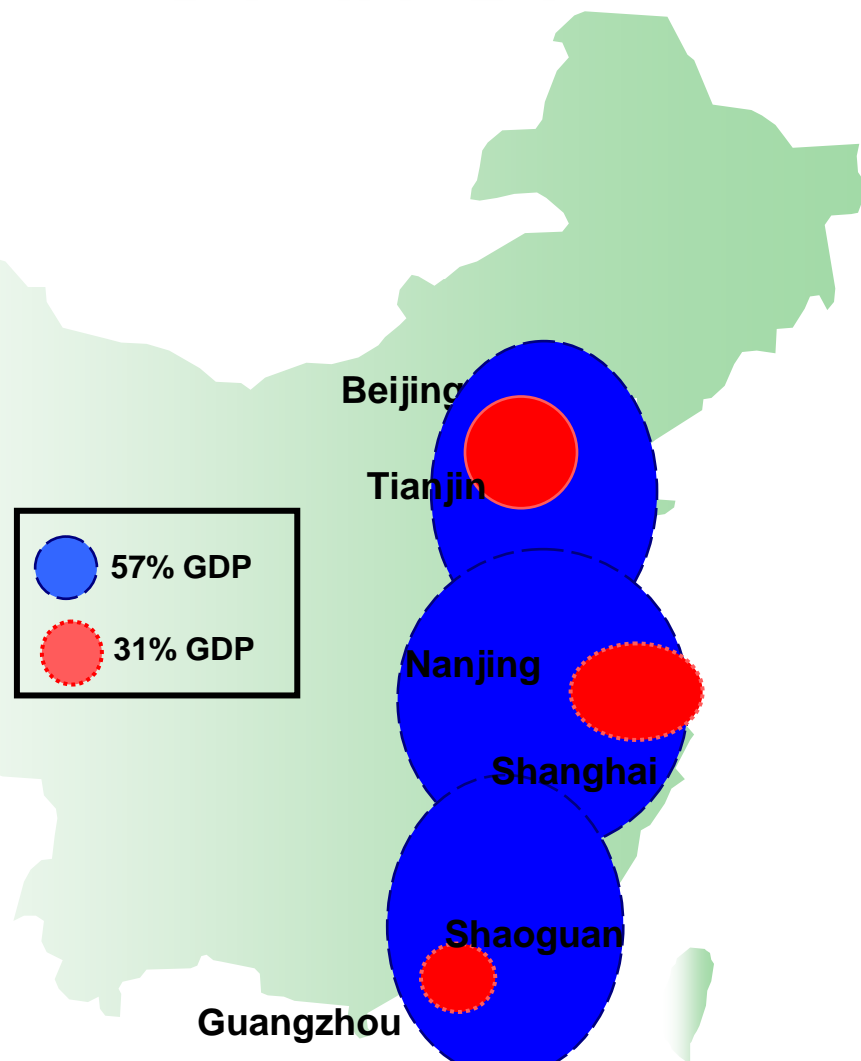
Source: Praxair Estimates

**Natural gas business driving growth in South America**



# Praxair China Strategy

- **Leading position in steel with strongest producers**
- **Leading position in semi-conductors**
  - Shanghai - SMIC & Tailong
  - Beijing - SMIC 300mm wafer fab
- **Shell Nanhai Complex**
  - Shell & CNOOC \$4.3B
  - O<sub>2</sub>, N<sub>2</sub> & Ar supply
- **Caojing petrochemical park**
  - 50/50 JV with Air Liquide
  - BP, BAYER, BASF & SINOPEC \$8B
  - O<sub>2</sub>, N<sub>2</sub>, H<sub>2</sub> & CO supply
- **Six major projects to come on-stream in 2005-2007**



**2004 After tax return on capital above 12%**

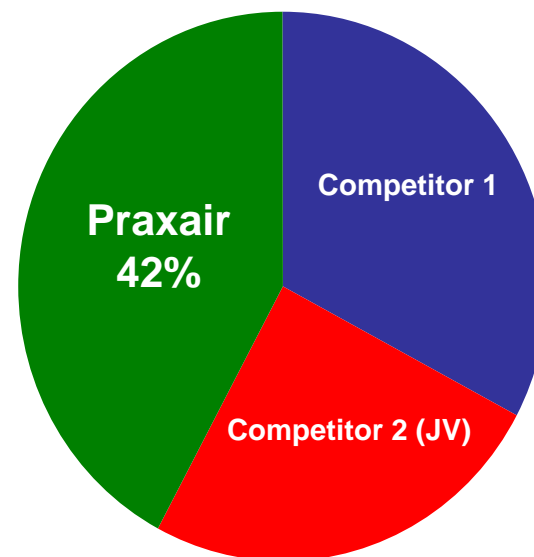
# Praxair India Set To Grow Strongly



- **Economy gaining momentum**
- **Paradigm shift in gas buying pattern**
  - “Sale of plant” to “Sale of gas”
- **Gas industry to register double-digit growth from 2005-10**
- **Praxair #1 position**
  - Strong relationships with industry leaders
- **Recent business wins**
  - Tata Steel
  - Saint Gobain
  - Owens Corning
  - Hospet Steel

~\$50 MM  
Sales

## Industrial Gas Market Supplied By Global Players (\$260 MM)



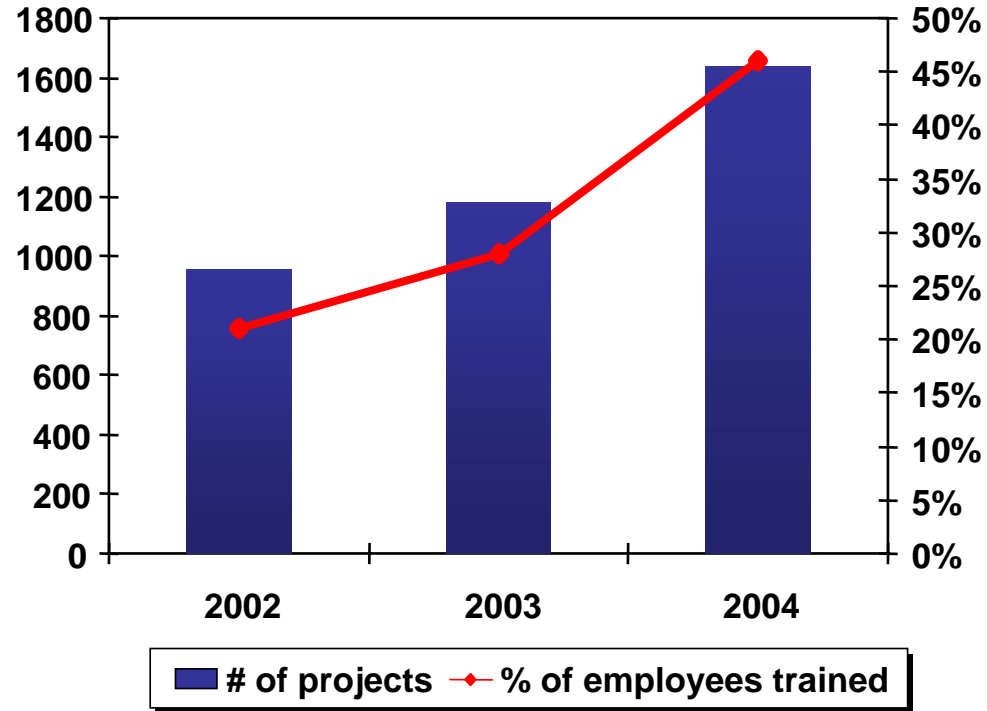
Source: Praxair Estimates

**Sales of \$110 MM expected to grow ~20% p.a. through 2010**

## Sources of Cost Savings

| (\$MM)           | <u>2003</u> | <u>2004</u> | <u>2005F</u> |
|------------------|-------------|-------------|--------------|
| Procurement      | 25          | 26          | 26           |
| Plant Operations | 58          | 65          | 78           |
| Business Process | <u>27</u>   | <u>54</u>   | <u>46</u>    |
| <b>Total</b>     | <b>110</b>  | <b>145</b>  | <b>150</b>   |

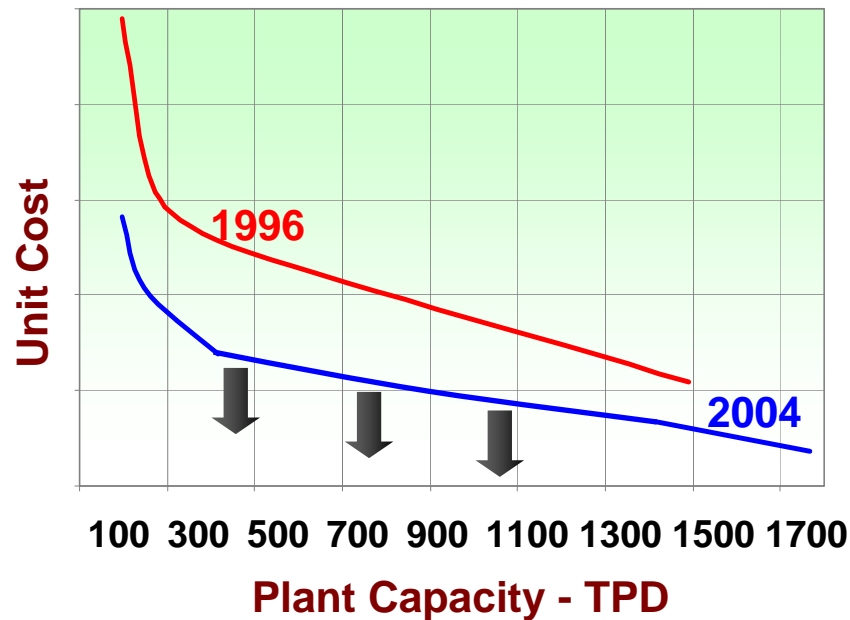
## Six Sigma # of projects and % of workforce trained



**Accelerating productivity initiatives using Six Sigma**

## Cryogenic High Purity Oxygen

## 2004 Plant Projects Variance From Budget



Cost

-3%

Schedule

+1%

Power Efficiency

+1%

-3%

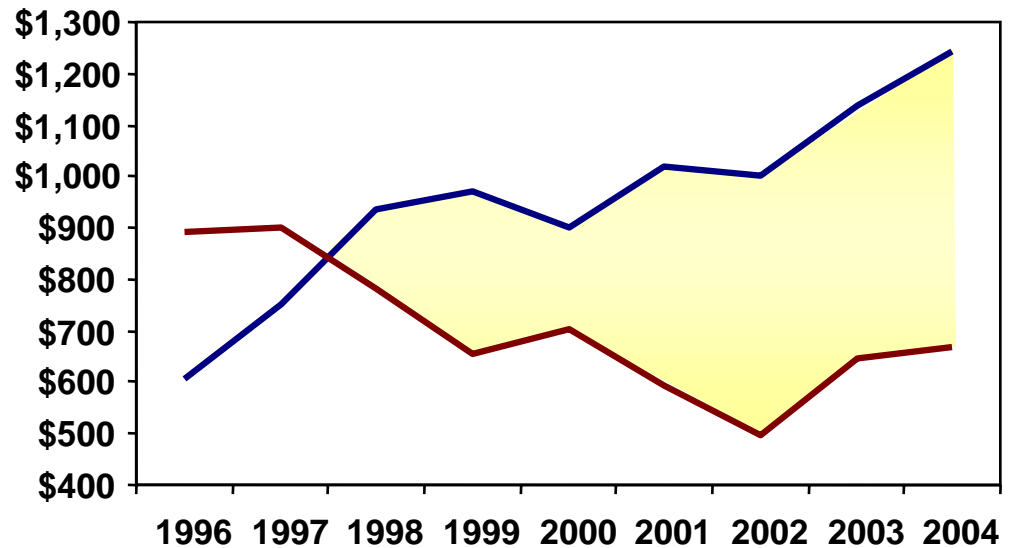
0

3%

**Flawless execution assures that expected returns  
will be achieved**

- **Operating cash flow**  
**9% CAGR**
- **Capital spending discipline - increased hurdle rates**
- **Uses of free cash flow**
  - Dividends
  - Selective acquisitions
  - Share repurchases
  - Debt reduction

**Free Cash Flow 1996-2004 (\$MM)**



— **Operating Cash Flow** — **CAPEX<sup>(2)</sup>**  
 **Free Cash Flow<sup>(1)</sup>**

1) Non-GAAP measure. Free cash flow equals operating cash flow minus capital expenditures.

2) Excludes Leased Asset Purchase in 2003

# Why Praxair?



- **Strong, sustainable, organic growth**
- **Diverse end markets and applications technology**
- **High return on capital**
- **Long term customer retention**
- **Substantial free cash flow generation**
- **Capital and operating discipline**
- **Strong corporate governance**

**We deliver.**

# Principles of Sustainability

## ***Governance and Integrity***

Foster a culture of integrity and accountability throughout the company through rigorous compliance with all laws, and by establishing and following effective corporate governance practices.

## ***Customer Commitment***

Continuously develop new products and applications that help our customers improve their productivity, energy efficiency and environmental performance. Provide the highest levels of service, reliability and quality to our customers.

## ***Environmental Responsibility***

Continue to improve the efficiency of energy consumption. Reduce the intensity<sup>1</sup> of air emissions, including greenhouse gases.

## ***Employee Safety and Development***

Maintain a safe work environment with a goal of zero accidents. Provide training and career opportunities that allow employees to develop to their fullest potential. Increase the diversity of our workforce so that it is more representative of the communities in which we operate.

## ***Community Support***

Help to improve the welfare and future of the communities in which we operate by sharing our knowledge, expertise and resources related to environmental protection, and community health, safety and security.

## ***Financial Performance***

Continuously improve our financial performance and provide attractive returns to our shareholders. Generate operating cash flow to reinvest in business growth and pay dividends.

<sup>1</sup>Intensity is per-unit-of-production measure

