

# COMPETITIVENESS of the BRAZILIAN FOUNDRY INDUSTRY

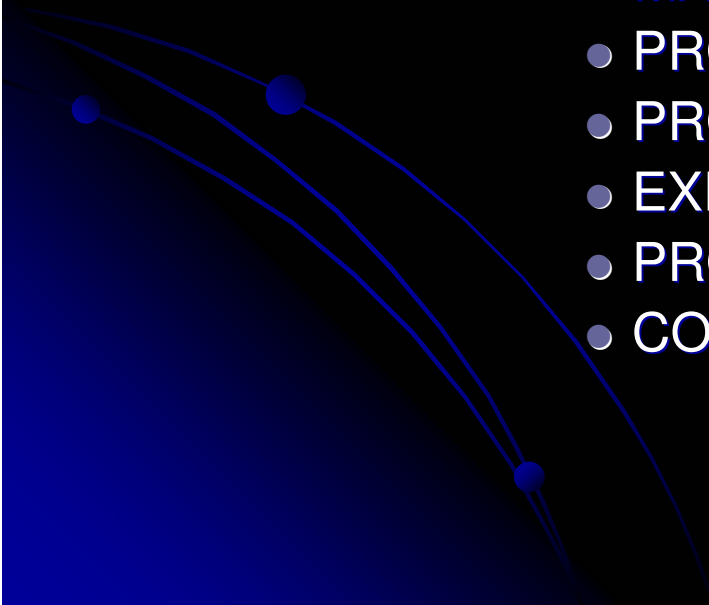
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# COMPETITIVENESS of the BRAZILIAN FOUNDRY INDUSTRY

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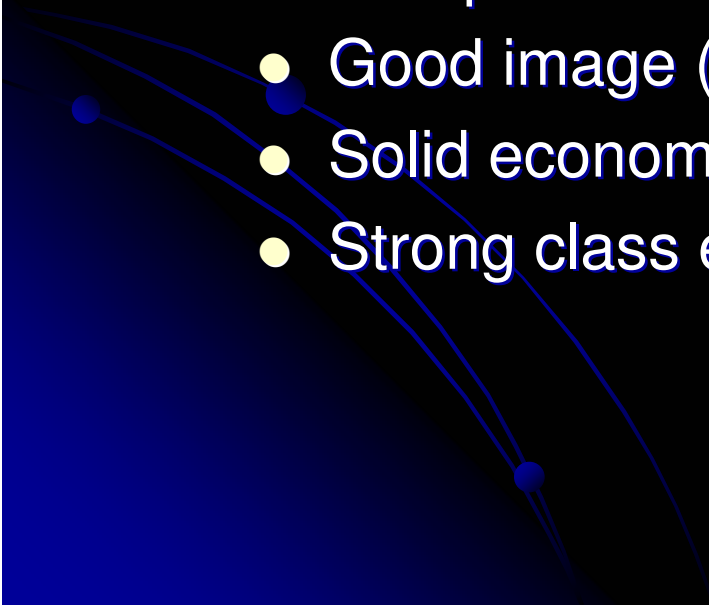
# Brazilian Foundry

## The Key Numbers

- Foundries 1 200 +
  - Revenue US\$ 3.0 billion +
  - Direct Labor 54 000 jobs
  - Annual Production 2.8 million t
  - Installed Capacity 3.10 million t/year
  - Companies size 95% Small/Medium
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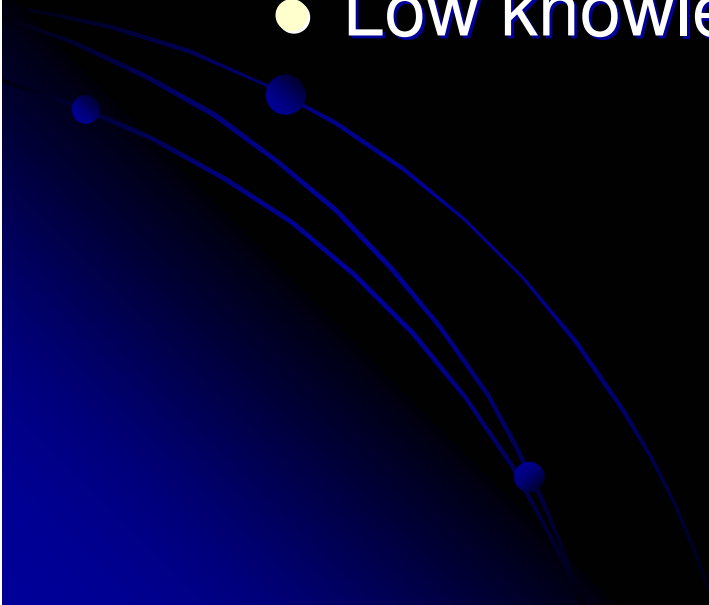
# Brazilian Foundry

## Strategic Analysis - Strengths

- Labor force: abundant, low cost, receptive and trained
  - Management: flexible, open minded
  - Acquired and adapted know how
  - Low production cost
  - Good image (quality and delivery)
  - Solid economical profile of companies
  - Strong class entities (state and federal)
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# Brazilian Foundry

## Strategic Analysis - Weaknesses

- Capital shortage for investment
  - Environmental legislation compliance
  - Low reference in international market
  - Low knowledge about foreign competitors
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# Brazilian Foundry

## Strategic Analysis - Opportunities

- Good location
  - Near to foreign markets (Europe and USA)
  - Nearby raw material suppliers (pig iron, steel scrap, ferro-alloys, resins, sand, tooling, etc.)
  - Near to technical colleges and schools
  - Local concentrations of competitors and their chain of suppliers
- Political and economical stability of the country
- Demanding markets (domestic and foreign)
- Chinese vulnerability
- New markets to be opened

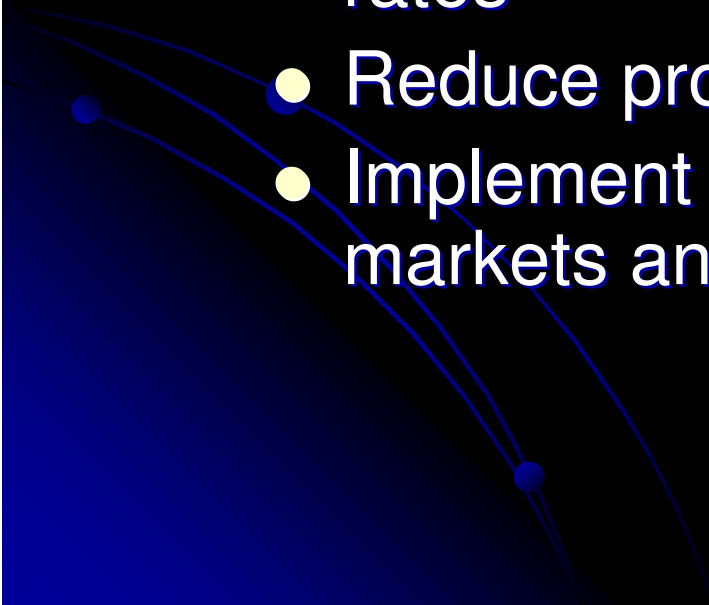
# Brazilian Foundry

## Strategic Analysis - Threats

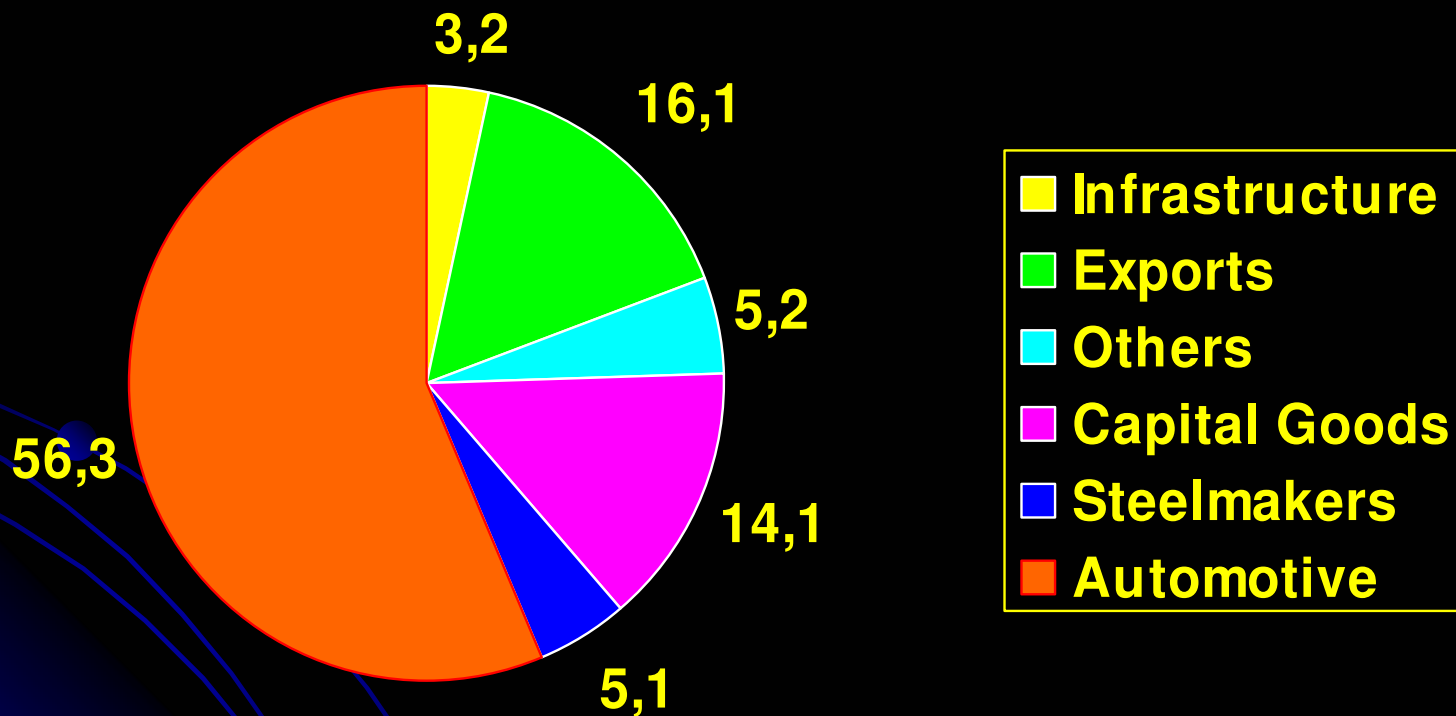
- Chinese production / price / subsidized cost
- Shortage of certain raw material (resin, ferro-alloys)
- Country's logistics and infrastructure
- Foreign trade barriers
- High interest rates / cost of money
- Volatile exchange rate
- Volatile federal policies (electrical power, tax law, etc.)
- Bureaucracy

# Brazilian Foundry Strategic Analysis - CFS

## CRITICAL SUCCESS FACTORS

- Increase production capacity
  - Acquire funds for investment at reasonable rates
  - Reduce production costs
  - Implement marketing policies to penetrate new markets and to sustain current ones
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# Brazilian Foundry Market Distribution (% of sales)



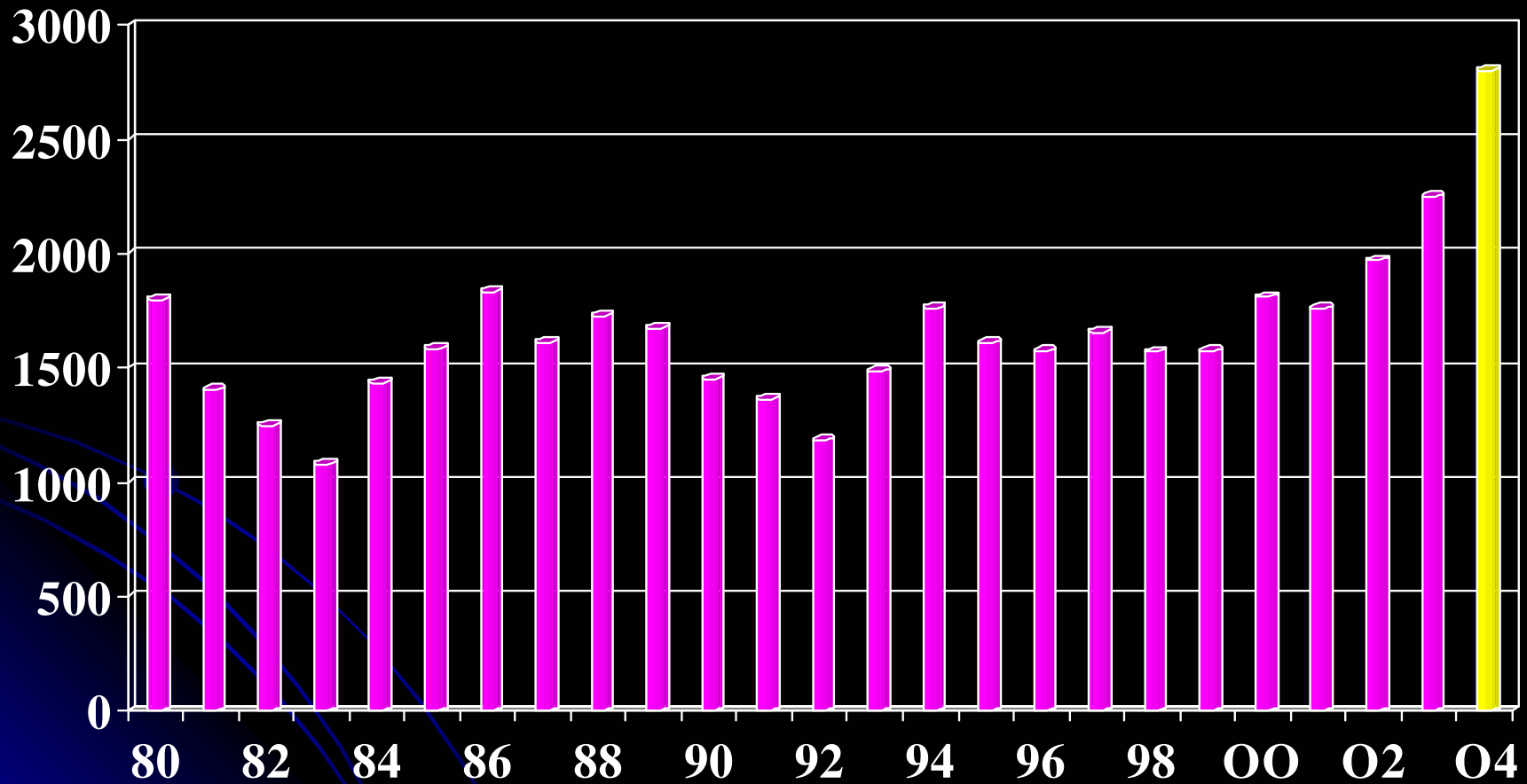
# Brazilian Foundry

## Domestic Market Analysis

- 67% of castings are for auto-parts
- High ratio inhabitants x vehicle - (2001)
  - Developed countries - 1,2 - 2,0
  - Argentina - 5,2
  - Mexico - 6,1
  - **Brazil** - **8,6**
- 9<sup>a</sup> Largest Vehicle Fleet in the World - 20,1M (2001)
- Capital Goods Industry - recovering
- Steel Industry - Brazil 9<sup>o</sup> largest world producer
- Railway Segment – recovering

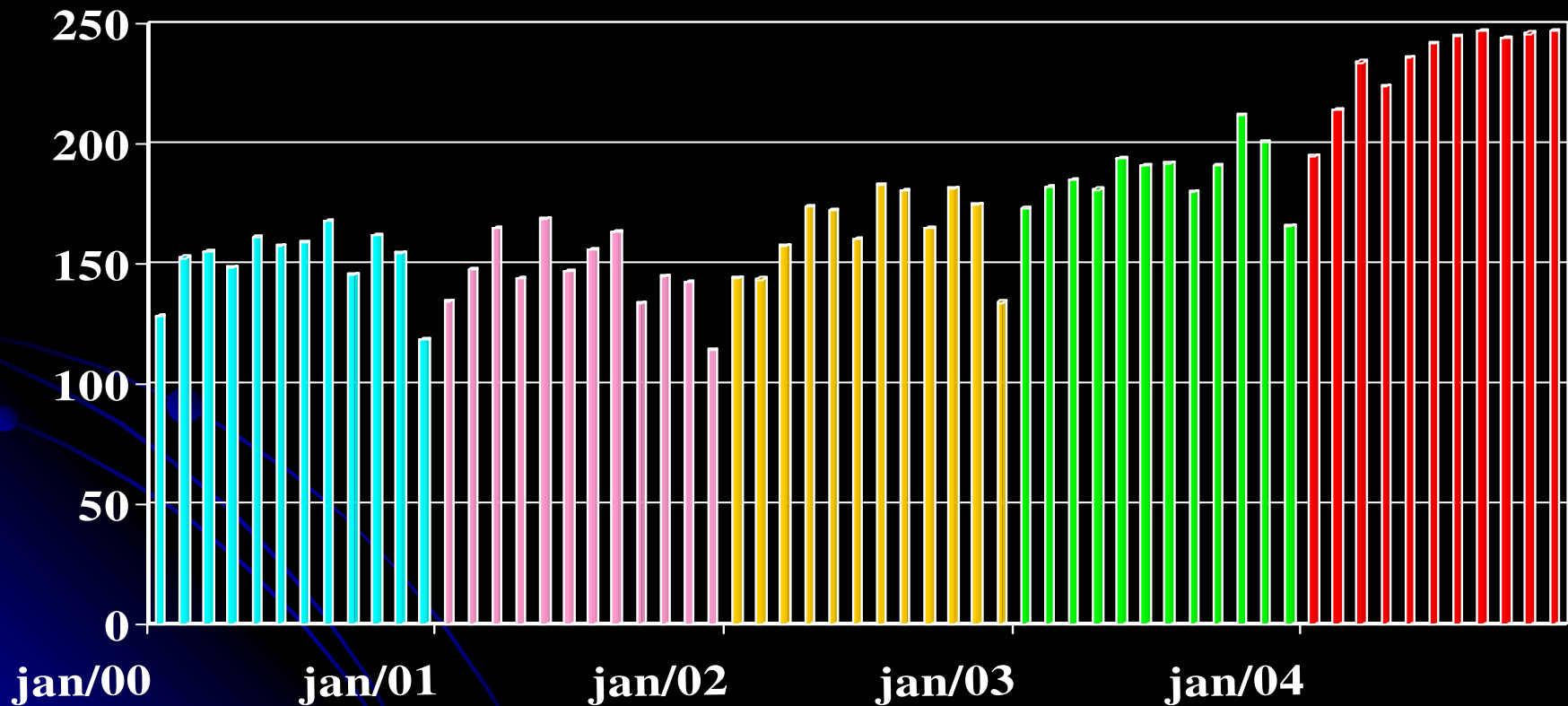
# Brazilian Foundry Annual Production (1000 t)

2004 - estimated



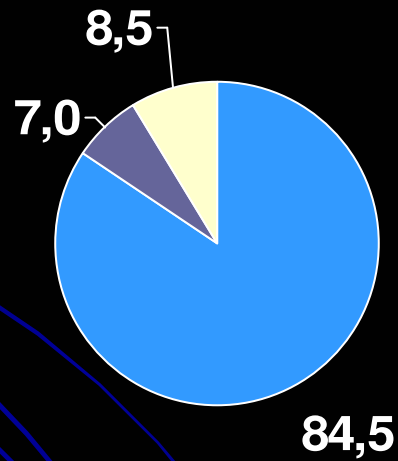
# Brazilian Foundry

## Evolution of Monthly Production (1000 t)



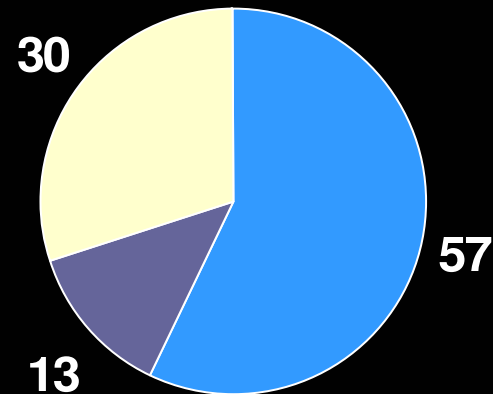
# Brazilian Foundry Metal Distribution

by production (t - %)



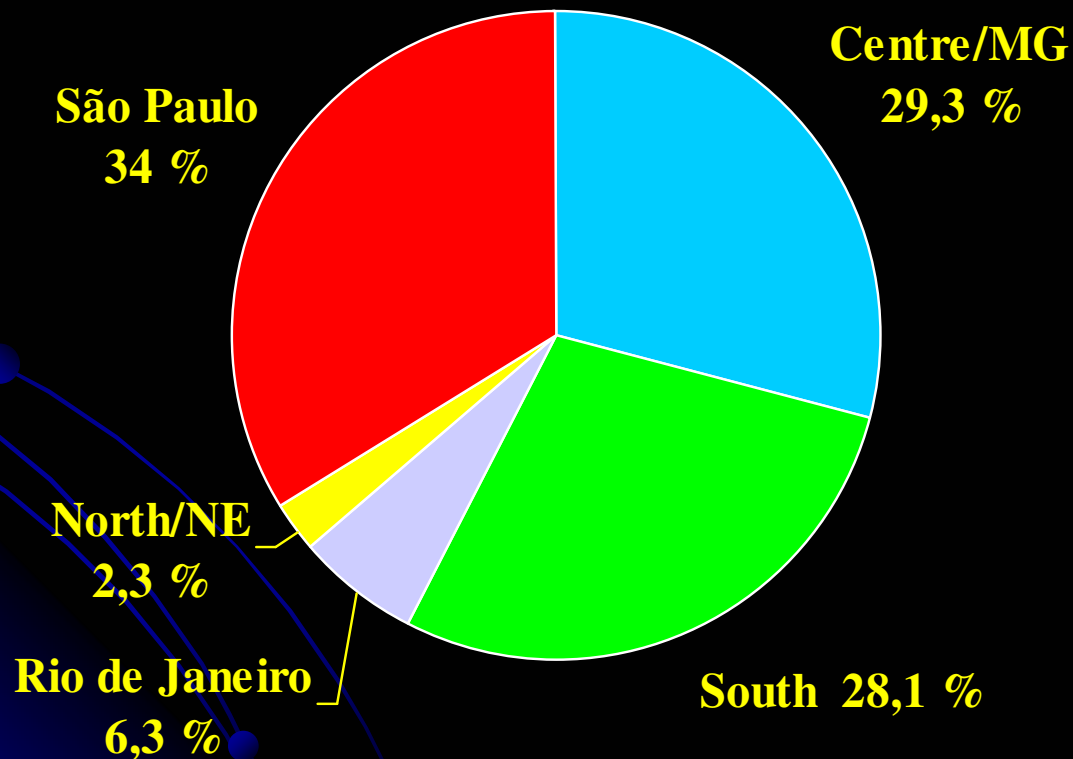
■ iron ■ steel ■ non-ferrous

by revenue (US\$ - %)



■ iron ■ steel ■ non-ferrous

# Brazilian Foundry Production by Region (%)



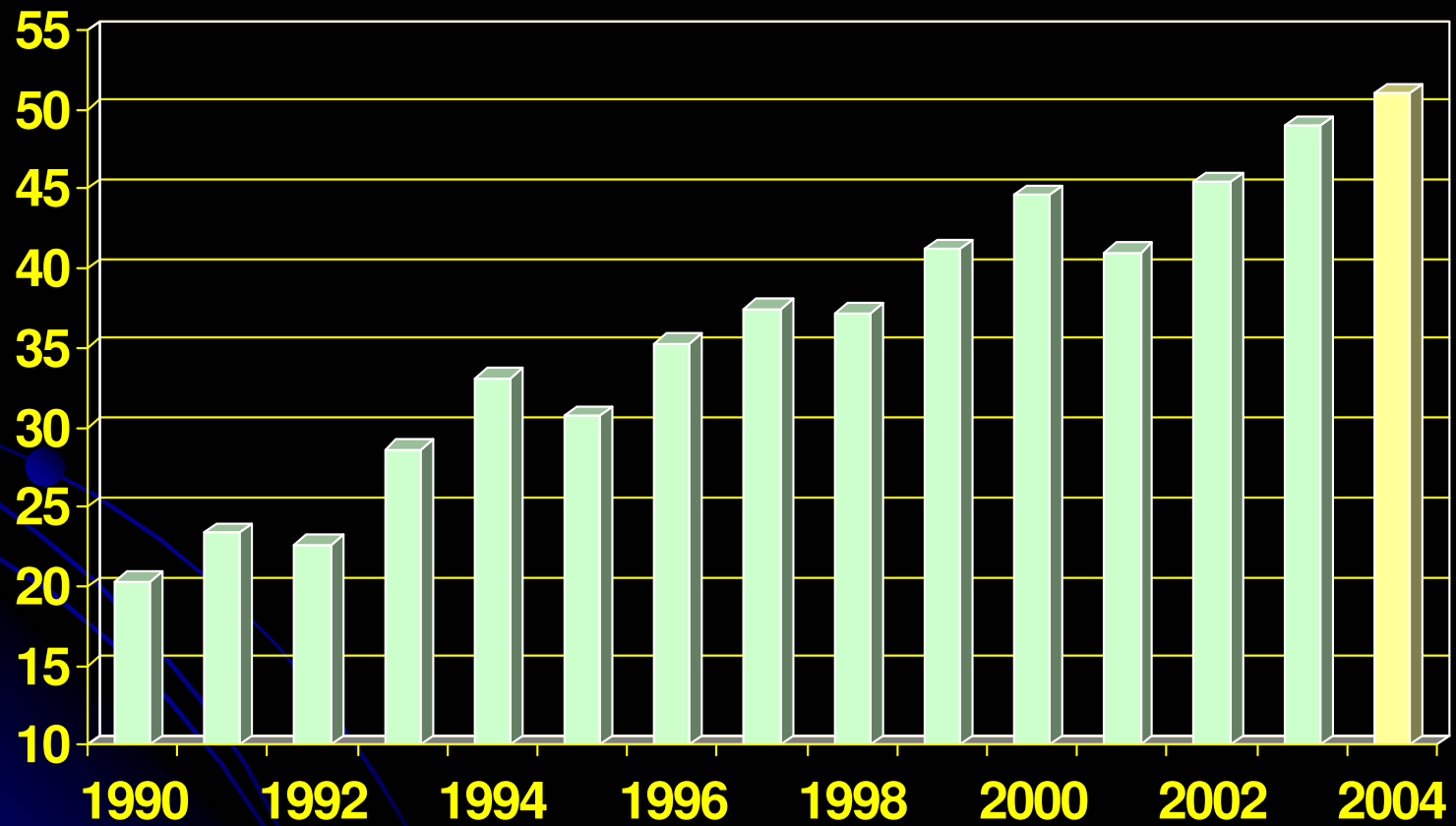
# Brazilian Foundry vs World Production - (t) - 2003

● 1 ° CHINA	18.145.966
● 2 ° USA	12.069.563
● 3 ° RUSSIA	6.200.000
● 4 ° JAPAN	6.111.405
● 5 ° GERMANY	4.722.583
● 6 ° INDIA	4.038.000
● 7 ° FRANCE	2.484.527
● 8 ° ITALY	2.441.000
● 9 ° <b>BRAZIL</b>	<b>2.249.413</b>
● 10 ° MEXICO	1.822.980
● 11 ° KOREA	1.783.800
● 12 ° TAIWAN	1.468.103

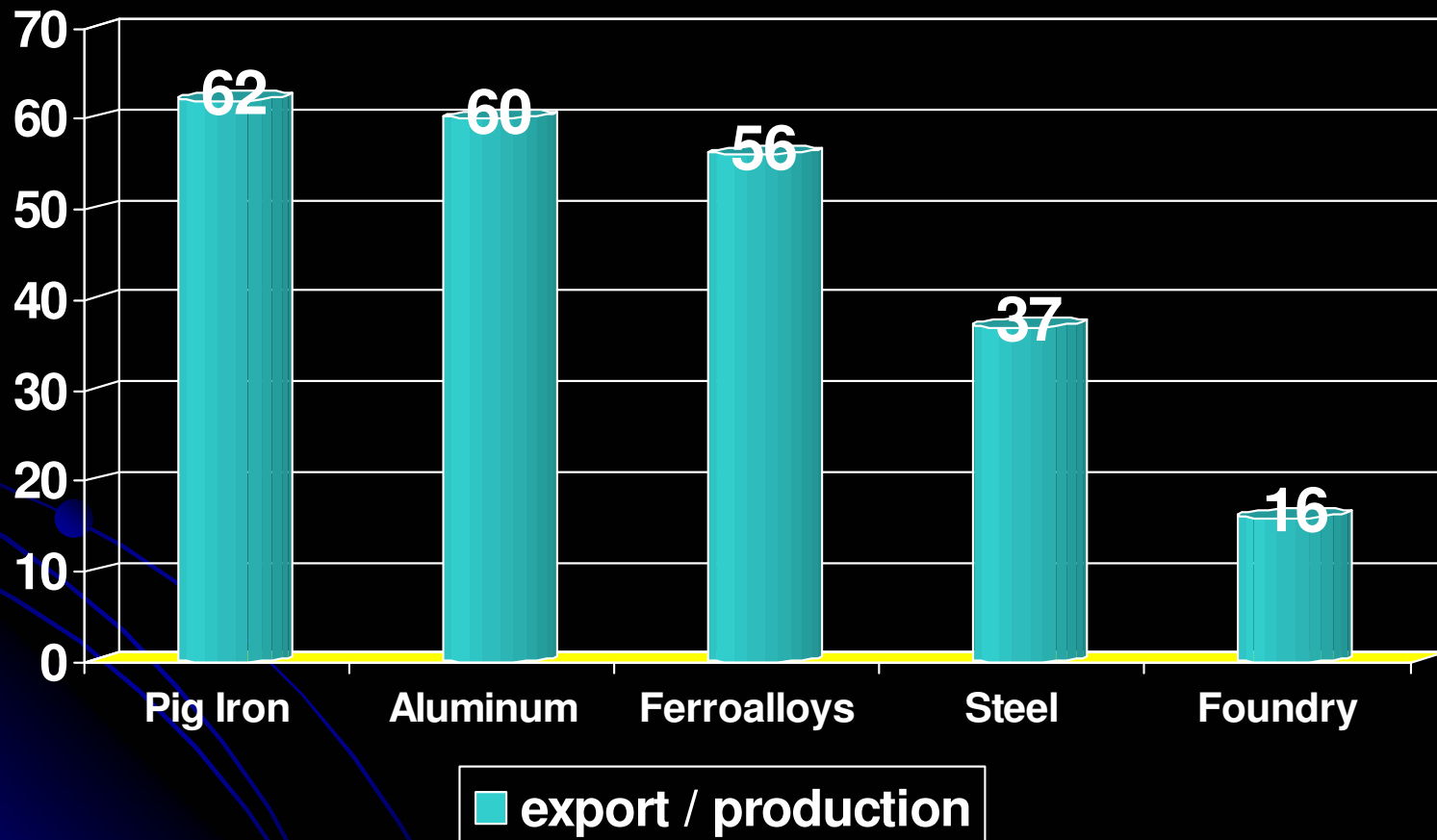
Source: Modern Casting/Dec 2004

# Brazilian Foundry Productivity

(2004 estimated)

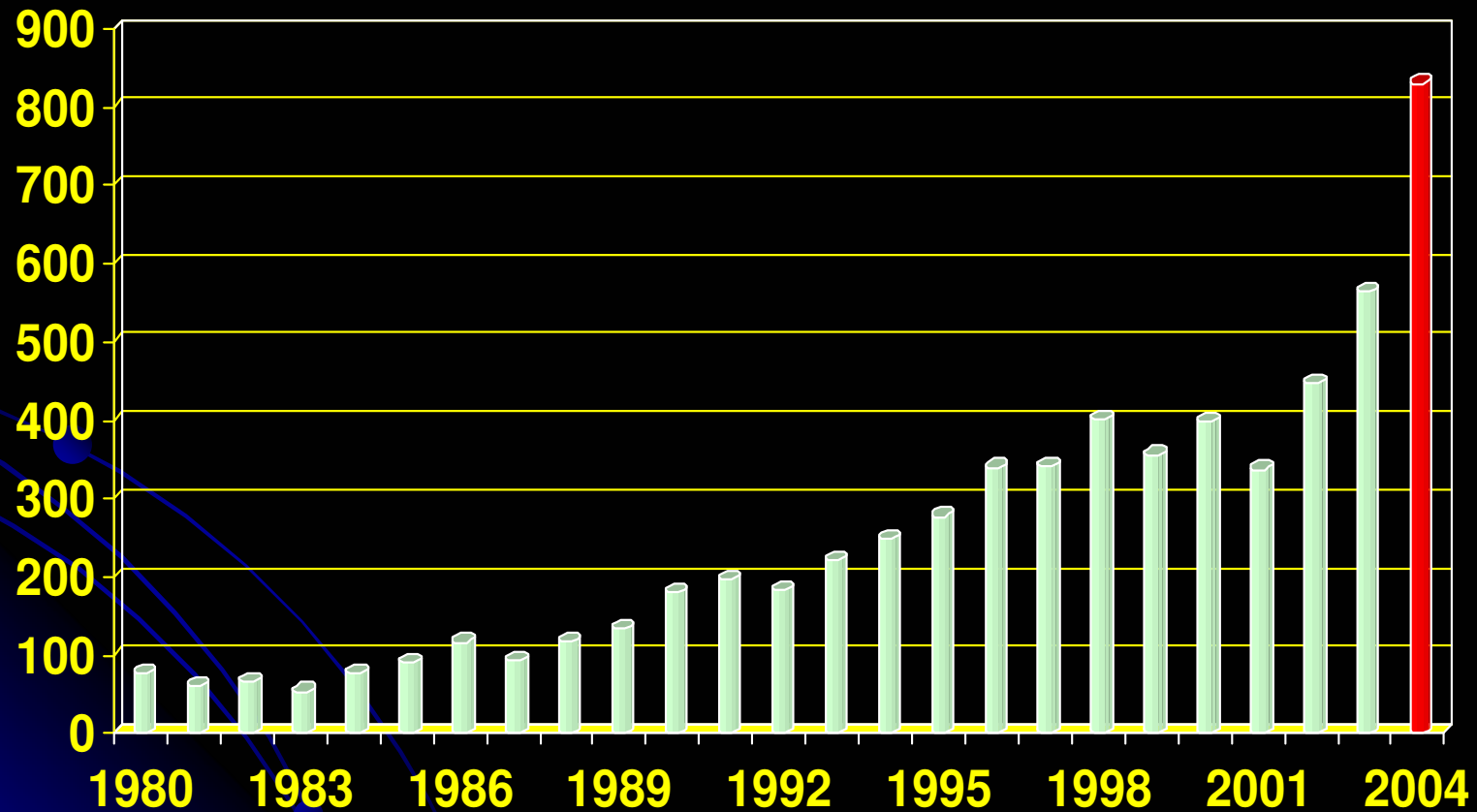


# Brazilian Industry Exportation Ratio (%)



# Brazilian Foundry Annual Exports (US\$ 1000)

**2004 = 830 million US\$ (estimated)**

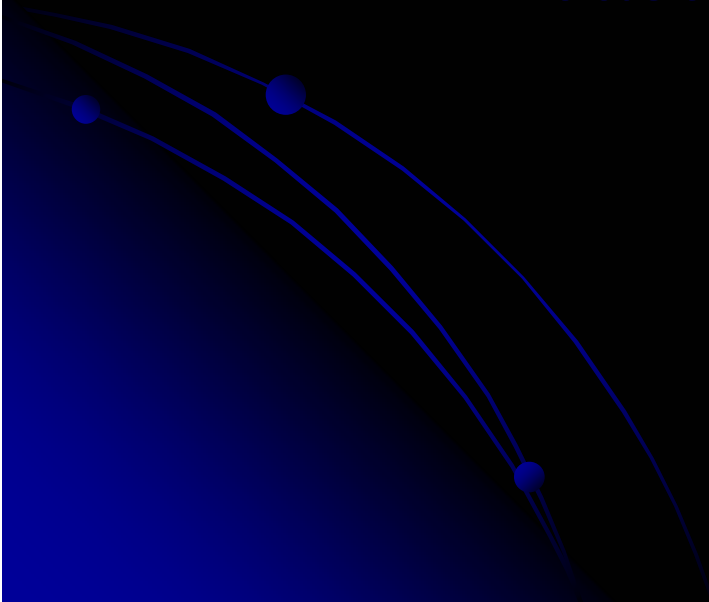


# Brazilian Foundry Exports

- in 1980 - 77 Million US\$
- in 2003 - 565 Million US\$
- in 2004 (*forecast*) - 830 Million US\$
- Growth rate of 9 % per year
- Enhanced “mix” value

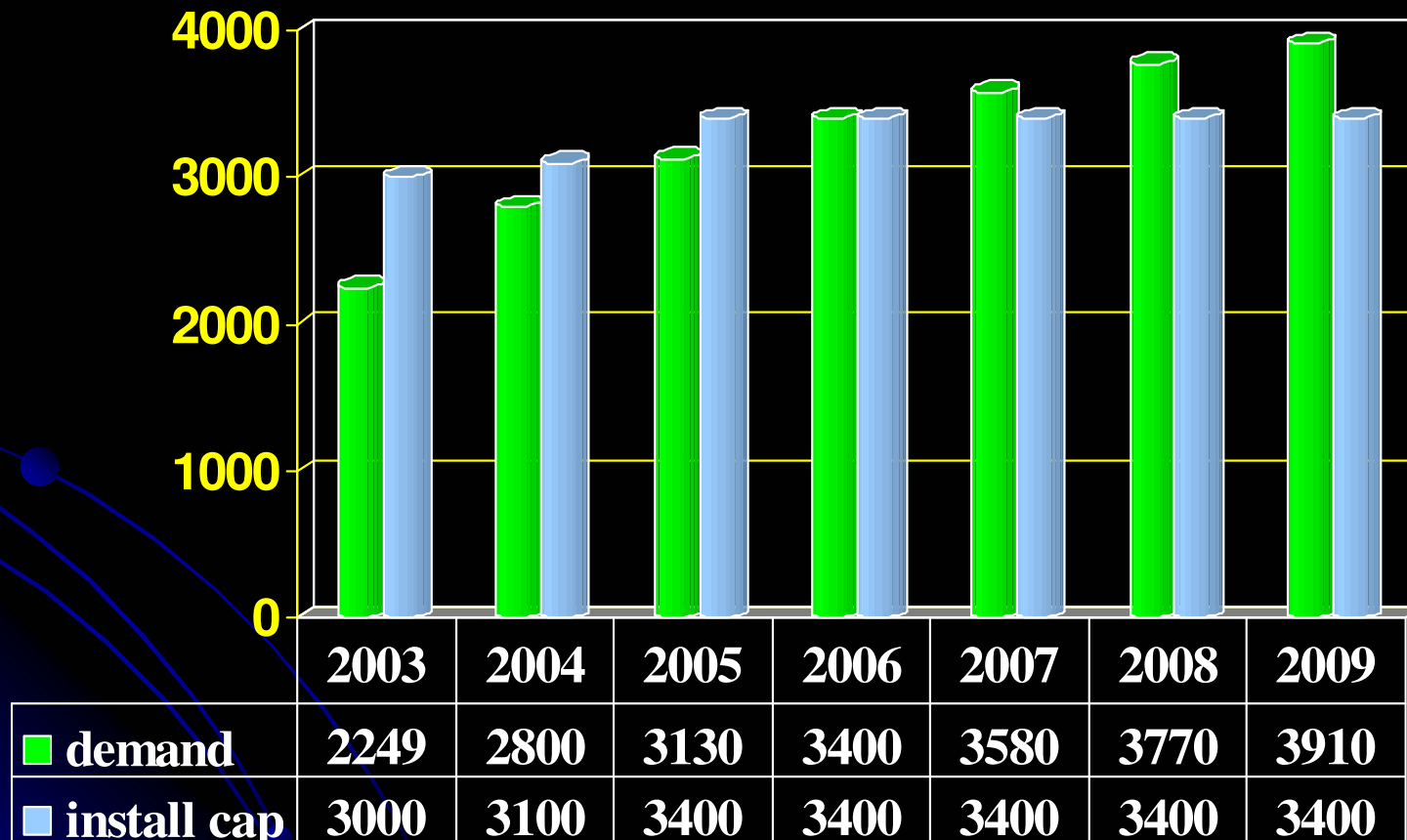
# Brazilian Foundry Imports

- Irrelevant
- Basically components, not raw castings



# Brazilian Foundry

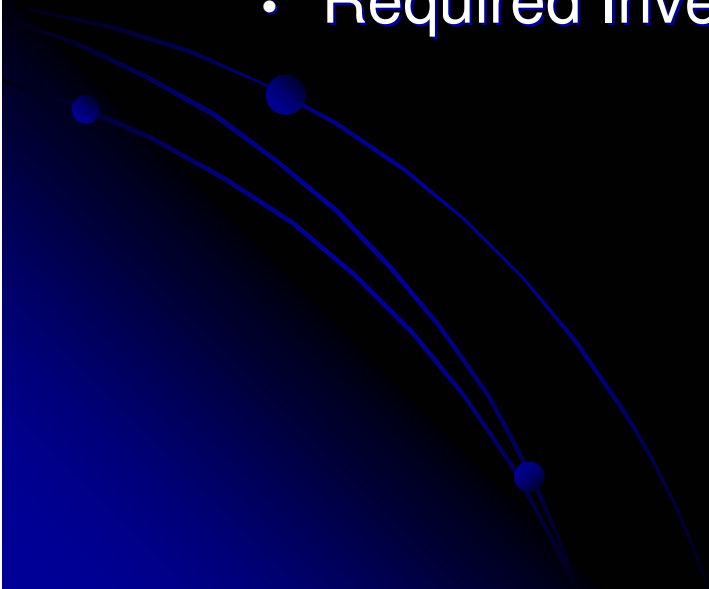
Projected Demand x Installed Capacity (ton)



# Brazilian Foundry

## Projected Demand x Investments

- Investment 2004/5 - US\$ 387 M
- Required Investment up to 2009 - US\$ 1,2 B



# COMPETITIVENESS of the BRAZILIAN FOUNDRY INDUSTRY

## CONCLUSIONS

- Foundry business is a Brazilian natural VOCATION
  - We can compete in a global market
  - Our production is intimately linked to auto-parts production
  - Production capacity needs to be increased
  - Brazil could position itself among the top 7 world producers of castings by 2010
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Special thanks to  
Mr. Roberto Joao de Deus  
ABIFA's Executive Secretary

