

# **International Manganese Institute**

**Annual Conference**

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**Shanghai, China**

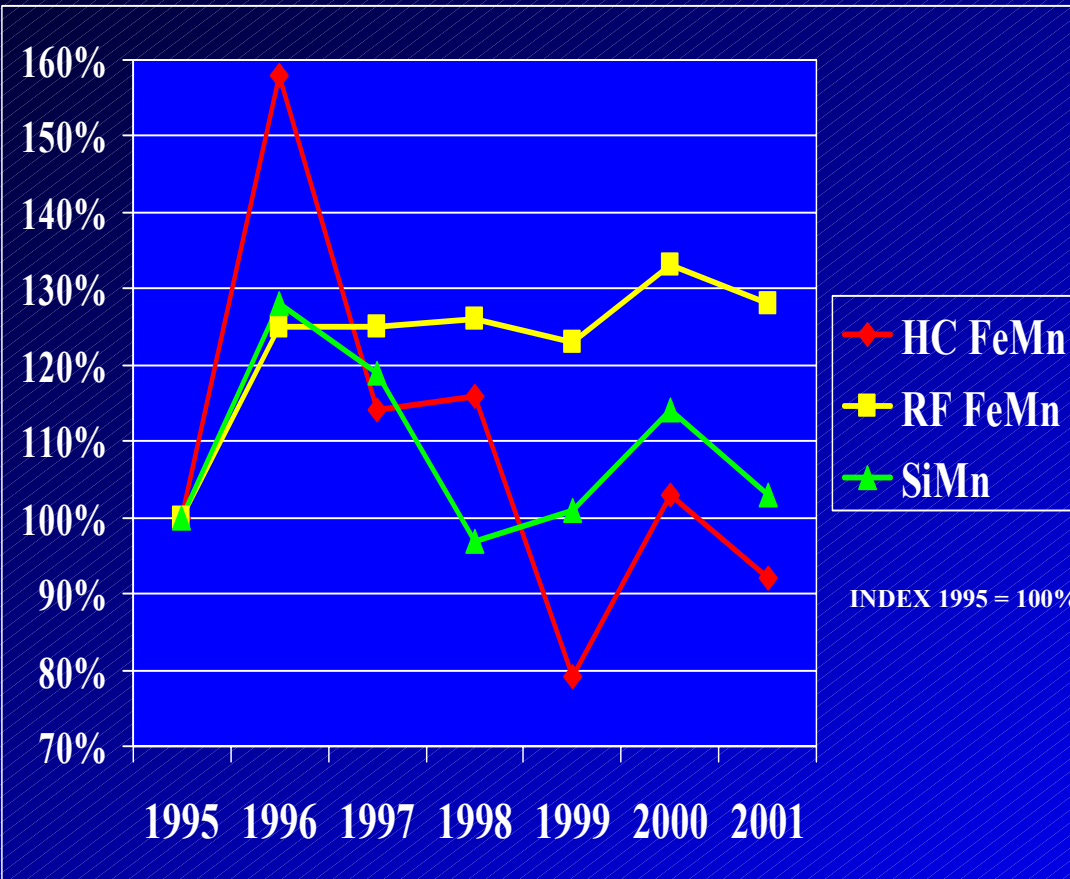
**June 2002**



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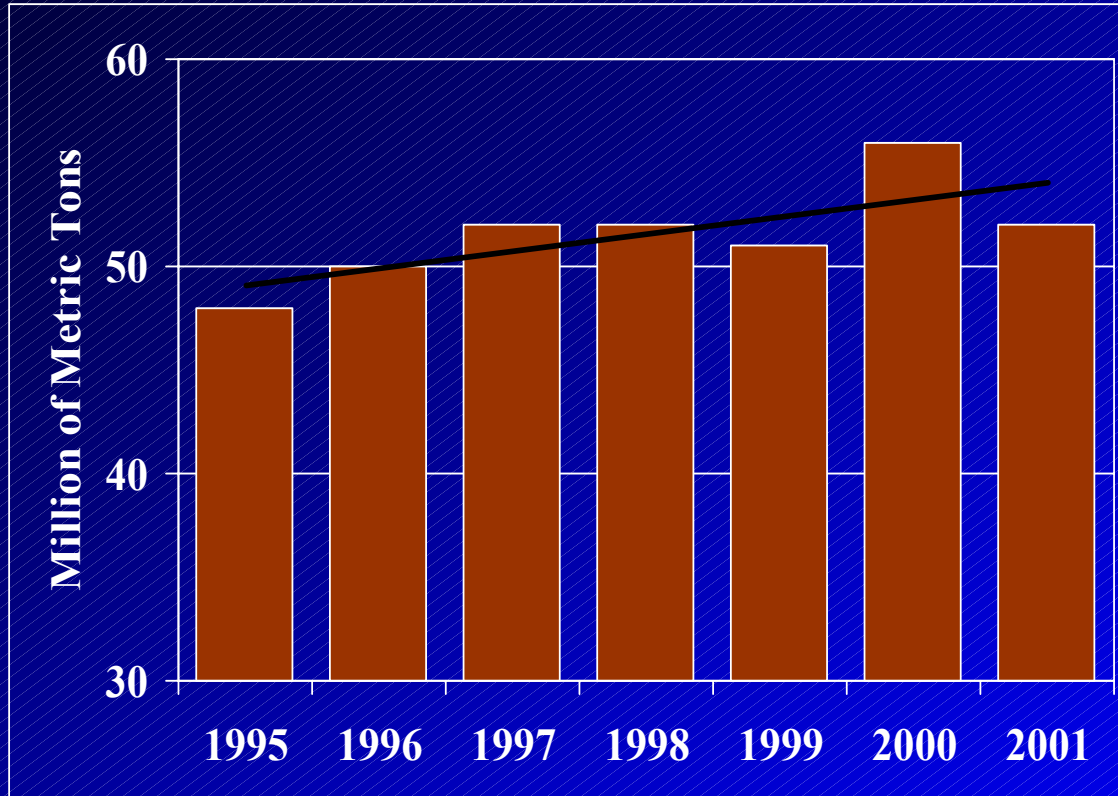
- **Manganese Alloy Production.**
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# Latin American Manganese Alloy Production



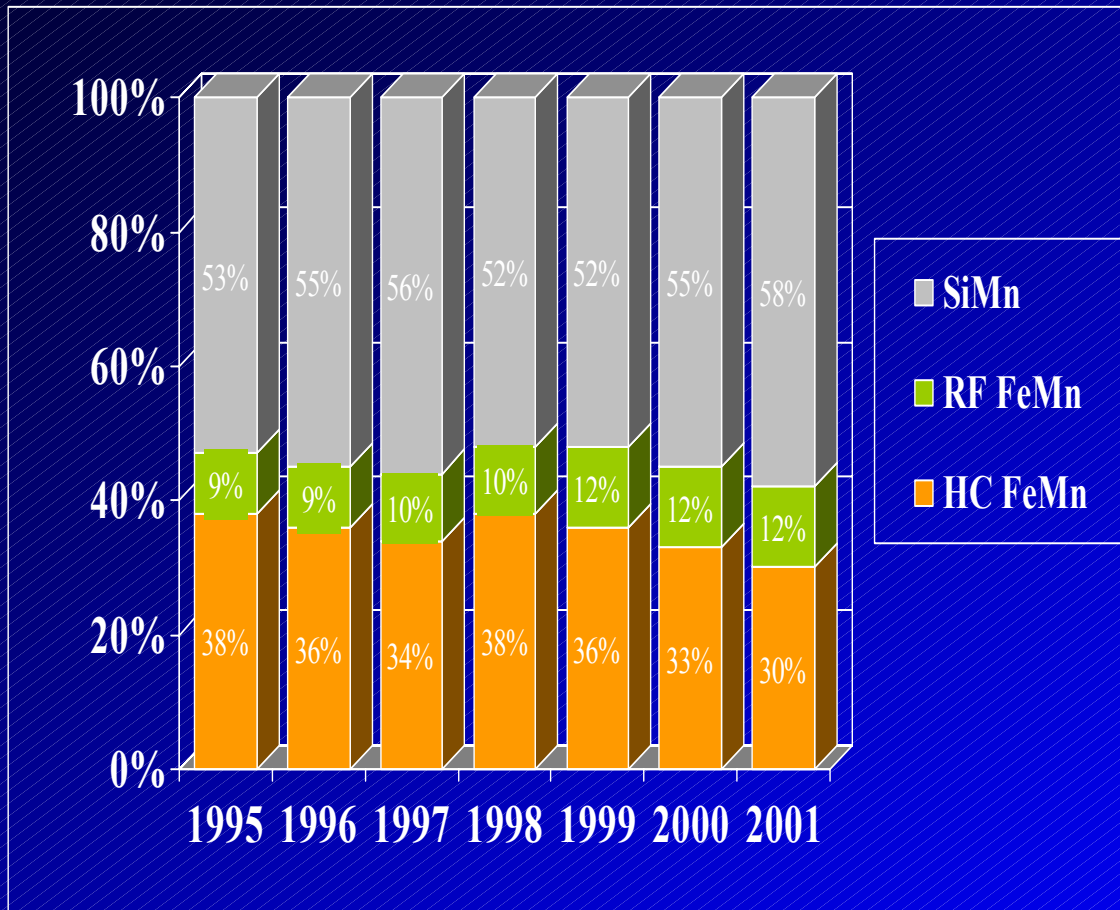
- Manganese alloy production in Latin America has experienced changes over the last years.
- Refined FeMn output has strengthened at the expense of High Carbon FeMn.
- SiMn began to recover following the new consumption trends in Latin America.
- 2001 hit trends due to the world economy and steel crisis.

# Latin American Steel Production



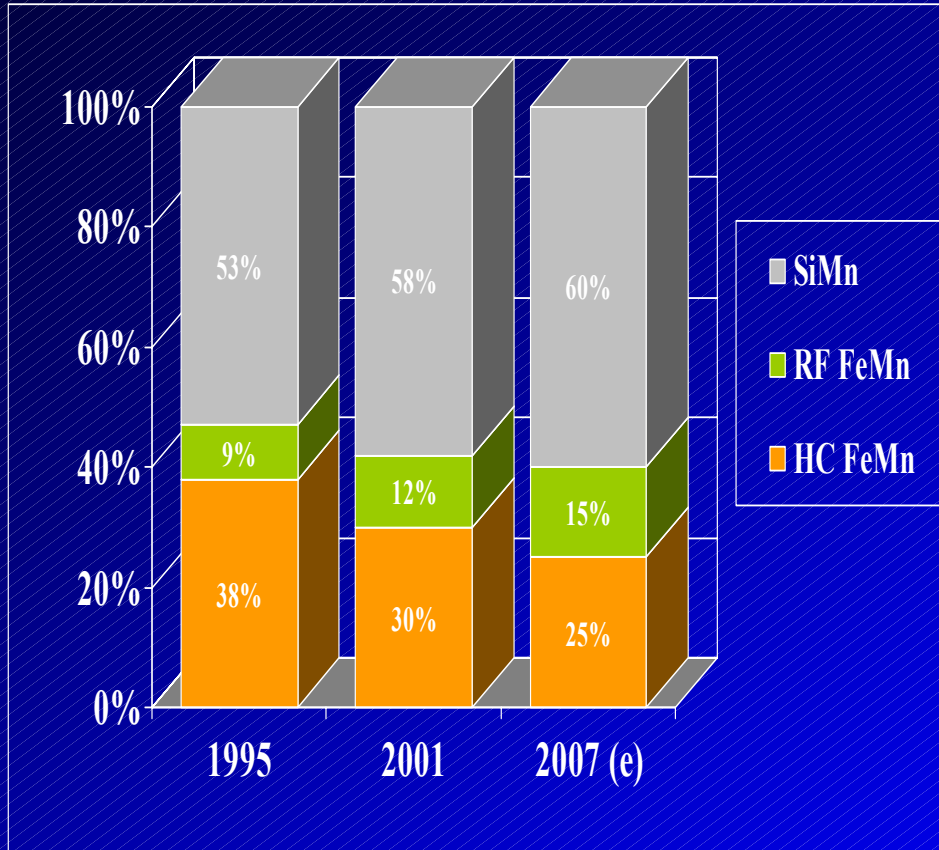
- **Raw steel production in Latin America has recurrently increased in the last years.**
- **Regional steelmakers especially in Mexico and Brazil have changed.**
- **Manganese alloy consumption has been in line with these trends.**

# Latin American Manganese Alloy Consumption



- HC FeMn consumption share has decreased from 38% to 30.
- SiMn share has strengthened from 53% to 58%
- The growth recorded by Refined FeMn can be attributed to the production of specialty alloys.

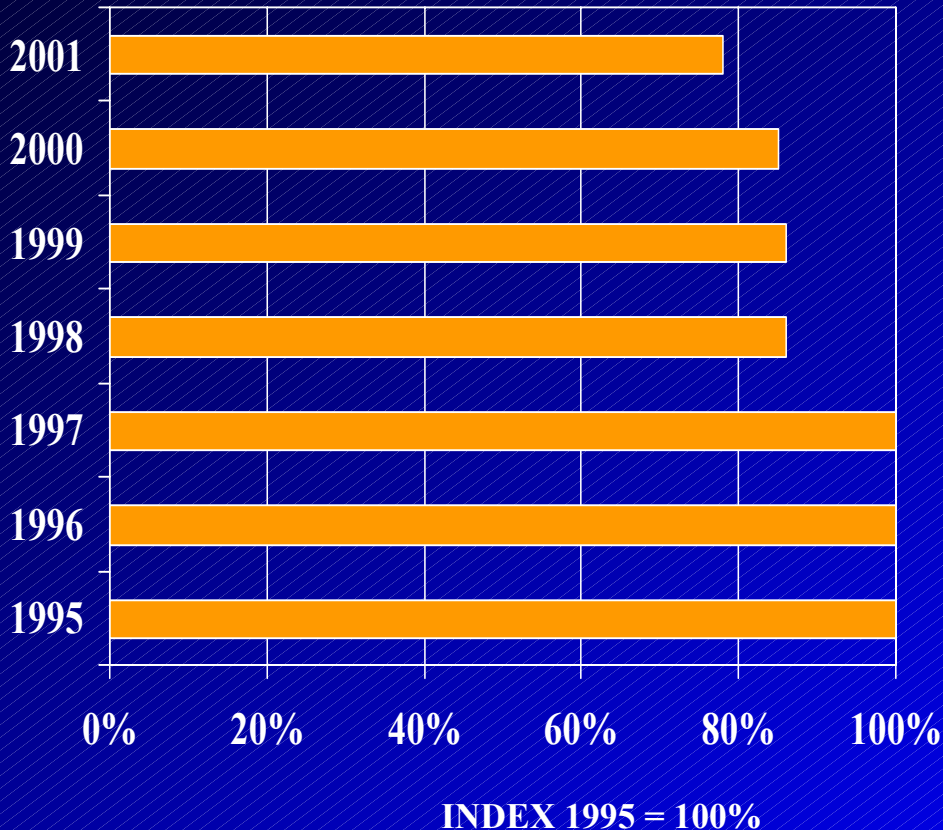
# Latin American Manganese Alloy Consumption Forecast (2007)



- Latin American manganese Alloy consumption shape in 2007 should continue to focus on SiMn and Refined FeMn.
- The forecast for SiMn consumption slightly increases from 58% to 60% in 2007.
- Refined FeMn grows from 12% to 15%.



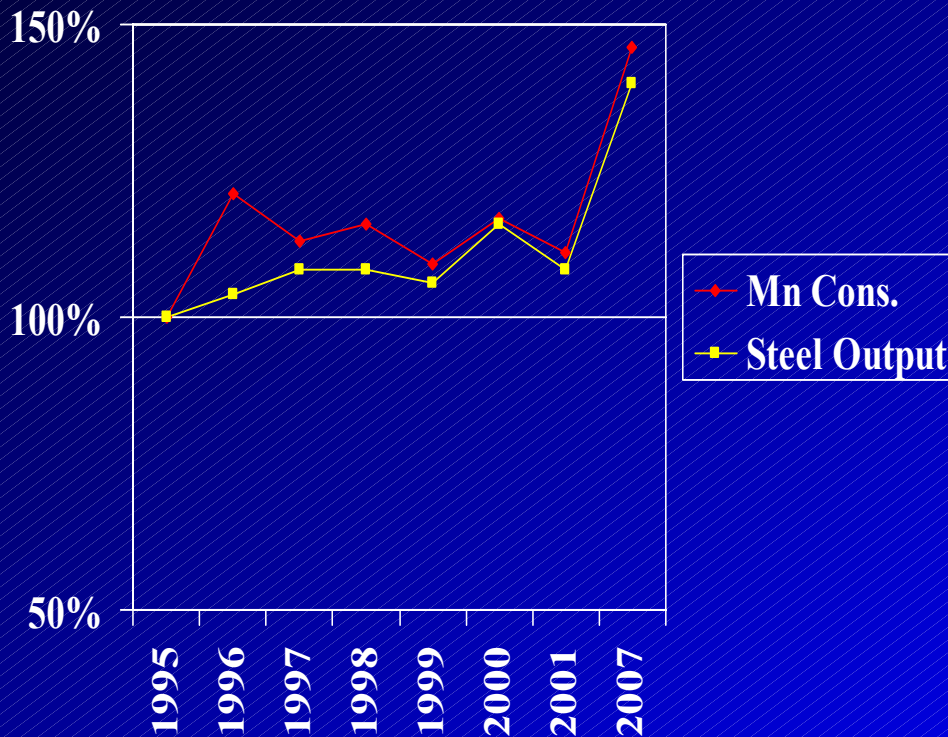
# Latin American Manganese Alloy Capacity



- Manganese Alloys Capacity has significantly reduced by the shutdown of some Latin American companies.

- Brazil is the only one who has indeed increased their production levels in the last couple of years.

# Relation Steel Production vs Consumption of Mn



INDEX 1995 = 100%

- Manganese Alloy consumption in Latin America has remained in line with crude steel production growth.
- Steel production will likely to recover its path in the future and we foresee 67 million tons in 2007.
- Increasing demand for SiMn and Refined FeMn will offset declining unit consumption for High Carbon ferromanganese.