



# Nickel Recycling – Overview of INSG Work

Environmental and Economics Committee  
Item 4  
Lisbon  
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# INSG Recycling Model

Comprehensive model to estimate nickel availability from EOL of products

- to assess Ni recycling performance, and
- to assess potential Ni supply from EOL products.
- all first use industries included
- nickel use from primary and secondary sources (scrap)

## ***Uses Study Group Recycling Rate Definitions***

- Recycling Input Rate (RIR)
- End-of-Life Recycling Efficiency Rate (RER)

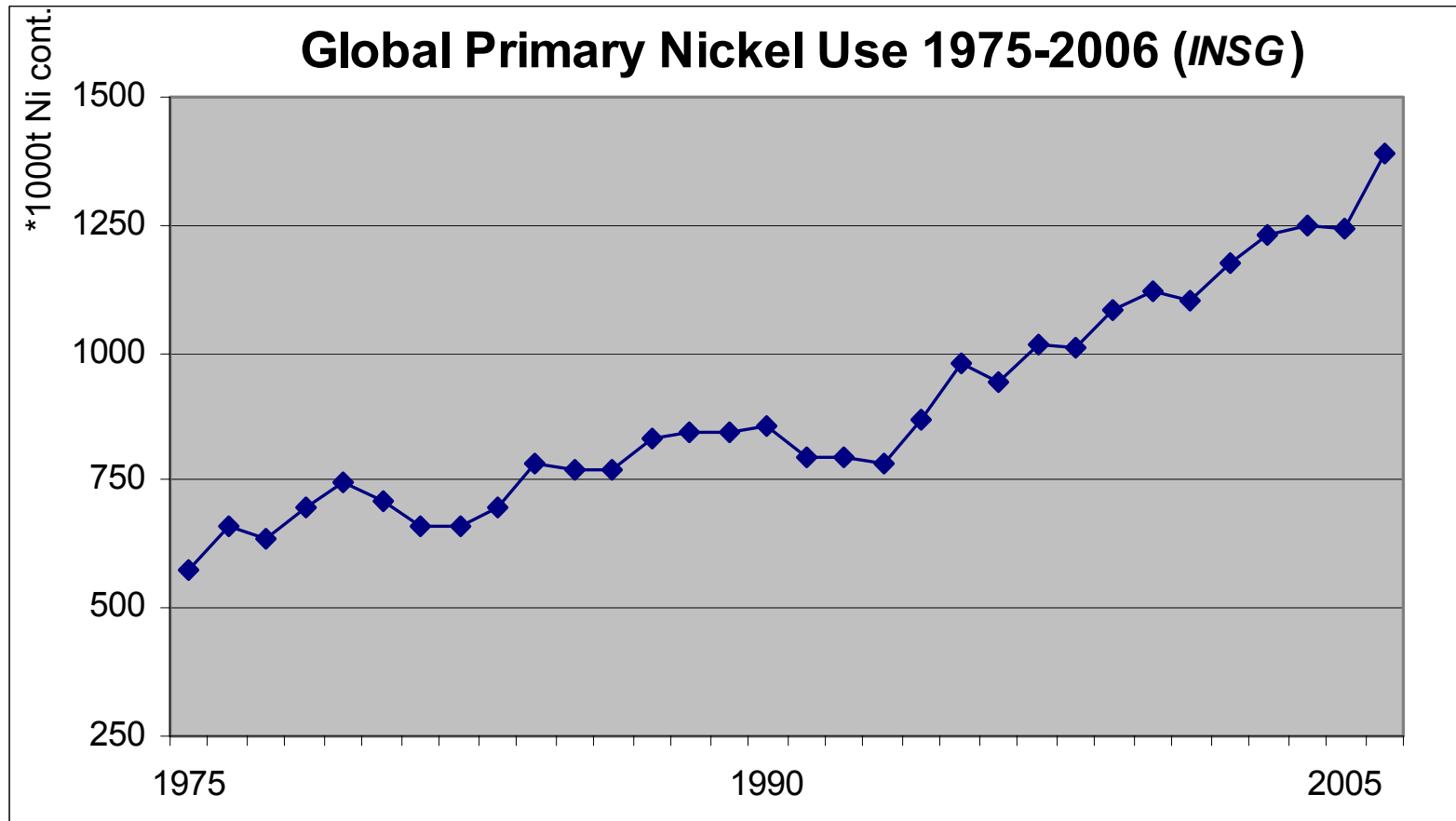


## Objectives in 2007

- Extend to global nickel use: time series on primary nickel use in Eastern World: completed
- Replace assumptions with results from first-use studies
- Confirm new model estimates of nickel availability in EOL scrap (old scrap)

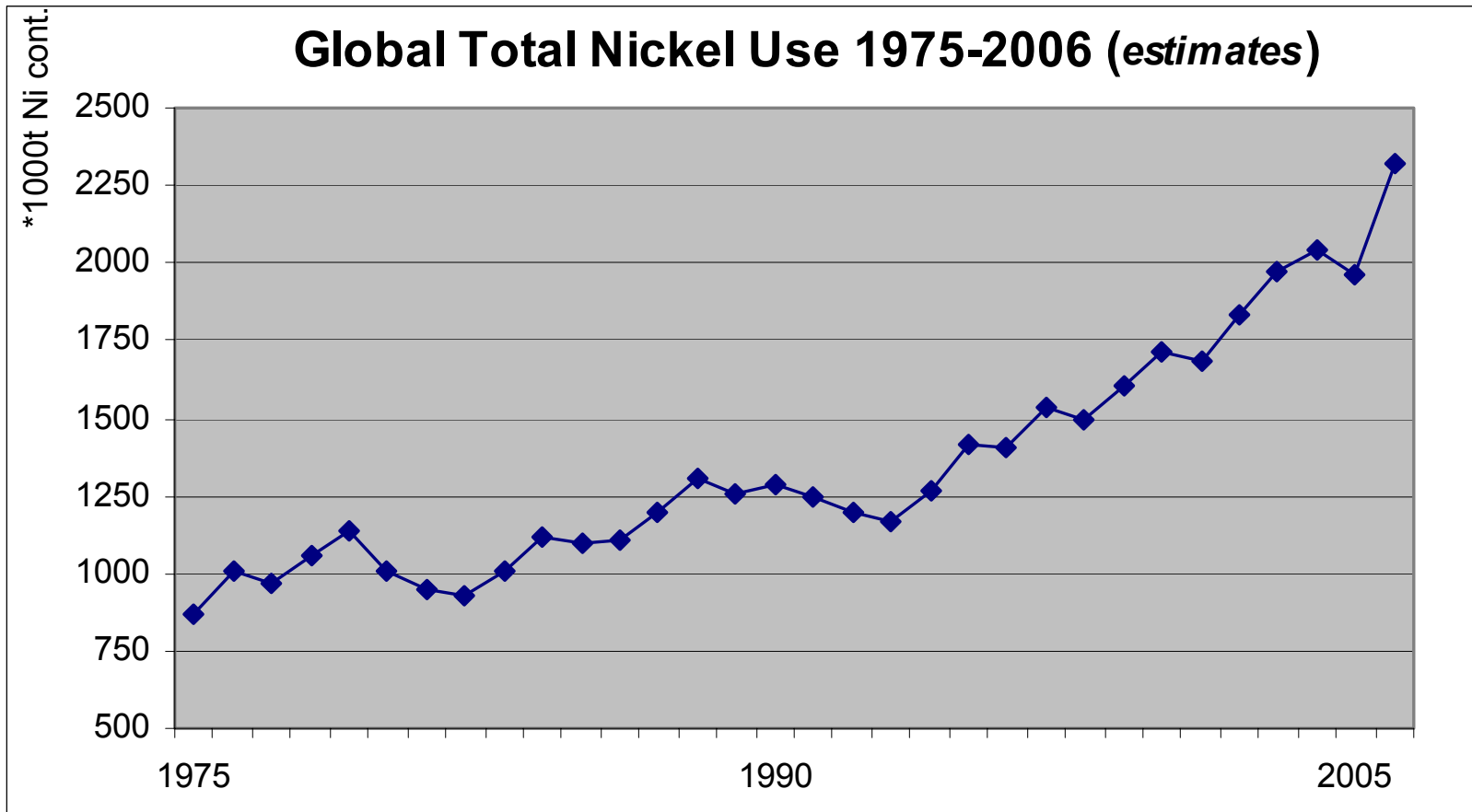


# Primary Nickel Use



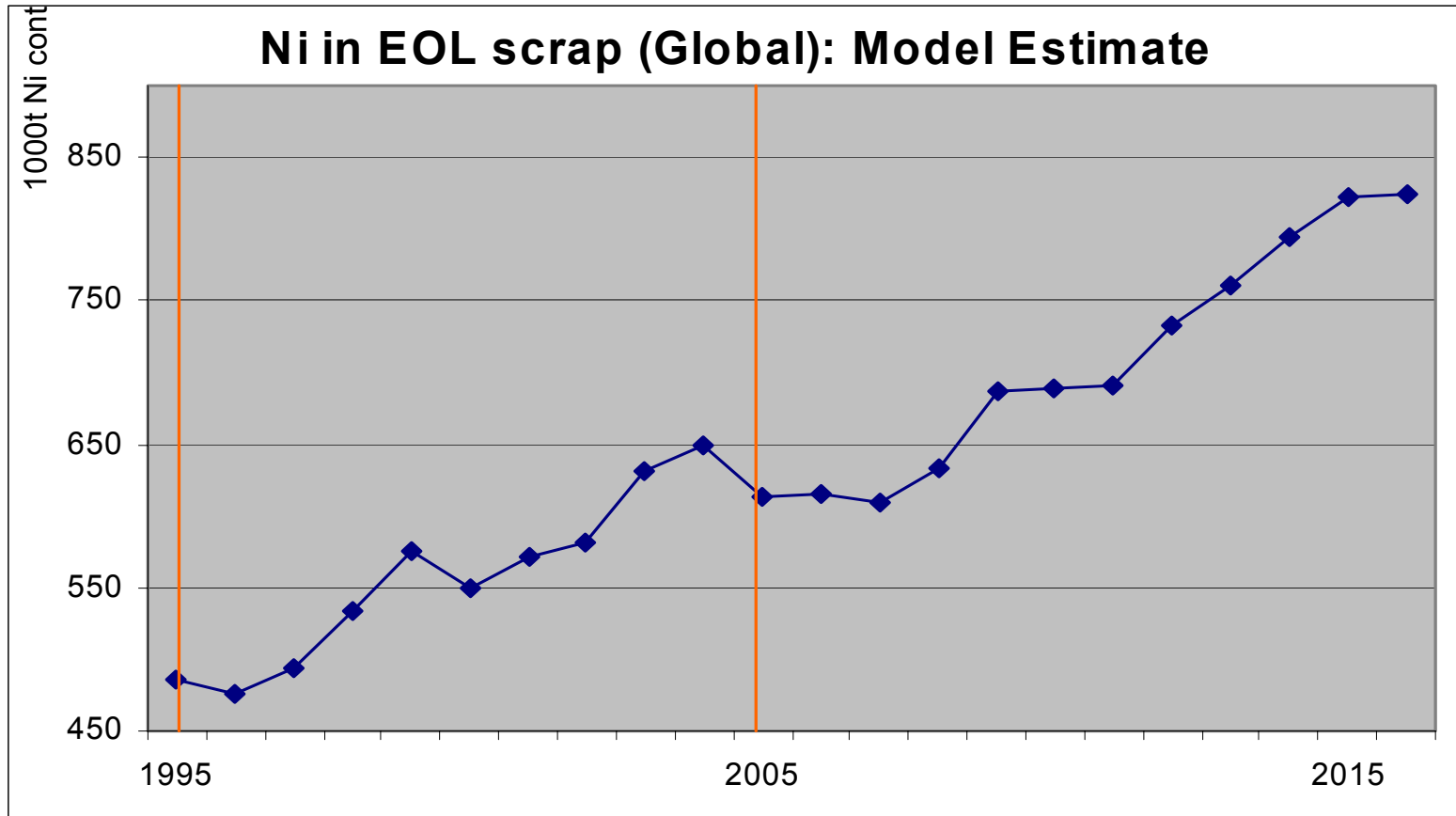


# Total Nickel Use





# Ni in EOL Scrap





# Assumptions

Lifetime of nickel containing products

➤ 15 – 30 years:

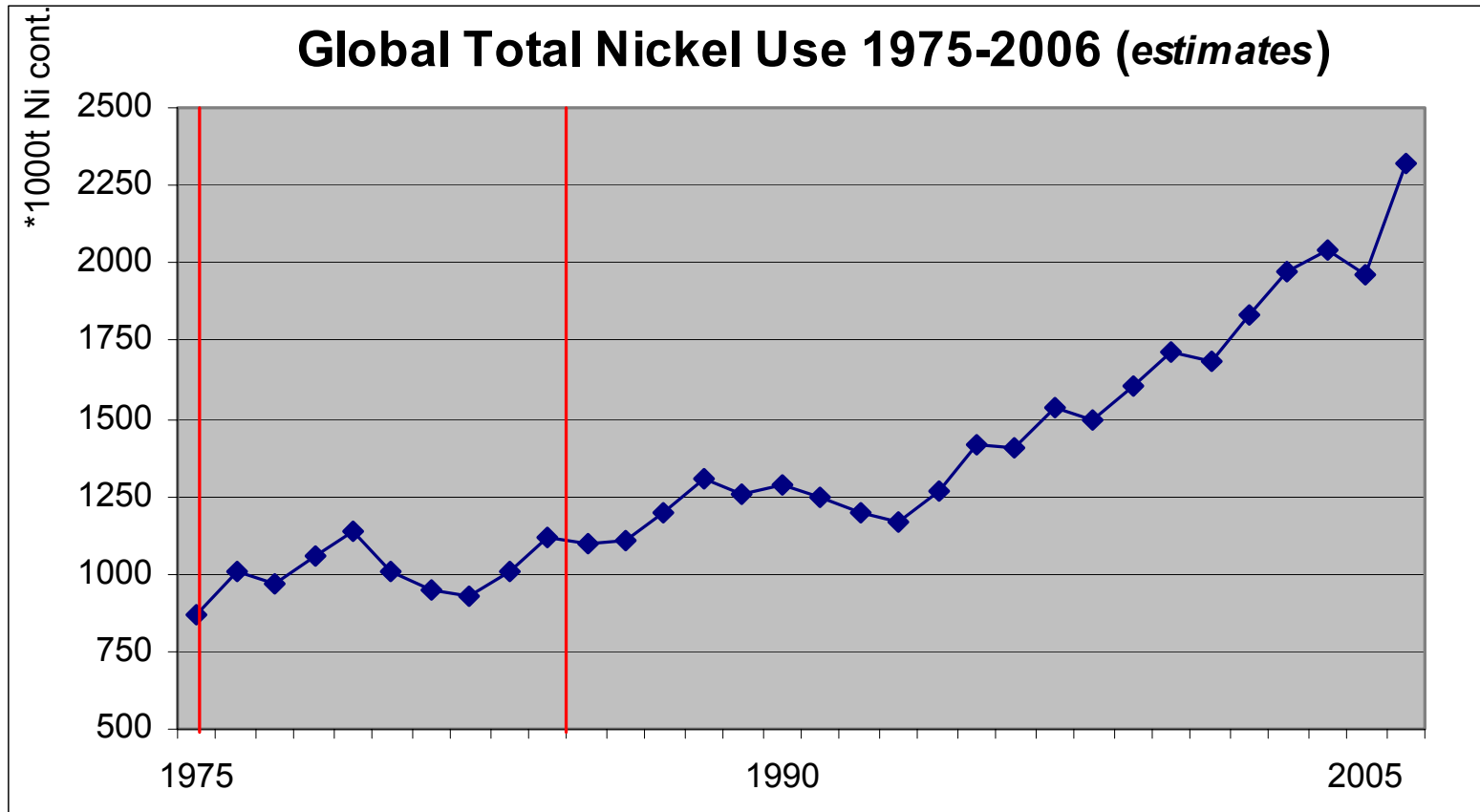
Therefore:

Estimated availability of “old scrap” in 1995  
to 2005

➤ relates to nickel use in 1975 ~ 1985



# EOL scrap





# Challenges

- Confirm total historic nickel usage assumptions in first-use products
- Confirm recovery rates assumed for nickel in stainless steel end products
- Confirm supply of nickel in stainless steel from end-of-life scrap



# Further Challenges

- Verify data collected on other major first-uses of nickel (alloys, castings, plating, use in other non-ferrous metals)
- Generate data that covers total world with industry assistance



# End Objectives

- Confirm INSG data on Recycling Input Rate
- Present first global estimates of End-of-Life Recycling Efficiency Rate for Nickel



# Conclusions

- Considerable progress made by INSG Secretariat in assembling verifiable data in 2007
- Data form basis of transparent estimation of nickel's recycling efficiency rate and are comparable to work being done in Study Groups on copper, lead and zinc
- Support of nickel and stainless steel industries as well as INSG member states is vital