

# Entrepreneurship Indicators: R&D and Technology

## Statistical Pieces to the Puzzle of Identifying Indicators for R&D and Technology Determinants

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# Entrepreneurship Indicators: R&D and Technology

## Structure of Presentation

- **Measurement issues**
- **The Danish Approach: Micro Data Linking**
- **Examples of Indicators**

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## Measurement Issues (1):

- **Justification: The Lisbon Agenda:**
  - The recognised need to foster more entrepreneurial drive in Europe
- **Legal Requirements – SBS Regulation:**
  - **Birth / death rates** as indicators of economic dynamism
  - **Survival rates** as indicator of start-up success and sustainability
- **Further Policy Needs:**
  - **Growth of surviving enterprises (gazelles)** as indicator of economic growth
  - Understanding the determinants of entrepreneurship => EIP
- **Conflicting Policy Concerns:**
  - Reduction of the administrative burden on enterprises with 25%
  - Special focus on the small enterprises

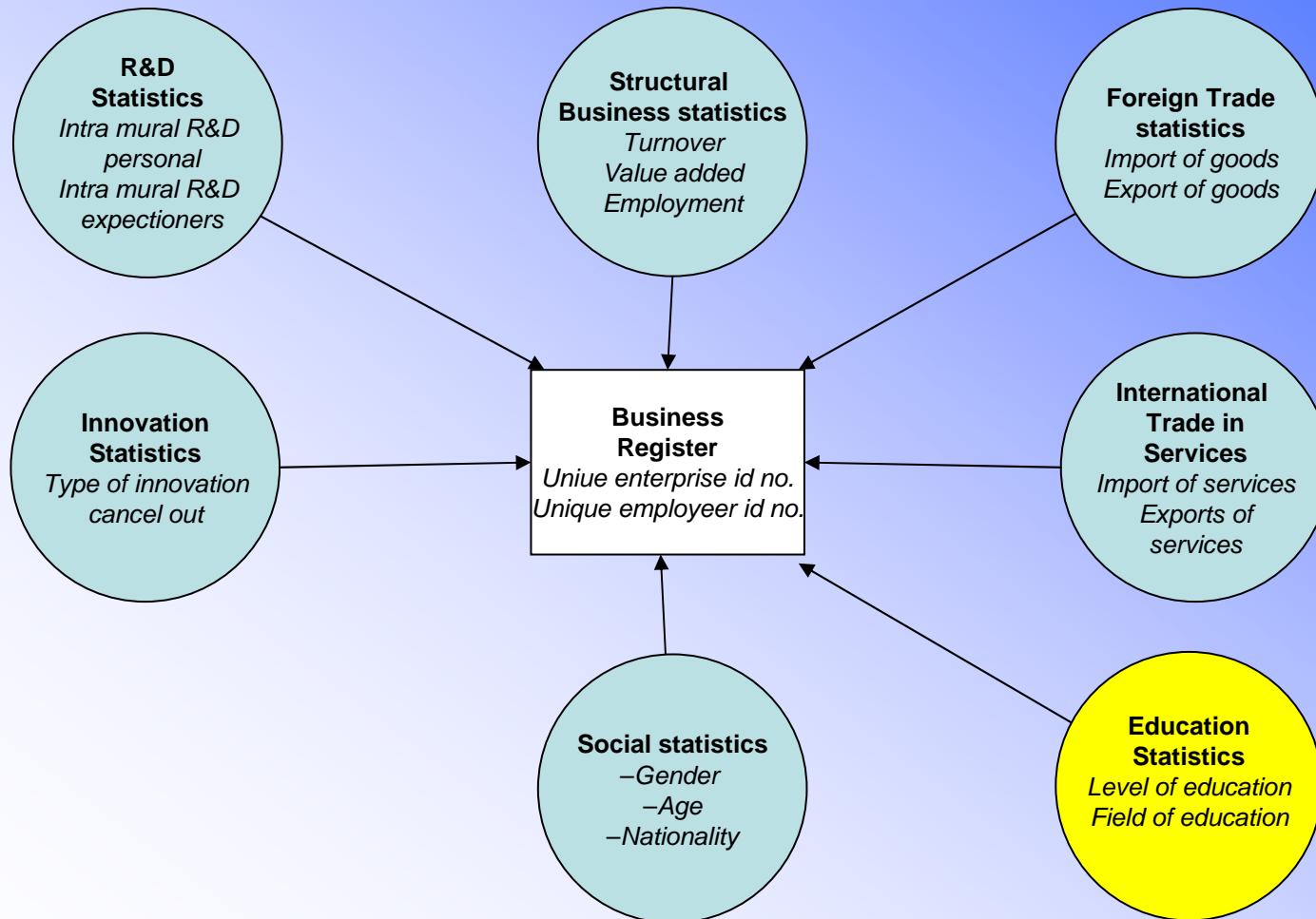
## Entrepreneurship Indicators: R&D and Technology

### Measurement Issues (2):

- These framework conditions imply:
- Pressure on NSI's to develop new indicators on entrepreneurship ...
- ... but do this without launching new surveys
- ... and instead utilise existing statistical and administrative sources
- A promising way forward: Micro data linking

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## The road ahead: Data linking at firm level



## Entrepreneurship Indicators: R&D and Technology

Statistical unit: Enterprise and/or Entrepreneur

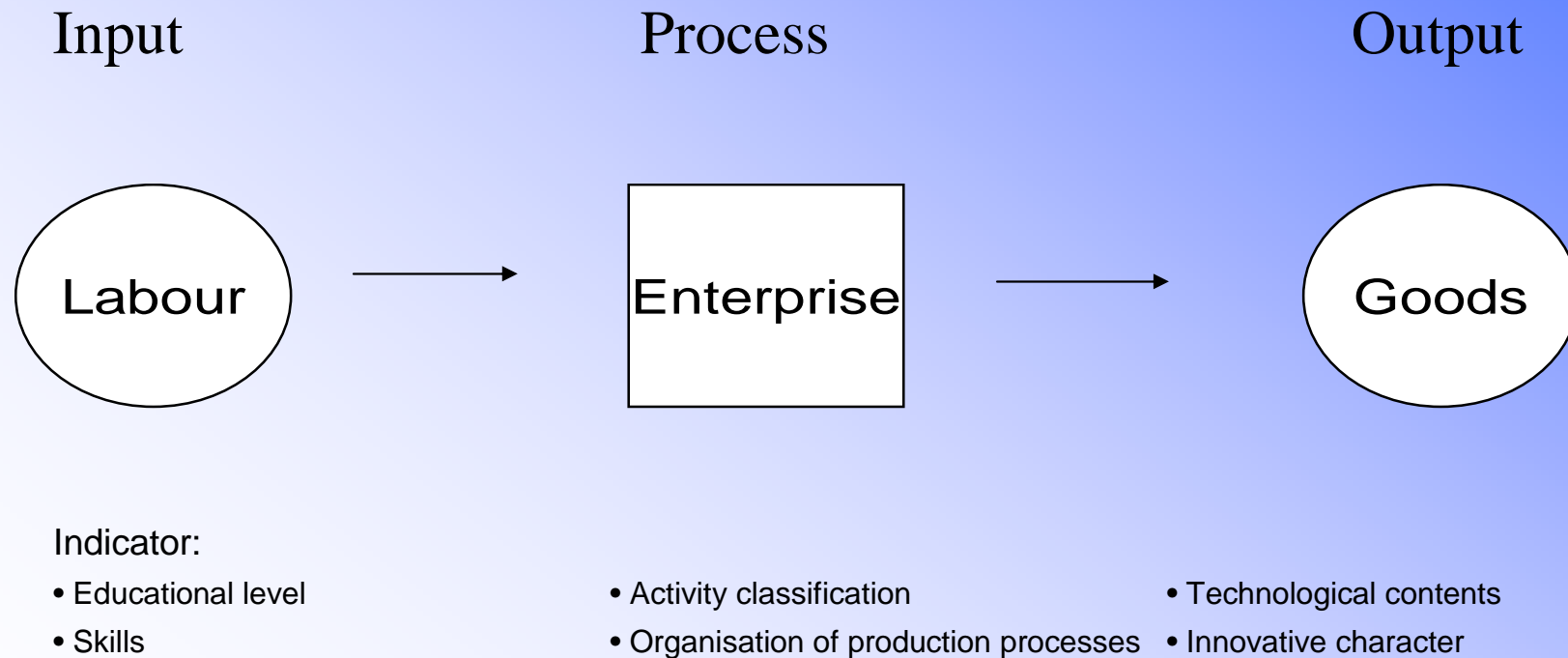
Enterprise (Unique identification no.)

- Activity
- No of employees
- Turnover
- Legal form
  
- Age
- Gender
- Education
- Nationality

Entrepreneur (Unique identification no.)

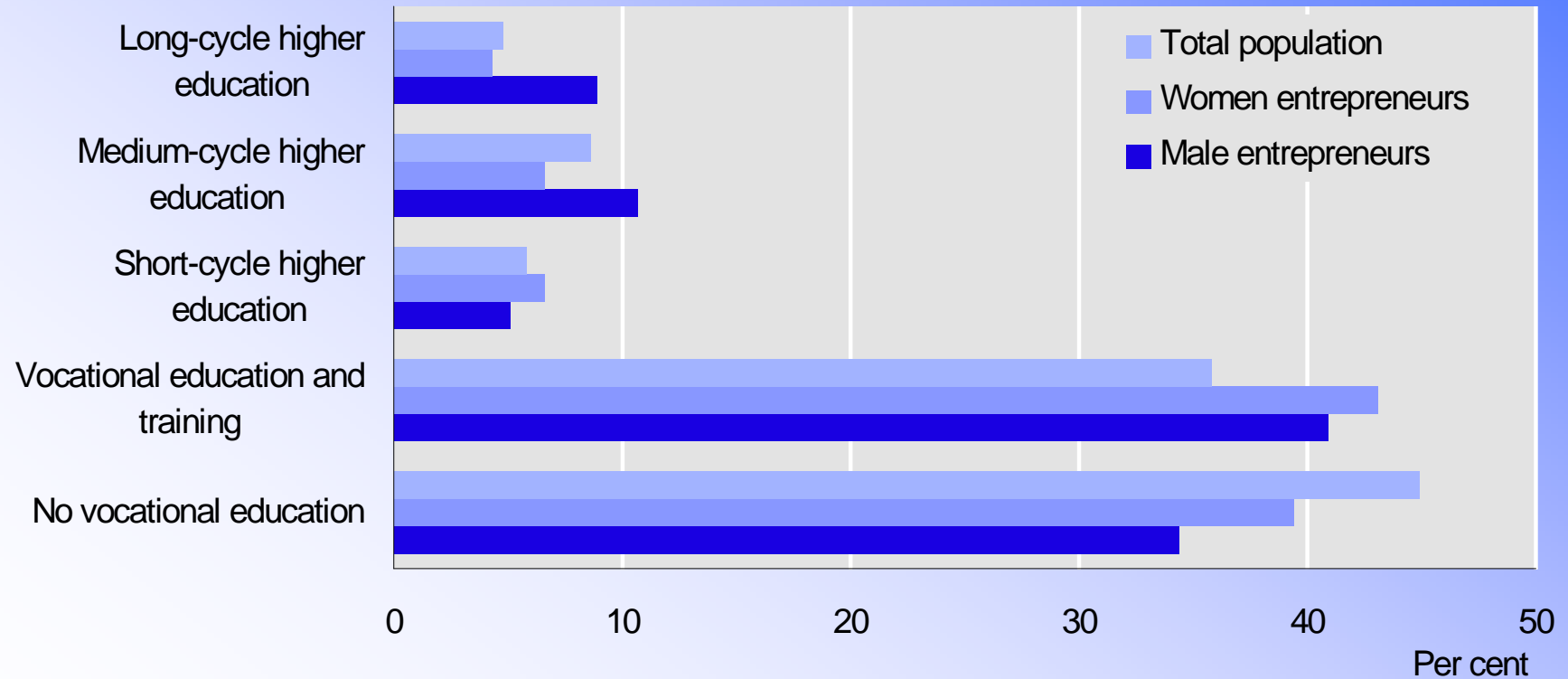
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### How to measure the commercial utilisation of knowledge?



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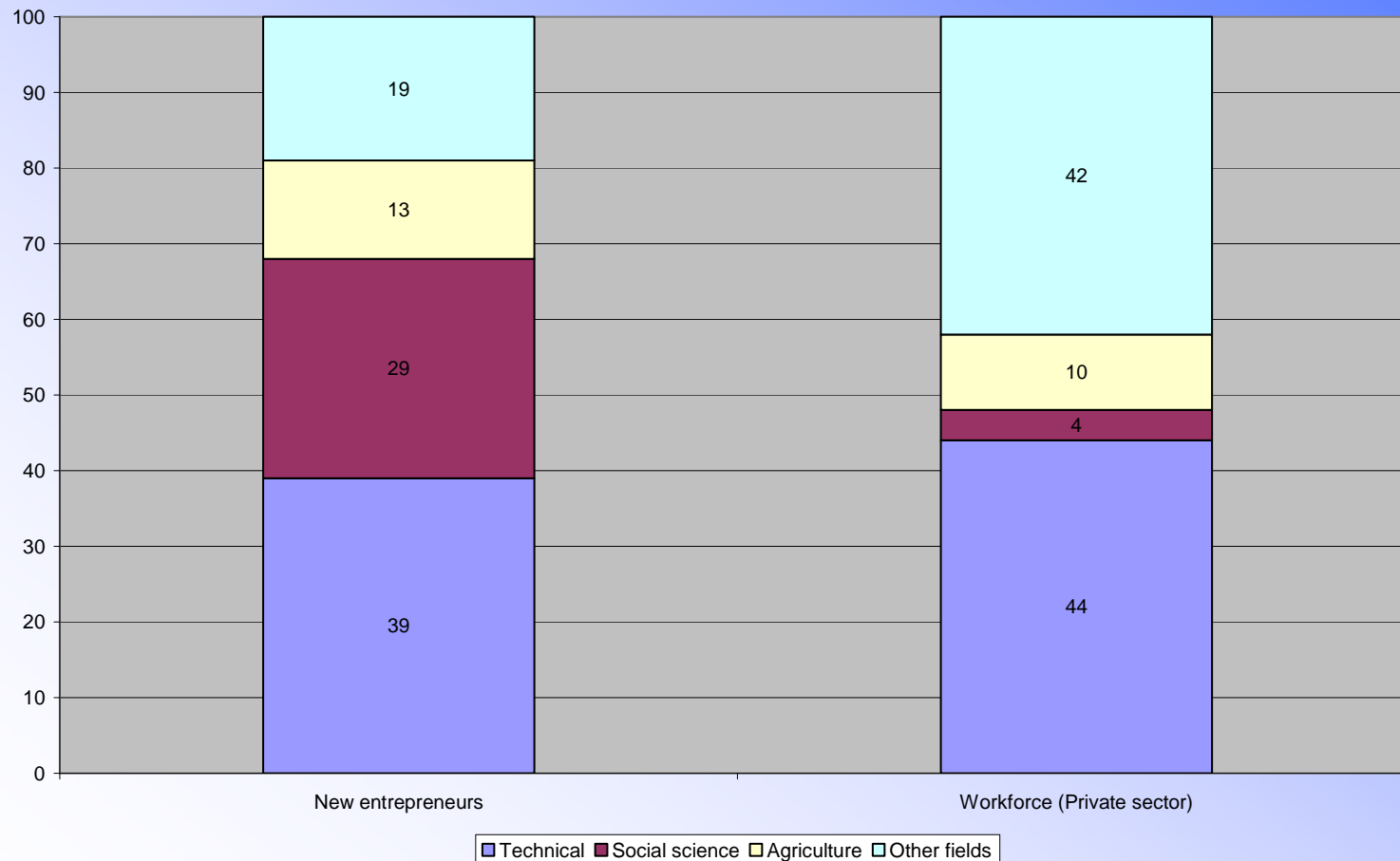
Are new entrepreneurs better educated than the work force in general?





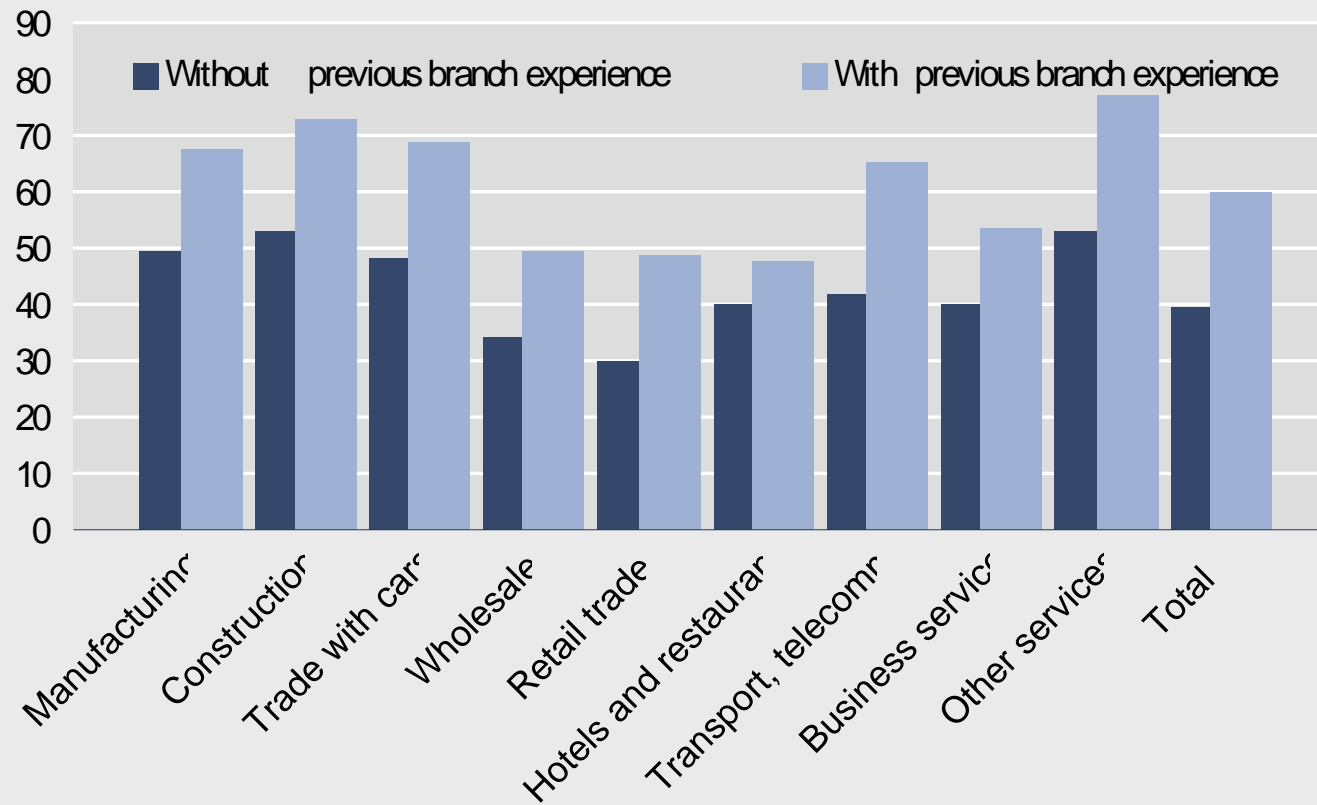
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## What is the scientific background of new entrepreneurs?



## Entrepreneurship Indicators: R&D and Technology

Does previous branch experience have an impact on survival?



# Entrepreneurship Indicators: R&D and Technology

## Patents and other IPR: Methodology

- Matching data on type of IPR from the Danish Patent and Trademark Office
- with data from the Business Register, Innovation and R&D surveys:
  - Patents: indicators on (primarily technological) innovation
  - Trademarks: primarily service innovation/non-technological innovation, marketing innovation

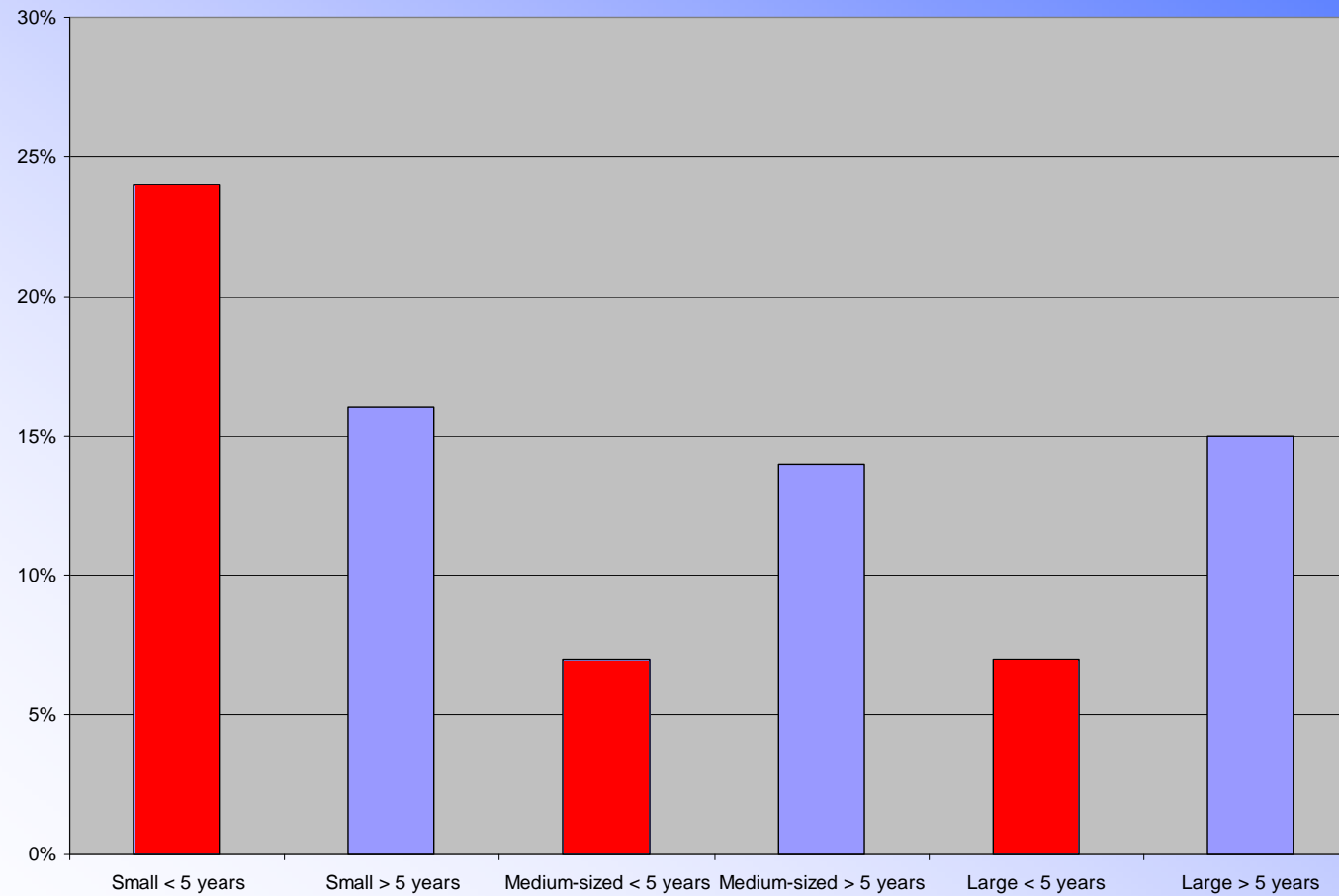
## Entrepreneurship Indicators: R&D and Technology

### New enterprises being IPR active

	Patents	Trade mark	Design	Utility- model	One or more ipr total
2001	18	318	23	13	350
2002	12	274	18	14	301
2003	6	322	20	6	341

# Entrepreneurship Indicators: R&D and Technology

## New to market goods and services. Share of total turnover





## Entrepreneurship Indicators: R&D and Technology

Thank you for your attention!

If any questions, you are most welcome to  
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