

Entrepreneurship Indicators: R&D and Technology

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

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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

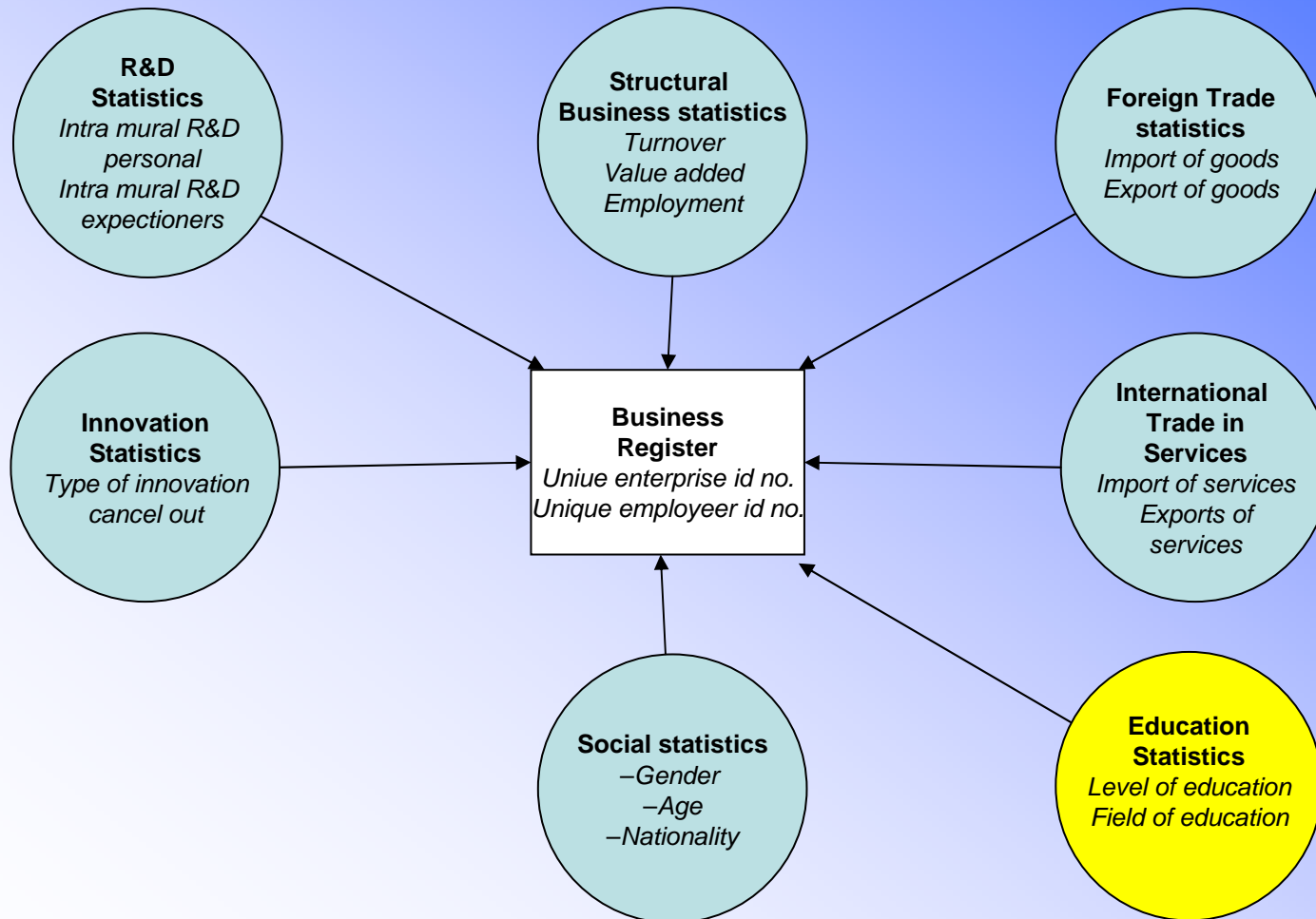
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Measurement Issues (2):

- 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



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Statistical unit: Enterprise and/or Entrepreneur

Enterprise (Unique identification no.)

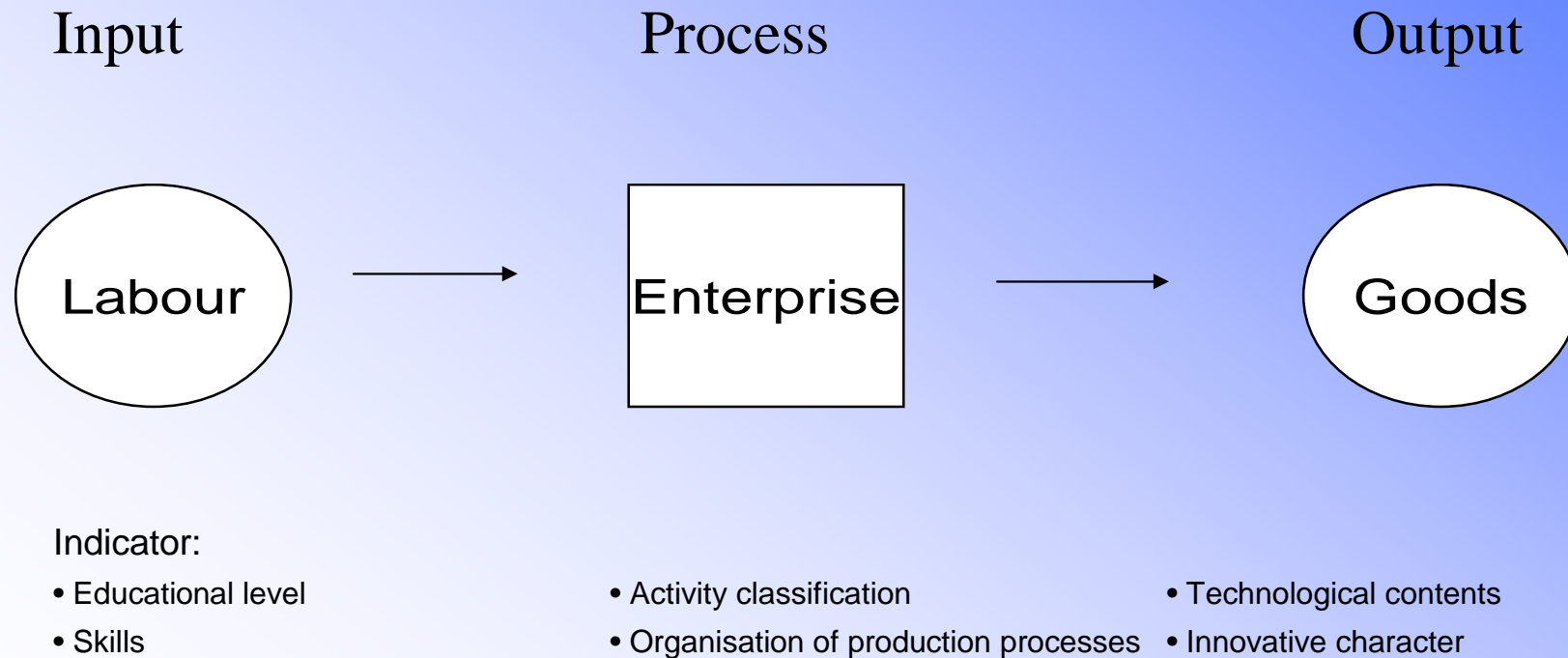
- Activity
- No of employees
- Turnover
- Legal form

- Age
- Gender
- Education
- Nationality

Entrepreneur (Unique identification no.)

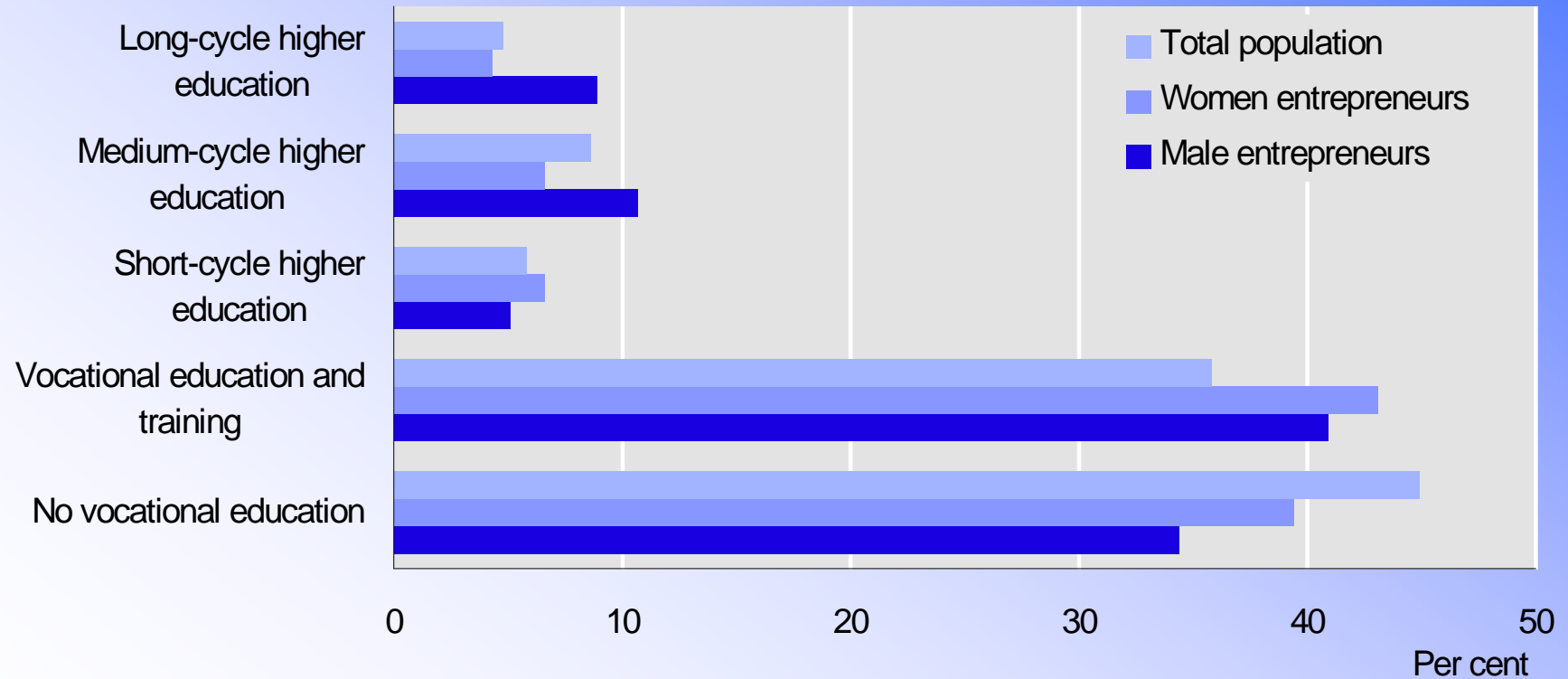
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How to measure the commercial utilisation of knowledge?



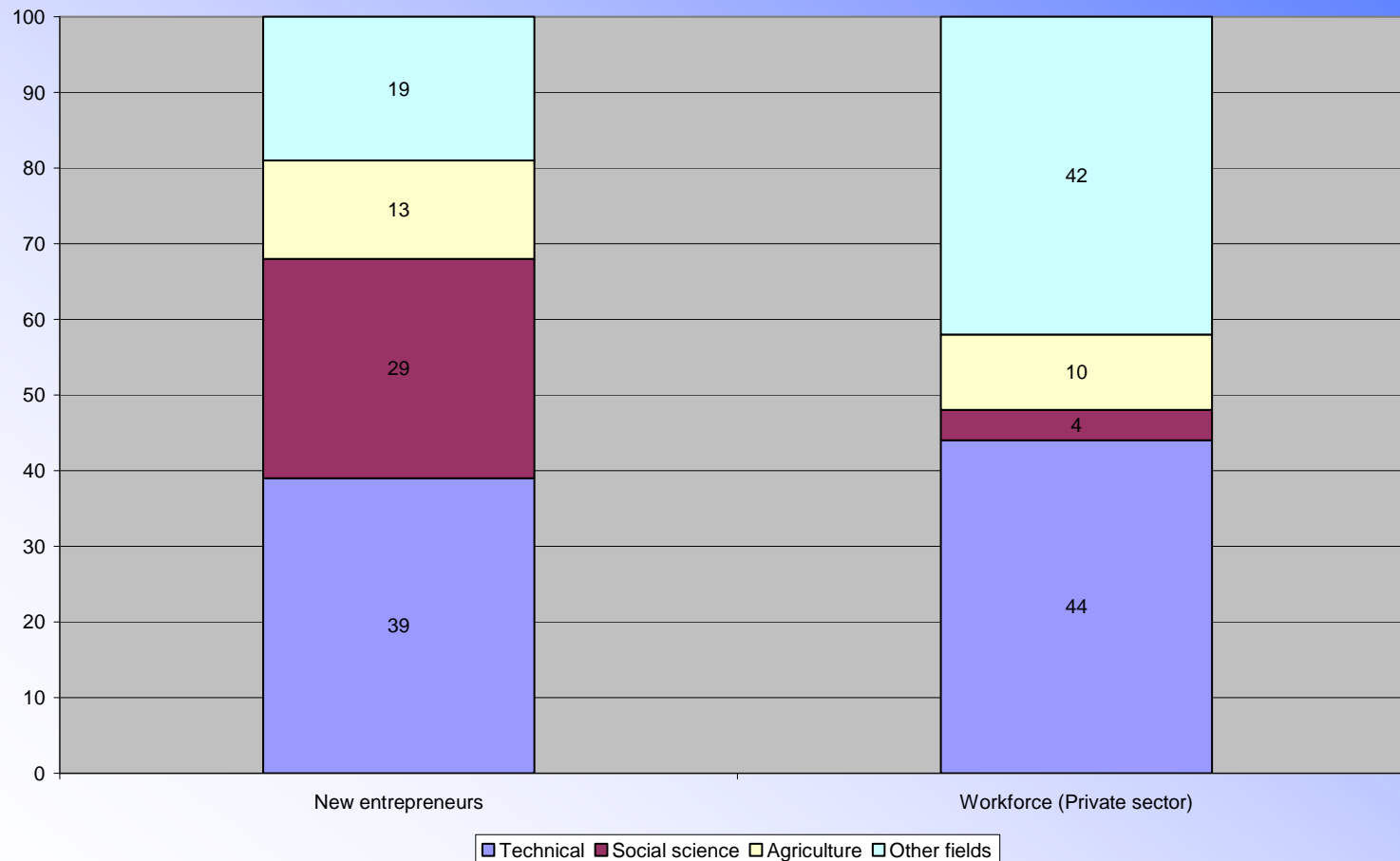
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Are new entrepreneurs better educated than the work force in general?



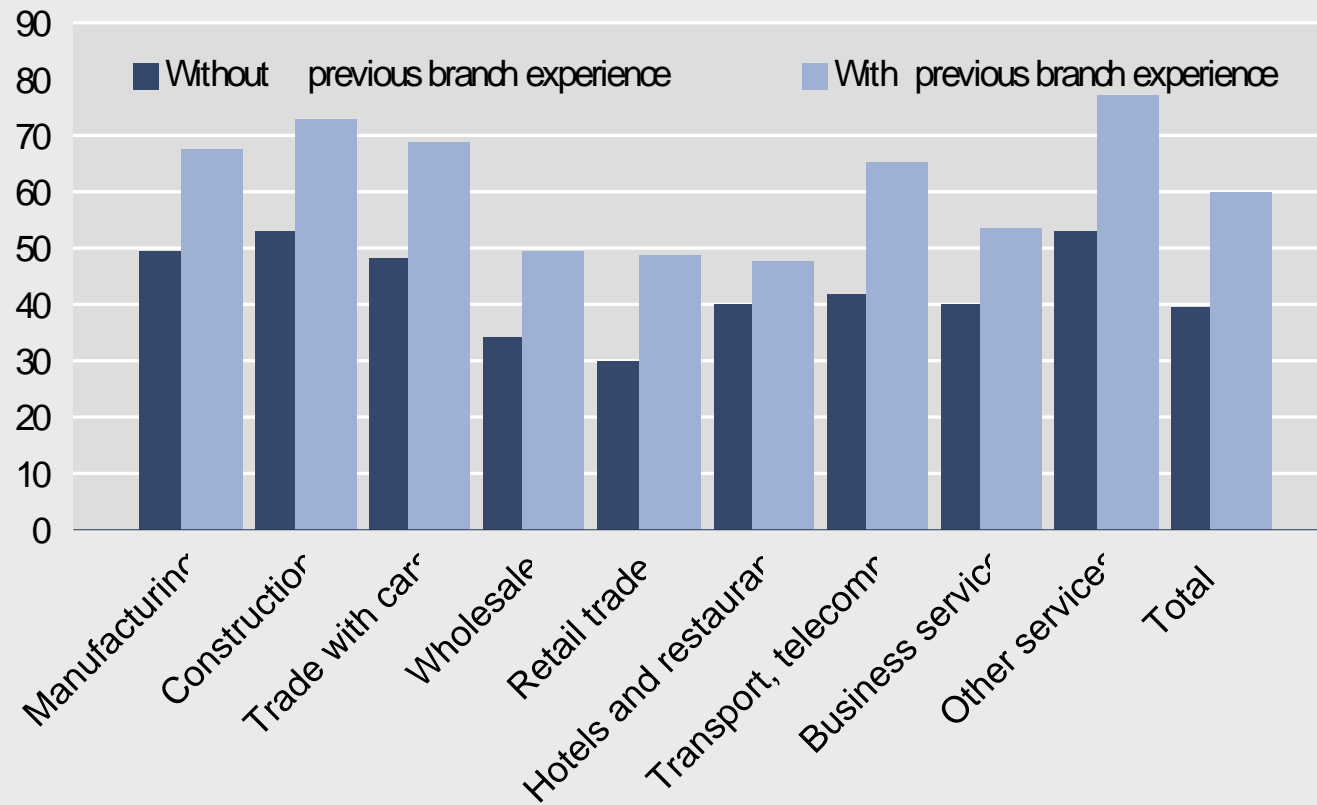
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What is the scientific background of new entrepreneurs?



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Does previous branch experience have an impact on survival?



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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

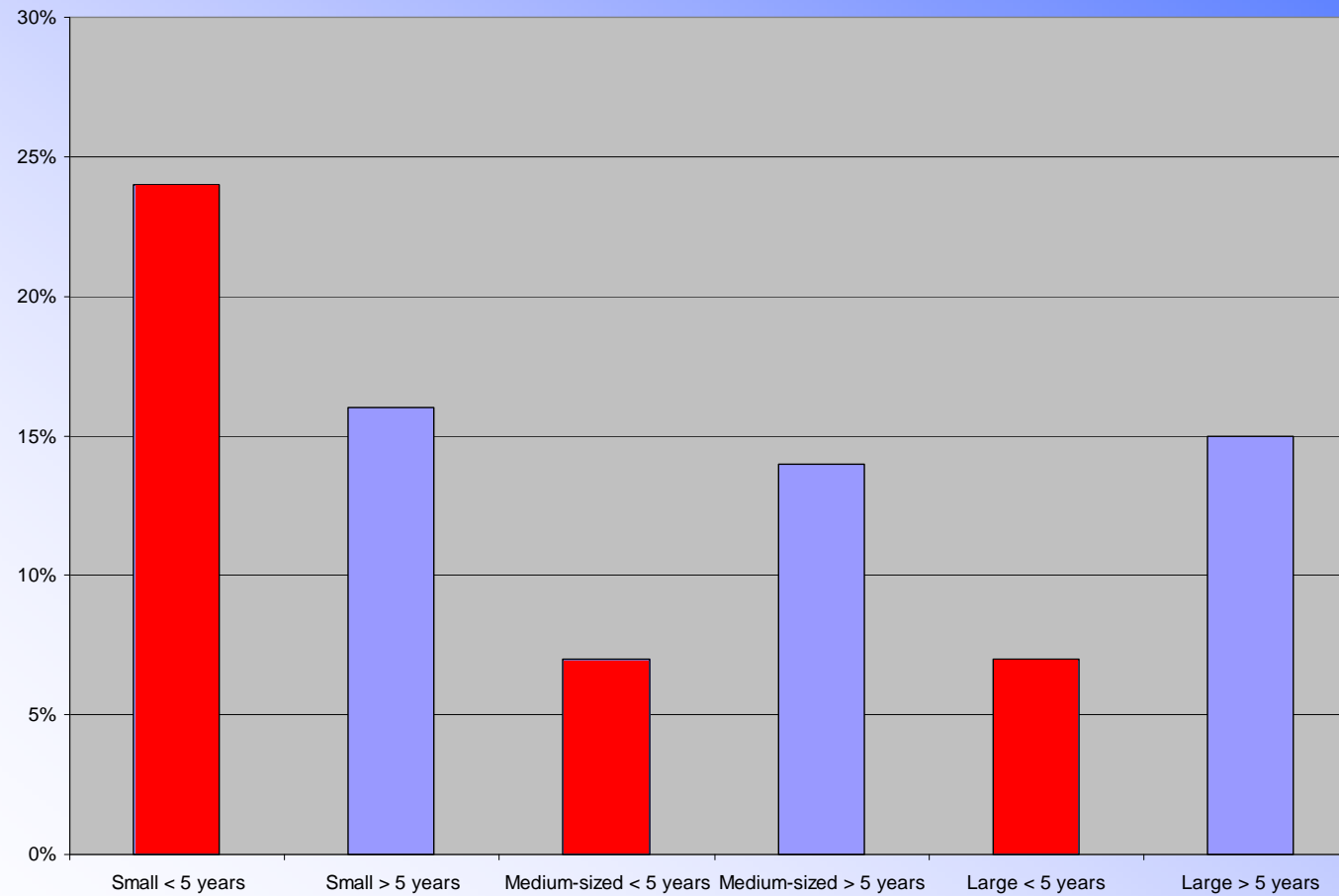
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New enterprises being IPR active

| | 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 |

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New to market goods and services. Share of total turnover





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Thank you for your attention!

If any questions, you are most welcome to
contact me : pbn@dst.dk