

# Where Do Innovations Origin?

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# Innovation and Economic Growth

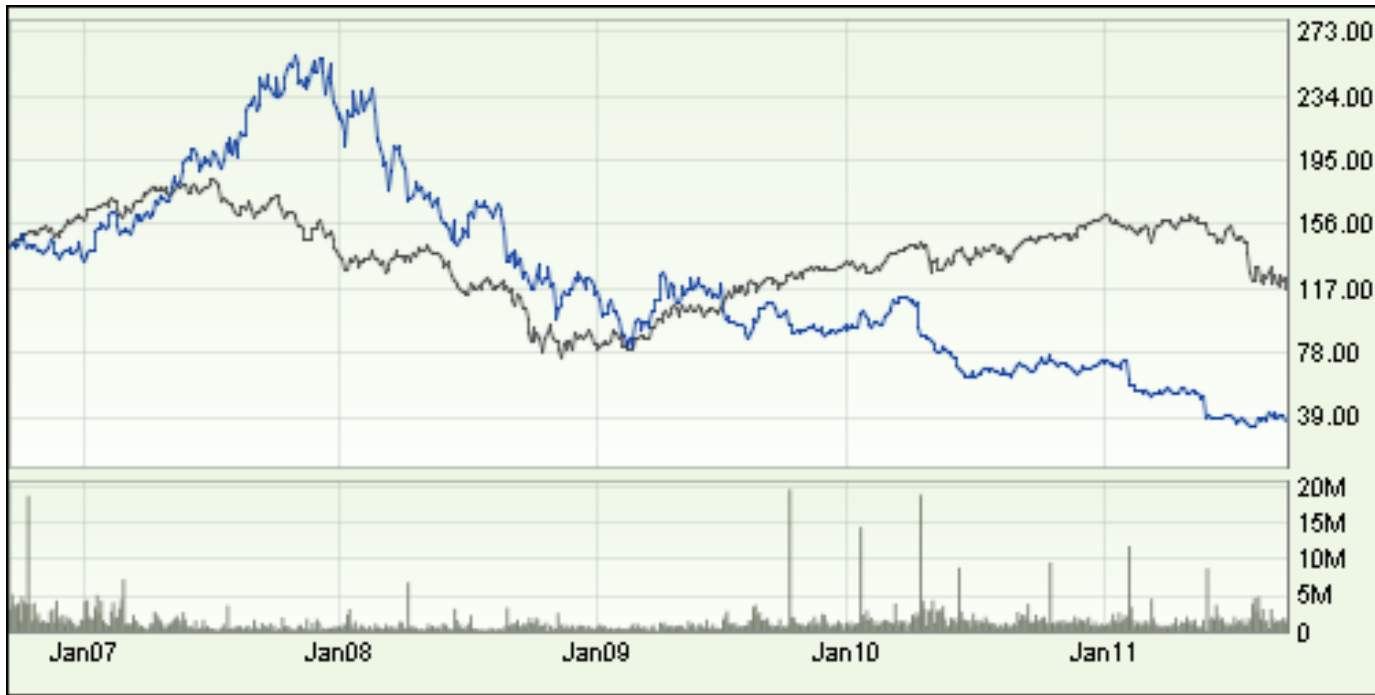
15 percent of America's increase in GDP 1870-1970 could be attributed to increased inputs.



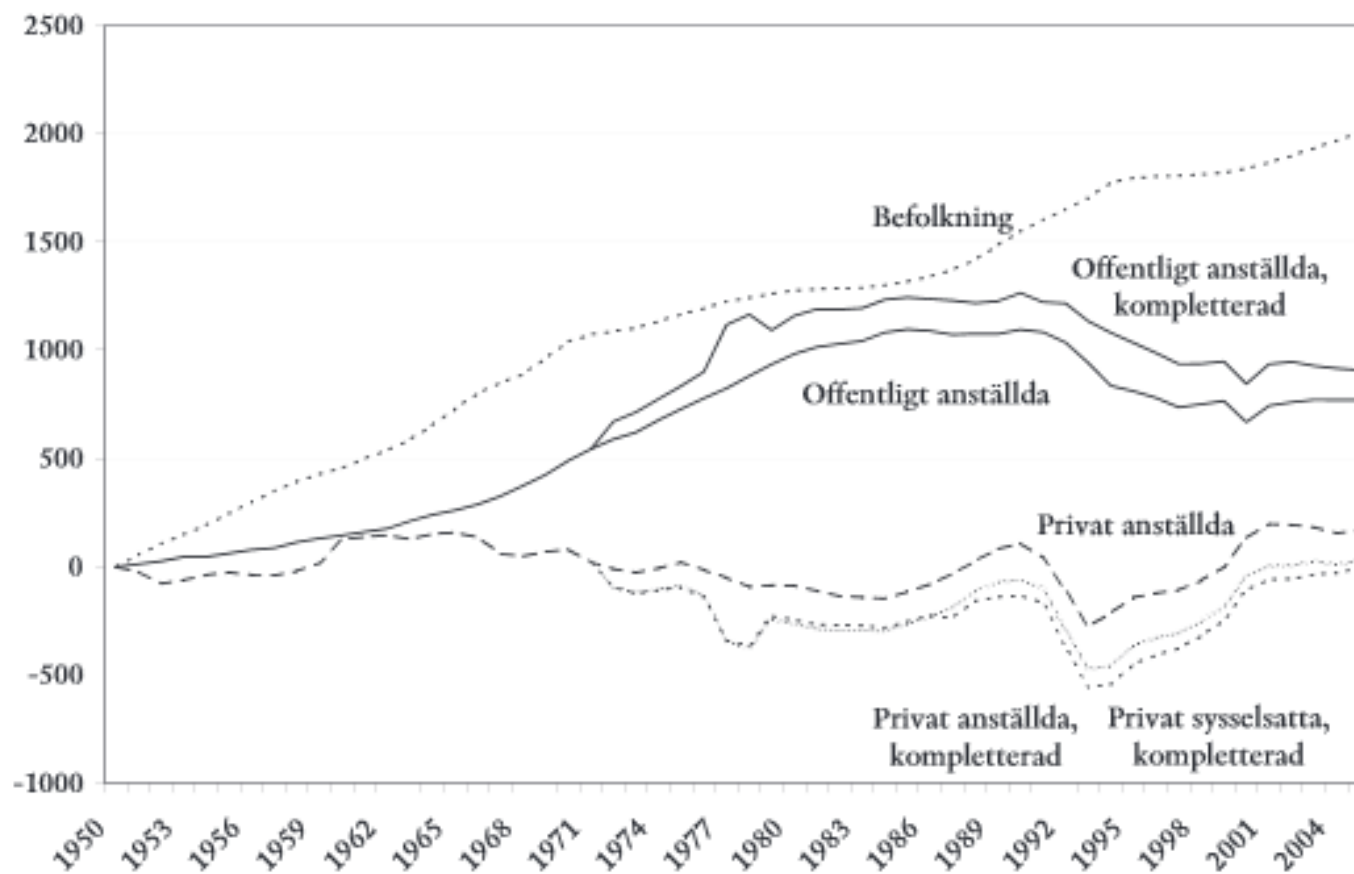
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# A world of instability

BusinessWeek 2007: "Nokia's dominance in the global cell-phone market seems unassailable."



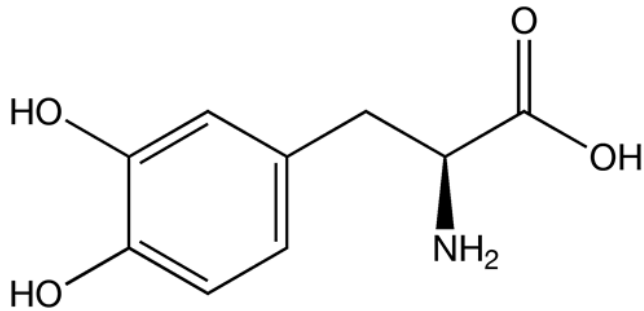
# Sweden's challenge



Source: Bjuggren och Johansson (2009)

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# Groundbreaking Swedish Innovations



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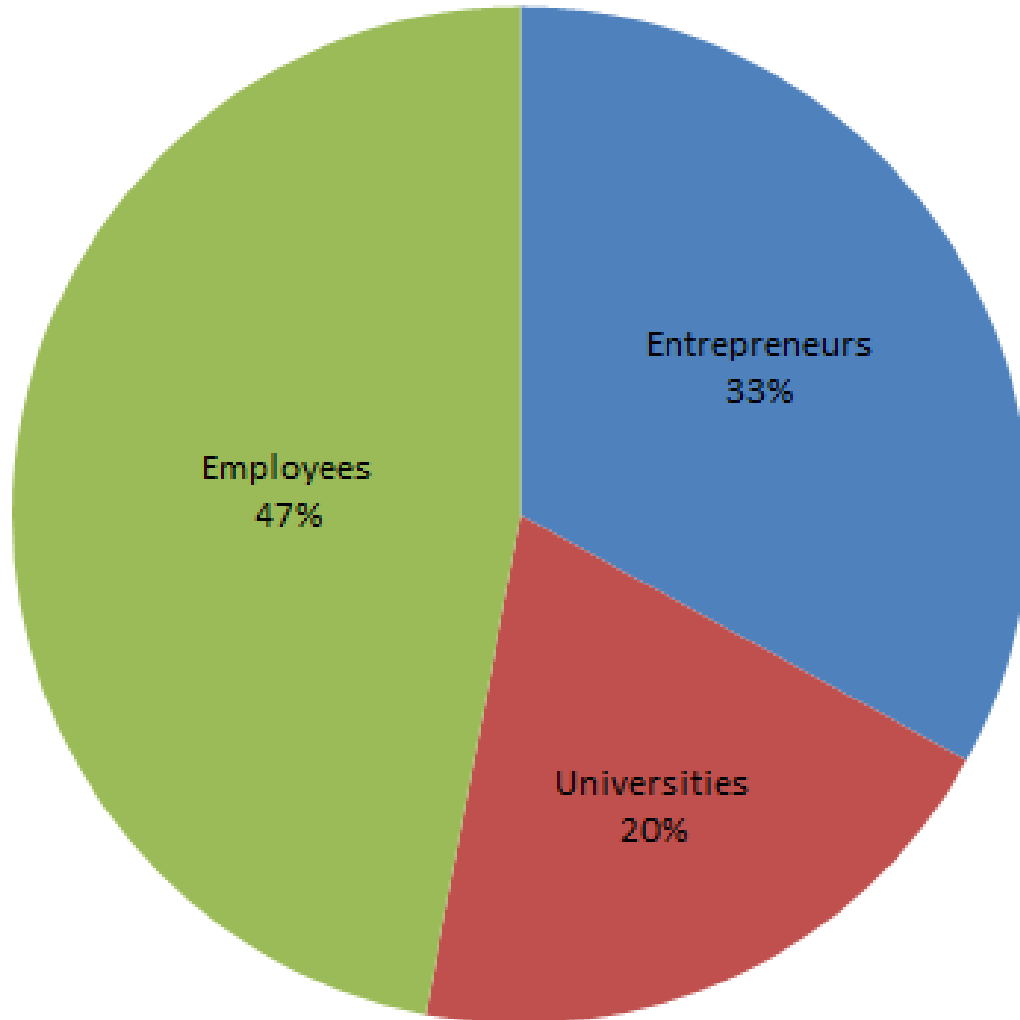
# Research Question:

Where were Sweden's 100 groundbreaking innovations created?

- At established firms
- By entrepreneurs (independent inventors)
- At universities

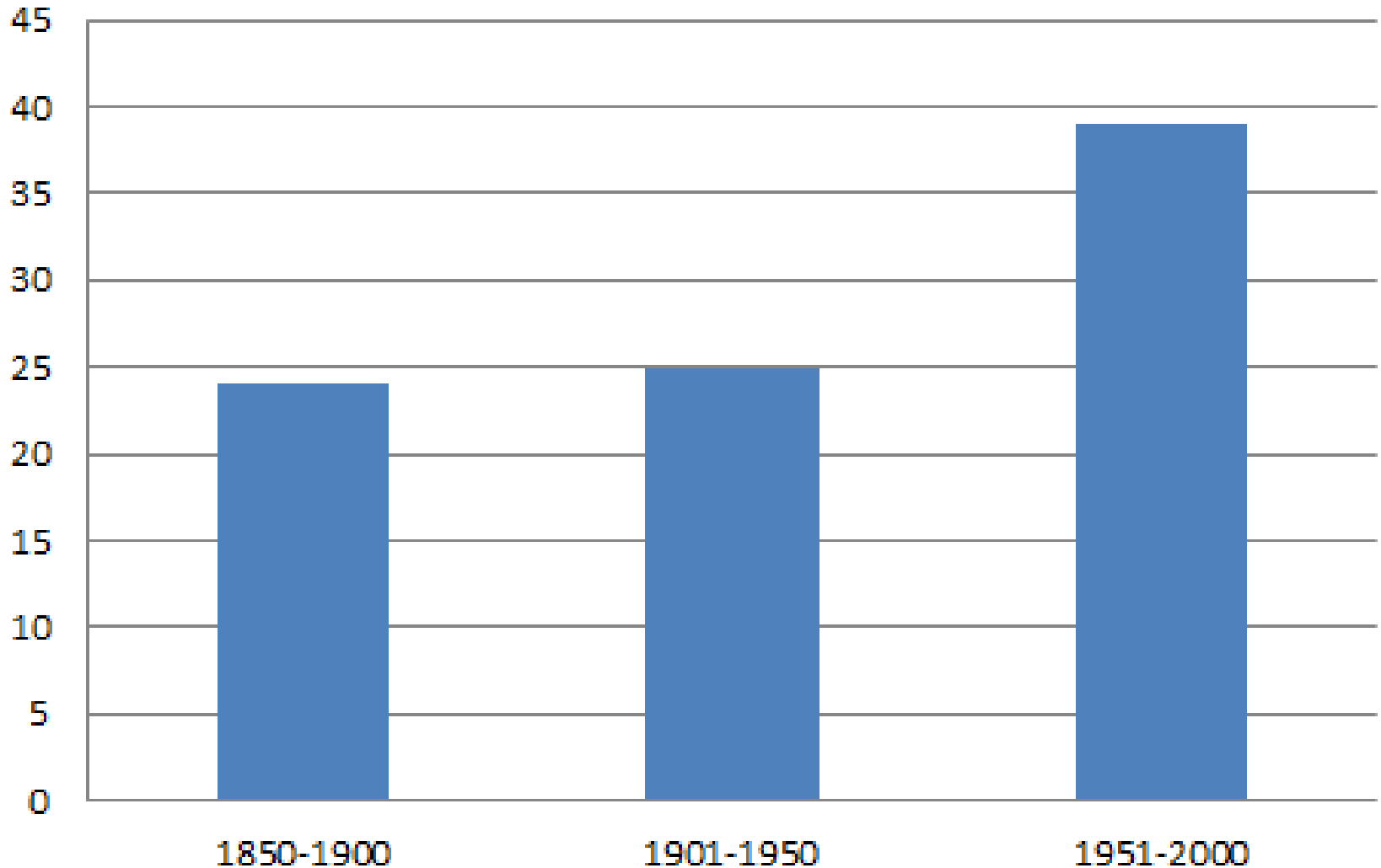


# Results

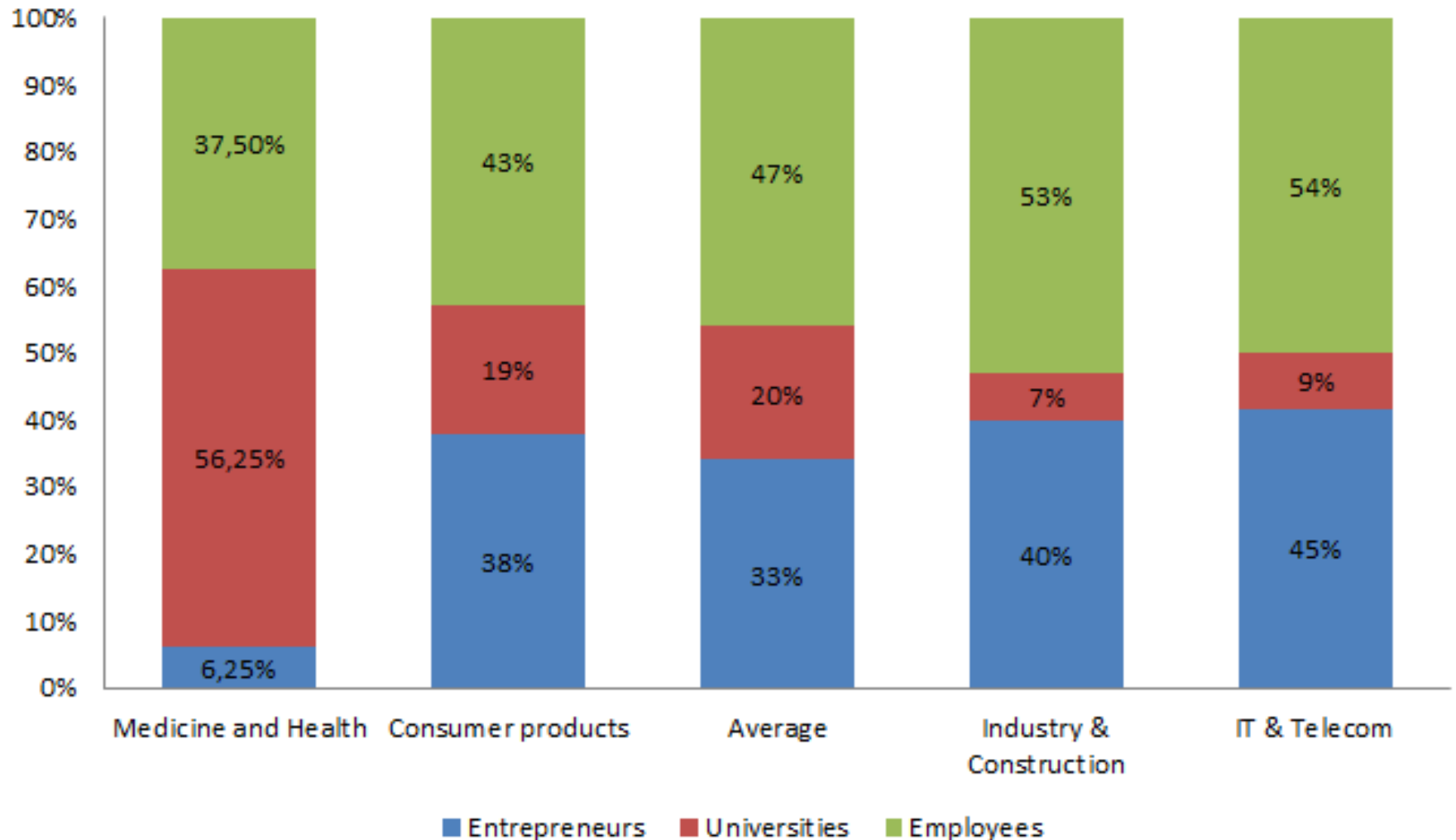




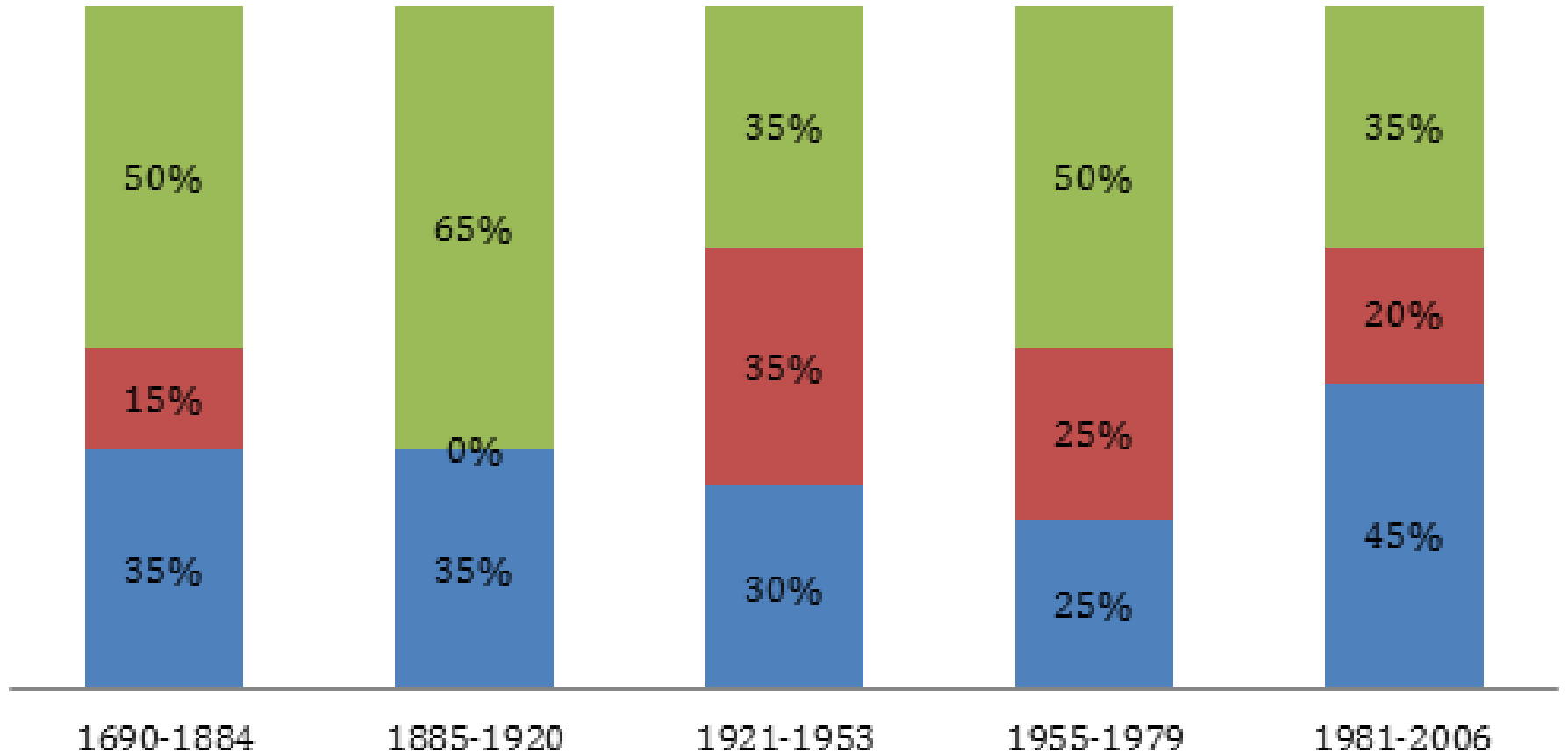
# Innovations per time period



# Differences across sectors



# Changes over time



# Previous Research

- There were 1567 inventors within industrial sectors in 2004-2005 and 190 in academia (Ejemo, 2011).
- Six percent of all patents in Sweden come from universities (Bourellos, 2013).
- The same figure amounted to 2,5 percent in 1988 in the United States (Henderson et al., 1998)
- University spin-outs perform worse than corporate spinouts (Wennberg, et al., 2011).



# Research is not Innovation

Research:

Money turns into Knowledge

Innovation:

New or existing knowledge turns into Money



# An Invention is not an Innovation

Invention:

Time and Money turns into a Concept

Innovation:

A Concept is turned into Money



# Entrepreneurs

- Act without knowing
- Irrelevant whether something is scientifically groundbreaking or not
- Skills rather than theoretical knowledge
- Generalists rather than Specialists

# What are the key ingredients for Innovations to occur?

Technical knowledge

Market insight

Autonomy

Financial resources



=> Entrepreneurship is a scarce resource



# These people are truly unique



Specialization is needed!

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# Academia is governed by different incentive structures

My non-academic activities:

- >2000 hours of teaching
- >Hundreds of lectures outside university

Five reports

- > 100 articles in the popular press
- > Board member in two companies



# Specialization requires functioning markets

Capital

Ideas

Entrepreneurship



# Conclusion

- Policies which confuse Research and Innovation can only create limited outcome
- Inventors and researchers create value by focusing on their relative advantage
- The primary goal of innovation policy should be to enable such specialization

