Entrepreneurship is not about firm size. It concerns a process that results in growth, creativity and innovation. Young dynamic firms fuel innovation by developing new or improving existing goods, services or processes.

An economy’s share of young firms may indicate its dynamism. Younger firms are more prevalent in services than in manufacturing. There may be less turbulence in manufacturing, where older incumbents have acquired a strong competitive position over the years. It would be useful to have post-entry data on the performance of young businesses across countries to compare differences in their survival rates and determinants of growth across countries.

The presence of young firms among patent applicants underlines the inventive dynamics of firms early in their development. It shows their desire to develop new activities and products; this may affect their survival and relative growth. An experimental indicator obtained by the matching of patent filings with businesses listed in the ORBIS database is presented on the right page. This allows looking at the age distribution of patenting firms. This preliminary exercise successfully matches between 70 to 90 percent of total PCT filings depending on the country. In Austria, Denmark, Norway, Spain, Sweden, the United Kingdom and the United States, young firms filed 10% to over 20% of all PCT patents filed in 2005-07.

**Definitions**

The share of \( n \)-year-old employer firms for a particular year \( t \) refers to the number of \( n \)-year survival enterprises as a percentage of the total enterprise population in year \( t \). The number of \( n \)-year survival enterprises for a particular year \( t \) is the number of enterprises with at least one employee for the first time in year \( t-n \) which have not exited in year \( t \). This definition excludes cases in which enterprises merge or are taken over by an existing enterprise in year \( t-n \).
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Patenting activity of young firms, 2005-07
Share of young patenting firms and share of PCT patent filings by young firms

How to read this figure
In Denmark, Norway, United States and Austria young firms represent over 20 per cent of patenting firms and they account for over 10 percent of all PCT filings in their respective countries. In other economies, such as Italy or the Netherlands, most of the PCT patent filings are by firms older than 5 years. These estimates are based on a preliminary matching of patent and business data.


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Patenting and survival – within a two-year window, 2006
Survival rate differential between patenting and non-patenting firms (independent and part of a larger group)

How to read this figure
Firms that applied for a patent in 2004 had a higher survival rate after two years (2006) than firms that did not apply for a patent. For French firms in the ICT sector that are not part of a group, patenting firms had a 10% higher chance to survive than non-patenting independent firms in the same sector.

Source: OECD, Innovation and entrepreneurship microdata project, 2009. See chapter notes.

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Measurability
Firm age is computed as the time elapsed between the date of incorporation and the priority date (date of first filing for a patent worldwide). To identify young firms among patent applicants, firms identified as PCT patent applicants were matched with the ORBIS® database from Bureau Van Dijk Electronic Publishing. The names of applicants as they appear in the patent were linked with those of firms listed in business registers. The exercise was first performed on European and US patentees listed in EPO and PCT patent applications. Coverage is being extended to other countries and other patent offices (the Japan Patent Office, the US Patent and Trademark Office). Ideally, this exercise should match national business registers with patent data. A pilot study was carried out as part of the OECD microdata project on entrepreneurship and innovation and covers Finland, France and the United Kingdom. It compared survival rates of firms that patented and those that did not (the patenting year is 2004, with survival observed in 2006). The data are broken down for independent firms and firms that are part of a group. The range of countries covered will be extended and more sophisticated indicators developed, e.g. the growth trajectory of patenting and non-patenting firms.