

## Metrics and evaluation for innovative entrepreneurship

Appropriate measurement is critical for policy to support innovative entrepreneurship, since it allows policy makers and analysts to:

- assess the contribution of innovative entrepreneurship to achieving social and economic objectives
- understand the determinants of and obstacles to entrepreneurship, which is crucial for designing effective innovation policies
- evaluate the effectiveness of different policy approaches, and consequently adapt current policies and design new ones
- enhance public accountability of relevant policies.

### Measures of entrepreneurship and business dynamics

#### Definition

Entrepreneurship can be defined as an activity in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets (OECD, 2012a).

#### Statistics based on business registers

The statistical business registers are fundamental to the collection of information on entrepreneurship. The registers are themselves usually created from a combination of sources from different national administrative and statistical institutions. They contain most of the basic information essential to the development of business demography statistics, especially internationally comparable indicators, as there is, at least in principle, good comparability of registers. However, differences in registers arise, in particular regarding the coverage of businesses. In theory, all businesses should be covered in a statistical business register, irrespective of the business size or its legal nature. In practice, however, there are cross-country differences reflecting national circumstances and data availability. For example, many countries exclude micro enterprises and also enterprises without employees. Differences in these thresholds can considerably impair the international comparability of indicators of businesses, such as the number of businesses or the number of births.

Until recently, most entrepreneurship research relied on ad hoc data compilations developed to support specific projects and virtually no official statistics on the subject existed. To meet the need for internally comparable indicators on entrepreneurship, the OECD-Eurostat Entrepreneurship Indicators Programme (EIP), started in 2006, compiles and publishes harmonised international data on entrepreneurship, based on official statistical sources. The OECD Timely Indicators of Entrepreneurship (TIE) complement the harmonised business demography indicators from the OECD Structural and Demographic Business Statistics (SDBS) database, to provide timely indicators on a monthly and/or quarterly basis.

#### Measures

The OECD Entrepreneurship at a Glance (OECD, 2013) presents a collection of indicators for measuring the state of entrepreneurship, along with explanations of the policy context and

interpretation of the data. It includes indicators on enterprise population (e.g. enterprises by size class, employment by enterprise size class, value added by enterprise size class, exports by size class), enterprise birth, death and survival (e.g. birth rate, death rate, churn rate and survival rate of employer enterprises), employment creation and destruction (e.g. employment creation and destruction by employer enterprise birth), female entrepreneurship (e.g. employers and own-account workers by gender, share, size and industry of women-owned enterprises), and enterprise growth (e.g. high-growth enterprise rate, gazelle rate).

## Measures of high-growth firms

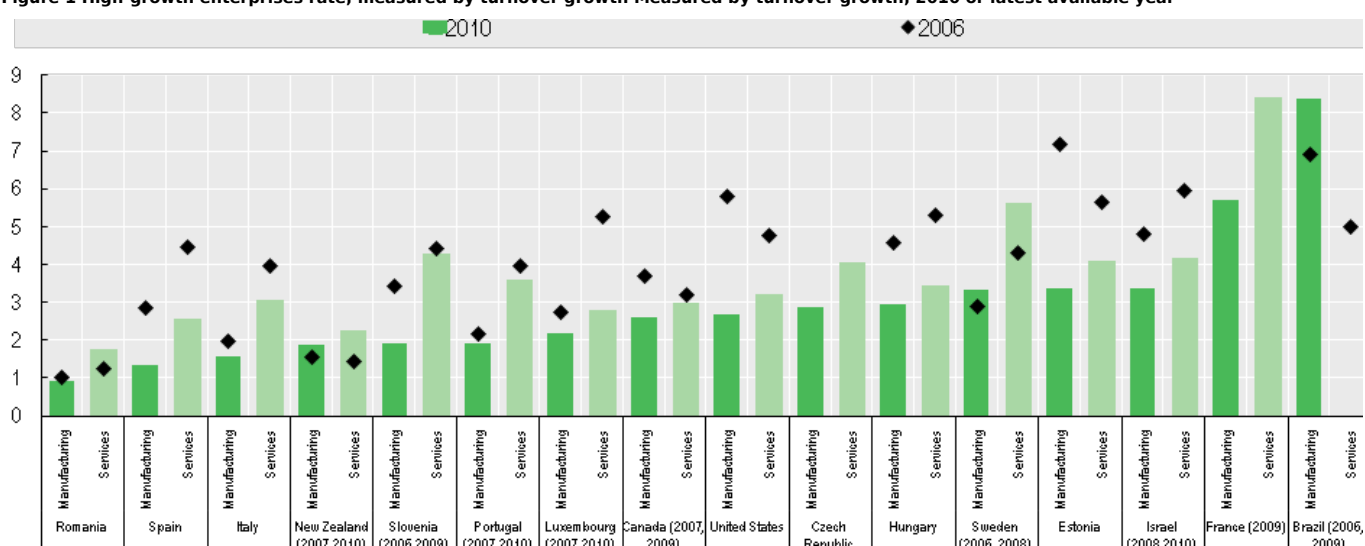
### Definition

Two basic attributes usually distinguish high-growth firms from others: there should be a strong growth in size (measured by employment or by turnover) and this growth should be over an intensive period, so that “high growth” results in an observable and pivotal transition within the enterprise. The OECD-Eurostat Manual on Business Demography Statistics (2007) defines high-growth enterprises as all enterprises with average growth in employees (or in turnover) greater than 20% per annum over a three-year period, and with ten or more employees at the beginning of the observation period.

### Measures

The OECD Entrepreneurship at a Glance publications provide the rate of high-growth enterprises, measured by employment growth (Figure 1) and turnover growth (Figure 2) in several OECD countries. High-growth enterprises represent, on average, a small share of the total population, typically between 3.5% and 6% when measured by employment growth; the proportion of enterprises that show high growth in turnover is higher, going up to 20% and even more. Also, in most countries, high growth firms (by employment) are in general more frequent in providing services, while their prevalence is higher in manufacturing when high-growth is measured by turnover.

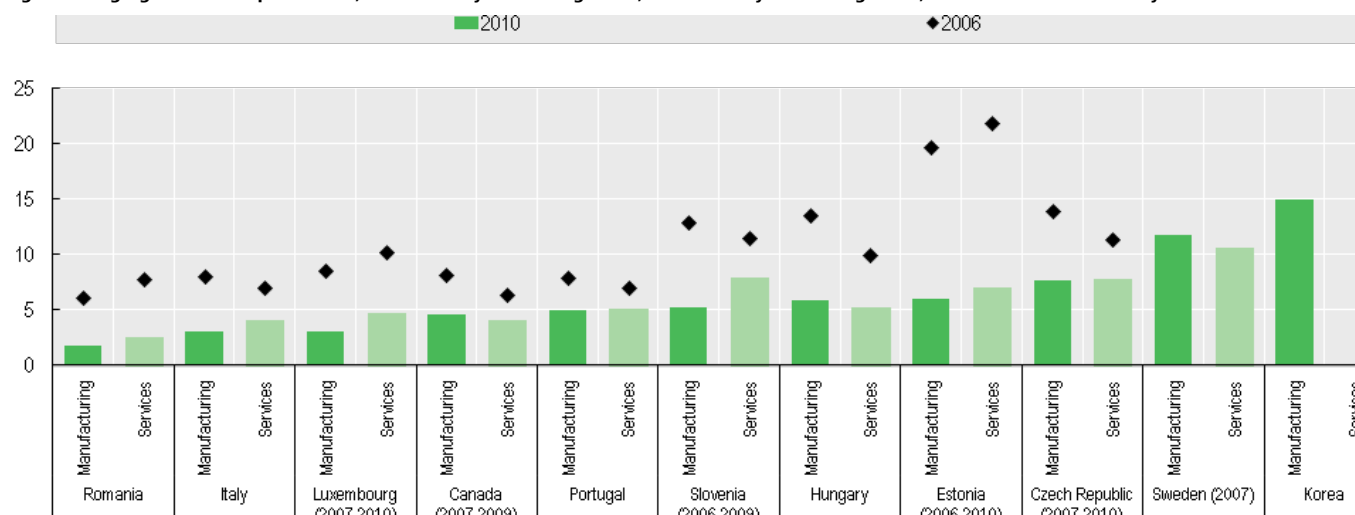
**Figure 1 High-growth enterprises rate, measured by turnover growth Measured by turnover growth, 2010 or latest available year**



Entrepreneurship at a Glance 2013 - © OECD 2013

Online database: OECD Structural and Demographic Business Statistics (SDBS) Database, <http://dx.doi.org/10.1787/sdbs-data-en>.

StatLink: <http://dx.doi.org/10.1787/888932829001>

**Figure 2. High-growth enterprises rate, measured by turnover growth, Measured by turnover growth, 2010 or latest available year**


Entrepreneurship at a Glance 2013 - © OECD 2013

Online database: OECD Structural and Demographic Business Statistics (SDBS) Database, <http://dx.doi.org/10.1787/sdbs-data-en>.

StatLink: <http://dx.doi.org/10.1787/888932829001>

## Measures of gazelles

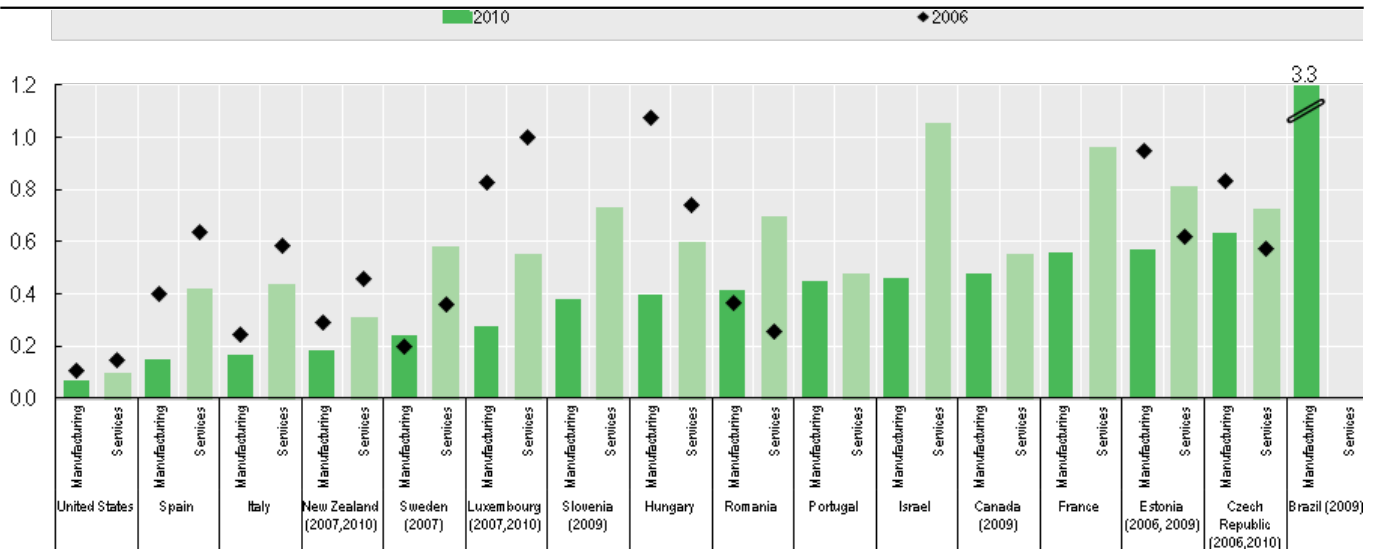
### Definition

Gazelles form a subset of the group of high-growth enterprises. They are defined as high-growth enterprises born five years or less before the end of the three-year observation period (OECD, 2012c). Therefore, these are enterprises that have been employers for a period of up to five years, with average annualised growth in employees (or in turnover) greater than 20% a year over a three-year period and with ten or more employees at the beginning of the observation period.

### Measures

The *OECD Entrepreneurship at a Glance* publications provide the rate of gazelles, measured by employment growth (Figure 3) and turnover growth (Figure 4) in several OECD countries. In a majority of countries, less than 1% (or even less than 0.5%) of the firms with ten or more employees are gazelles, when the growth measure is based on employment; the share is slightly higher for gazelles as measured by turnover growth. Only in a few East European economies do gazelles represent up to 4% of firms, depending on the growth criteria. It should be noted that these percentages have been stable over the past three years of data collection.

**Figure 3. Gazelles rate, Measured by employment growth, 2010 or latest available year**

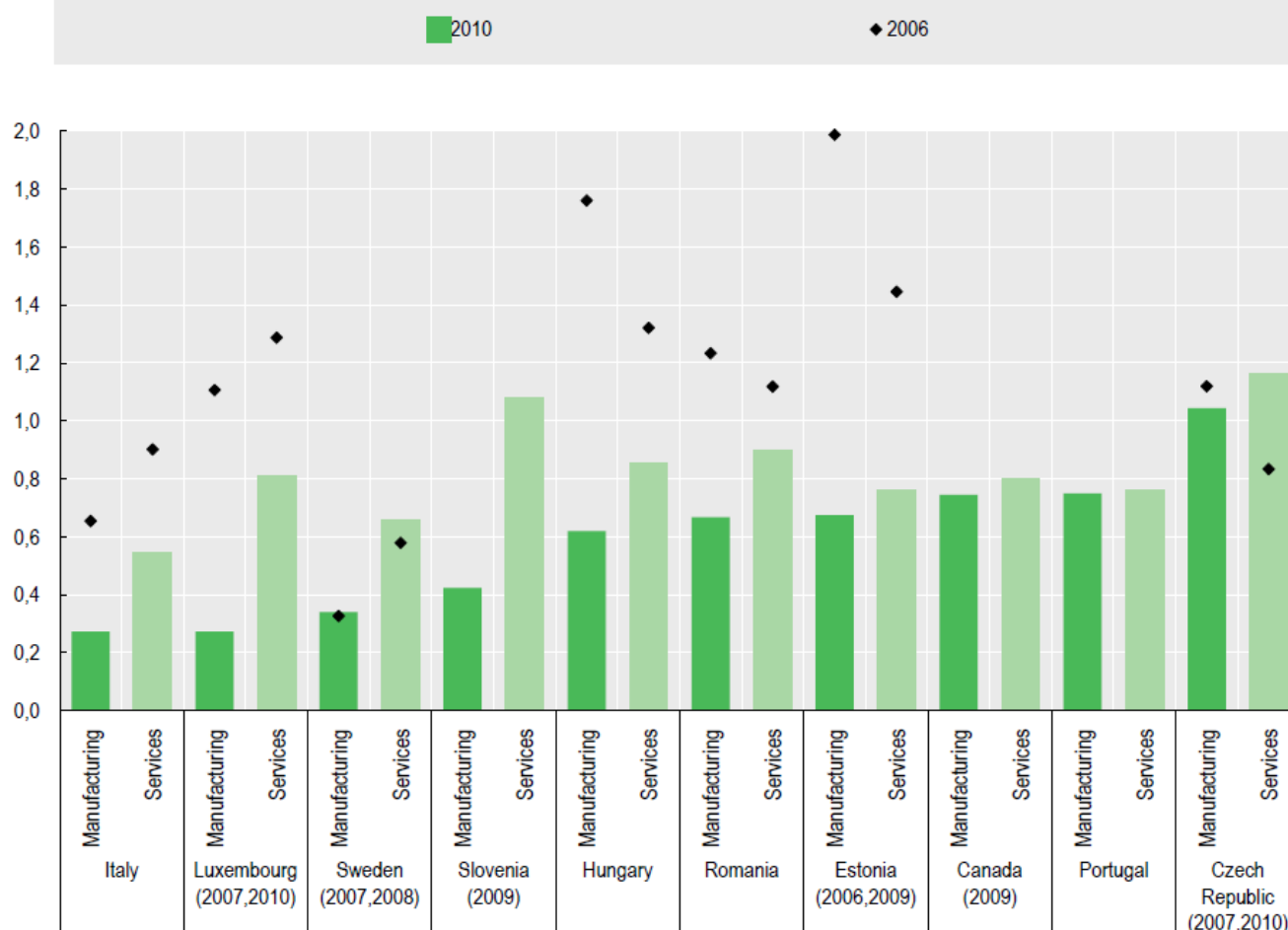


Source: Entrepreneurship at a Glance 2013 - © OECD 2013

Online database: OECD Structural and Demographic Business Statistics (SDBS) Database, <http://dx.doi.org/10.1787/sdbs-data-en>

StatLink <http://dx.doi.org/10.1787/888932829020>

**Figure 4. Gazelles rate, Measured by turnover growth, 2010 or latest available year**



Entrepreneurship at a Glance 2013 - © OECD 2013

Online database: OECD Structural and Demographic Business Statistics (SDBS) Database, <http://dx.doi.org/10.1787/sdbs-data-en>

StatLink: <http://dx.doi.org/10.1787/888932829058>

## References

- Eurostat/OECD (2007), Eurostat-OECD Manual on Business Demography Statistics, OECD, Paris. <http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-RA-07-010-EN.pdf> [1]
- OECD (2009) Measuring Entrepreneurship. A Collection of Indicators OECD-Eurostat Entrepreneurship Indicators Programme. [www.oecd.org/dataoecd/43/50/44068449.pdf](http://www.oecd.org/dataoecd/43/50/44068449.pdf) [1]
- OECD (2010), "Improving Governance and Measurement", in OECD, The OECD Innovation Strategy: Getting a Head Start on Tomorrow, OECD Publishing. <http://dx.doi.org/10.1787/9789264083479-9-en> [2]
- OECD (2011), "Entrepreneurship Indicators and Business Registers: The Importance of International Comparability", in OECD, Entrepreneurship at a Glance 2011, OECD Publishing. <http://dx.doi.org/10.1787/9789264097711-3-en> [3]
- OECD (2012), OECD.Stat (database). <http://dx.doi.org/10.1787/data-00285-en>. <http://stats.oecd.org> [4]
- OECD (2012), Entrepreneurship at a Glance 2012, OECD Publishing. [http://dx.doi.org/10.1787/entrepreneur\\_aag-2012-en](http://dx.doi.org/10.1787/entrepreneur_aag-2012-en) [5]

- 
- OECD (2013), “Enterprise growth and employment creation” in Entrepreneurship at a Glance, OECD Publishing. [http://dx.doi.org/10.1787/entrepreneur\\_aag-2013-en](http://dx.doi.org/10.1787/entrepreneur_aag-2013-en) Databases [6]

**Related Link:** Metrics and evaluation for universities and PRIs

Metrics and evaluation for IPR

Metrics and evaluation for technology transfer and commercialisation

Metrics and evaluation for innovation in firms

**Source URL:** <https://www.innovationpolicyplatform.org/content/metrics-and-evaluation-innovative-entrepreneurship>

### Links

[1] <http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-RA-07-010-EN.pdf>

[2] <http://dx.doi.org/10.1787/9789264083479-9-en>

[3] <http://dx.doi.org/10.1787/9789264097711-3-en>

[4] <http://stats.oecd.org>

[5] [http://dx.doi.org/10.1787/entrepreneur\\_aag-2012-en](http://dx.doi.org/10.1787/entrepreneur_aag-2012-en)

[6] [http://dx.doi.org/10.1787/entrepreneur\\_aag-2013-en%20Databases](http://dx.doi.org/10.1787/entrepreneur_aag-2013-en%20Databases)