Business Demography

– a way to measure entrepreneurial performance

Stawińska, Aleksandra
European Commission, Eurostat, Unit G-2: Structural Business StatisticsDepartment
5, rue Alphonse Weicker
2721 Luxembourg, Luxembourg
E-mail: Aleksandra.Stawinska@ec.europa.eu

Business demography covers events, like births and other creations of units, deaths and other cessations of units, and their ratio to the business population. It covers follow-up of units in time dimension, thus gaining information on their survival or discontinuity. It also covers development in time dimension according to certain characteristics like size, thus gaining information on the growth of units, or a cohort of units, by type of activity. Within the framework of joint OECD-Eurostat Entrepreneurship Indicators Programme business demography data measure the entrepreneurship performance.

Business demography – main methodological concepts

The philosophy of the project of business demography has been to minimize the burden on enterprises and for this reason the main source for this statistics are business registers. Basic data from statistical business registers are supplemented by data from other survey and administrative sources for certain purposes, particularly the determination of births, deaths and enterprise continuity.

Enterprise is recognised as a statistical unit in business demography. The enterprise[1] is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations.

Within the business demography context, enterprise is recognised as active when it records any turnover and/or employment in the period from 1st January to 31st December in a given year.

The economic activities for which business demography indicators are produced are the ISIC Rev. 4 sections B to N excluding group 64.2 (management activities of holding companies). Thus activities relating to production, construction, distributive trades and services are covered, but agriculture, public administration, non-market activities of households, and extra-territorial agencies are not. Business economy (NACE Rev. 1.1. sections C-K, excluding class 74.15 or NACE Rev.2 sections B-N, excluding group 64.2, and division S95) is the main aggregate used in business demography.

There are two main demographic events: enterprise birth and death.

A birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. It does not include entries into a sub-population resulting only from a change of activity.

A death amounts to the dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. It does not include exits from a sub-population resulting only from a change of activity. An enterprise is included in the count of deaths only if it is not reactivated within two years. Equally, a reactivation within two years is not counted as a birth.

---

[1] Council Regulation (EEC), No. 696/93

OECD-Eurostat Entrepreneurship Indicators Programme [2]

Phenomenon of entrepreneurship attracts attention, but measuring entrepreneurship still remains a challenge. The aim of the joint OECD-Eurostat Entrepreneurship Indicators Programme (EIP), started in 2006, is to create a programme of policy-relevant entrepreneurship statistics and to make international comparisons within this area possible and meaningful.

The following definitions were established, as a basis for the development work within this programme:

Entrepreneurs are those persons (business owners) who seek to generate value through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets.

Entrepreneurial activity is enterprising human action in pursuit of the generation of value through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets.

Entrepreneurship is the phenomenon associated with entrepreneurial activity.

The first stage of the EIP model (see the figure below) comprises various determinants which policy can affect and which in turn influence entrepreneurial performance, or the amount and type of entrepreneurship that take place. The final stage is the impact of entrepreneurship on higher-level goals such as economic growth, job creation or poverty reduction.

Topic categories for entrepreneurship indicators
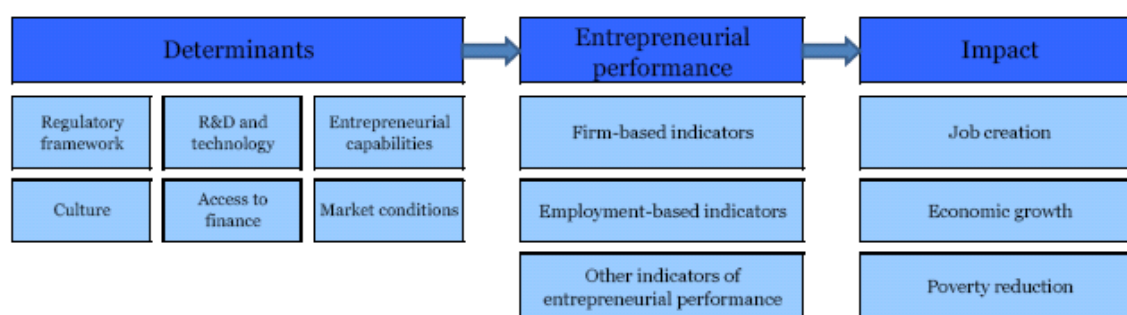
The following indicators constitute the list of core entrepreneurial performance indicators:
1. Firm-based indicators:
   - Employer enterprise birth rate,
   - Employer enterprise death rate,
2. Employment-based indicators:
   - High growth firm rate by employment,
   - Gazelle rate by employment,
3. Other indicators:
   - High growth firm rate by turnover,
   - Gazelle rate by turnover.

In addition, business demography provides statistics for other measures of entrepreneurial performance within the EIP framework:
   - Survival rates and share of surviving enterprises in the population,
   - Employment in surviving enterprises,
   - Employment creation by enterprise births,
   - Employment destruction by enterprise deaths.

---

[2] Measuring Entrepreneurship: A Digest of Indicators, 2009 edition; OECD- Eurostat Entrepreneurship Indicators Programme, OECD, 2009

Business demography measuring entrepreneurship performance

Business demography data are collected under two concepts: all enterprises (legally based data collection) and employer enterprises only (on the voluntary basis). For the purpose of the Entrepreneurship Indicators Programme the data on employers are found more relevant, as they are more comparable internationally (less sensitive to the coverage of business register) as well as more meaningful from entrepreneurial perspective.

To show examples on indicators on entrepreneurship, as defined in the framework of EIP, the following figures are based on data on employers only.
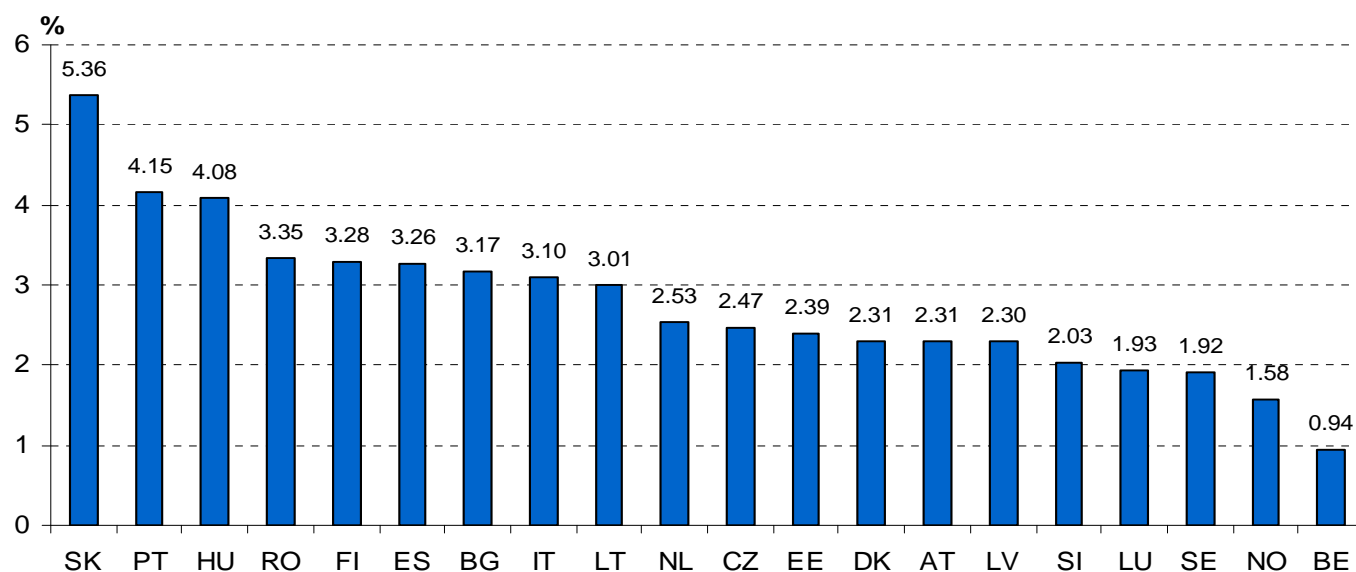
Birth rates of employer enterprises varied from almost 4% in Belgium to a bit more than 14% in Hungary. Interesting is to analyze birth rates together with the related employment shares. In some countries higher birth rates resulted in relatively lower employment rates of the newly born enterprises (i.e. Lithuania, Denmark), for others (i.e. Portugal) – the situation was opposite.

Enterprise birth rates in business economy, 2008 (%)
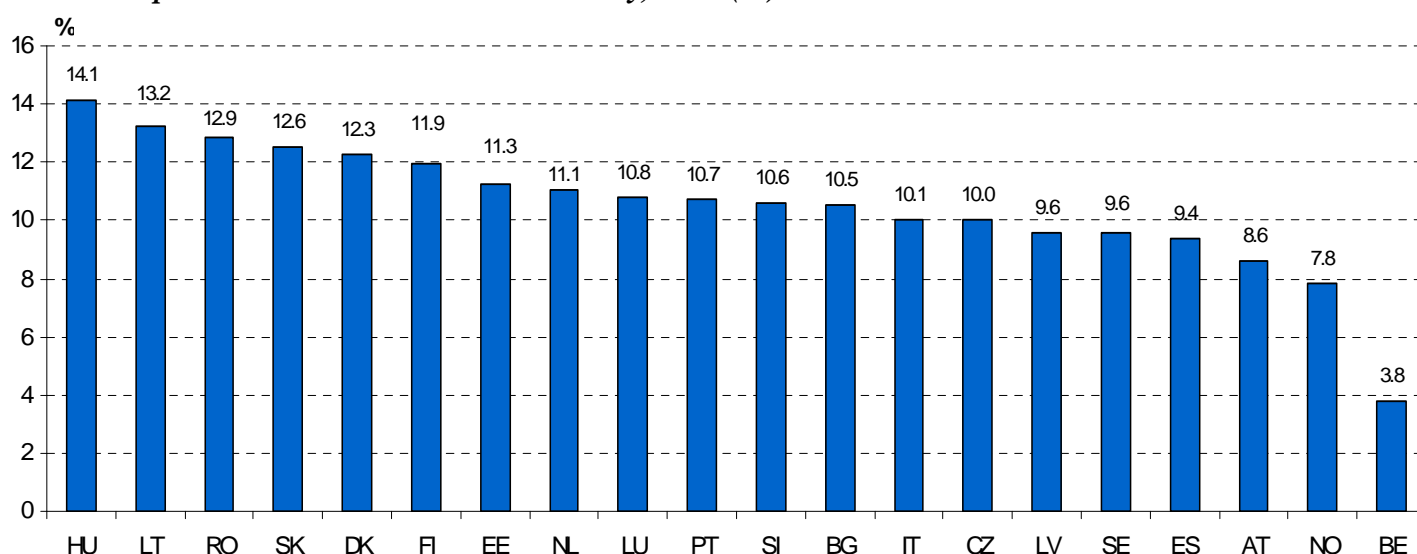
Employment creation by enterprise births in business economy, 2008 (%)
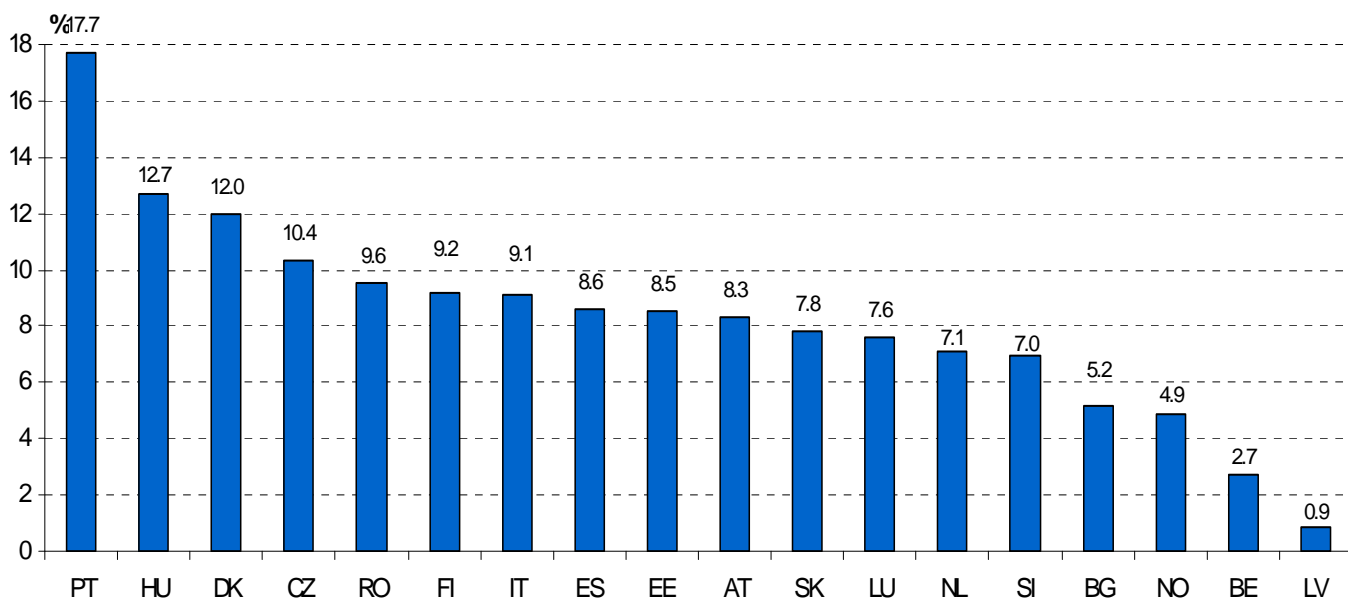Share of the total number of persons employed

Note. LV, LT, NL, SI, SK, FI: 2007; BG, DK: 2006.

Death rates of employer enterprises varied from less than 1% in Latvia to almost 18% in Portugal. In terms of deaths and the related employment the picture is more stable. In most cases higher death rate meant higher rate of lost employment, but still in some countries higher death rates resulted in relatively low (compared to the other countries) lost employment rates (i.e. the Czech Republic).

Enterprise death rates in business economy, 2007 (%)

Employment creation by enterprise deaths in business economy, 2007 (%)
  Share of the total number of persons employed
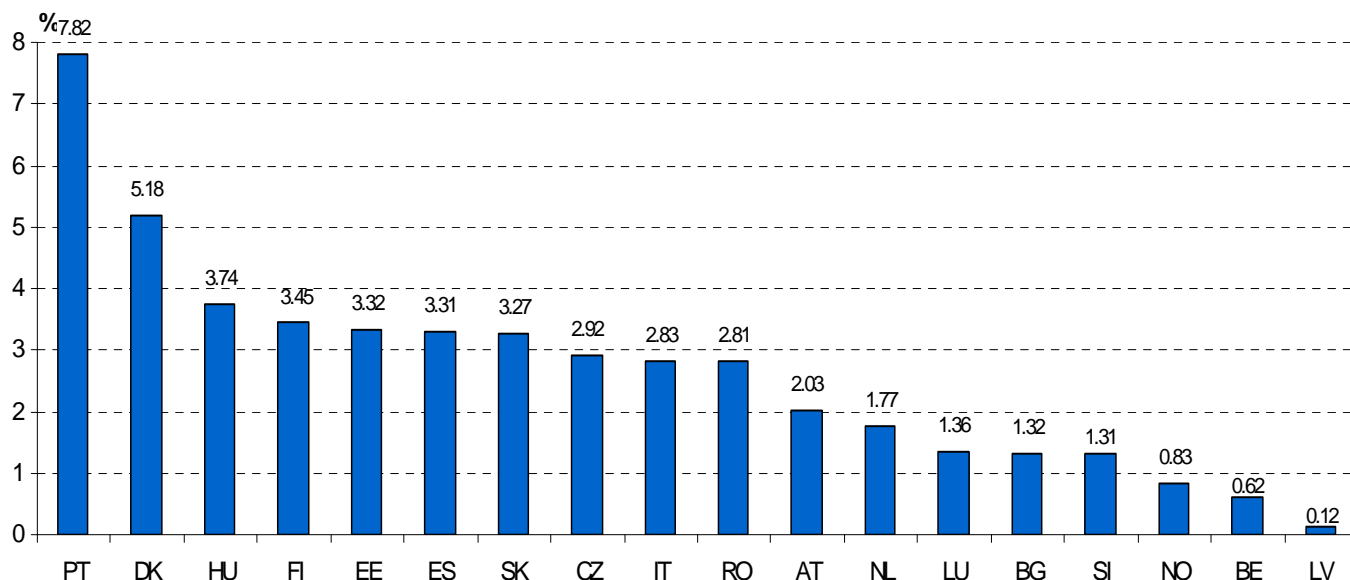
Note. ES, EE, LV, NL, AT, FI: 2006; BG, DK, SI, NO: 2005.

High-growth enterprises are *all enterprises with average annualised growth greater than 20% per annum, over a three year period should be considered as high-growth enterprises. Growth can be measured by the number of employees or by turnover.*[3]

A threshold of 10 employees at the beginning of the observation period has been used to exclude very small enterprises. Data for 14 Member States on the number of enterprises that had shown high growth from 2004 to 2007 (2003 to 2006) are shown in the figures. Subset of each dataset, numbers of 'gazelles' were extracted, i.e. high-growth enterprises that were 4 or 5 years old in 2007 (2006).

In Latvia, Bulgaria and Italy the share of high-growth enterprises measured in employment exceeded the level of 8%. Latvia (3.0%) and Bulgaria (2.1%) were also the countries showing the highest share of "gazelles" measured in employment, followed by Luxembourg (1.0%). In the following countries this share did not exceed the level of 1%.

The lowest share of high-growth enterprises measured in employment was observed in Romania (1.3%), and the lowest share of "gazelles", not exceeding the level of 0.4% were reported by Norway, Sweden and Romania.

Share of high-growth enterprises measured in employment in business economy, 2007 (%)
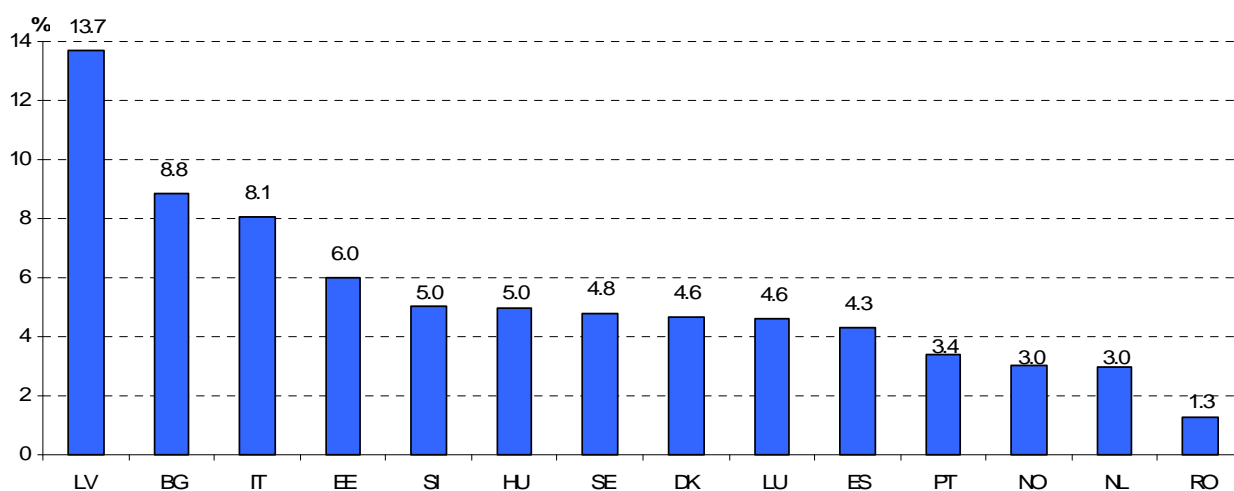
*Share of "gazelles" measured in employment in business economy, 2007 (%)*
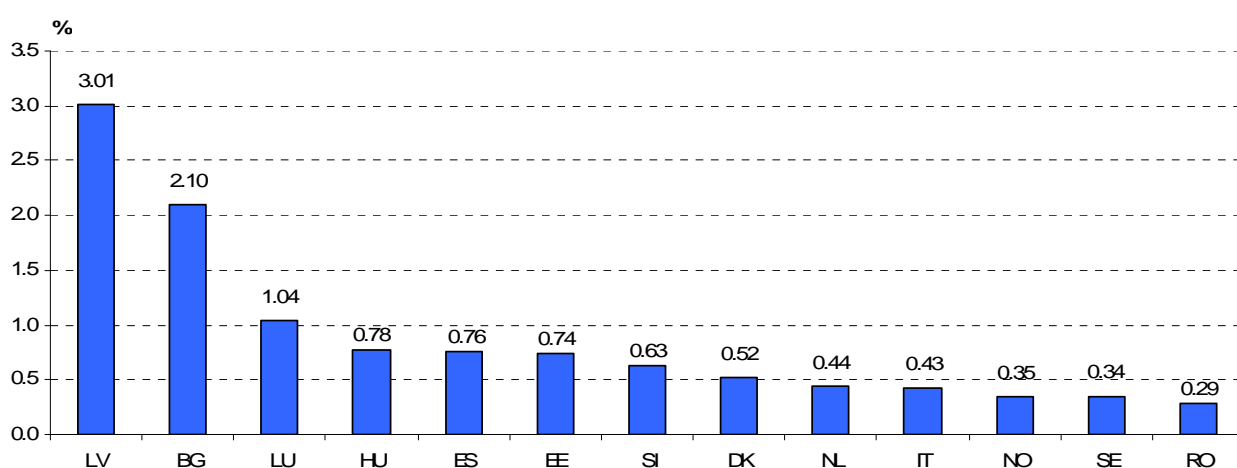
Note. BG, ES, IT, NL, NO: 2006.

---

[3] Eurostat – OECD Manual on Business Demography Statistics, 2007 edition; Eurostat (2007)

Availability of data on surviving employer enterprises is unfortunately still lower than birth and death data, but it increases.

Survival rates are calculated as a share of number of enterprises in the reference period (2008) newly born 1 or 2 years ago having survived to 2008 in the number of enterprise births in the previous reference period (2007 or 2006). The survival rates differed between countries. After two years almost half of newly born employer enterprises did not survive in Hungary, while in Luxembourg, Austria, Romania and Estonia their share was close to ¾.

1- and 2-year survival rates of employer enterprises in business economy, 2008 (%)
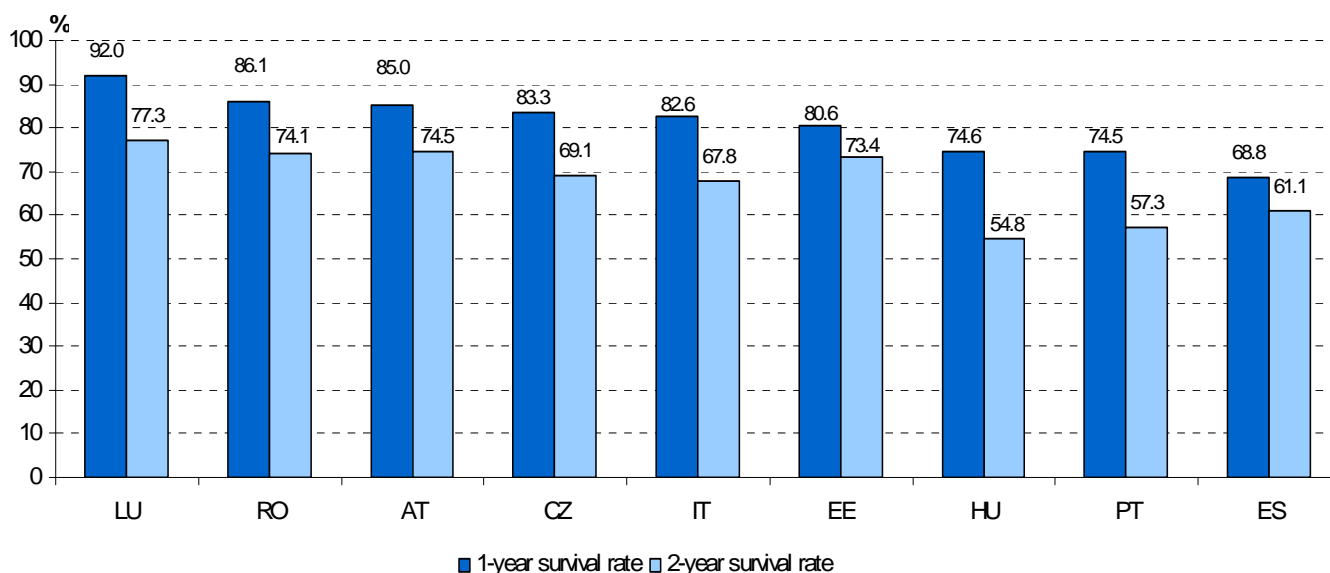
The lowest share of 2 years old enterprises was noted also in Hungary, however the share of 1 year surviving employers in the whole employer enterprises population was the highest there.

Share of surviving employer enterprises in business economy, 2008 (%)
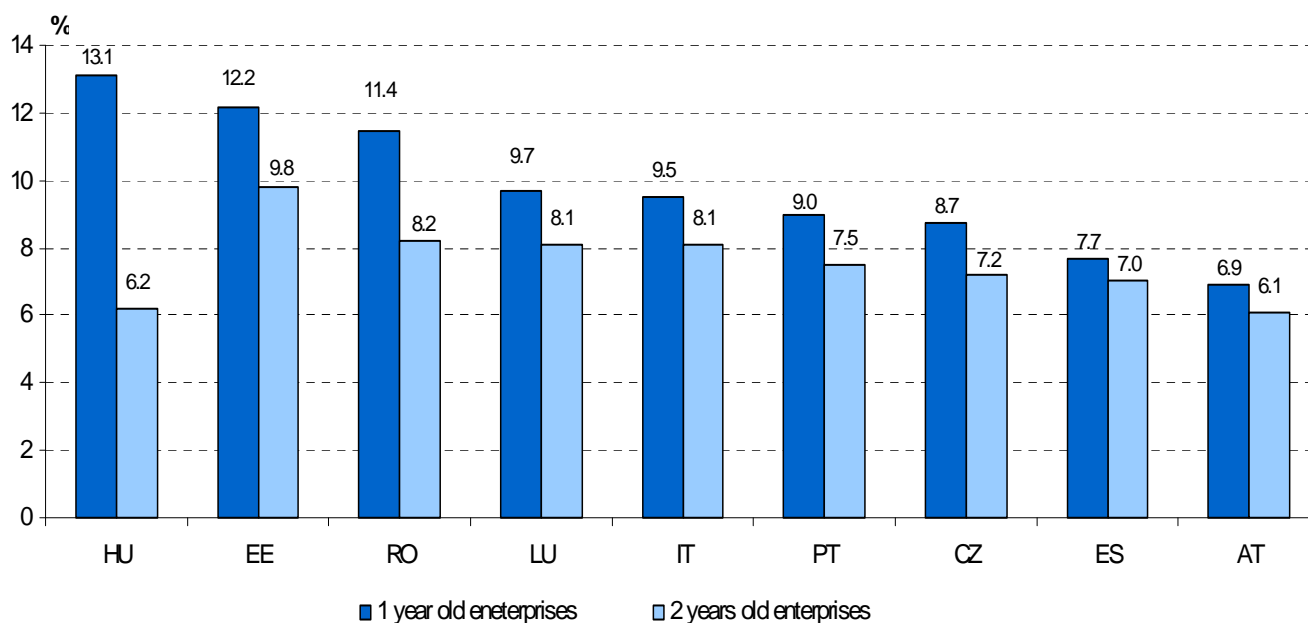
Conclusions

Support of entrepreneurship and entrepreneurial dynamism is the goal of the policy at all levels of governance and it needs tools for analysis. Business demography reflects those needs giving common concepts resulting in comparable data. As a consequence, there is high demand for data on business demography for the purposes of monitoring and policy formulation.

REFERENCES (RÉFERENCES)

Eurostat – OECD Manual on Business Demography Statistics, 2007 edition; Eurostat (2007)

Measuring Entrepreneurship: A Digest of Indicators, 2009 edition; OECD- Eurostat Entrepreneurship Indicators Programme, OECD (2009)

ABSTRACT

Phenomenon of entrepreneurship attracts attention, but measuring entrepreneurship still remains a challenge. The aim of the joint OECD-Eurostat Entrepreneurship Indicators Programme (EIP), started in 2006, is to create a programme of policy-relevant entrepreneurship statistics and to make international comparisons within this area possible and meaningful.

Business Demography has been a successful data collection and has attracted much attention. Structural Indicators, monitoring the Lisbon Growth and Jobs Strategy, as well as the OECD-Eurostat Entrepreneurship Indicators Programme has emerged as major conceptual frameworks for the collection of business demography statistics. The EIP list of entrepreneurial performance indicators includes a number of measures provided by business demography.

Eurostat collects the data on firms' births, deaths, population of active enterprises and their survival during the first five years of activity. The data on related employment are also collected, as firms' impact on employment is an important area of interest. In addition, some data on high growth enterprises are gathered. The paper presents the data collections within the frame of business demography and their latest results.