



Eurostat/ OECD Manuals on

- Business demography (2007)**
- Innovation (Oslo Manual 2018)**

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Entrepreneurship and Innovation

Creative destruction

- Entrepreneurs [...] seek to generate value through creation or expansion of economic activity by identifying and exploiting new products, processes or markets
- An innovation is a new or improved product or process that differs significantly from the previous product or process

Impact

- **poverty reduction and social inclusion**
- **higher productivity, economic growth**

Measurement through

- **Business Demography**
- **Innovation survey**

Business demography (BD)

What does it measure?

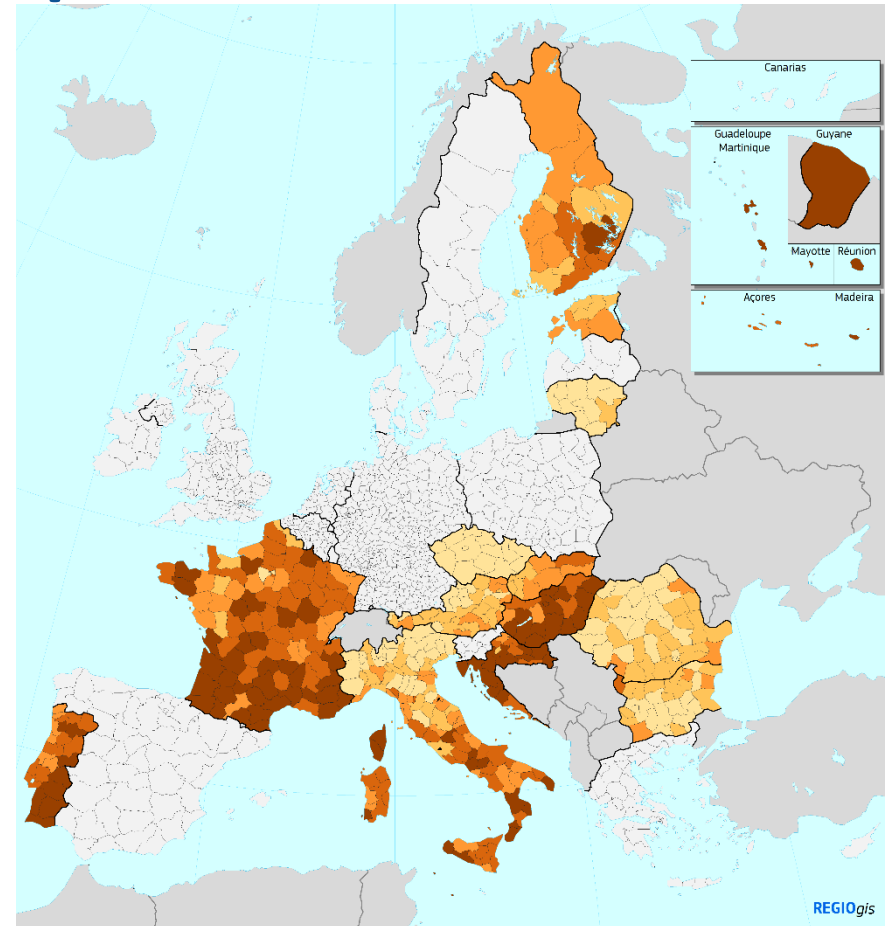
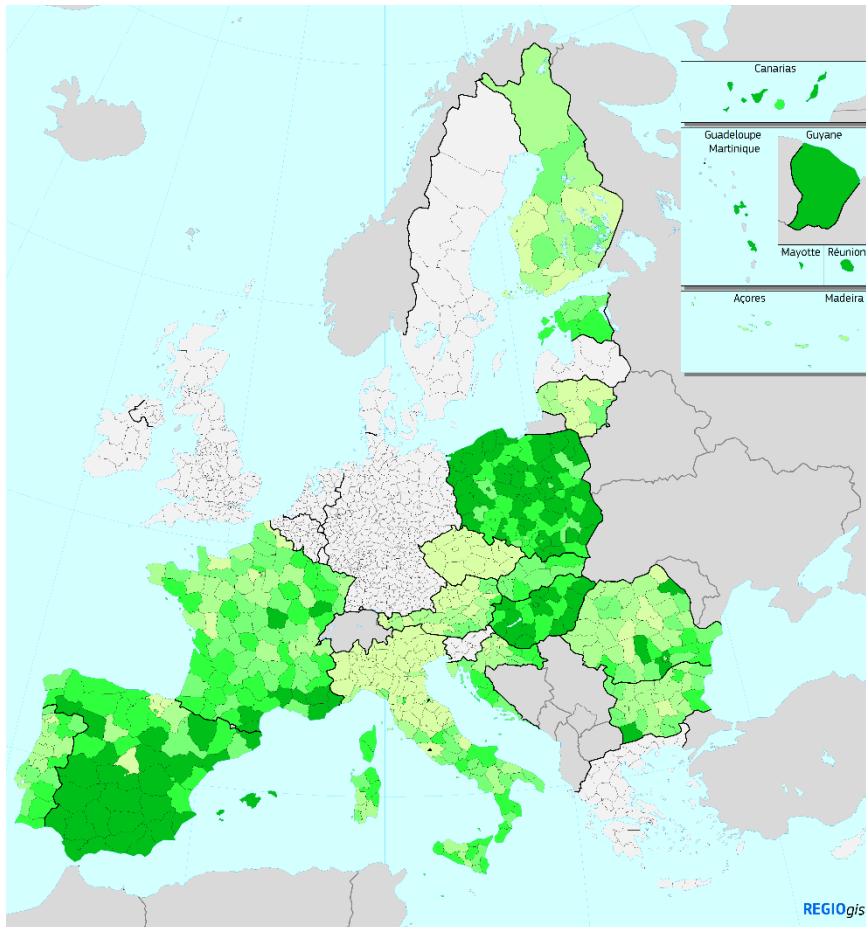
- **Number of active enterprises** in the reference year (t)
 - **Active = had turnover or employees or investment**
- **Birth** of enterprises
- **Survivals** (followed up to five years after birth)
- **Death** of enterprises
- **Number of persons employed** and/or **employees** (enterprise-event)

Business demography (BD)

Why?

- Births, deaths, survival rates, etc.
 - **insight into the dynamic nature of the business environment**
- Breakdowns (country, region, NACE/ISIC, size, legal form)
 - **Pinpoint mature or volatile business 'segments'**
- Important for policy makers
 - **understanding economic growth (and productivity)**
 - **as information for tackling social demographic issues**
 - **Example: EU Cohesion Policy** (regional policies)
 - Support innovative and high growth firms; increase competitiveness, develop products, find new markets and create new jobs;
 - Ongoing discussion to use result indicators (e.g. survival rates) as policy indicator

Employment share of enterprise births and deaths (2016), geographical distribution



Employment share of enterprise births, 2016

% of employment in active enterprises

- < 2.3
- 2.3 - 3.0
- 3.0 - 3.7
- 3.7 - 4.7
- >= 4.7
- no data

Persons employed among enterprises newly born divided by the number of persons employed in active enterprises (industry, construction and services except insurance activities of holding companies).

Source: Eurostat

0 500 km

Employment share of enterprise deaths, 2016

% of employment in active enterprises

- < 2.0
- 2.0 - 2.7
- 2.7 - 3.5
- 3.5 - 4.4
- >= 4.4
- no data

Persons employed among enterprise deaths divided by the number of persons employed in active enterprises (industry, construction and services except insurance activities of holding companies).

BG, CZ, HR, IT, HU, AT, PT, RO, SK: 2015

Source: Eurostat

0 500 km

Typology of business events (Eurostat/OECD 2007)

Event	Real, observable world		Business register	
	Enterprises before the event	Enterprises after the event	Creations	Deletions
Enterprise birth	-	1	1	-
Enterprise death	1	-	-	1
Change of ownership	1	1	-	-
Merger	n	1	1	n
Take-over	n	1	-	n-1
Break-up	1	n	n	1
Split-off	1	n	n-1	-
Creation of a joint venture	n	n+1	1	-
Cessation of a joint venture	n	n-1	-	1
Restructuring within an enterprise	1	1	-	-
Restructuring within an enterprise group	n	n	0 or more	0 or more
Change of group	1	1	-	-
Complex restructuring	n	n	0 or more	0 or more

Note: n = 2 or more

Business Demography Indicators

- **Top indicators**

- Birth rate, Death rate, Survival rate

- **Other indicators**

- **High growth enterprises (HGE)**

Enterprises with more than ~~(20%)~~ 10% annualised growth in number of employees over 3 years (≥ 10 employees); Extend methodology to micro-enterprises

- **Gazelles**

Subset of high-growth enterprises

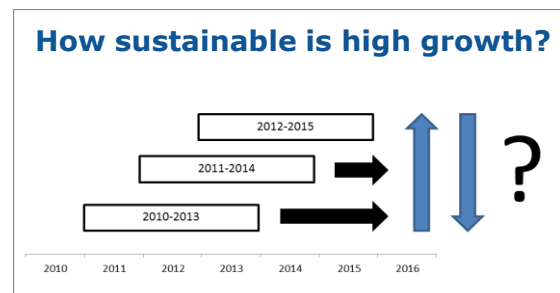
All enterprises up to 5 years old with more than ~~(20%)~~ 10% annualised growth over three years

- **On the drawing board**

- **Sustainable growth of HGE**

Scale-ups, unicorns

- **Dependency** (belonging to group or not, strong indicator of turnover)



Microdata
linking

Business demography (BD)

Statistical infrastructure needed?

- Business registers
 - **Business Registers Recommendations Manual (Eurostat, 2010)**
 - **Guidelines on Statistical Business Registers (UNECE, 2015)**
- If no business register
 - **Census**
Expensive to carry out frequently
 - **Surveys**
Sample selection and frame?
Cannot catch enterprise deaths

Business Demography Reference Manual(s)

Eurostat – OECD

Manual on Business Demography Statistics (2007)

UNECE

**Guidelines on the use of statistical business registers
for business demography and entrepreneurship
statistics (2018)**

Creative destruction



Innovation

Innovation

- Policy interest
 - What **drives** innovation in businesses ?
 - What **hampers** innovation in businesses ?
 - What **features** set innovative enterprises apart from non-innovative enterprises ?
 - How do innovative enterprises **develop** ?
 - How can governments **support** ?
- Types of innovation (with subtypes)
 - **Product innovation**
 - **Business process innovation**

Mandatory variables under EU legislation

- Enterprise identification and basic information on the enterprise
- Products
 - **Incidence of new or improved goods or services**
 - **Goods or services new to market/firm ?**
 - **Turnover from goods/services new to market/firm**
 - **Who developed new or improved goods or services ?**
- Processes
 - **New or improved business processes**
 - **Who developed new or improved business processes ?**
- Innovation activity
 - **Innovation expenditure**
 - **Innovation co-operation**

Optional variables

- Enterprise strategies
- Customisation and co-creation
- Intellectual property rights (issuing and usage)
- Knowledge inflows and Management methods
- Funding and financial support
- Impact of external factors on innovation
- Further information on the enterprise and enterprise group

Improving EU innovation survey (CIS) ***(based on 2018 Eurostat-OECD Oslo Manual)***

- ***Reduced **subjectivity***** (*Self-assessment (don't ask):
Did you introduce an innovation to the market?*)
- ***Better information*** *on innovation activities (e.g. who developed? in co-operation with whom? expenditure?
[optional: knowledge flows, funding & financial support, ...])*
- ***Reduced **bias***** (*remove opt out questions at beginning*)
- ***Improved balance*** (*amount of*) *questions for 'innovative' and 'not innovative' enterprises*
 - ***[Why are non-innovative enterprises not innovating?]***

Innovation

Statistical infrastructure needed?

Need random (stratified) sample selection within well-defined frame

- Business registers as basis for survey frame
 - **Business Registers Recommendations Manual (Eurostat, 2010)**
 - **Guidelines on Statistical Business Registers (UNECE, 2015)**

Innovation surveys Reference Manual Template questionnaire

Eurostat – OECD
Oslo Manual (2018)

CIS - EU Innovation Survey
**Eurostat website (questionnaire, guidance,
indicators)**



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Thank you for your attention