

## WEBINAR PROCEEDINGS



# Improving Statistics Development in Ukraine

## Third webinar

Methodology for calculating enterprise  
demography statistics

**Tuesday, 9 November 2021**

9:00 – 12:00 (France and Poland, GMT+1)

10:00 – 13:00 (Ukraine and Israel, GMT+2)

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## WEBINAR PROCEEDINGS

### ■ Overview

The capacity-building webinar *Methodology for calculating enterprise demography statistics* was the third and last of the three webinars organised within the project [Improving Statistics Development in Ukraine in 2021](#), implemented with the financial and intellectual support from Poland and Israel to the benefit of the State Statistics Services of Ukraine (UkrStat).

The webinar aimed to share **methodological approaches for calculating key indicators of business demography**, in line with European standards and building upon the recommendations developed in the [Compendium of Enterprise Statistics in Ukraine 2018](#). It touched upon the methodology for calculating new indicators, in particular births, deaths, survival of employer enterprises, as well as fast-growing “gazelle” enterprises. The topic is of particular importance to Ukraine given the context of the EU regulatory developments from 2019, which made amendments to the indicators of business demography statistics.

Following the opening remarks, the OECD expert from the Global Relations Secretariat highlighted the importance of sound business statistics to carry out quantitative analysis of economic and social phenomena, complement qualitative information, and improve policy design. The session emphasised the crucial role of cooperation among all the key relevant stakeholders and the opportunity to consider multiple and alternative sources for the collection of enterprise statistics. .

During the second session, experts from Statistics Poland and Israel’s Central Bureau of Statistics presented methodologies and best practices for the development of enterprise demography statistics.

The concluding remarks expressed gratitude to Poland and Israel for their financial support to the project and aspirations for continued Ukraine-OECD engagement on improving statistics development in Ukraine.

### ■ Opening remarks and introduction

The seminar was moderated by **Ms Gabriela Miranda**, *Senior Policy Analyst and Head of Ukraine Unit, OECD*.

Opening remarks were delivered by **H.E. Mr Bartosz Cichocki**, *Ambassador Extraordinary and Plenipotentiary of Poland to Ukraine*. Ambassador Cichocki highlighted Poland’s willingness to provide support and capacity building to improve statistics development in Ukraine, which allows to bring Ukrainian statistical practices closer to the EU regulations and contribute to the implementation of the [Programme for the development of state statistics until 2023](#). Ambassador Cichocki also stressed the key role of OECD data and recommendations in helping countries recover from the economic crisis caused by the COVID-19 pandemic, fighting climate change, reducing inequalities and designing rules for new technologies. He also expressed that the Polish government considers the [OECD Eurasia Competitiveness Programme](#) as one of the most effective OECD regional programmes, and wishes to further bring countries in the Eurasia region closer to OECD standards. He also mentioned that Ukraine is a reference in the region, with 24 OECD legal instruments already implemented. Ambassador Cichocki concluded expressing Poland’s readiness to support and advise Ukraine on the ways to further strengthen its engagement with the OECD. In particular, with regards to the continuation of the OECD-Ukraine cooperation in the statistical sector, he proposed that Ukrainian experts participate regularly in sessions of the OECD Committee on Statistics and Statistical Policy.

**H.E. Mr Haim Assaraf**, *Ambassador and Permanent Representative of Israel to the OECD*, greeted the participants and acknowledged the significance of the joint efforts of the OECD, Poland and Israel in assisting Ukraine to develop its statistical system. He highlighted that data analysis lies at the core of better governance and is a prerequisite to build better policies for better lives. The Ambassador concluded by suggesting to start planning further activities in this regard.

**Mr Vadym Pishcheiko**, *Advisor to the Chair at the State Statistics Service of Ukraine*, expressed gratitude to the OECD, Poland, and Israel for organizing this series of webinars to share knowledge on statistics

development and to support Ukraine in its efforts to align its work with the EU standards. He pointed out the important role of enterprise demography statistics as a barometer of the economy, which provides the government with the understanding of trends in business and entrepreneurial activity and is essential for the development of good fiscal policy. Mr Pishcheiko highlighted that, although Ukraine already publishes data on business demography, it needs revision given the changes in EU regulations.

## ■ Session 1: The importance of sound business statistics for analysis and policy

In the first session **Ms Mariarosa Lunati**, *Senior Advisor, Global Relations Secretariat, OECD*, illustrated the OECD approach to the development of SME and entrepreneurship data and explained how OECD builds cooperation with statistical offices and other stakeholders in member countries and in partner countries.

Ms Lunati noted that business demography statistics is a relatively recent category of statistical information collected by national authorities, developed in a structured way using a methodology that is now standardized and shared within the EU and OECD countries, although some differences still exist. She stressed the crucial importance of cooperation between statistical offices and the importance of adopting common standards to ensure cross-country comparability with regards to structural data (e.g. number of enterprises, employment associated with the enterprises), demography statistics (birth, death, survival and growth of enterprises), trade by enterprise characteristics (which allows to understand the participation of SMEs in international trade) and innovation activities (e.g. investment in R&D).

Furthermore, Ms Lunati underlined the importance of cooperation with other institutional actors, for instance with central banks, in the collection of data on financing for SMEs and entrepreneurs. She also highlighted that the OECD itself makes use of alternative sources of information to complement official statistics produced by national statistical authorities, in particular with regards to the data that would be very costly to measure through official statistics systems. As an example, Ms Lunati mentioned the [Facebook-OECD-World Bank Future of Business Survey](#), stressing that although there is a trade-off in terms of reliability of samples and representativeness of the data collected, the complementarity approach allows answering a wider range of questions, especially in the short- and medium-term.

Ms Lunati proceeded by providing examples of cross-country analysis made possible by comparable statistics. She highlighted that SMEs account for the largest share of the population of enterprises and for a very important share of employment across all countries. Ms Lunati showed that SME employment is concentrated in a few sectors without significant evolution of this pattern over time (the highest SME employment is observed in wholesale and retail trade). With regards to the impact of the COVID-19 on employment, the sectors where SMEs concentrate were those that were hit the most across all countries, but the smallest and youngest enterprises were less likely to receive government support.

Ms Lunati concluded by offering the following recommendations to improve the process of production of enterprise statistics:

- ❖ Refer to international standards when available;
- ❖ Formulate questions in business surveys to allow comparison over time, across countries, and between surveys;
- ❖ Explore potential use of new data sources (e.g. big data) and partnerships with the private sector.

## ■ Session 2: Methodology for calculating enterprise demography statistics

**Ms Katarzyna Walkowska**, *Head of Enterprises Department, Statistics Poland*, provided an overview of the latest trends in the methodology for calculating enterprise demography statistics. She started noting that there are three sorts of Annual Business Demography (ABD) indicators in Poland, which are listed in the European Business Statistics annexes: the basic Business Demography (on the whole population of enterprises), the Employer Business Demography (focused on enterprises having at least one employee) and

the High Growth Enterprises Demography. She specified that data sources are the statistical business register and administrative data such as tax information and social security and annual and short-term surveys.

Ms Walkowska mentioned that for Quarterly Business Demography (QBD) Statistics Poland looks at the number of registrations (data source: National Official Business Register) and bankruptcies (data source: Court and Commercial Monitor). The expert added that in the view of the European Statistical Recovery Dashboard, QBD data would be transmitted to Eurostat on a monthly basis starting January 2022.

Furthermore, Ms Walkowska reflected on how the annual Business Demography survey is organized. At the beginning of the year, data from different sources (statistical surveys and administrative data sources such as the value-added tax and the social security system) are taken. The data on active, new or liquidated high-growth enterprises are used to elaborate data tables required by Eurostat. The first data sets are on Business Demography and high-growth enterprises. The second data sets are on employers and gazelles. Finally, the next ones represent more general demographic data.

Ms Walkowska proceeded to explain the methodology on the basic Business Demography. Statistics Poland creates data sets on active enterprises, new enterprises and liquidated enterprises. The most important data source in this regard is the social security data, allowing calculation of the average annual number of people employed, which makes it possible to observe the activity, death and birth of enterprises. The expert stressed that Statistics Poland also uses microdata linking legal units from the business register, to data from statistical surveys and administrative data. Data on new and liquidated enterprises are collected. By comparing data sets over time, the team can find out which enterprise is active in one year and not in the following. It was noted that Statistics Poland checks if the enterprise was not reactivated after liquidation and whether the disappearance of an enterprise was not simply its merger into another entity.

Ms Walkowska also described the methodology to calculate Employer Business Demography indicators, covering enterprises employing at least one person. She explained that Statistics Poland creates three data sets: active enterprises (which employed at least one employee), new enterprises (which were created as new ones with at least one employee but also which existed earlier without employee and entered the population with at least one employee – entry by growth) and liquidated enterprises (which were liquidated having at least one employee as well as those which remained active but without any employees – exit by decline).

Ms Walkowska introduced High Growth Enterprises as those having at least 10 employees with an average annual growth in the number of employees higher than 10% per annum, over a three years period. She added that this category does not include enterprises “born” 3 years ago due to the assumption that such enterprises cannot grow as quickly, but includes also young high-growth enterprises (gazelles, born in t-4 and t-5).

Lastly, Ms Walkowska spoke about the recent amendments to the European regulation on Business Statistics. One of the examples mentioned was the addition of a number of sections to the employers business demography with additional information on the number of active enterprises, on gazelles, regional statistics and quarterly data. Another example referred to the change in the definition of active enterprises. The expert acknowledged that compliance with the European regulation had presented a challenge for several years due to methodological differences in constructing indicators.

**Mr Lior Zisman**, *Head of Business Register Section, Israel Central Bureau of Statistics (ICBS)*, shared Israel's experience on the development of enterprise demography statistics. Mr Zisman noted that the Israeli Business Register (IBR) was established by the Central Bureau of Statistics based on European Union regulations and became operational in 2003, therefore all the data is available since that year. IBR has the following three main purposes:

- ❖ Classifying legal units into economic activities (according to ISIC Rev.4) and classified sector (according to SNA2008);
- ❖ Extracting frameworks for Business's Economy surveys sampling (by economic activity, employee size class, etc.);
- ❖ Calculating and publishing Business Demography statistics.

Regarding IBR's sources, Mr Zisman stressed the difference with Poland, highlighting that the ICBS uses only administrative sources, namely National Insurance Institute and VAT (Value Added Tax) authorities. He

explained that the files are provided monthly and consist of administrative data (such as the name of the business, its contact information, activity status and date, economic activity code) and quantitative data (such as the number of employee jobs and wages from National Insurance Institute, total revenues, revenues at a VAT rate of 0% and inputs from VAT authorities). Mr Zisman highlighted that the most important variable for the IBR is a unique and smart ID entity number that is identical in both administrative sources, which allows to match information from different sources with the corresponding business entity and define the legal form of the business.

Mr Zisman mentioned that, prior to the [Eurostat-OECD Manual on Business Demography Statistics](#), the ICBS had already tried to produce some business demography indicators such as opening and closures of businesses based on the VAT files, but this approach had some disadvantages, since not all the enterprises were covered. The expert pointed out that as reports on termination of business activity are usually submitted late, annual reports are reliable as of the second half of the following year (June t+1). Mr Zisman mentioned that in 2020 there was a decline in both openings and closures assumingly due to the COVID-19 pandemic impact. In particular, while in 2020 the average churn rate in Israel was about 15%, for businesses in “accommodation and food services” it was about 21% due to a high rate in openings and closures.

In line with the [Eurostat-OECD Manual on Business Demography Statistics](#), the ICBS started constructing database for business demography statistics from the IBR based on Annual frozen Snapshots of year t, taken in the second half (June) of the following year (t+1), due to data updates and revisions of the IBR. Mr Zisman offered an overview of the main business demography indicators of Israel: out of a total of around 620,000 businesses, 53% are non-employers and only 0.3% of them employ 200 and more employees, accounting for around half of total employee jobs in the country. He added that almost 70% of active businesses in the country are sole proprietorships but account for only 9% of employee jobs, while around 30% of active businesses are companies but account for 60% of employee jobs. On one hand, while the largest portion of active businesses is found in professional, scientific and technical activities (20%), they employ only 7% of employees in Israel. On the other hand, while nearly 4% of businesses are in manufacturing, mining and quarrying, they were noted to employ 9.4% employees. With regards to the survival rate of the businesses, Mr Zisman emphasised that in Israel this indicator is highest in human health and social work activities and lowest in accommodation and food service activities.

As of 2020 the share of active employers’ population birth in Israel was 9.4%, while the share of active employers’ population deaths was 10.4%. Furthermore, he noted that while in Israel high-growth enterprises accounted for 8% in the total economy, the country had experienced a decline in high-growth businesses rate recently due to the COVID-19 pandemic.

Mr Zisman concluded by providing a quick overview of the recent ICBS publications and invited the audience to consult them:

- ❖ [A Collection of Statistical Data From the Business Register, 2011-2019 publication;](#)
- ❖ [Latest media release Business Demography 2018-2020 media release;](#)
- ❖ [Sole Proprietorship's Business Demography in 2019 According to Characteristics of the Business's Owners.](#)

**Ms Riki Kadury**, *Head of the Science & Technology Section, Israel Central Bureau of Statistics*, focused her presentation on ICBS’s methodology on statistical indicators for start-ups. Ms Kadury reminded the audience that since 2009 Israel had been known as a start-up nation with the highest density of start-up companies in the world (one start-up company per 1,844 citizens), and highlighted that the country has been the leader in civilian R&D expenditure, which had attracted technology-oriented global investors.

Ms Kadury stated that the rise in start-ups yielded the necessity for their proper representation in the official statistics. Against this background, in 2012, at the request of policymakers, ICBS started to create the Israeli-Startup database with an internal unique methodology. Ms Kadury explained the steps undertaken in this database creation process.

First, it was essential to define what a start-up is, thus the ICBS identified the following features defining a start-up:

- ❖ Technological entrepreneurship based on R&D for the purpose of founding a new profitable company;
- ❖ The resources of the company are directed to the development of an idea, service or product;
- ❖ The company has not yet made a profit or has yet to become a mature company;
- ❖ Usually funded by capital raising.

The second step in this process has been the search for meaningful external sources of information. In this regard, the ICBS found external sources from the private sector (IVC Israel High-tech venture capital), NGO sector (SNC- Start up Nation Central), and government sector (IIA- Israel Innovation Authority). Ms Kadury explained that once the information is received from external sources, it is merged with information from internal sources (Israeli Business Register), and emphasised that only the companies found in both sources are suspected of being a start-up. Then, she continued, the ICBS uses its algorithm to identify unique characteristics of Israeli start-up companies.

Ms Kadury noted that the start-up database does not include companies that are operating at the pre-seed stage and have not yet been officially registered by the Israeli tax authorities, and that all the start-up companies stay in the database, even if they grow, for future follow-ups. Ms Kadury informed that the findings on start-ups are published on an annual basis on the ICBS website. She pointed out that until 2017 the number of active companies had increased, however, since 2017, the number had been in a constant decline.

In conclusion, Ms Kadury stressed that start-up companies were characterized by around twice higher average monthly wage per employee in comparison to the average rate for all the companies, with the highest wages found in businesses with 21 to 50 employees. Ms Kadury also highlighted that in 2019 start-up companies raised over USD 8 billion in financing, with a higher number of funding taking place at earlier stages of their lifecycle, but most of the funds invested at later stages. Finally, it was noted that in 2019 most of the government grants were allocated to start-ups active in the development of medical technologies.

## ■ Concluding remarks and next steps

**Ms Gabriela Miranda**, *Senior Policy Analyst and Head of Ukraine Unit, OECD*, concluded the webinar by thanking everyone for their participation in the event, with special gratitude to Poland and Israel for their financial support to the project. Ms Miranda expressed interest to continue working with UkrStat with the support of both OECD member countries not only in terms of capacity-building activities but also through the collaboration with the OECD Statistics Department and other expert directorates. Finally, Ms Miranda acknowledged the interest of UkrStat in the work of the OECD, in its long-term engagement with the OECD and its openness to build on the expertise of Israel and Poland in the area of statistics. Ms Miranda concluded informing that a report with key takeaways of the three project webinars, including presentations and proceedings, would be prepared in English and Ukrainian and shared with all the participants of the webinars by the end of the 2021.

## ANNEX A: AGENDA

Please note that the timing below is based on Kyiv, Ukraine time zone (GMT+2)

09.50 - 10.00	Online access to the virtual workshop
	Moderation by Ms <b>Gabriela Miranda</b> , Senior Policy Analyst and Head of Ukraine Unit, OECD
10.00 - 10.15	<b>Opening Statements</b>
	<ul style="list-style-type: none"> <li>• H.E. Mr <b>Bartosz Cichocki</b>, Ambassador Extraordinary and Plenipotentiary of Poland to Ukraine</li> <li>• H.E. Mr <b>Haim Assaraf</b>, Ambassador and Permanent Representative of Israel to the OECD</li> <li>• Mr <b>Vadym Pishcheiko</b>, Advisor to the Chair, State Statistics Service of Ukraine</li> </ul>
<b>Session 1 – The importance of sound business statistics for analysis and policy</b>	
10.15 – 10.40	<p><i>Drawing on OECD expertise, this session will illustrate the importance of sound business statistics to carry out quantitative analysis of economic and social phenomena, complement qualitative information, and improve policy design. Business demography indicators can help understand the structural characteristics of the enterprise sector, its performance, and its entrepreneurial dynamics.</i></p> <ul style="list-style-type: none"> <li>• Ms <b>Mariarosa Lunati</b>, Senior Advisor, Global Relations Secretariat, OECD</li> </ul> <p>Q&amp;A session with webinar participants</p>
<b>Session 2 – Methodology for calculating enterprise demography statistics</b>	
10.40 – 11.45	<p><i>Experts from Statistics Poland will provide an overview of the latest changes to the methodology for calculating enterprise demography statistics, with a particular reference to indicators such as enterprise births, deaths, survival of employer enterprises as well as fast-growing enterprises and “gazelle” enterprises.</i></p> <ul style="list-style-type: none"> <li>• Ms <b>Katarzyna Walkowska</b>, Head of Enterprises Department, Statistics Poland</li> </ul> <p>Q&amp;A session with webinar participants</p>
11.45 – 12.50	<p><i>Experts from the Israel Central Bureau of Statistics will share their experience with the development of enterprise demography statistics. A particular focus will be put on CBS methodology with statistical indicators for start-ups.</i></p> <ul style="list-style-type: none"> <li>• Mr <b>Lior Zisman</b>, Head of Business Register Section, Israel Central Bureau of Statistics</li> <li>• Ms <b>Riki Kadury</b>, Head of the Science &amp; Technology Section, Israel Central Bureau of Statistics</li> </ul> <p>Q&amp;A session with webinar participants</p>
<b>Closing remarks and next steps</b>	
12.50 - 13.00	<ul style="list-style-type: none"> <li>• Ms <b>Gabriela Miranda</b>, Senior Policy Analyst and Head of Ukraine Unit, OECD</li> </ul>



## ANNEX B: QUESTIONS RAISED DURING THE WEBINAR

### Question:

A representative from the State Statistics Service of Ukraine mentioned that certain enterprises do not pay VAT and asked a representative from the Statistics Poland whether the information on other types of taxes is used.

### Answer:

A representative from the Statistics Poland reiterated that Statistics Poland has other sources of information to rely on, such as social security system data.

### Question:

A representative from the State Statistics Service of Ukraine asked to clarify whether for the definition of active enterprises three indicators are used (presence of employees, turnover, and profit).

### Answer:

Statistics Poland checks information from different sources on whether a company existed administratively, paid taxes, was in the social security system, was registered in Statistics Poland's services, its information on profit.

### Question:

A representative from the OECD asked whether the same indicators are used regardless of the size of a company.

### Answer:

For the Eurostat indicators for business demography – yes.

### Question:

A representative from the OECD recalled that in the definition of high-growth enterprises Eurostat and Statistics Poland exclude the enterprises "born" in t-3, and that gazelles are defined as those "born" in t-4 and t-5. Against this background, the question was whether the high-growth enterprises are generally, indeed, gazelles (younger enterprises), or whether the episodes of high growth can also occur when the companies are much older; and what the average age of high growth enterprise is.

### Answer:

Statistics Poland refers to the Eurostat definition. However, in Statistics Poland's publications the older ones are also covered.

### Question:

A representative from the State Statistics Service of Ukraine asked whether indicators related to active enterprises with 10 and more persons employed presented by Statistics Poland are based on the new regulation.

### Answer:

These additional indicators are studied only for national needs. Statistics Poland decided to focus on bigger enterprises for the following two reasons: 1) there is more information available on them, thus more variables can be collected; and 2) it is more appropriate to measure high growth of these enterprises.

### Question:

A representative from the State Statistics Service of Ukraine whether Statistics Poland had an exhaustive list of business demography indicators for the employers and for the development of SMEs.

Answer:

Statistics Poland uses all the variables from the [Implementing Regulation \(EU\) 2020/1197](#). For national publications, Statistics Poland uses different kind of indicators, which differ from the EU regulation.

Question:

A representative from the State Statistics Service of Ukraine asked whether Statistics Poland makes revision of indicators if the new regulation foresees some change in the definition of indicators.

Answer:

If there is some change in the definition of indicator, Statistics Poland checks if it has all the information for this indicator and then calculates it in a slightly different way, adjusting the calculation to a new definition.

Question:

A representative from the State Statistics Service of Ukraine asked the representatives from Israel Central Bureau of Statistics whether the ICBS uses any other sources of information regarding the identification of other subjects of financial market, for instance credit institutions, banking and non-banking institutions, in addition to the one provided by the National Insurance Institute and VAT (Value Added Tax) authorities.

Answer:

Israel Central Bureau of Statistics uses two main sources: National Insurance Institute and VAT (Value Added Tax) authorities. The ICBS uses the unique entity number, which has specific codes for different types of entities. In addition, a lot of information is provided by business survey. In Business Demography Snapshots there is a variable "sector". The ICBS uses the [SIC](#) classification to know if the business is in the financial sector as well as textual description of what businesses are doing received from the VAT authorities. The ICBS does not allow inserting the specification of banks or insurance companies.

Question:

Does ICBS conduct surveys of start-ups?

Answer:

The ICBS does not conduct any surveys. The statistics on start-ups is obtained from external sources and internal sources (Israeli Business Register - IBR).

Question:

Does ICBS obtain the information on the number of employees and salaries from administrative sources?

Answer:

Yes, from IBR.

Question:

A representative from the *State Statistics Service of Ukraine* asked the representative from *Statistics Poland* whether, according to a new [Regulation \(EU\) 2019/2152](#), there is now only one indicator on the number of active enterprises – from the register of business demography, while according to a past [Regulation \(EC\) No 295/2008](#), there were two indicators on it – from the register of business demography and the Structural Business Statistics (SBS)?

Answer:

The number of enterprises is published according to the SBS with a breakdown for persons employed, and there is business demography data with a breakdown for the number of employees. If understood correctly, according to the new regulation, the data on active enterprises is based only on the register. However, in the case of Poland, the data is not based only on the register due to the assumption that the register's data

do not provide all the information that is up-to-date and do not include information from administrative resources and surveys. Thus, Statistics Poland merges all the sources to receive the most factual information and to have the consistency of business demography and structural business statistics.

## ANNEX C: LIST OF PARTICIPANTS

### Ukraine

Last Name	First Name	Organisation
Kolpakova	Olena	State Statistics Service of Ukraine
Kritskiy	Oleksandr	State Statistics Service of Ukraine
Kuznietsova	Marharyta	State Statistics Service of Ukraine
Osmolovych	Olena	Export Promotion Office
Petrenko	Iryna	State Statistics Service of Ukraine
Pishcheiko	Vadym	State Statistics Service of Ukraine
Ponomarenko	Olha	State Statistics Service of Ukraine
Popova	Iryna	State Statistics Service of Ukraine
Prokopenko	Oleh	State Statistics Service of Ukraine
Shcherban	Tatiana	State Statistics Service of Ukraine
Solodukha	Alexander	State Statistics Service of Ukraine
Tishchenko	Vira	State Statistics Service of Ukraine
Tymofieieva	Olena	State Statistics Service of Ukraine
Zakharova	Tetiana	State Statistics Service of Ukraine

### Israel

Last Name	First Name	Organisation
Assaraf	Haim	Delegation of Israel to the OECD
Finkel	Yoel	Central Bureau of Statistics
Kaduri	Riki	Central Bureau of Statistics
Levi	Avigail	Central Bureau of Statistics
Mazeh	Sigalit	International Relations and Statistical Coordination
Nir	Michal	Central Bureau of Statistics
Shimony	Oz	Central Bureau of Statistics
Zisman	Lior	Central Bureau of Statistics

### Poland

Last Name	First Name	Organisation
Bartochowska	Magdalena	Statistics Poland
Cichocki	Bartosz	Embassy of the Republic of Poland
Ćwiek-Karpowicz	Jarosław	Embassy of Poland
Frac	Rafal	Ministry of Foreign Affairs
Jurczak	Grażyna	Statistics Poland
Mongialo	Dariusz	Permanent Representation to the OECD
Piotrowska	Anna	Statistics Poland
Płatek	Aneta	Statistics Poland
Stępień	Mirosław	Statistics Poland
Szymankiewicz	Paweł	Statistics Poland
Walkowska	Katarzyna	Statistics Poland

## France

Last Name	First Name	Organisation
Taupenas	Daniel-Yves	Permanent Representation of France to the OECD

## OECD

Last Name	First Name	Organisation
Alfonso	Francesco	OECD – Eurasia division
Atamer	Peline	OECD – Eurasia division
Kroutchinin	Yaroslav	OECD – Eurasia division
Larrakoetxea	Elisa	OECD – Eurasia division
Lunati	Mariarosa	OECD – Global Relations Secretariat
Miranda	Gabriela	OECD – Eurasia division
Tompson	William	OECD – Eurasia division
Upton	Geoff	OECD – Eurasia division
Zanko	Yustyna	OECD – Eurasia division

## **ANNEX D: PRESENTATIONS**



## Developing sound business data for analysis and policy on SMEs and entrepreneurship

Mariarosa Lunati  
OECD Global Relations Secretariat  
Workshop, 9 November 2021



## Why do we need business statistics and indicators?

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Important role of quantitative  
information

- Complement qualitative information
- Support analysis of economic and social phenomena
- Improve policy design

2

## SME and entrepreneurship statistics and indicators

- Analysis of the **structural characteristics** of the SME sector
  - how many firms? what is their distribution by size? how many persons employed? In which sectors?
- Analysis of the **performance** of the SME sector
  - how productive are SMEs? Do they grow? Do they export? How were they impacted by the COVID-19 crisis?
- Analysis of the **entrepreneurial dynamics**
  - how many new firms? what is the profile of entrepreneurs? are individuals interested in entrepreneurship at all?

3

## OECD experience with SME and entrepreneurship data

- Development and collection of statistics and indicators relevant for policy analysis, design and monitoring
  - i. in cooperation with national statistical offices; examples:
    - Database of structural and demographic business statistics (SDBS)
    - Database of trade by enterprise characteristics (TEC)
    - Databases on innovation activities, and enterprise investment in R&D
  - ii. in cooperation with central banks; example:
    - Collection of data on financing for SMEs and entrepreneurs
  - iii. drawing from existing sources from the private sector or international organisations; examples:
    - GEM, World Bank Enterprise Survey and Entrepreneurship database, EC Eurobarometer, Gallup World Poll, survey data from business associations
  - iv. cooperating with the private sector; example:
    - Facebook-OECD-World Bank Future of Business Survey

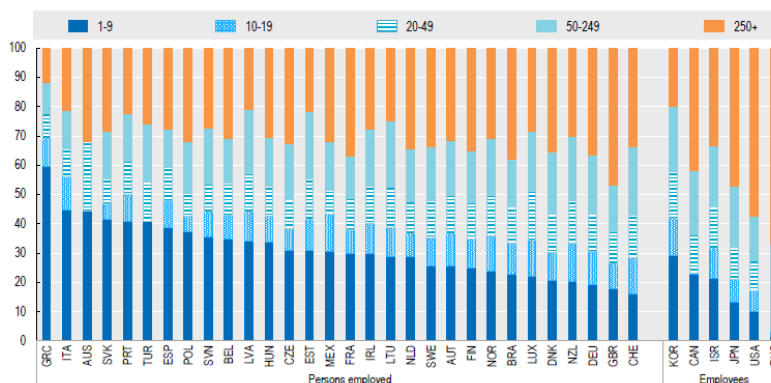
4





## International comparison - 1 Employment in SMEs

Percentage of all persons employed, 2016, or latest available year

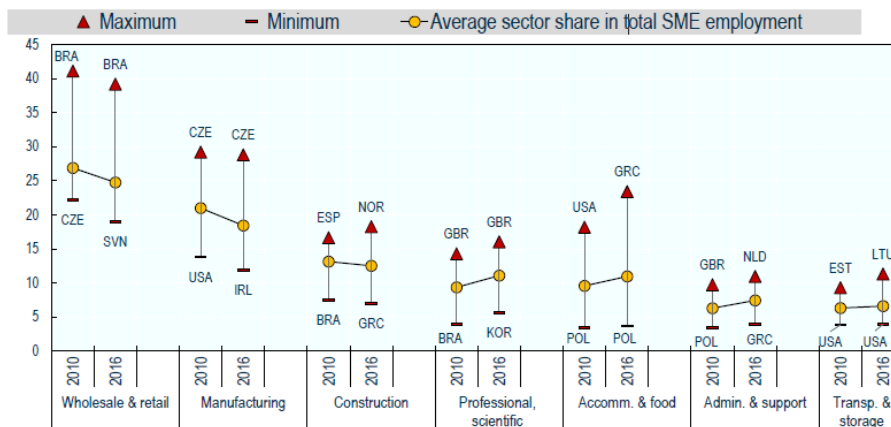


Source: OECD, Highlights of Entrepreneurship at a Glance 2018, based on OECD Structural and Demographic Business Statistics (SDBS) database



## International comparison - 2 Broad specialisation of SMEs

Percentage, SME total employment = 100

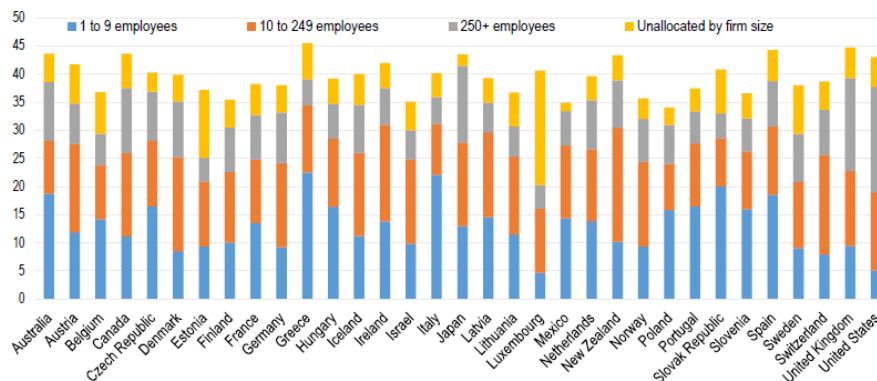


Source: OECD Structural and Demographic Business Statistics (SDBS) database



## International comparison - 3 COVID-19 crisis and SME employment

Share of total employment in the economy located in the most adversely affected sectors, broken down by firm size



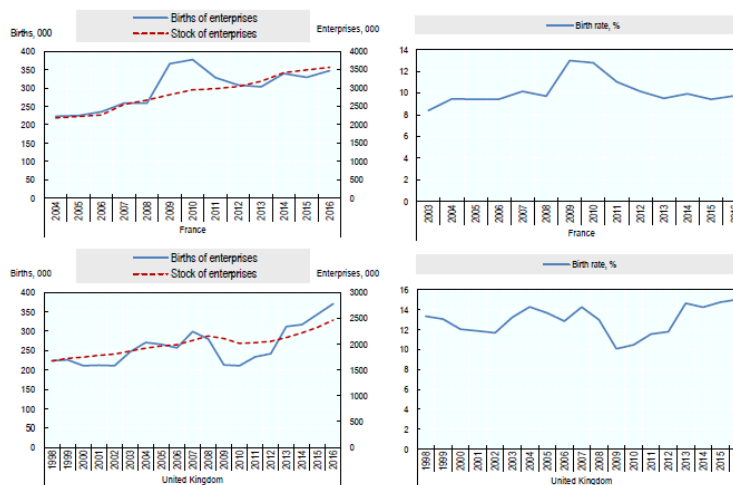
Note: Most affected sectors include ISIC4 29-30; 41-43; 45-47; 51; 55-56; 68; 69-75; 90-93; 94-96. Data refer to 2018 or 2017.

Source: OECD SME and Entrepreneurship Outlook 2021, based on OECD Annual National Accounts database, OECD calculations.



## International comparison - 4 Trends in enterprise births

Thousands for births and stock of enterprises; percentage for birth rates

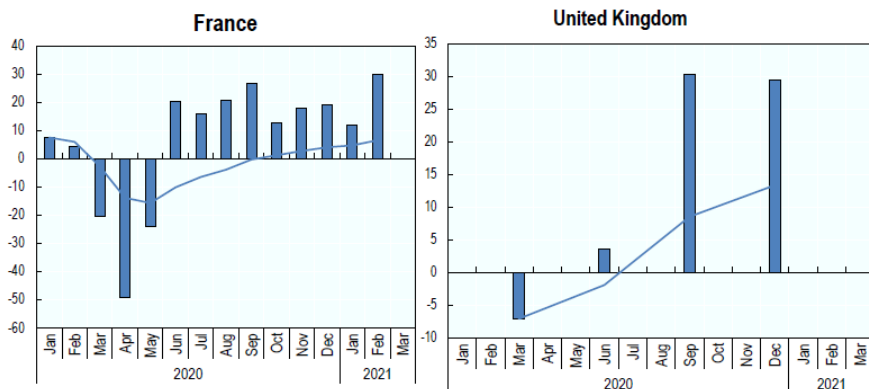


Source: OECD SME and Entrepreneurship Outlook 2019, based on OECD SDBS database



## International comparison - 5 COVID-19 and business creations

Business creations in 2020 and 2021 vs. 2019



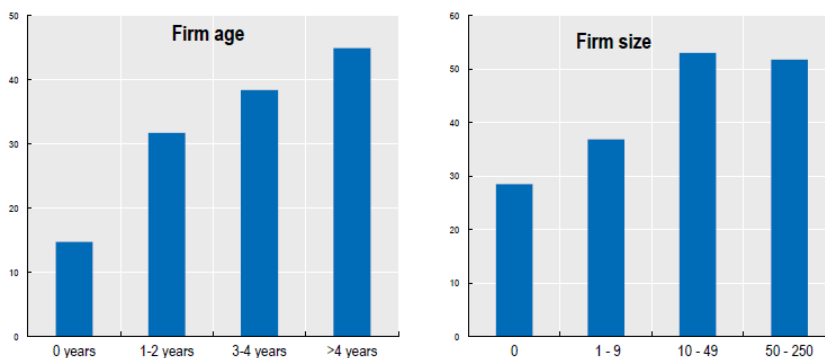
Source: OECD SME and Entrepreneurship Outlook 2021, based on OECD Timely Indicators of Entrepreneurship

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## International comparison - 6 SMEs and government support anti-crisis

Share of SMEs receiving government support  
by age group (left panel) and size group (right panel)



Source: OECD SME and Entrepreneurship Outlook 2021, based on Facebook-OECD-World Bank, Future of Business Survey (December 2020).

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## Insights from OECD experience - 1

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### Importance of :

- Structured and coordinated production and collection of data
- Flexibility of the official statistical production system, to allow compilation of new indicators as needed
- Efficient use of available sources of data

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## Insights from OECD experience - 2

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- a. Production process of official statistics in national statistical agencies
- b. Types of variables to be collected
- c. Specifications of the variables

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## **a. Production process of official statistics in national statistical agencies**

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- Statistical business registers at the centre of the production process
- Use of administrative data
- Linked data: e.g. statistical register with administrative data on businesses (e.g. trade registers), with administrative data on individuals, with business surveys

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## **b. Types of variables to be collected**

---

- Cover key dimensions of the business sector
  - o e.g. structural characteristics of the business sector, by size of enterprise and trade status
- Targeted to the analysis of the specific country economic and social context
  - o e.g. size of the informal sector, entrepreneurship by migrants, ageing population

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## c. Specifications of the variables and new data sources

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- Use of international standards when available
  - e.g. definition of SME, of employment (persons employed, employees), value added (at factor costs or market price), turnover, etc.
- Set questions in business survey to allow, to the extent possible, comparison:
  - over time
  - across countries
  - between surveys run by the private sector and by national statistical offices
- Explore potential use of new data sources (e.g. big data) and partnerships with the private sector
  - [Ex. OECD ADIMA - Analytical Database on Individual Multinationals and Affiliates](#)


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Thank you!

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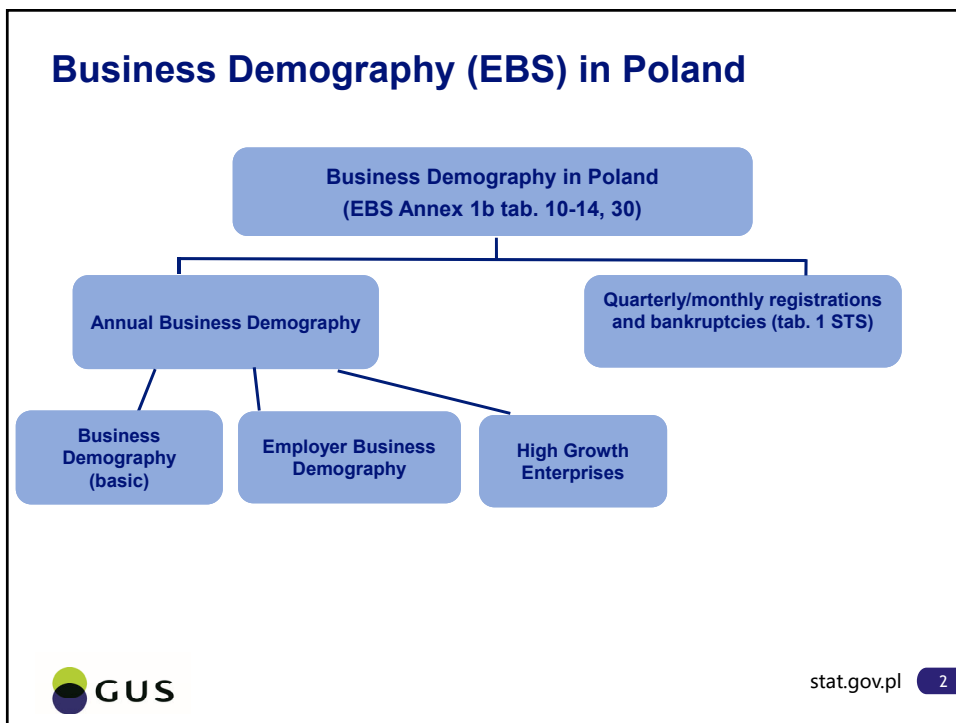
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**Webinar 3**  
Methodology for calculating enterprise demography statistics

Statistics Poland, Enterprises Department

1



## Business Demography (EBS) in Poland

**Business Demography** – detailed data on population of enterprises, i.a. their births and deaths, survival of newly created enterprises and on influence of this processes on the structure of the population of enterprises and effects of their activity.

### Annual Business Demography:

- Business Demography (basic) – whole population of enterprises
- Employer Business Demography – enterprises having at least one employee
- High Growth Enterprises

### Data sources:

- statistical business register (updated on the basis of administrative data and statistical surveys)
- administrative data:
  - tax information
  - social security system

Data in the statistical business register are updated at the certain date while data from administrative sources allow to check the activity of the entity within the whole year (e.g. the enterprise that conducted its activity only in summer will be regarded as active in BD in the reference year while it is not listed in the statistical business register e.g. as of 31 December).

- annual and short-term statistical surveys

### Quarterly Business Demography:

- number of registrations of business entities (legal units)
- number of bankruptcies of business entities (legal units)

For the needs of European Statistical Recovery Dashboard, since January 2022, data will be provided to Eurostat on a monthly basis

### Data sources:

- National Official Business Register (registrations)
- Court and Commercial Monitor (information on the bankruptcy)



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## Quarterly Business Demography in Poland – methodology

### Registrations (110101):

*The number of entered legal units in the registration register at any time during the reference quarter q, according to the respective administrative or legal procedure.*

In Poland the basis for information on registrations is the National Official Business Register – the administrative register conducted by Statistics Poland. Once a quarter the set of legal units entered to the register and aggregated for the required breakdowns.

### Bankruptcies (110102):

*The number of legal units that have started the procedure of being declared bankrupt, by issuing a court declaration, at any time during the reference quarter q (which is often provisional and does not always mean cessation of an activity).*

In Poland the proper District Court issues a decision on the declaration of bankruptcy on the legal unit.

- number of bankruptcies = number of decisions on the declaration of bankruptcies
- date of bankruptcy = date of the decision

Decisions on the declaration of bankruptcy are published in the Court Monitor (available on the Internet). The Monitor is issued (almost) daily; on this basis information on legal units that went bankrupt is entered to the database and aggregated for the required breakdowns.



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## Registrations and bankruptcies of enterprises in Poland

Chart 1. Number of registrations of enterprises bankruptcy

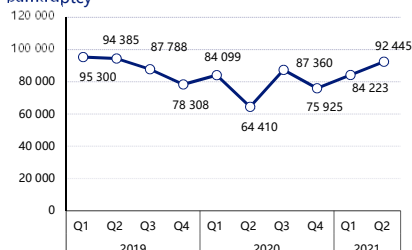
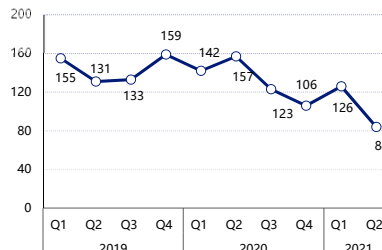


Chart 2. Number of enterprises that declared bankruptcy



Quarterly data on registrations and bankruptcies are published quarterly since 2018 (News Release) on the Internet site of Statistics Poland (40 days after the end of the quarter).

Registrations and bankruptcies are published in two breakdowns:

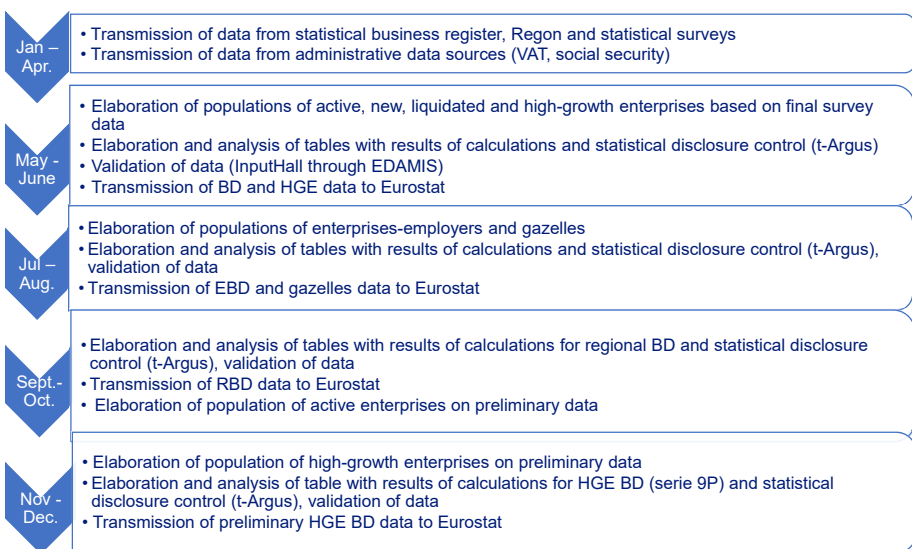
- legal form
- NACE sections (total; Industry – sections B,C,D,E; Construction – F; Trade; repair of motor vehicles – G; Transportation and storage – H; Accommodation and catering – I; Information and communication – J; Services – K,L,M,N; Other sections – P,Q,R,S, excluding division 94)



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## Organisation of annual BD survey



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## Business Demography (basic) – methodology

Business Demography (basic) covers the whole population of enterprises.

There are created ancillary data sets:

- active enterprises (ENT\_ACT)
- new enterprises (ENT\_NEW)
- liquidated enterprises (ENT\_LIQ)

In the creation of these data sets crucial are administrative data i.a.:

- social security data on employment (calculation of average annual number of persons employed and employees for microenterprises)
- tax data – VAT data on turnover

**Active enterprises (ENT\_ACT) – definition:**

*A statistical unit is considered to have been active during the reference period, if in said period it either realized positive net turnover or produced outputs or had employees or performed investments.*

Framework is the set of enterprises from the statistical business register that includes profiled enterprises. Activity of the enterprise is observed at the level of the enterprise (with the analysis of activity of its legal units).

There are included units that in at least one of the data sources (annual and short term statistical surveys, tax data on VAT, social security data) reported turnover or employment in the reference year.

Micro data linking of legal units from the statistical business register with the administrative data sources and survey results is based on the unique statistical ID number (REGON) of the National Official Business Register and the number of the tax identification (NIP).

Administrative and survey data enable to recognize the state of the activity of the unit and identification of the units that are active for the whole year or its part.



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## Business Demography (basic) – methodology

**Data set of new enterprises (ENT\_NEW)**

**Data set of liquidated enterprises (ENT\_LIQ)**

New and liquidated units are identified on the basis of the population of active enterprises (ENT\_ACT) in the years t-1, t-2 as well as t+1, t+2.

By comparison of the units active in two years the population of new and liquidated units is established:

- units new in the year t – they were active in the year t but not in the year t-1,
- units liquidated in the year t – they were active in the year t but not in the year t+1.

Additionally, there are checks made in the horizon of 2 years:

- new units – if they were active in the year t-2 they are regarded as units that reactivated their activity and they are excluded from the population of new units
- units liquidated – if they were active in the year t+2 they are excluded from the population of liquidated units.

Elimination of **restructuring** (mergers, take-overs, split-offs, break-ups)

Creation or liquidation of the enterprise – i.e. emergence or disappearance of combinations of production factors under condition that other enterprises are not engaged in this event. It means that enterprises created as an effect of restructuring are not counted as new or liquidated ones.

Information on the way of creation, liquidation or organisational change of the enterprise are taken from the statistical business register and from the annual enterprise survey.

For each enterprise (active, new, liquidated) **number of persons employed** and **number of employees** are calculated.

Estimation of the number of persons employed and number of employees – in case of lack of such information the method from the EUROSTAT/OECD Manual on Business Demography Statistics is used:

- self-employed: number of persons employed = number of employees + 1
- partnerships: number of persons employed = number of employees + 2
- limited partnerships: number of persons employed = number of employees + 0

Number of persons employed and number of employees are measured as annual average.



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## Employer Business Demography – methodology

Employer Business Demography covers only enterprises employing at least one employee.

There are created ancillary data sets:

- active enterprises
- new enterprises
- liquidated enterprises

**Data set of active enterprises (EMP\_ACT)** – units that in the reference year employed at least one employee (employment measured as annual average  $\geq 1$ ).

**Data set of new enterprises (EMP\_NEW)** – units that:

- were created as new ones and were employing in the year of creation at least one employee
- existed earlier and did not have employment in the previous two years – entered the population of new enterprises by having at least one employee (entry by growth)

**Data set of liquidated enterprises (EMP\_LIQ)** – units that:

- were liquidated and in the year of liquidation had at least one employee
- remained active but do not have employees any more and do not have employees for the next two years (exit by decline)

So to the population of enterprises-employers there are included active employers (with newly-born enterprises) while there are excluded the ones that were liquidated or remained active but without employees.



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## High Growth Enterprises – methodology

**High-growth enterprise (HGE)** – enterprise having at least 10 employees with average annual growth in number of employees higher than 10% per annum, over a three year period. It does not include enterprises "born" 3 years ago.

To identify HGE the population of active enterprises is used (HGE\_ACT).

There are included enterprises that:

$$\frac{\text{number of employees } t}{\text{number of employees } t-3} > 1,331 \quad (1,331 = 1,1 * 1,1 * 1,1)$$

and  
number of employees  $t-3 \geq 10$

and  
in the year  $t-3$  the enterprise did not belong to the EMP\_NEW set  
where  $t$  – reference year

**Young high-growth enterprises (gazelles)** – a subset of high-growth enterprises which additionally fulfil the condition that they belonged to EMP\_NEW in  $t-4$  or  $t-5$ .



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## Calculation of variables and aggregates (EBS)

Variables and aggregates of the business demography are calculated on the basis of the data sets ENT\_ACT, ENT\_NEW, ENT\_LIQ, EMP\_ACT, EMP\_NEW, EMP\_LIQ, HGE\_ACT. These data sets contain data on number of persons employed and number of employees as well as characteristics from statistical business register such as kind of activity (NACE), legal form, identifiers of the National Official Register of the Territorial Division of the Country.

Variable name	Data set – basis for calculation
Number of active enterprises	ENT_ACT
Number of employees and self-employed persons	ENT_ACT
Number of employees	ENT_ACT
Enterprise births	ENT_NEW
Enterprise deaths	ENT_LIQ
Enterprise survivals	ENT_ACT, ENT_new
Number of enterprises having at least one employee	EMP_ACT
Enterprises having the first employee	EMP_NEW
Enterprises having no employees anymore	EMP_LIQ
Survivals of enterprises having at least one employee	EMP_ACT, EMP_new
Number of employees and self-employed persons in newly born enterprises	ENT_NEW
Number of employees in newly born enterprises	ENT_NEW
Number of employees and self-employed persons in enterprise deaths	ENT_LIQ
Number of employees in enterprise deaths	ENT_LIQ
Number of employees and self-employed persons in enterprise survivals	ENT_ACT, ENT_new
Number of employees and self-employed persons in enterprise survivals, in the year of birth	ENT_ACT, ENT_new
Number of employees and self-employed persons in enterprises having at least one employee	EMP_ACT
Number of employees in enterprises having at least one employee	EMP_ACT
Number of employees and self-employed persons in enterprises having the first employee	EMP_NEW
Number of employees in enterprises having the first employee	EMP_NEW
Number of employees and self-employed persons in enterprises having no employees anymore	EMP_LIQ
Number of employees in enterprises having no employees anymore	EMP_LIQ
Number of employees and self-employed persons in survivals of enterprises having at least one employee	EMP_ACT, EMP_new
Number of employees and self-employed persons in survivals of enterprises having at least one employee, in the year of birth	EMP_ACT, EMP_new
Number of high-growth enterprises	HGE_ACT
Number of young high-growth enterprises	HGE_ACT
Number of employees in high-growth enterprises	HGE_ACT
Number of employees in young high-growth enterprises	HGE_ACT



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## Methodology for identifying enterprises to calculate indicators – examples

Some aggregates and variables may be calculated on the basis of one data set, other – several data sets concerning different reference years and populations.

### Example 1: number of active enterprises that have the first employee in t

Calculated on the basis of the data set EMP\_NEW – new enterprises-employers = number of records in the set

### Example 2: number of enterprises having no employees anymore from any point in time in t

Calculated on the basis of the data set EMP\_LIQ – enterprises-employers liquidated = number of records in the set

### Example 3: number of enterprises that had the first employee in t-5 and that had also at least one employee in t

„Survival” of enterprises-employers (in EBS – „Survivals of enterprises having at least one employee”) The enterprises-employers that were „born” five years ago and has been active as employers in each year t-4, t-3, t-2, t-1 (continuity of survival).

The entities from the set EMP\_NEWt-5 and are simultaneously in the sets EMP\_ACTt-4, EMP\_ACTt-3, EMP\_ACTt-2V EMP\_ACTt-1, EMP\_ACTt are selected.

The survival of the enterprise-employer is classified according to the characteristics as it was in the year of its birth.



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## Methodology for identifying enterprises to calculate indicators – examples

### Example 4: number of high growth enterprises measured in employment in t

Calculated on the basis of the data set HGE\_ACT as number of records in the set

### Example 5: number of young high-growth enterprises

Calculated on the basis of the data sets HGE\_ACT, ENT\_NEWt-5, ENT\_NEWt-4 – from the data set HGE\_ACT should be selected enterprises that are simultaneously in the set ENT\_NEWt-4 or ENT\_NEWt-5 – number of records in the new set

### Example 6: share of jobs created by small and medium enterprises founded three years ago

This indicator is calculated as:

number of employees in the population of newly-born in t-3 SME's survived to t

-----  
 number of employees in the population of active enterprises

Population in the meter = intersection of ENT\_NEW\_SMEt-3 and ENT\_ACTt-2 and ENT\_ACTt-1 and ENT\_ACTt → active in all 4 years

ENT\_NEW\_SMEt-3 = SME from the set ENT\_NEW t-3 SME is identified only on the basis of the size class of the enterprise (number of persons employed)



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## Business demography statistics calculated and published – Poland

### Publication „Selected entrepreneurship indicators in 2015-2019”

<https://stat.gov.pl/en/topics/economic-activities-finances/activity-of-enterprises-activity-of-companies/selected-entrepreneurship-indicators-in-2015-2019,10,7.html>

In this publication there are presented two sets of information:

1. Indicators based on the Eurostat methodology for the whole population of enterprises covered by EU BD (by kind of conducted activity and voivodship)

Published indicators – examples:

- birth rate = number of enterprise births in the reference period (t) divided by the number of enterprises active in t – percentage
- rate of newly-born enterprises per 1000 population = number of newly-born enterprises per 1000 population
- death rate = number of enterprise deaths in the reference period (t) divided by the number of enterprises active in t – percentage
- rate of liquidated enterprises per 1000 population = number of liquidated enterprises per 1000 population
- rate of change in the number of enterprises =  $[(\text{number of new enterprises} / \text{number of liquidated enterprises}) - 1] * 100\%$  → it illustrates the direction of change between the number of new and liquidated enterprises; the value of the rate above zero indicates that the number of new enterprises exceeded the number of enterprises liquidated; the negative value of the rate indicates that there were less new enterprises than liquidated ones
- rate of change in the number of persons employed =  $[(\text{number of persons employed in new enterprises} / \text{number of persons employed in liquidated enterprises}) - 1] * 100\%$  → it illustrates the change in the number of persons employed in new enterprises and the number of persons employed in the enterprises liquidated; the rate value greater than zero indicates the increase in the number of persons employed; the negative value – decrease



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## Business demography statistics calculated and published – Poland

2. Indicators calculated on five types of entities distinguished on the basis of the rate of change of revenues from population of active enterprises 10+ (entities with 10 or more persons employed, keeping accounting books)

- high-growth enterprises
- growth enterprises
- stable enterprises
- declining enterprises
- rapidly declining enterprises (including gazelles)

Basic economic indicators:

- number of enterprises
- number of persons employed
- outlays on tangible fixed assets
- gross financial result
- net revenues from sale for export
- total costs
- total revenues
- financial liquidity indicators

Breakdowns:

- size classes
- NACE sections
- voivodships



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## Changes made to the indicators of business demography according to the Regulation 2019/2152 on European Business Statistics

Data sets to be provided to Eurostat:

- *Country-level business statistics on demographic events for enterprises: these data on number of enterprises, and number of employees and self-employed persons refer to enterprise births, deaths and survivals and to specific groups, conditional on having at least one employee, on having the first employee, or on having no employees any more.*
- *Number of active enterprises as part of the country-level business statistics on activities of enterprises (as a whole and broken down by size classes or legal form).*
- *Country-level business statistics on high-growth enterprises: annual data on the number of young high-growth enterprises and the number of their employees.*
- *Regional business statistics on enterprises: regional data on the number of enterprise births, deaths, and survivals and on specific groups of enterprises, plus their number of employees and self-employed persons.*
- *Short-term business statistics on business population: quarterly data on registrations and bankruptcies.*

Data should be calculated on the basis of statistical unit enterprise (except STS – p. 5 – legal units).



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### Changes made to the indicators of business demography according to the Regulation 2019/2152 on European Business Statistics

- change of the definition of the active enterprise
- additional breakdowns by region
- additional quarterly data on registrations and bankruptcies
- additional data on young high-growth enterprises (gazelles) – number of enterprises and number of employees
- additional NACE Rev. 2 sections: P, Q, R; divisions: S95, S96
- changes of the names of some variables



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### Regional business demography (EBS)

Statistics Poland participated in the pilot RBD survey – regional data on NUTS2 (voivodships) and NUTS3 levels (subregions) for BD (basic):

- sections and groups of sections of NACE Rev. 2 B-S (excluding O and group K642)
- size classes by number of employees

Variables:

- number of enterprises
- number of employees
- number of persons employed

In RBD for enterprise that consists of more than one legal unit the region is indicated **on the basis of the legal unit** with the highest **number of persons employed**.



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## Consistency of the methodology of business demography statistics with the methodology of structural statistics in terms of criteria for coverage of enterprise and employment indicators at enterprises

**Consistency** of BD and SBS variables are calculated for the same set of active enterprises (EMP\_ACT) identified in BD.

In BD there are calculated variables:

- number of enterprises
  - number of persons employed
  - number of employees
- the remaining variables are calculated in SBS.

It requires imputations and estimations for units that do not respond in surveys that are basis for SBS (i.a. refusal of reply, units not active in the moment of the collection of data).



## Methodological differences between selected indicators

**Net turnover** (in Regulation (EC) 295/2008 of the EP and of the Council of 11 March 2008 concerning structural business statistics: Turnover, 12 11 0)

New definition = old definition minus excise duties and other taxes on products linked to turnover but not deductible.

**Value of output** (old name: Production value, 12 12 0)

New definition = old definition plus income from product or turnover-related subsidies minus other operating income (except income from product or turnover-related subsidies) minus excise duties and other taxes on products linked to turnover but not deductible

**Value added** (old name: Value added at factor cost, 12 15 0)

New definition = old definition minus other operating income adjusted with income from product or turnover-related subsidies and, if necessary, with capitalised output plus other operating expenses than amortization expense





**Methodological peculiarities of compiling indicators "net turnover" (code 250101), "volumen of output" (code 250301), "value added" (code 250401) for SME**

Sampling survey (4%) on micro enterprises (with up to 9 persons employed) → data are aggregated and grossed up (with use of administrative data) for the needs of SBS with exclusion of micro enterprises that are part of enterprises consisting of more than one legal unit (their data are included in profiled enterprises).

Some elements of the profit and loss account are not available for micro enterprises → the simplified algorithm is used for these enterprises.

Example:

Production value = net revenues from the sale of products, goods and materials + cost of manufacturing products for own needs + change in the state of products + other operating costs ← micro enterprise algorithm  
 + *change of unfinished production – foreign services purchased for resale + profit on disposal of non-financial fixed assets – value of sold goods and materials* ← addition to full algorithm on enterprises with 10 and more persons employed



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**Thank you for your attention!**



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## Improving Statistics Development in Ukraine

### Webinar 3 – Methodology for calculating enterprise demography statistics

**DIAGRAM 2. ACTIVE BUSINESSES IN SELECTED INDUSTRIES (SECTION) 2019**



Industry	Percentage
Other	45.5%
Professional, scientific and technical activities	19.8%
Wholesale and retail trade and repair of motor vehicles	15.6%
Construction	11.2%
Human health and social work activities	7.9%




**BUSINESS DEMOGRAPHY**  
A COLLECTION OF STATISTICAL DATA FROM THE BUSINESS REGISTER  
2011-2019

PUBLICATION NO. 1630  
[www.cbs.gov.il](http://www.cbs.gov.il)

Jerusalem, July 2021



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 Head of Business Register  
 Businesses & Economy department  
 Israel's Central Bureau of Statistics




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  - Main sources (administrative)
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- **BD – Business Demography**
  - VAT dealers openings & Closures (churn rate)
  - Methodology (according to Eurostat–OECD Manual on Business Demography Statistics)
  - Main indicators  
*EN (active businesses), EMPE (employee jobs), B (births), D (deaths), YS (survival rates)*
  - Indicators of interest to SSSU –  
*EB (employer births), ED (employer deaths)*  
*HGE (high growth enterprises by employment), GZE (high growth young enterprises)*
  - Latest publications and media releases


## Israeli Business Register (IBR)

- The IBR was established by the Central Bureau of Statistics on the basis of European Union regulations and became operational in 2003.
- The IBR data is **confidential** [by the law of [the Statistics Ordinance \(New Version\), 5732 – 1972](#)] and is not open to the general public.
- IBR is a database that collects, store, arrange, sort information and produce statistics about reporting units in the Israeli economy for revenue and/or employee's jobs, and their main administrative and quantitative characteristics.
- IBR's unit has three main purposes:
  - 1) Classifying legal units into economic activities (ISIC Rev.4) and sector (SNA2008)
  - 2) Extracting frameworks for Business's Economy surveys sampling (by economic activity, employee size class, etc.)
  - 3) Calculating and publishing Business Demography's statistics

## IBR Main Sources – Main Variables

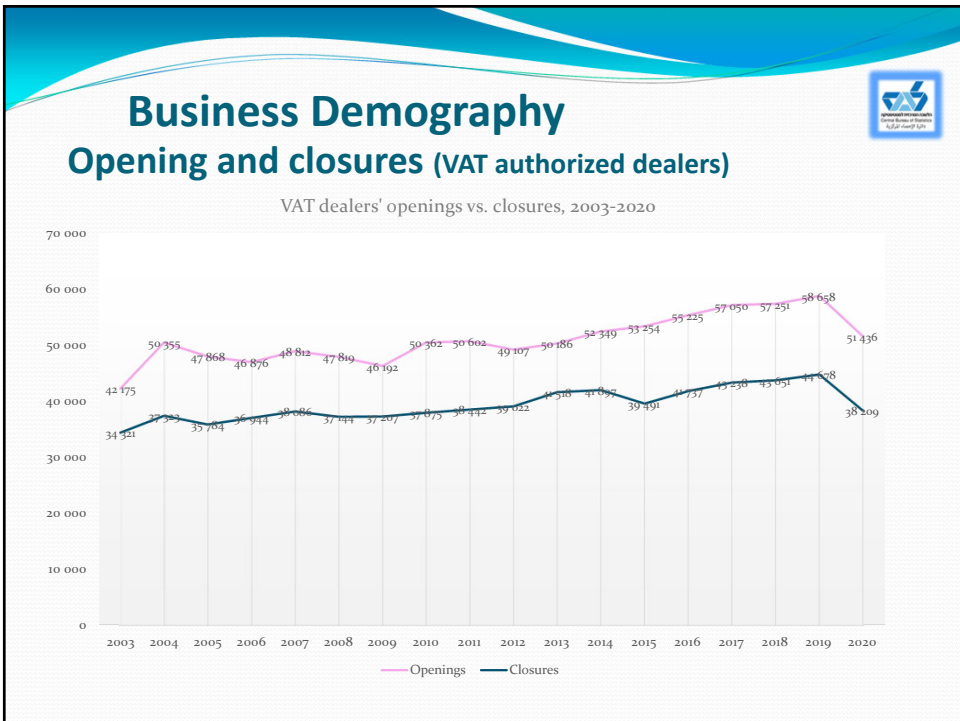
<u>National Insurance Institute</u> 	<u>VAT (Value Added Tax)</u> <span style="float: right;">מ"ג</span>
National Insurance's name >	VAT name >
Entity ID numbers >	Entity ID numbers >
<i>Matching</i> ← →	
Contact info (address, tel no.) >	Contact info (address, tel no. Email) >
activity status and date >	activity status and date >
Economic activity code (Isic Rev.4) >	Economic activity code (Isic Rev.4) >
	Economic activity description >
<b>QUANTITATIVE DATA:</b>	
Number of Employee Jobs >	Total Revenue >
Wages >	Revenue at a VAT rate of 0% >
	Inputs >
<b>TIMELINESS:</b>	
<u>Once a month</u> (delayed by a month and a week)	

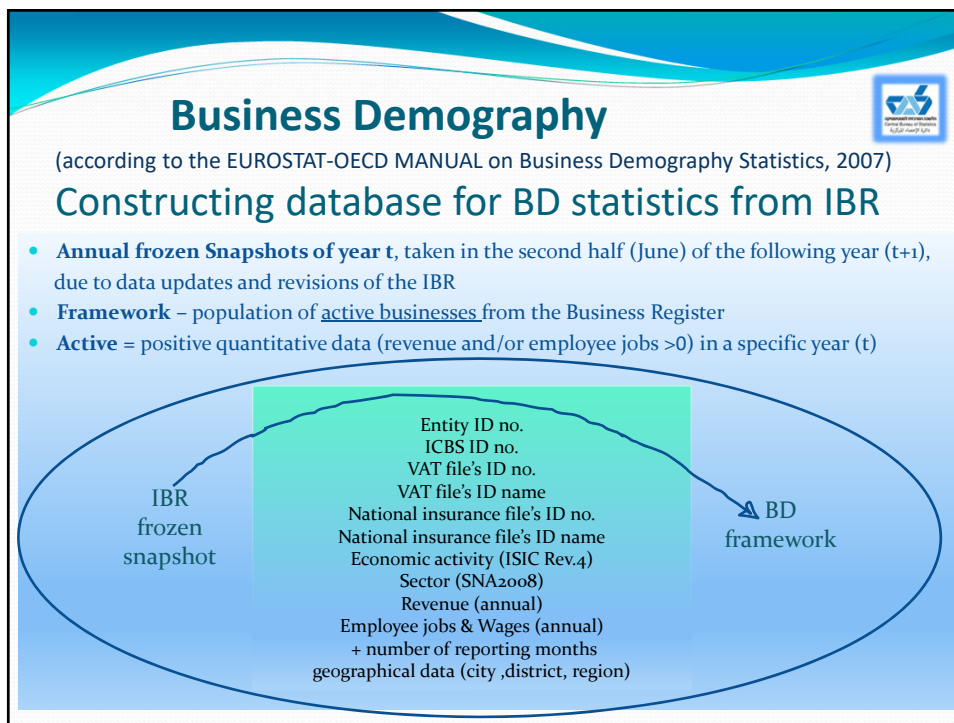
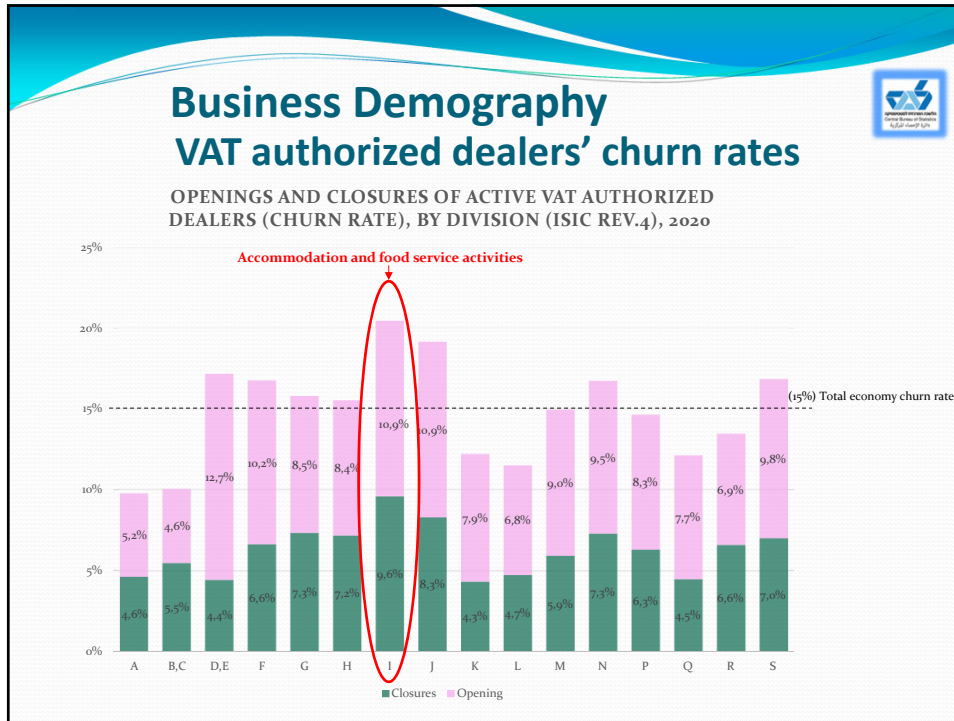
## Business Demography



### Opening and closures (VAT authorized dealers)

- In light of the requirement that businesses report to the VAT authorities, it is possible to identify businesses' opening and closures
- the population counted in openings and closures includes **the business sector** only.
- **Opening of a business** is defined in the year of activity in which the date of opening of the business is registered at the VAT authorities (= the **tax file's type becomes active** for the first time).
- Similarly, **closing of a business** is defined as the year of activity in which the termination of the activity of the business is registered at the VAT authorities (= the **tax file's type becomes inactive**).
- It should be borne in mind that reports on termination of business activity are usually submitted late, and often retroactively. Annual reports can be reliable and stable if they are produced as of the second half of the following year (June t+1).



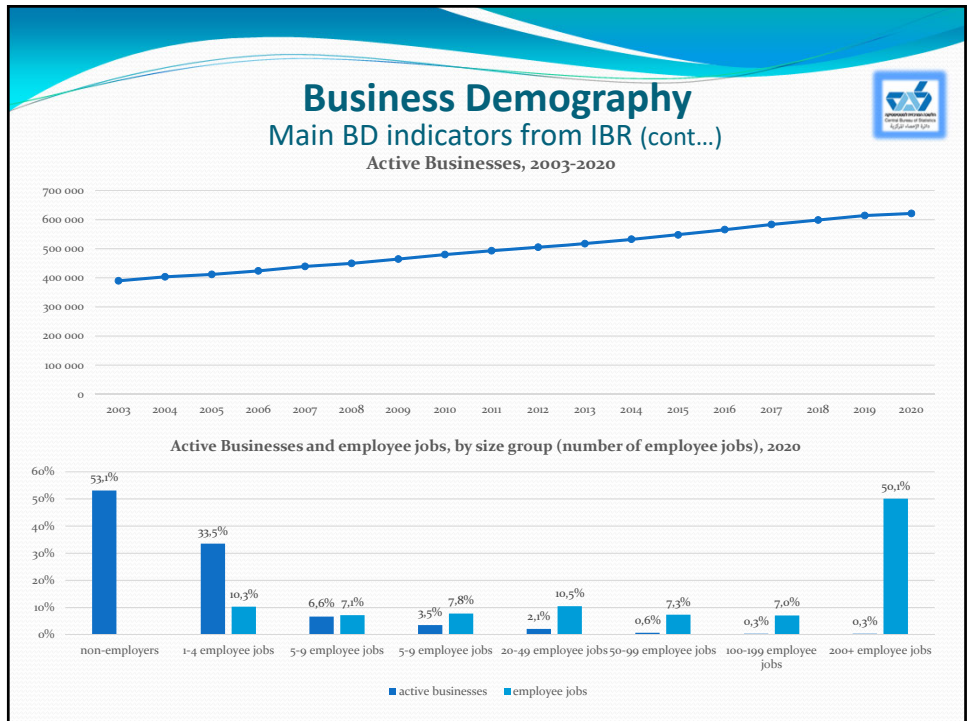


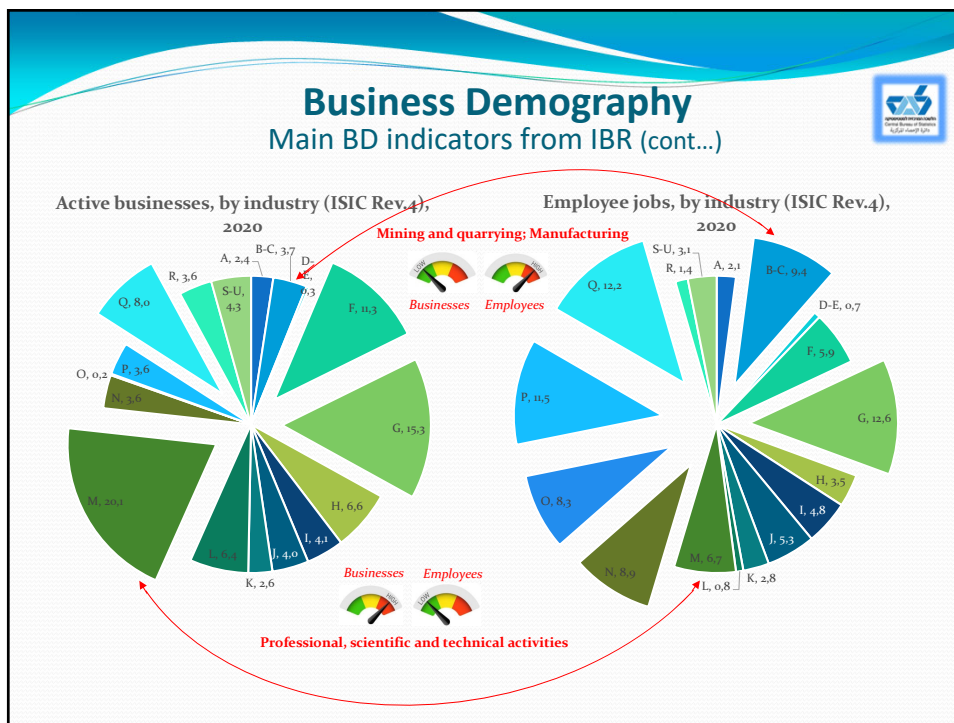
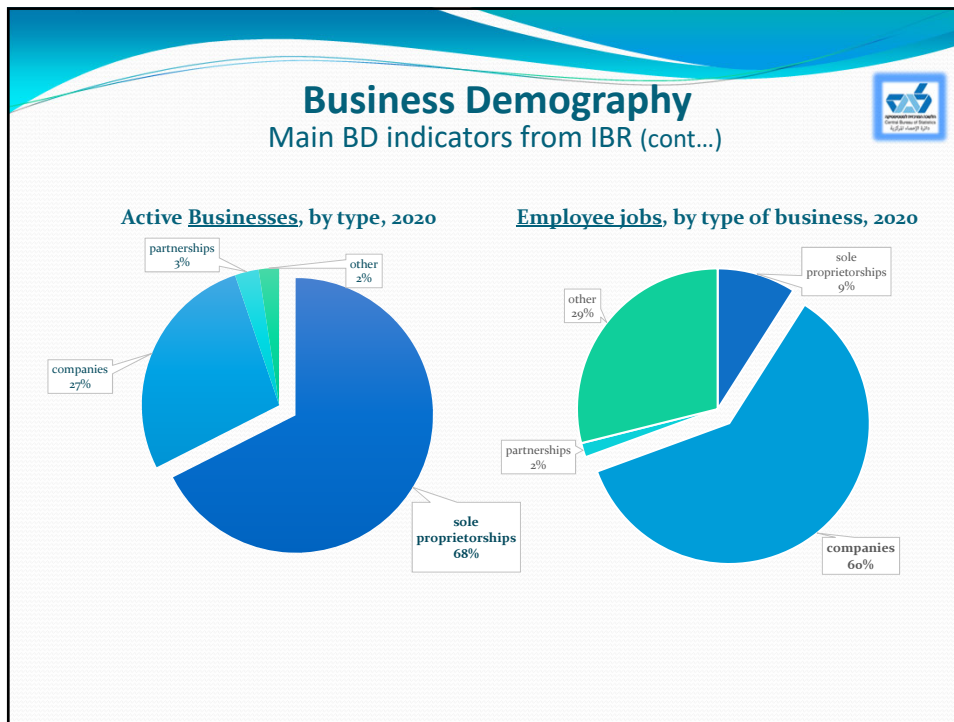
## Business Demography

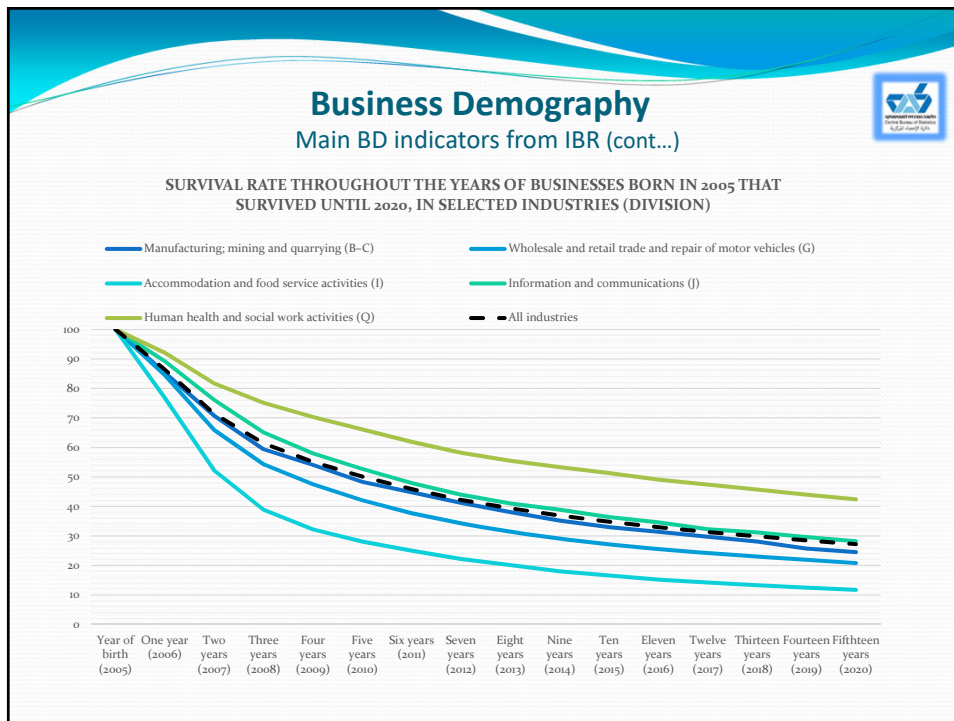
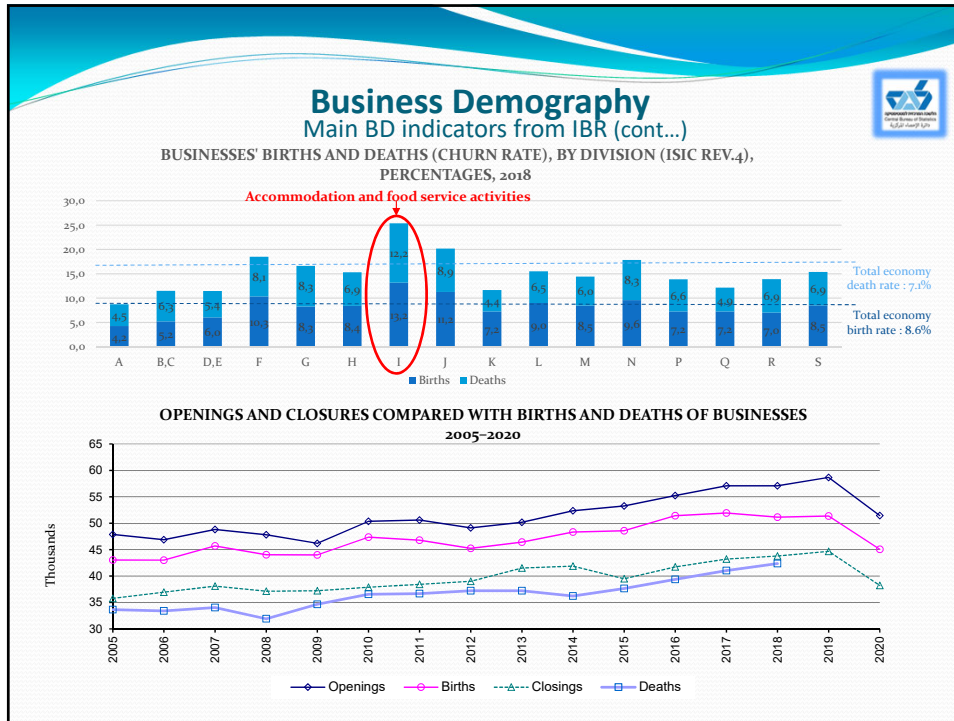
### Methodology - Main BD indicators

(according to the EUROSTAT-OECD MANUAL on Business Demography Statistics, 2007)

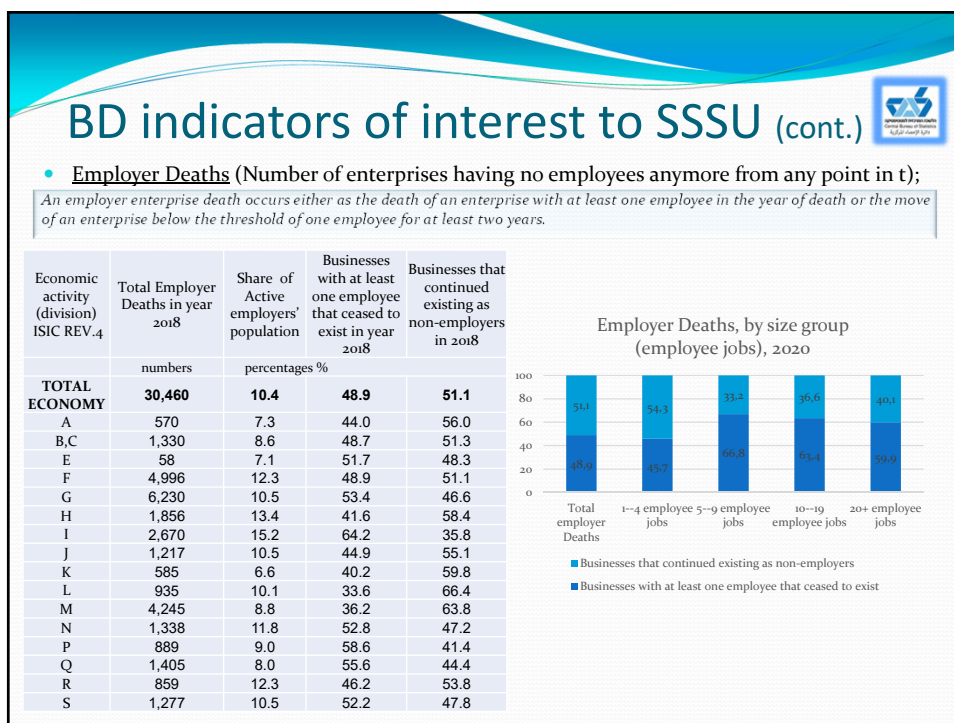
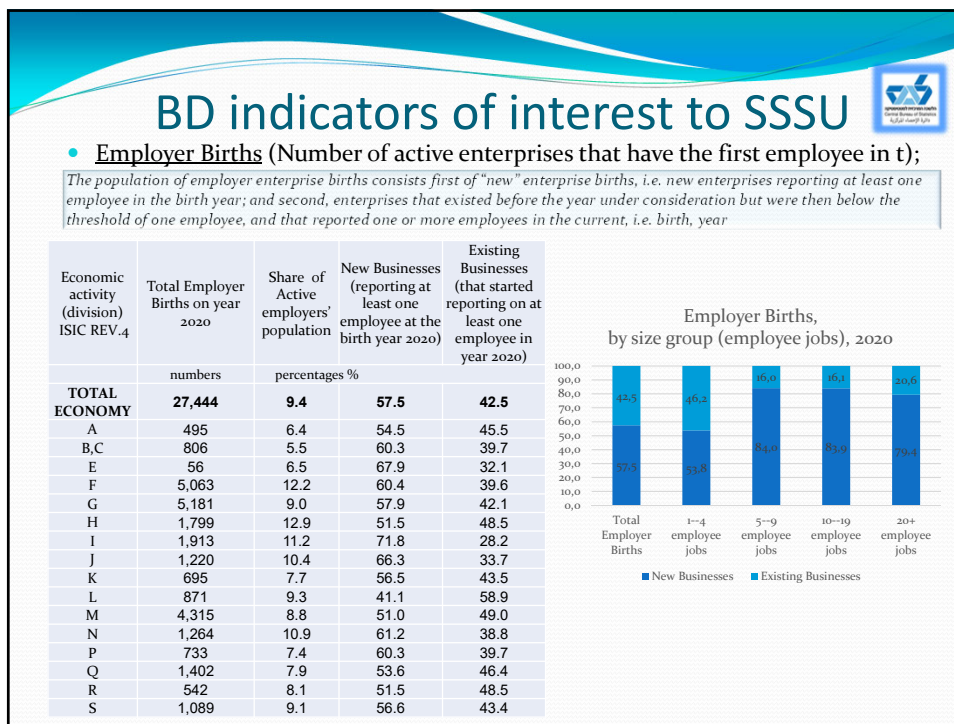
- **Active Businesses**  
A business unit is defined as having been active during a calendar year (t) of activity if it showed positive activity during at least one month of that year. Positive activity can be recorded as positive revenue or a positive number of employee jobs.
- **Employee Jobs**  
The number of employee jobs (permanent and temporary) includes the number of employees who worked for at least one day during a calendar year, and who appear on the payrolls of establishments or institutions (annual count divided by number of reporting months) .
- **Business Births**  
The "birth" of a business is defined as occurring in businesses that were among the population of active businesses (i. e., businesses that had VAT reports or employment reports) in the year "t" (e.g., t=2020), but were not among this population in the year "t-1" (e.g., 2019) and in "t-2" (e.g., 2018).
- **Business Deaths**  
These are defined as businesses that were among the population of active businesses (i. e., businesses that submitted VAT reports or employment reports) in the year "t" (e.g., t=2018), but were not among this population in the year "t+1" (e.g., 2019) and in "t+2" (e.g., 2020).
- **Survival of Businesses**  
A business born in the year "t" will be considered as surviving in the year "t+1" if it showed positive data on revenue and/or on adding employee jobs during the course of the year "t+1". Notably, a business that was born in the year "t" will be considered as surviving in the year "t+2" only if it was defined as active in year "t+1" as well as in year "t+2".











## BD indicators of interest to SSSU (cont.)



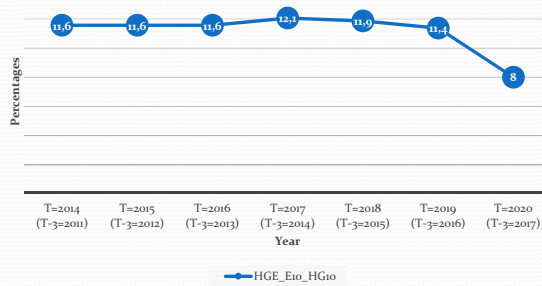
- **High-Growth Enterprises (measured in employment in t);**

High-growth enterprises are enterprises with average annualised growth in the number employees greater than 20% per year, over a three-year period, and with ten or more employees at the beginning of the observation period (Eurostat-OECD Manual on Business Demography Statistics, 2008). In the European Union, the Commission implementing regulation (EU) No. 439/2014 set the definition of high-growth enterprises as follows: all enterprises with at least 10 employees in the beginning of their growth and having average annualised growth in number of employees greater than 10% per annum, over a three year period.

High-Growth businesses by employment, t=2020, by division (ISIC Rev.4)

DIVISION (ISIC REV.4)	HGE_Eio_HGio	
	Businesses	Percentages
Total Economy	3,176	8.0
A	121	6.7
B,C	244	6.1
D,E	37	14.3
F	345	9
G	541	7.3
H	130	8.4
I	118	2.7
J	449	18.1
K	59	8
L	27	6.8
M	437	11.3
N	169	8.1
P	194	7.4
Q	172	8.9
R	29	3.2
S	104	7.3

High-Growth businesses (annual 10%), by employment (more than 10 employees in t-3), t=2014-2020, Total economy

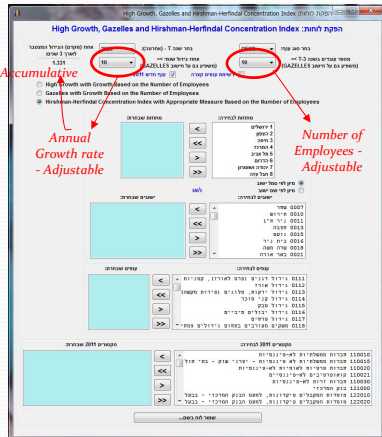


## BD indicators of interest to SSSU

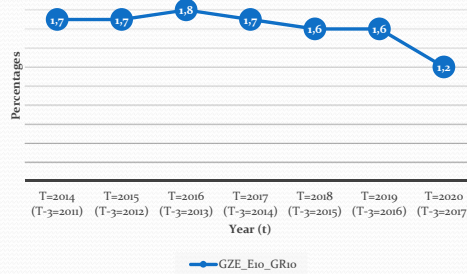


- **Gazelles (number of young high-growth enterprises);**

Gazelles form a subset of high-growth enterprises. They are high-growth enterprises that have been employers for a period of up to five years. The share of gazelles corresponds to the number of gazelles as a percentage of the population of enterprises with ten or more employees.



Gazelles (annual 10%), by employment (more than 10 employees in t-3), t=2014-2020




## Latest publications and media releases on BD from IBR

- **Business Demography - A Collection of Statistical Data From the Business Register, 2011-2019**  
publication: <https://www.cbs.gov.il/en/publications/Pages/2021/Business-Demography-A-Collection-of-Statistical-Data-From-the-Business-Register,-2011-2019.aspx>
- **Business Demography 2018-2020 media release:**  
<https://www.cbs.gov.il/en/mediarelease/pages/2021/business-demography-2018-2020.aspx>
- **Sole Proprietorship's Business Demography in 2019 According to Characteristics of the Business's Owners media release:** <https://www.cbs.gov.il/en/mediarelease/Pages/2021/Sole-Proprietorship-Business-Demography-in-2019-According-to-Characteristics-of-the-Business-Owners.aspx>



The image shows the front cover of a publication. At the top, there are two logos: the logo of the Central Bureau of Statistics of Israel and the logo of the Israel Tax Authority. Below the logos, the title 'BUSINESS DEMOGRAPHY' is written in bold, followed by the subtitle 'A COLLECTION OF STATISTICAL DATA FROM THE BUSINESS REGISTER' and the years '2011-2019'. At the bottom, there is a small box containing the publication number '1530' and the website 'www.cbs.gov.il'. Below that, it says 'JANUARY, JULY 2021'.

# Thank you very much



The illustration shows two stylized buildings of different heights. A thick, dark, curved line connects the top of the shorter building on the left to the top of the taller building on the right. In the center of this line, two hands are shaking, symbolizing a business deal or partnership. The background features a city skyline with various buildings, a globe, a dollar sign, and gears, representing economic activity.

## Any questions



## Webinar 3 Business Demographic Start-Up Companies in Israel

*Riki Kadury*  
Head of Science & Technology  
Businesses & Economy department  
Israel's Central Bureau of Statistics

# ISRAEL THE “START UP NATION”, 2009



**IT World  
Leaders**



**2nd**

**NASDAQ  
Companies list**

Since 2009



**1st**

**Civilian R&D  
expenditure**



**1st**

**Venture  
Capital  
Investment  
Per capita**

**“Israel has the Highest density of  
start-up companies in the world”**

“One start up company for every  
1,844 Israelis”

# Israeli Start-Up Database

- As the Start-Ups expanded, it was necessary to give a proper representation in the **official statistics** that will allow to **review, investigate, and monitor** them.
- In 2012, at the request of **policymakers**, CBS Israel started to create the methodology for new technology companies.
- The Israeli-Startup database was created with an **internal unique methodology**.
- Israeli's Start-Up database is **confidential**.



## CBS Start Up Definition

### Start-up:

- Technological entrepreneurship based on R&D for the purpose of founding a new profitable company.
- The resources of the company are directed to the development of an idea, service or product.
- The company has not yet made a profit or has yet to become a mature company.
- Usually funding by capital raising.

### Step-by-step process

- First step  
Definition
- Second step  
Data Sources
- Third step  
Process
- Fourth step  
Methodological
- Fifth step  
Products



# Data sources

## External Sources

**Private Sector**

**IVC- Israel High-tech venture capital**  
 Private company  
 Provides information on Hi tech company  
 Provides access to organized database  
 Uses a platform to connect between investors and Start-Ups companies

- Type of activity
- Company stage
- Financing Rounds

[Israel High-Tech Venture Capital](#)

**NGO Sector**

**SNC- Start up Nation Central**  
 Nonprofit organization  
 Platform for discovering and connecting with innovators companies  
 Connects businesses, government, and NGO leaders from around the world with Israeli innovation

- Type of activity
- Company stage
- Financing Rounds

[Start-Up Nation Central](#)

**Government Sector**

**IIA- Israel Innovation Authority**  
 Government Agency  
 In Charge of the development of industrial R&D grants

- Type of activity
- R&D Government grants

[INNOVATION AUTHORITY](#)

### Step-by-step process

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# Data sources

## Internal Source

- Description of activity
- Revenue
- Employee Jobs
- Wages
- Geographic location
- Years of Activity

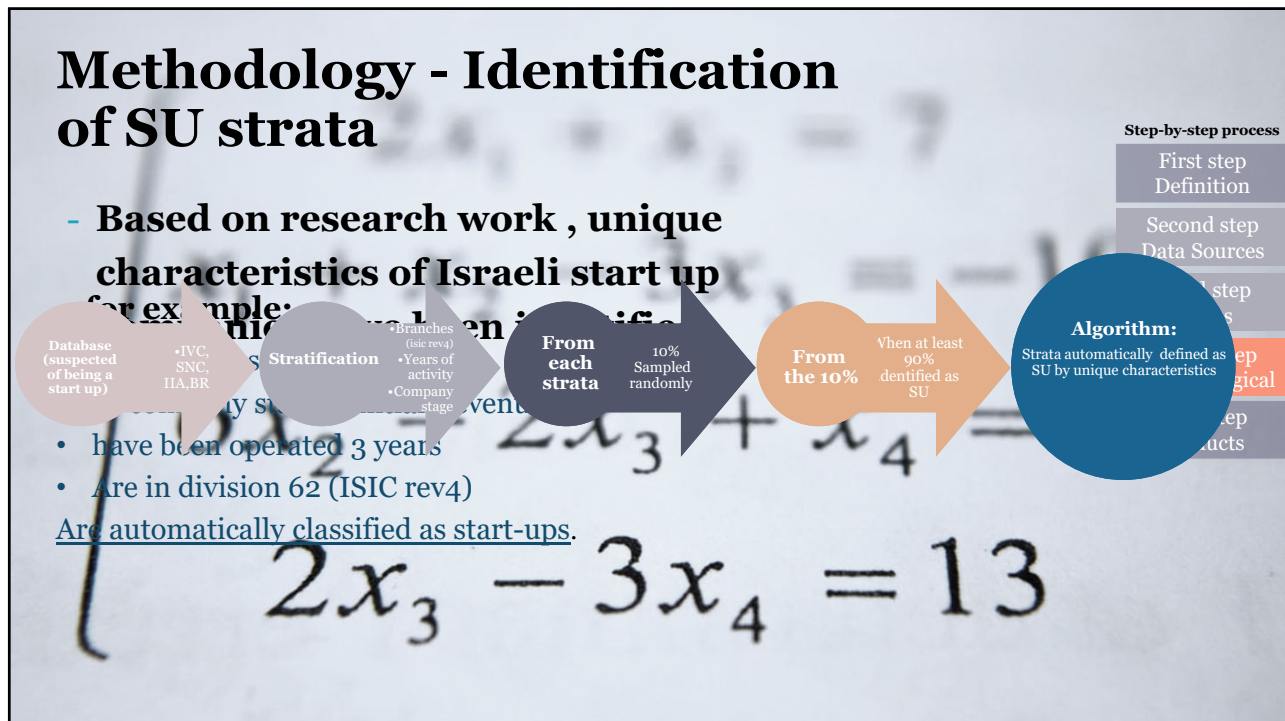
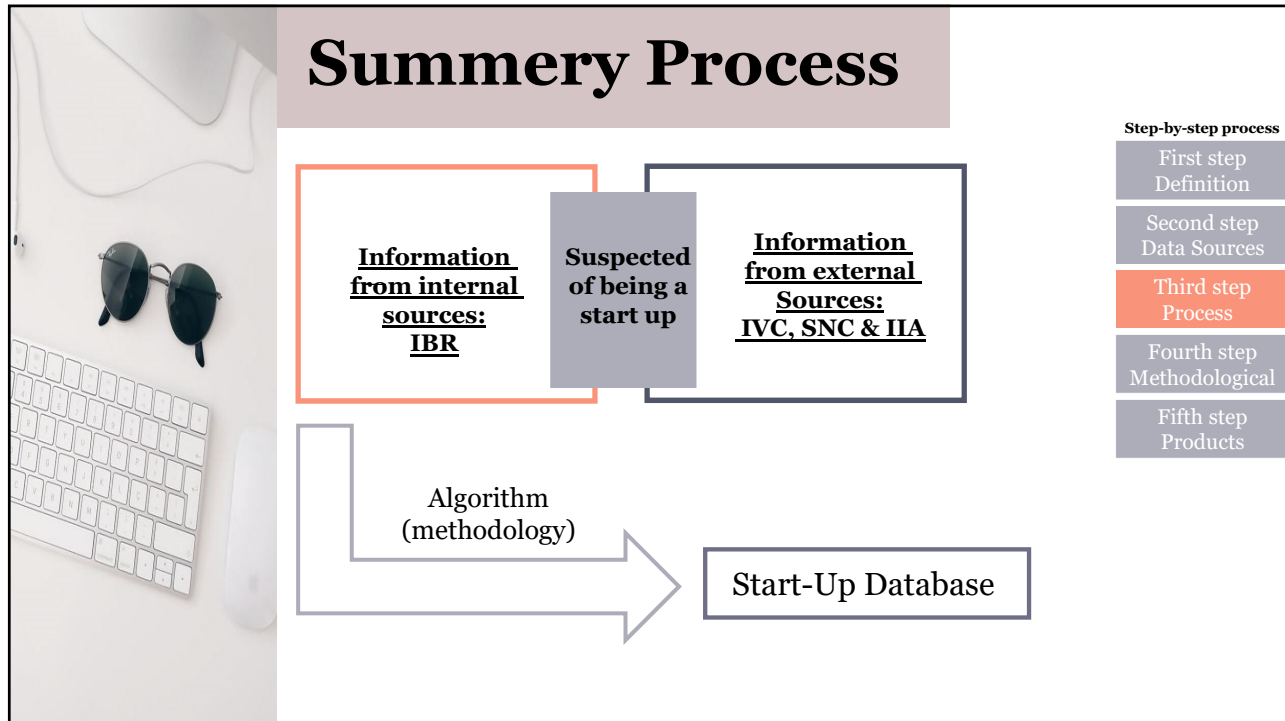
**Israeli Business Register**



### Step-by-step process

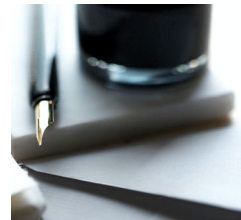
- First step  
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Products





# Remarks

- The Start-Up database contains Israeli Start-Up companies that were open since 2003 and **exist in the IBR**.
- The database does not include Start-Up companies that are operating at the Pre-Seed stage and have not yet been officially registered in the Israeli tax authorities.
- All the Start up companies stay in the pool, for future follow-ups.



## Step-by-step process

First step  
Definition

Second step  
Data Sources

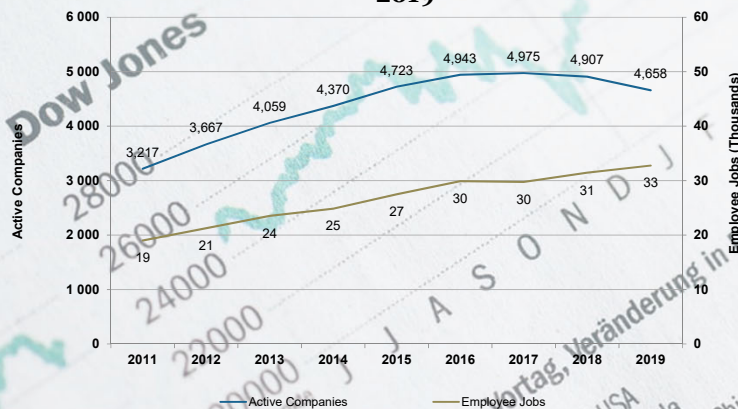
Third step  
Process

Fourth step  
Methodological

Fifth step  
Products

## The findings are published once a year on the CBS website Descriptive Statistics

Start-Up Active Companies & Employee Jobs, 2011-2019



## Step-by-step process

First step  
Definition

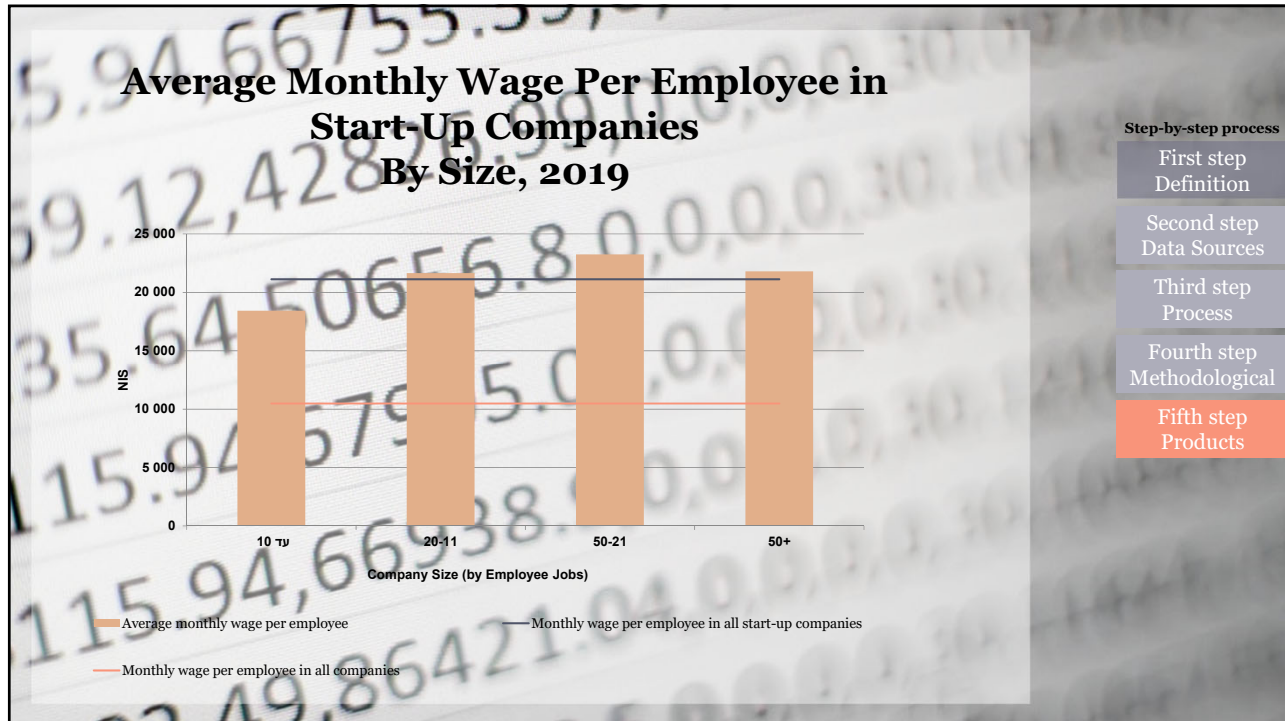
Second step  
Data Sources

Third step  
Process

Fourth step  
Methodological

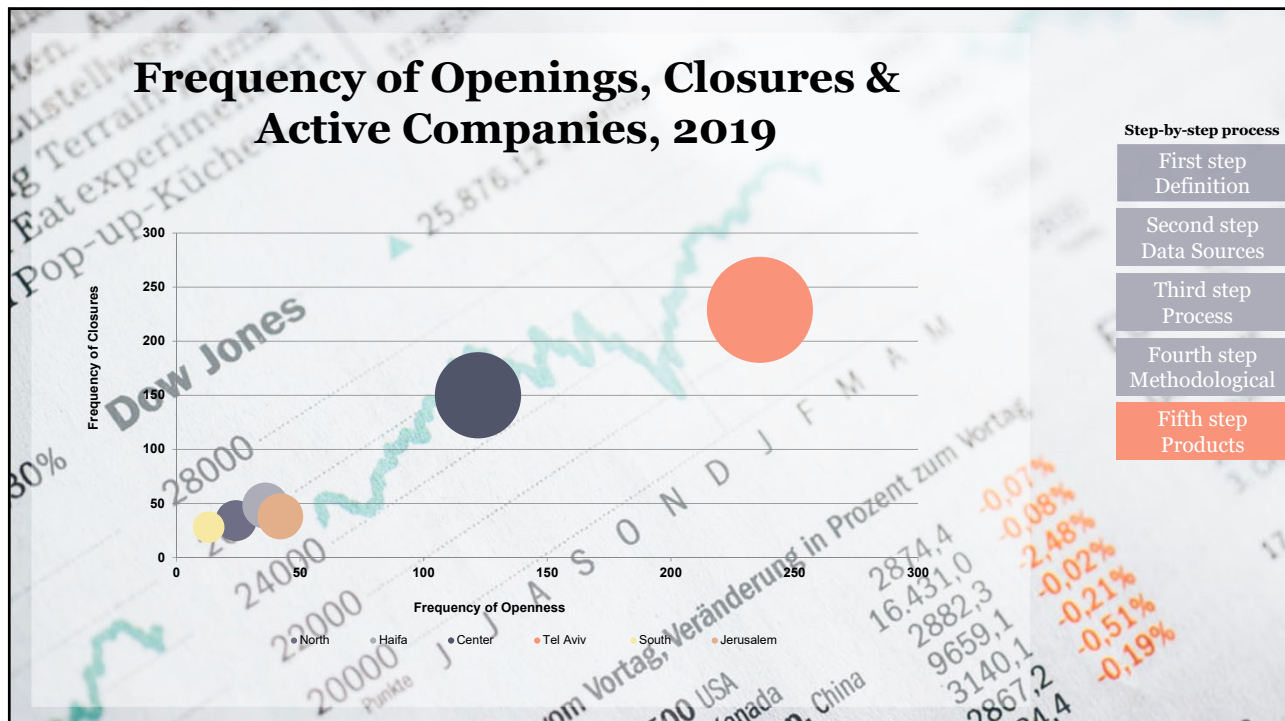
Fifth step  
Products





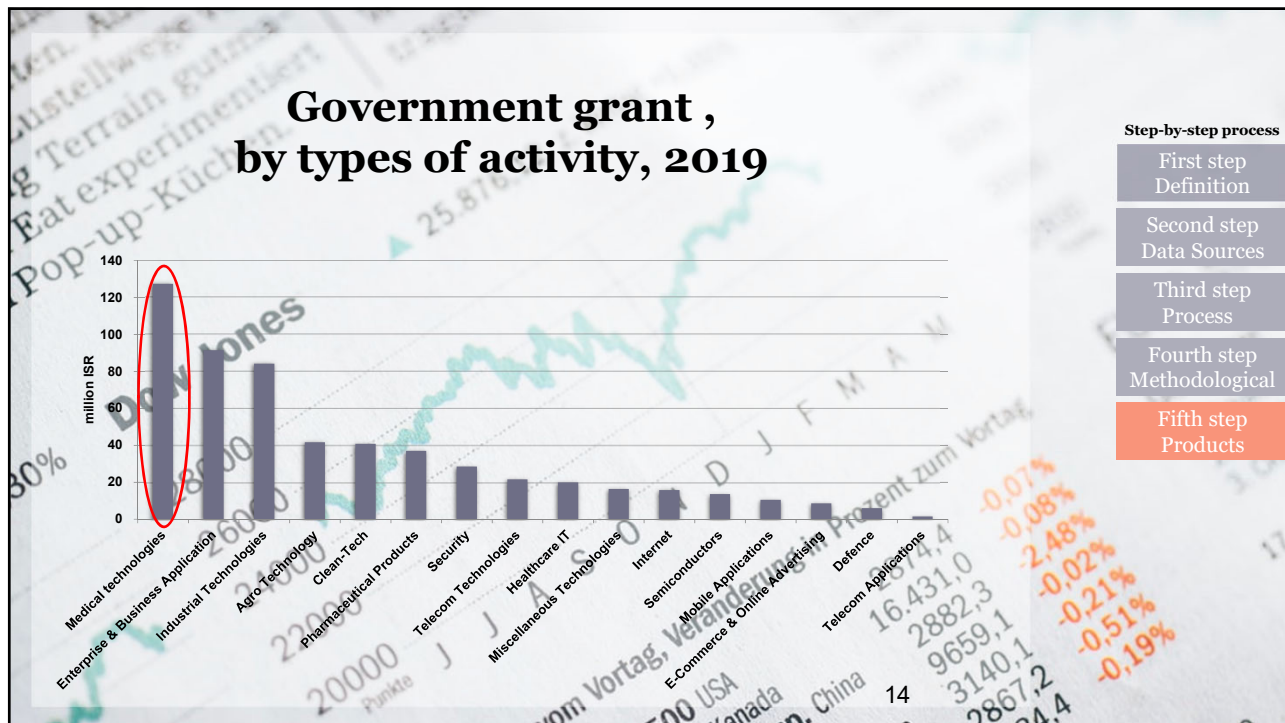
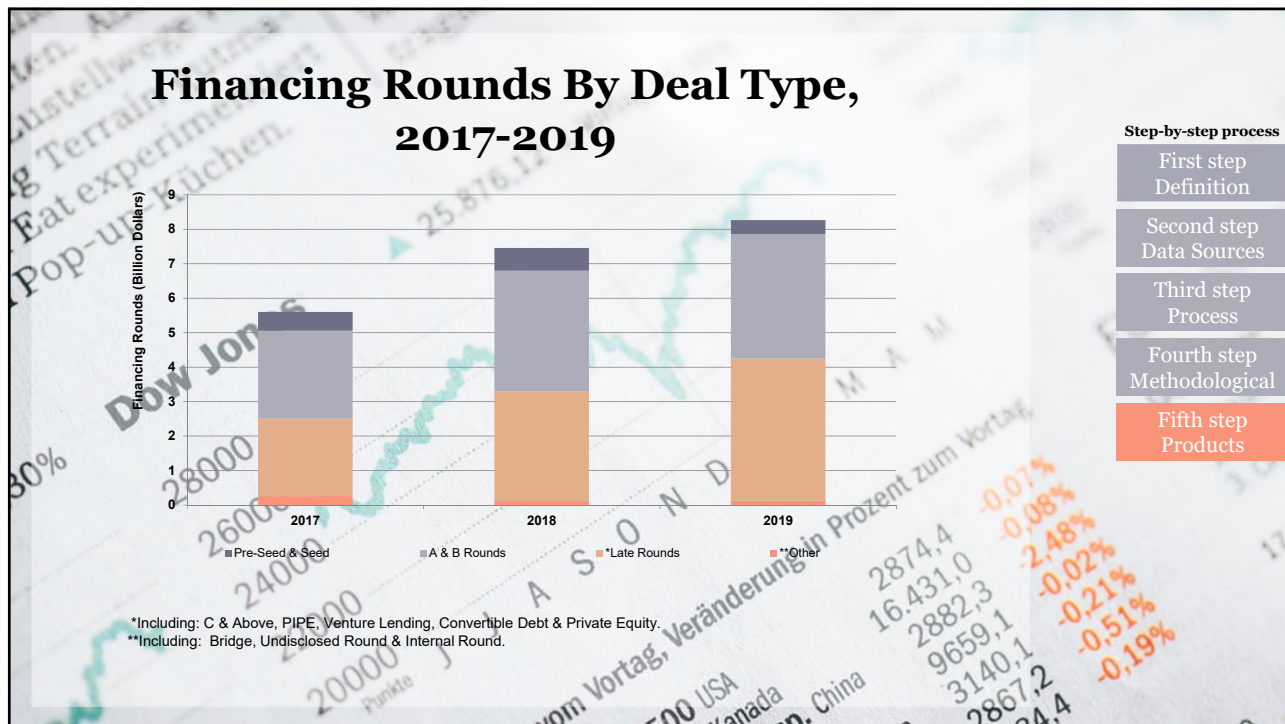
Step-by-step process

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Step-by-step process

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# Start up stage

Stage every company are classifies by stages:

{**Seed**=A startup company, which is in its early days of product development and fund raising.

- **R&D**=Discovering new knowledge about products, processes, and services, and then applying that knowledge to create new and improved products, processes, and services that fill market needs.
- **Initial Revenue**=A company whose yearly revenue does not exceed \$10 million dollars.
- **Revenue Growth**=A company whose yearly revenues exceed \$10 million dollars and has a double digit yearly growth rate.}