Geneva, 30 September - 2 October 2019

Vincent Hecquet
Eurostat, Unit G1, Coordination and infrastructure development

**Improving the measurement of MNE groups' activities:
new findings from European Profiling**

With economic globalisation, multinational enterprises groups (MNE groups), are located in more and more countries. They are also more and more complex in terms of legal organisation. To address these challenges, the National statistical Institutes (NSIs) in Europe have decided to go beyond the legal unit, and to produce statistics on the "enterprise" in the economic meaning. The delineation of the enterprise is done through "Profiling". For the largest or complex MNE groups, it involves the direct dialogue with their representatives.

Besides, during the last decade, Eurostat has encouraged the European NSIs to cooperate to implement a relevant and consistent cross border view of MNE groups. This method is called European Profiling. It focuses on the largest and most complex MNE groups. It is carried out collaboratively by the profiling teams of the different countries where a group is located. More than 400 MNE groups have been profiled since the beginning of the European system of interoperable statistical business registers (ESBRs) project in 2014. To support European profiling, Eurostat developed a secure platform which can be used as a database. In 2016-2017-2018, 241 different MNE groups were profiled collaboratively with results stored in this database. These MNE groups employ together 6.5 M employees and control more than 28,000 legal units.

The benefits of European Profiling have been explained in several articles and conference papers. In this paper we present: 1) short background information on European profiling; 2) first quantitative results from the database and first findings on MNE groups; 3) quantitative results on the impact on size concentration (in terms of employment and in number of units). These results show that European Profiling improves the measurement of MNE groups' activities and the view of the productive system.

1. Background and definitions

1.1 Profiling and the implementation of the statistical unit Enterprise

In official statistics, the enterprise has long been associated with its purely legal definition, the "*legal unit*", i.e a legal person or a natural person that perform a productive function. Economic globalisation and the way multinational groups organise themselves have led to increasingly complex organisations and to a growing gap between their organisation in terms of legal units and their economic structures.

This is why, several European National statistical Institutes (NSI) have decided to go beyond the legal unit and to delineate enterprises within the groups. According to the European Regulation 696/93, "*the enterprise is the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources*".

The delineation of the enterprise as a statistical unit is done by *Profiling*. The definition of Profiling is provided by the Eurostat Business Registers Recommendations Manual: "*Profiling is a method to analyse and maintain the legal, operational and accounting structure of an enterprise group at national and world level, in order to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data*".

When a legal unit is not controlled by a group, it forms by itself an enterprise provided that it is active, i.e. it generates turnover, employs staff or makes investments. Groups can be organized in one or several enterprises, as a group may consist of only one enterprise (as a whole) or it can represent a diversified conglomerate with several business segments having a "certain level of autonomy" (and thus several enterprises may have to be delineated in them).

The benefits of Profiling have been explained in several conference papers and articles, for example (Insee 2015) or (Xirouchakis and Hecquet 2018). Profiling provides a number of benefits:

- Getting a better view of the internal economic structure of the groups and the implementation of enterprises as relevant economic players;
- Getting a better view of the size and sector concentration of the economy and more relevant economic data;
- Avoiding double counting of the non-additive variables between the groups' legal units;
- Improving the quality of business statistics by monitoring the largest groups on an individual basis. In particular, for these largest groups, Profiling includes meetings or exchanges with the groups' representatives (generally accountants) to decide with them the delineation of the enterprise(s) within the group and to improve data collection.

When Profiling is carried out by the NSI team within the national economy, we refer to national Profiling. In the European Statistical System, significant efforts have been invested during the last years to systematize national Profiling. Nowadays, all the European NSIs are actively implementing national Profiling, with the great majority participating also in the collaborative process of European Profiling.

1.2 European Profiling

Nowadays, many groups, even small ones, have many legal units or branches[1] in different countries. It is in this sense that statisticians call them "MNE groups".

---

[1] A branch is a local unit without separate legal entity, located in a country, which is dependent on a foreign group. In the methodology of European Profiling, branches are treated like legal units. This is compliant with

Therefore, cooperation between European NSIs and Eurostat is required to understand the business model and the structure of MNE groups. To organize such cross-country collaboration, Eurostat has encouraged the European NSIs to cooperate to ensure high quality statistical output and to address inconsistencies coming from different national practices, tools, and sources.

European Profiling activities started in 2009. European profiling focuses on the largest and most complex MNE groups located in Europe. It is carried out collaboratively by national profilers of the country where the global decision centre (GDC) of the MNE group is located (the GDC profilers), together with national profilers of the other countries where the group is present (the partner profilers). As a result, the profilers of the different NSIs where the MNE group is present reach a consistent understanding of the MNE group by this cross-country collaborative work. European Profiling also ensures consistency between the European and the national level, at least as regards group perimeter, activities, employment and turnover.

The method of European Profiling, the roles and responsibilities of the GDC and partner profilers are further explained in Annex 1.

A recommendations manual, which offers practical guidance on all the aspects of European Profiling has been drafted by Eurostat in close cooperation with the NSIs in the European Profiling Task Force. It will be published in 2019.

1.3. The ESBRs project

In 2013, Eurostat and the European Statistical System (ESS) launched *the European system of interoperable statistical business registers (ESRBs)* project. This project focuses on registers to address inconsistencies coming from different practices in national statistical business registers and lack of harmonised approaches. It also aims at implementing common standards, IT tools, and remote access facilities.

One of the most important deliverables of the ESBRs project is the *EuroGroups Register* (EGR) 2.0. This important system contains today more than 120.000 of the largest multinational groups, their characteristics, legal unit structure, along with data on employment, turnover and activities of their constituent legal units.

ESBRs architecture and the integration of Profiling within its framework have been explained in several conference papers, for example: (Morganti 2019), (Ionescu 2019), (Morganti 2018) or (Branska-Lateva, Hecquet and Morganti 2017).

European Profiling activities were included within the framework of the ESBRs project. An Interactive Profiling Tool (IPT) to support European Profiling was developed. It is a secure platform, which allows the NSIs' Profiling teams to create, exchange and share the process resulting from their collaborative work.

As the deliverables of European Profiling are stored in the IPT, this platform can be used as a database containing only the large and complex MNE groups located in Europe, which have been profiled. It is the quantitative results on the MNE groups stored in this database that are presented in this paper.

the Business registers recommendations manual and with the National Accounts principles (ESA95 and SNA93). However, to simplify the wording of this paper, we use the one word "legal unit" as a generic term that may also refer to a branch.

2. Results from the European database on profiled MNE groups

### 2.1. Profiling practices are quite homogeneous among the NSIs

The analysis concerns 241 MNE groups stored in the IPT. They were profiled collaboratively by 19 European NSIs within the scope of 3 grants co-financed by Eurostat in 2015, 2016 and 2017[2]. These MNE groups employ together 6.5 M employees and control 28,176 legal units. Half of these groups are active in more than 16 countries. A quarter of them are active in more than 35 countries.

An enterprise delineated at global level through European Profiling is called a "*Global Enterprise*" (GEN). European Profiling of these 241 MNE groups resulted in 692 GENs, with one third delineated into only one GEN. The number of GENs per group is higher only for a small number of groups; a maximum of 8 GENs appears in only 9 groups (see Chart 1). In each of the 3 grants, all the participating NSIs delineated the number of GENs per group in quite similar proportions. This is a potential important result, which indicates good homogeneous Profiling practices among the NSIs.

This also reveals an interesting economic result on the large and complex MNE groups in Europe. In the smallest countries (in demographic of economic terms), groups are generally smaller. However, even in these smallest countries, one can find highly complex conglomerates engaged in very different businesses and which provide a significant number of GENs.

Chart 1
Number of global enterprises (GENs) among the profiled 241 MNE groups
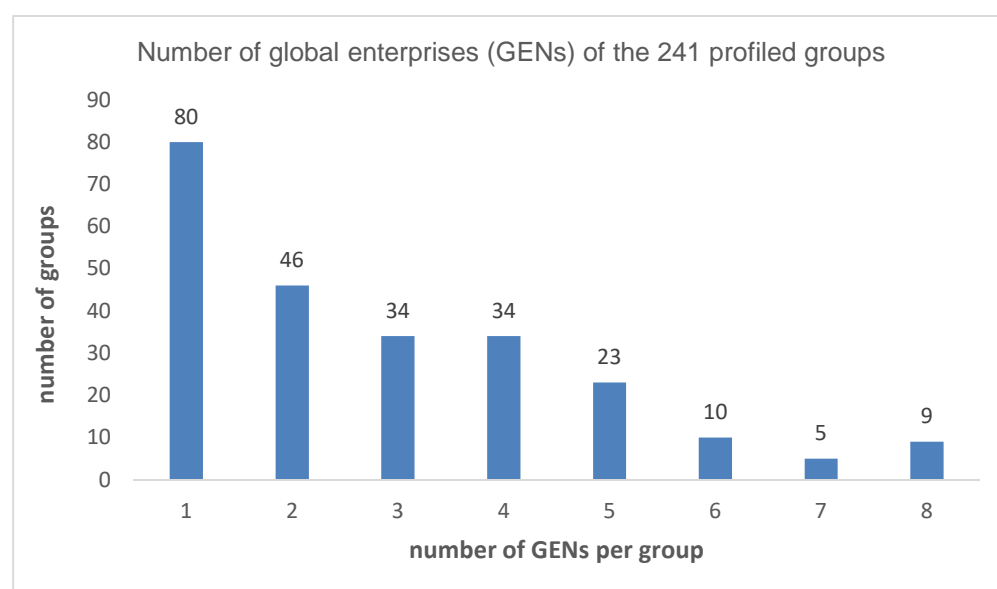
Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

---

[2] In addition to these 19 NSIs which participated within the scope of these grants, 7 other NSIs participated in testing. Large MNE groups often reorganise their internal structure (in terms of legal units or enterprises). These changes have to be regularly updated in the scope of the activity which is called "follow-up profiling". 290 MNE groups have been profiled with IPT (at least once) until now. For each group, the profile and the data used in this study are those of the most recent year.

2.3. The largest multinational groups are present in more countries

The profiled 241 groups employ on average 27.000 employees. Each of them is "large" according to the official criterion of size based on the employment, in the meaning that it employs 250 employees or more. However, these groups were chosen not only according to the criterion of size, but also according to the one of complexity. Besides, they were chosen in different activities, and by 19 European countries, which differ in size (in demographic or economic terms). Consequently, these MNE groups widely differ by their size. More than half of them (56%) have less than 10.000 employees. A quarter of them has more than 25.000 employees.

The size of a group and the number of countries in which it operates are strongly connected. This clearly appears on Table 1, in which we compare the size of the MNE groups with the median number of countries in which they operate worldwide. Half of the MNE groups with 50,000 employees or more operate in 36 countries or more. Opposed to them, half of the MNE groups with less than 5,000 employees operate in 8 countries or more. This observation is consistent with those of the EGR. It is also consistent with the results of the Outward FATS survey, which monitors the foreign affiliates of the multinational groups of each European country[3].

Table 1
Indicators on the MNE groups' structure according to their size

Groups by size:	Number of groups	employees / group	median of countries involved	Legal units / group	Groups of 1 GEN (%)	GENs /group
less than 5,000 employees	83	2.313	8	33,8	30	2,7
5,000 to 9,999 employees	52	7.443	17	74	36,5	2,7
10,000 to 49,999 employees	78	24.491	32	158,9	29,4	3,1
50,000 employees or more	28	143.854	36	326,1	32,1	3
All	241	27.043	16	92,6	33,1	2,9

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

There is logically a good correlation between the number of the countries in which the groups are established and the number of their legal units (0,69), since the location in a country is reflected by the creation of a legal unit. However, the correlation between the size and the number of the legal units is just medium (0,53).

Above all, as it appears in the two right-hand columns, the number of GENs does not exhibit connection at all with the size of the groups. In the same way, there is no correlation between the number of GENs and that of the countries in which the groups are present.

---

[3] It has to be noticed that the MNE groups treated through European Profiling were chosen as very large and complex. Indeed, they are involved in far more countries than the small or medium multinational groups. For example, according to the Outward FATS survey, half of the small or medium multinational groups with a French GDC are involved in 2 other countries or more (Dauré and Fesseau, 2019).

2.4. The internal structure of a MNE group is greatly determined by its activity

In fact, the size of a group does not determine its delineation in GENs, because the latter is greatly determined by its activity. To a lesser extent, the number of legal units per group also depends on the activity. These differences clearly appear on Table 2.

Table 2
Indicators on the MNE groups' internal structure according to their main activity

	Number groups	employees / group	Groups of 1 GEN (%)	GENs / group	Legal units /group	employees /GEN	employees /legal unit
Manufacturing: C	132	22.851	32,6	2,7	117,4	8.333	195
Electricity, Gas: D	13	18.849	7,7	4,8	114,7	3.890	164
Construction: F	10	14.688	70,0	2,2	118,6	6.732	124
Wholesale trade : 46	7	3.830	42,9	1,7	35,9	2.234	107
Telecommunications: JB	7	64.908	42,9	2,0	166,7	32.454	389
Retail trade: 47	16	53.655	31,3	3,1	109,1	17.520	492
Business to Business: M, N, JA, JC	19	49.731	47,4	1,7	123,5	28.633	403
All	204	27.906	34,5	2,7	116,1	10.261	240

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

Focusing on the industries for which we have a significant number of groups, there remain 204 groups, employing 5,7 Mio employees. Among them, 132 have a main activity in manufacturing (section C), employing 3 Mio employees. Notwithstanding the limitations of the sample, the results show that the internal structure of the groups (in terms of the number of GENs and the number of legal units) is above all linked to the activity. These results agree with those of other studies carried out on the impact of Profiling at national level by several NSIs.

Manufacturing groups have more complex structures than those performing trade or those delivering Business-to-Business (B-to-B) services (divisions JA and JC, sections M and N[4]). They are more frequently delineated in more than one GEN. Above all, they have more legal units. A legal unit in a manufacturing group employs only half the employees in a B-to-B group, only 40% of employees than in a retail trade group, which means a more complex structure in manufacturing groups.

Electricity and Gas groups (section D) distinguish from the other activities by their very large number of GENs. This is due to productive as well as legal reasons. In particular, in the scope of the European competition policy, the different activities included in this section have to be separate in different groups or different GENs that exchange at market prices. Among them, 12 electricity producing groups have been specifically analysed (Hecquet, 2019).

Construction groups (section C) have many legal units, but 70% consist of only one GEN. In our sample, they are far smaller than groups performing manufacturing, retail trade or B-to-B services. However, the average number of their legal units is very close to those of the groups performing these activities. Actually, it often happens that construction groups create a legal unit during the project time of a building site. Construction groups also use to create joint ventures especially dedicated to the project when they intervene together at a construction site.

---

[4] Division "JA" represents "Publishing, audio-visual and broadcasting activities"; Division "JC" represents "IT and other information services". Section M represents "Professional, scientific and technical activities"; Section "N" represents "Administrative and support activities". The division "JB", which represents "Telecommunications". It is excluded because its consumers are rather private individuals than businesses.

Telecommunication activities (division JB) are in fact mainly phone groups. These groups are also very particular regarding their internal structure. They are by far the largest, and they have more legal units than all the others. However, they have only 2 GENs on average. Besides, it should be noted that, even a few years ago, almost all phone groups used to be profiled in only one GEN. It is only in the last years that many of them have been diversifying with the rise of digital business. Some phone GEGs have diversified into phone banking, which have involved the creation of a new financial GEN. Phone groups may have diversified into new digital industries (IT, cloud, engineering, or sale of music or movies…). This case exhibits that, for a given industry, profiling allows an understanding of the business model of groups and its change over time.

Trade and B-to-B services groups are less complex regarding their internal structure. Groups performing wholesale trade (division 46) are smaller, since they need fewer employees to operate on the markets. Groups performing retail trade (division 47) have many employees with direct contact with customers. In the same way, B-to-B services groups have many employees who work in direct contact with client businesses.

Another interesting observation stems from the two tables below. These tables compare the employment distribution of MNE groups with different activities in terms of GENs and in legal units.

Table 3.a
Employment distribution (percentage) in manufacturing and construction groups in sample

| | Manufacturing groups (C) | | Construction groups (F) | |
| | employment distribution (in %) | | employment distribution (in %) | |
	in GENs	in LeUS	in GENs	in LeUS
C: Manufacturing	95,2	75,2	1,6	7,0
D: Electricity Gas	0,2	0,1	0,0	0,0
F: Construction	0,5	1,6	90,9	73,4
46: Wholesale trade	0,6	10,9	1,4	0,2
47: Retail trade	0,1	1,0	0,0	0,0
H: Transportation	0,1	0,9	0,0	0,4
JA, JC, M, N : B. to B.	2,2	6,0	4,3	10,0
Others	1,1	4,4	1,8	8,9
All	100,0	100,0	100,0	100,0

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

These tables reveal the reasons for the higher internal complexity of manufacturing and construction groups. Manufacturing groups have ancillary GENs and legal units to design, produce and sell their products. In particular, the weight of ancillary legal units performing wholesale trade within manufacturing groups is very high. To a lesser extent, manufacturing groups have employees in B-to-B services to devise the products (R&D, engineering). In the same way, construction groups have ancillary GENs and legal units in B-to-B services (architecture, services to building and landscape) as well as in real estate (line "Other").

In contrast, retail trade and B-to-B services groups have less ancillary activities since they are in direct contact with customers. As a result, employment in these groups is almost exclusively focused on the main activity.

Table 3.b
Employment distribution (percentage) in retail trade and B-to-B services groups in sample

| | Retail trade (47) | | B-to-B groups (JA,JC,M,N) | |
| | employment distribution (in %) | | employment distribution (in %) | |
	in GENs	in LeUS	in GENs	in LeUS
C: Manufacturing	1,3	1,6	0,0	0,4
D: Electricity Gas	0,0	0,0	0,0	0,0
F: Construction	0,2	0,3	0,0	2,1
46: Wholesale trade	0,6	2,2	0,0	0,4
47: Retail trade	95,3	90,8	0,0	0,2
H: Transportation	0,0	0,7	0,0	1,0
JA, JC, M, N : B. to B.	1,9	2,2	99,9	92,0
Others	0,7	2,2	0,1	3,8
All	100,0	100,0	100,0	100,0

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

The consolidation of the groups towards their main activity increases at GEN level, in particular for manufacturing and construction groups. The results of the profiling activities are illustrated by the shift in employment from the ancillary activities to the main activity and result in a different picture of the economy.

The shift from one unit of analysis to another also changes the distribution in terms of sectors of activity. Several NSIs carried out studies of impact (Alonzi and Migliardo 2018; Béguin and Hecquet 2015). All these studies conclude that the enterprise view increases the weight of manufacturing and construction. Besides, by integrating all the legal units that form a group, we also get a more realistic view of economic performance, since all the units contributing to the functioning of the enterprise are now taken into account.

3. **The implementation of intra-group links and GENs allows a better view of the size concentration**

3.1. Size concentration is far higher than it appears in legal units

Shifting from the legal units to the GENs also highly improves the view of the size concentration. This clearly appears in Chart 2 below, in which we compare the employment of the 241 MNE groups stored in the IPT by size of legal units, of GENs, and of groups.

Chart 2

Employment distribution (percentage) by size of legal units, GENs, and groups of the 241 MNE groups
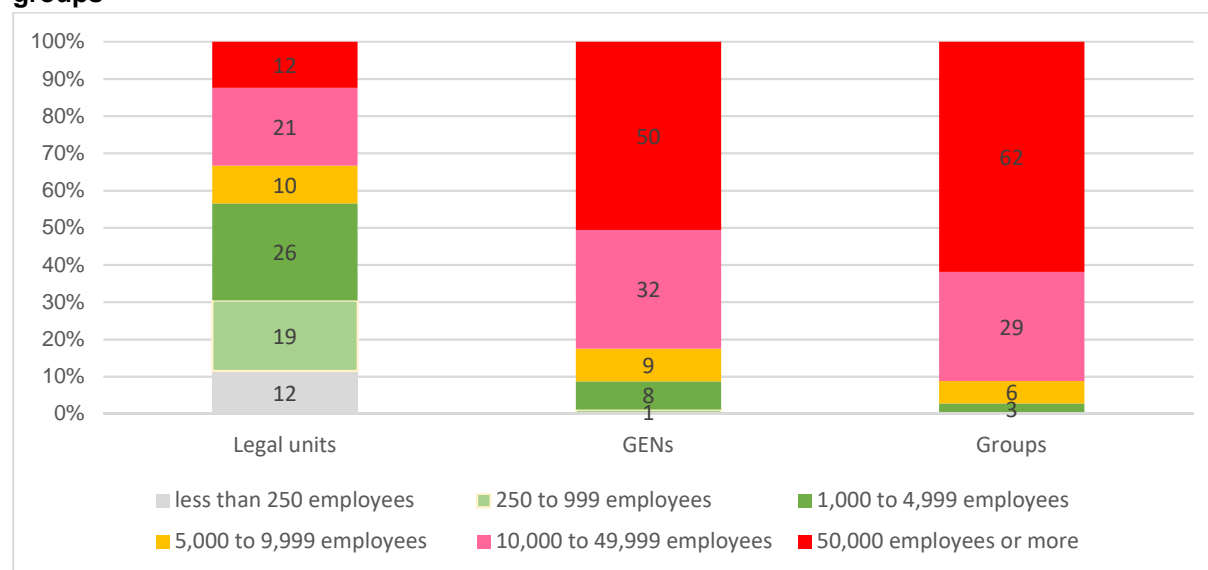
Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

The size distribution is far more concentrated than measured in legal units. In the sample, legal units of 50,000 employees or more employ only 12% of the employees, versus 50 % for the employees of the GENs of the same size. Symmetrically, in legal units, 12% of the employees would be classified in Small-and-Medium sized Enterprises (SMEs), while this share is zero if we take into account intra-group links, and remains insignificant after GENs delineation. The reason is that a significant proportion of legal units controlled by large MNE groups are below the threshold of 250 employees.

Compared to the distribution in groups, the distribution in GENs reduces the share of the maximal size: in the sample, the groups of 50,000 employees or more employ 62 % of the employees, versus 50 % for the GENs of the same size. Indeed, as previously explained, GENs performing upstream or ancillary activities are delineated within the groups. The consequence is a sharp increase of the employment of the GENs below 10,000 employees. They represent 18 % of the employees, versus 9 % for the groups of the same size. However, these two distributions in GENs and in groups are closer to one another, than any of them to the one in legal units. This outcome, calculated on the sample of MNE groups, is consistent with others from impact studies undertaken on the whole productive system of a country, for example (Béguin and Hecquet 2015). This result is in large part logical, since the legal units are, with no comparison possible, far more numerous than the GENs as well as than the groups. Nevertheless, it may be interesting to note that, at least initially, considering each group as an enterprise may be a relatively accurate proxy of the impact of profiling on size concentration.

3.2 The impact on size concentration differs between the activities of MNE groups

The impact on size concentration logically depends on the MNE groups' internal structure in terms of GENs and legal units. As this later is closely linked to the activity, the impact widely differs from an industry to another. This observation stems from the comparison of the two charts below, which focus on the two industries the most represented in the sample, manufacturing groups (Chart 3) and B-to-B services groups (Chart 4).
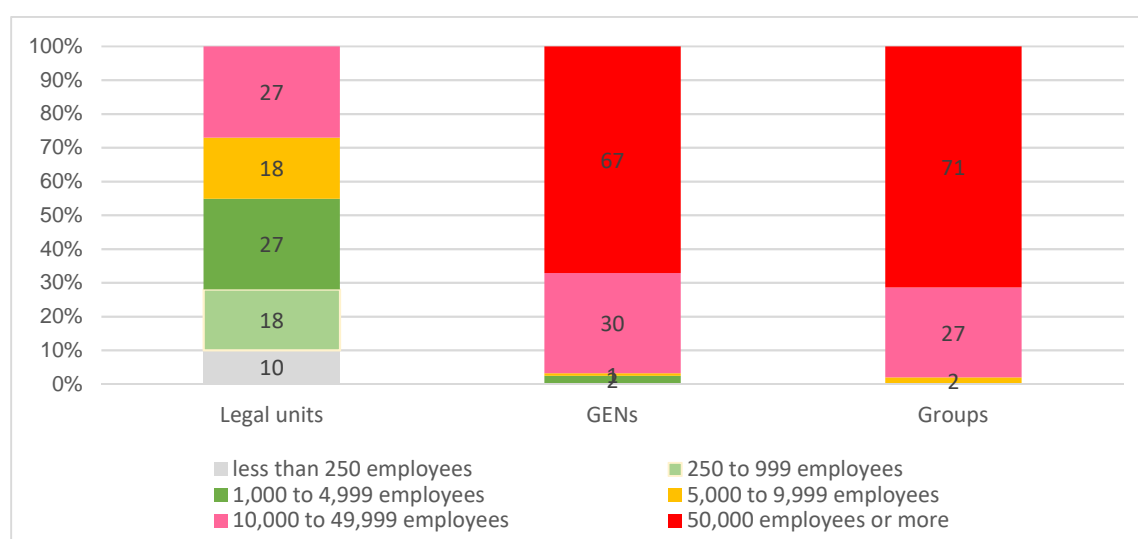
Chart 3

Employment distribution (percentage) by size of legal units, GENs, and groups of the 132 manufacturing groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

Chart 4

Employment distribution (percentage) by size of legal units, GENs, and groups of the 19 B-to-B services groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

Manufacturing groups have more GENs in upstream and ancillary activities. As a result, compared to the distribution in groups, the distribution in GENs doubles the employment in units below 10,000 employees. Symmetrically, the share of their employment in the maximal size dramatically decreases. In contrast, for B-to-B services groups, the employment distribution in GENs remains very close to the employment distribution in groups.

Manufacturing groups are also more complex in terms of legal units. On these two charts, this is reflected by the high share of their employment in legal units below 250 employees, and in those from 250 to 1,000 employees. These two lower sizes of legal units concentrate far more employees in manufacturing groups than in groups performing B-to-B services.

Regarding the other industries, which are less represented in the sample, the employment distributions are shown in Annex 2.

For telecommunication groups, the chart highlights their very large size and their simple internal structure, even more than for B-to-B services groups. If their recent diversification has provided new GENS, those represent only a small part of their employment, compared to their core business in phone activities (Annex 2, Chart 1).

Construction groups have many legal units, so their employment is concentrated in legal units of the smallest sizes (Annex 2, Chart 2).

Electricity-producing groups have many GENs, so their employment distribution widely differs between GENs and groups (Annex 2, Chart 3).

The very large difference of size between groups performing wholesale trade and those performing retail trade immediately appears on their employment distributions (Annex 2, Chart 4 and Chart 5).

4. The shortcomings of using legal units: analysis of the distribution of units by size

4.1. Large MNE groups have many legal units without employees; their number is difficult to evaluate

Another way to appreciate the changes in size concentration is to compare directly the size of the units themselves, between legal units, GENs and groups. Despite the difficulties it poses, this comparison also shows that profiling highly improves the view of the concentration of the productive system.

It is far more difficult to compare the number and the size of the units themselves than the employment distribution.

As regards employment, profilers can generally get good quality data from the usual statistical sources[5]. Consequently, for a given group, profilers can compare its total employment to the sum of the employees of the GENs, and to the sum of the employees of the legal units. Besides, profilers can also compare the total employment of the group obtained by the statistical sources to the one that the group publishes on its website or in its financial statements (in the very large majority of cases). In case of *Intensive Profiling*, profilers meet the group's representatives (see Annex 1). Total employment is a variable that the group's representatives can easily validate or provide. In this way, profilers ensure the consistency, not only between the three units, but also between the statistical sources and the reality. Profilers performed this checking of employment for all the groups in the sample.

By contrast, the number of units is far more difficult to assess, due to the important uncertainty measurement of the smallest legal units, in particular those with zero employees. This raises a concern for the profiling of large MNE groups. Indeed, among the large number of legal units that they control, many have zero employees. In practice, many legal units within groups lack of autonomy or even substance. Examples include wholesale trade legal units with zero employees which just bill the production, or legal units which hold the assets (tangible assets such equipment and buildings, or intangible assets such as patents and trademarks). Large MNE groups tend to have also a lot of special purpose entities (SPEs)[6], which, in the vast majority of cases, are legal units with zero employees. The growing role of SPEs has been highlighted in several papers: (Damgaard and Elkjaer, 2017), (IMF, 2018).

Monitoring the legal units with zero employees in statistical registers raises conceptual and practical difficulties. A legal unit may be inactive or "dormant", which means that it is legally alive and has legal personality, but is economically inactive[7]. In profiling methodology, it was decided that inactive legal units should be kept in the group's perimeter, according to the EC Regulation n°177/2008: "Economically inactive legal units are part of an enterprise only in combination with economically active legal units". Actually, it is important to keep the control links within the group, which may be established through inactive legal units. However, among inactive legal units controlled by groups, some are not intermediate in the control links, and will never have an economic activity again. In this case, one may think that it should be better to remove them from group's perimeter. Anyway, in practice, it is almost impossible to distinguish the legal units that will be reactivated in the future from those that will never be active again. Consequently, the number of legal units with zero employees within groups remains a topic of debate.

---

[5] For a given country, data on employment are usually satisfactory in national sources, and in OFATS and EGR for the other countries.

[6] "Special purpose entities (SPEs) are: (1) generally organised or established in economies other than those in which the parent companies are resident and (2) engaged primarily in international transactions but in few or no local operations." (Business register recommendations manual, page 331).

[7] According to Business registers recommendations manual, page 68.

Profiling improves the understanding of the links between the legal units and the perimeter of the legal units controlled by the MNE group. However, groups do not publish the exhaustive list of their legal units. Even intensive profiling cannot fully solve this difficulty.

To conclude, these two findings can be shared: i) within large MNE groups, many legal units have zero employees; ii) the number of legal units with zero employees is difficult to assess, and may be a topic for debates.

4.2. The large share of legal units without employees within MNE groups truly reflects legal arrangements

The groups in the sample may provide an indication of the share of legal units with zero employees controlled by large MNE groups. To provide results on the scope of the legal units registered at least once[8], we eliminate those without a NACE code (15% of the whole). One may be surprised by this result: Among the legal units controlled by the MNE groups of the sample, 42% have zero employees (Chart 5).

Chart 5
Distribution (percentage) of the units, by size of the legal units, GENs and groups in sample
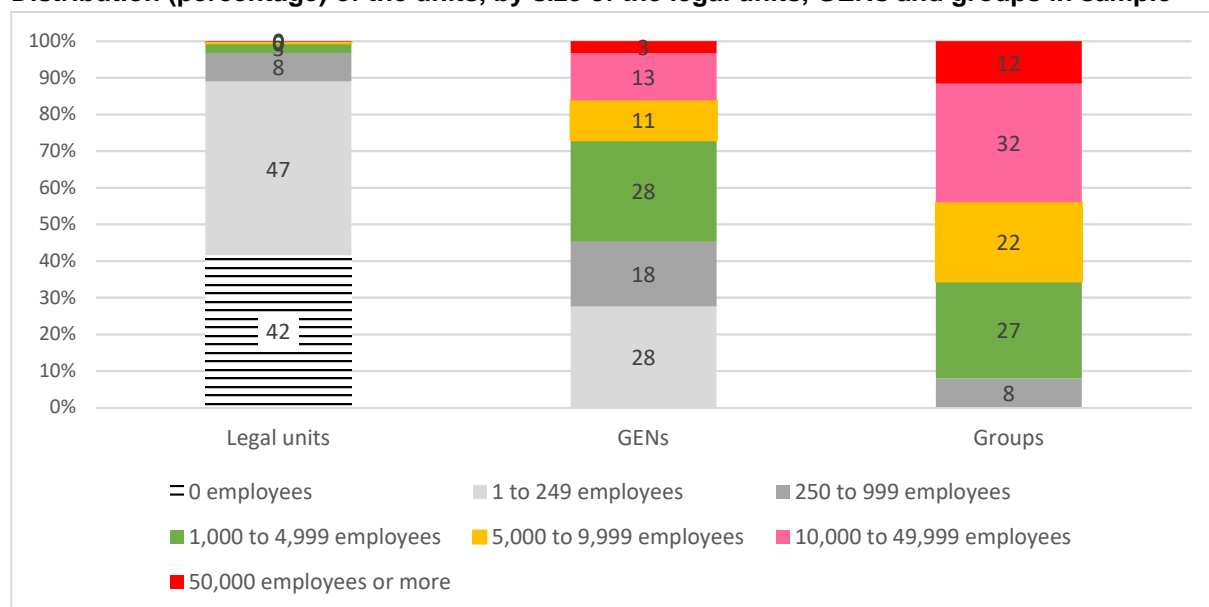
Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

In front of such a figure, one could think that it is overestimated. There is no doubt anyway that it includes inactive legal units.

Nevertheless, having calculated indicators on these legal units with zero employees, having checked examples of real groups and real legal units with zero employees which are active (because they have a turnover or they hold assets), we believe that this figure may reflect quite accurately the reality. These indicators are shown in Table 4.

---

[8] On a statistical or at least an administrative register.

Table 4
Indicators on the legal units without employees according to the main activity of the group

Groups by main activity:	Legal units without employees (%)	Most frequent main activity of the legal units without employees (%)					All legal units without employees (%)
Manufacturing: C	36,8	Manufacturing: C 38,2	Trade: G 17,7	Finance: K 16,9	B. to B.: JA, JC, M, N 12,4	Others: 14,8	100,0
Electricty Gas: D	42,9	Electricity Gas: D 58,7	Finance: K 11,8	B. to B.: JA, JC, M, N 10,7	Construction: F 5,0	13,8	100,0
Construction: F	52,1	Construction: F 51,9	Finance: K 10,5	B. to B.: JA, JC, M, N 10,2	Real estate : L 9,2	18,2	100,0
Wholesale trade: 46	27,8	Trade: G 66,0	Manufacturing: C 12,9	Finance: K 8,7	B. to B.: JA, JC, M, N 7,9	4,6	100,0
Retail trade: 47	39,4	Real estate : L 30,8	Trade: G 29,3	Finance: K 13,7	B. to B.: JA, JC, M, N 12,8	13,5	100,0
Telecommunications: JB	64,6	Telecommunications: JB 74,8	B. to B.: JA, JC, M, N 9,8	Finance: K 7,9	Real estate : L 2,7	4,7	100,0
Business to Business: JA, JC, M, N	38,5	B. to B.: JA, JC, M, N 77,1	Finance: K 12,6	Real estate : L 2,8	Construction: F 1,9	5,6	100,0

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

The high share of legal units with zero employees within large MNE groups is not due to a general overestimation.

Firstly, in all the industries, a part of these legal units is classified in finance. In most cases, these financial legal units are in fact holding companies (NACE 64.20). They have logically no employees, since they were created to hold the assets.

Secondly, in all the industries, there are also many legal units with zero employees classified in B-to-B services activities. It is not possible to identify SPEs by their NACE. However, according to the classification, most of SPEs in our sample are probably in B-to-B services activities: head-offices (NACE 40.10), Business and other management consultancy activities (70.22). In our sample, 75% of the legal units classified in finance (section K) have zero employees. This share is 69% for real-estate (section L), but is also high for B-to-B services activities (41%).

Thirdly, the share of legal units with zero employees widely differs between MNE groups of different industries, reflecting different legal and productive arrangements.

This share is the highest within the telecommunication groups (65 %). These legal units have, in the very large majority of cases (75 %), a main activity in telecommunications. This situation can be explained by checking the legal context and real examples of such active legal units. In European countries, competition has been implemented in phone activities. However, unlike what happened in other industries (electricity, gas, rail transport), the telecommunications networks have not been separate from the former public monopolies. Consequently, in many countries, most of these legal units with zero employees are dedicated to commercial agreements between the former monopoly and its competitors for the use of the networks. This is made clear in the corporate purpose of these legal

units. It was also checked that these legal units have a positive turnover. However, they do not have employee, as those are located in other legal units of the former monopoly, or in the other groups involved in the agreement, or may be subcontractors.

Construction groups also have a majority of their legal units with zero employees (52%), since they often create a legal unit per building site. Logically, the majority of these legal units perform construction and, to a lesser extent, related activities: B-to-B services, real estate. Symmetrically, 53% of the legal units of the sample classified in construction (section F) have zero employees.

Within electricity and gas groups, the majority of the legal units with zero employees have an activity in the main activity. According to their corporate purpose, they were often created to respond to a call for proposals. Public calls for proposals in this industry often require the creation of a dedicated legal form. This can be checked on the websites of the national authorities for competition regulation in energy.

B-to-B services groups also create active legal units with zero employees in their main activity to manage a project or to respond to a call for proposals, by legal arrangements with similar purpose to those of the groups of the previous industries.

The case of manufacturing groups is very interesting. Most of their legal units with zero employees are not classified in manufacturing, but in other activities. Within these groups, one can see the share of legal units of wholesale trade that bill the production, and the share of legal units in B-to-B services.

Once again, retail trade and wholesale trade present very different structures. In retail trade groups, legal units with zero employees are primarily classified in real estate. Indeed, retail trade groups need a lot of real estate capital and investment. Consistently with their simple structure, groups performing wholesale trade are those with the smaller share of legal units with zero employees.

4.3. Studying MNE groups using legal units leads to an inaccurate view of the economic reality

In summary, legal units with zero employees within large MNE groups either are holdings, or dedicated to arrangements that follow different logics depending on the activity of the group. Their large number is not a result of insufficient quality of data. It reveals genuine features of the internal organization of MNE groups.

Nevertheless, the large number of legal units with zero employees exhibits once again the shortcomings of the legal unit as basis for economic analysis:

- Their existence is based on legal arrangements, not on an economic view of the productive system. The legal units with zero employees within groups do not have substance. Their only significance resides in their interaction with other group entities. If they have a productive activity, this one is in fact performed by employees of other group entities (or subcontractors). Consequently, such legal units do not have autonomy. A legal unit with zero employees within a group cannot be compared with, for example, a sole entrepreneur (as the latter performs autonomously a productive activity);

- This legal approach leads to an image of the productive system which is inaccurate. This outcome, previously shown on employment, also appears on the units. In our sample, there are 241 economic players, which all are large groups, taking decisions on the strategic and major financial issues. There are 692 economic players, which are the GENs "with a certain level of autonomy for the allocation of the current resources". However, there are certainly not 28,000 economic players (legal units), among which almost 90 % are SMEs with a very large share with zero employees.

5. Conclusion

To conclude, the quantitative results on MNE groups in the sample show that the implementation of the unit enterprise through European Profiling improves the view of MNE groups' activities. The analysis of size concentration (in terms of employment as in terms of units) shows that profiling also highly improves the view of the productive system.

- With the legal units, statisticians depend on the group's internal organisation in legal entities. Many groups' legal units lack autonomy or even, economic substance. For example, large groups have many legal units with zero employees to hold their assets. Manufacturing groups have a significant number of legal units in wholesale trade, whose only objective is to sell their production. Through profiling, statisticians define enterprises with an economic meaning. These enterprises have an economic substance, since the means needed to perform the production (employment and capital) are now integrated. Each enterprise may be distinguished from the others according to the criteria of a "certain degree of autonomy" and market orientation;

- The implementation of the enterprise through profiling improves the view of the productive system in terms of sector distribution. Ancillary and upstream legal units, which are numerous in manufacturing or construction groups, are amalgamated with the relevant economic player in which they have a meaning. Besides, profiling highly improves the view of the concentration of the productive system. From an economic point of view, the relevant economic players are either the groups (for strategic and major financial decision) or the enterprises (for the allocation of the current business). In the approach in legal units, all are seen as a multitude of isolated SMEs and units without employees, which is basically inaccurate. This new image of the size distribution has very great consequences in terms of economic policy and aid for business;

- In addition to these general improvements of the implementation of the unit enterprise, European Profiling provides further benefits. Through their collaborative work, profilers of different countries reach cross-border consistency. They achieve a common understanding of the activities and structure of MNE groups, at global level and in the different countries. They also share experiences, findings and common tools.

This is why The European Statistical System will continue to develop Profiling at national and at European level.

Annex 1: The method of European Profiling, roles and responsibilities of the NSIs

As mentioned in 1.2, European profiling is carried out collaboratively by national profilers of the country where the global decision centre (GDC) of the MNE group is located (the *GDC profilers*), together with national profilers of the other countries where the group is present (the *partner profilers*).

The *GDC profilers* have the responsibilities to:

- collect the perimeter of the group in terms of legal units;
- delineate the group's global enterprise(s) i.e. the GEN(s), within the group. This delineation is done through a top-down approach, starting by a global view of the group (see Annex 2);
- assign the legal units to GEN(s) (for the resident legal units and, as much as possible, for the non-resident ones);
- collect data at GEN level (consolidated turnover, employment and NACE activity);
- collect data for their resident enterprises (consolidated turnover, employment and NACE activity);
- collect and insert data for their resident legal units: turnover, employment and NACE activity.

The *partner profilers* have the responsibility to:

- confirm or update the national legal unit perimeter;
- decide on the structure of the national enterprises, and delineate them during the process of profiling;
- link the national enterprises to the group GENs in the best way to reflect national needs and reality;
- collect data for their national enterprises (consolidated turnover, employment and NACE activity);
- collect and insert data for their resident legal units: turnover, employment and NACE activity.

When there is a comprehensive dialogue and a meeting between the GDC profilers and group representatives (generally consolidators or accountants), we talk about "*intensive profiling*". When there is an analysis of the group without contact with its representatives, or contacts only by mails and conference calls with its representatives on very general aspects regarding delineation in GENs or enterprises, we usually talk about "*light profiling*". Intensive profiling is encouraged for the largest and more complex MNE groups. Indeed, dialogue with group representatives highly improves the quality of profiling.

The methodology of European Profiling was updated in 2017, to provide a better linking between European and national needs. It allows more flexibility to the partner profilers to link their national enterprises to the GENs and to update their national legal unit perimeter. In any case, GDC profilers and partner profilers have to collaborate for the delineation of the GEN(s) and the important decisions on the perimeter or the national enterprises. They also have to work together to coordinate the communication with the group representatives. In the same way, within each NSI, profilers have to consult with their colleagues of the other domains of business and economic statistics (such as FATS statistics or National Accounts).

A recommendations manual, which offers practical guidance on European Profiling, will be published in 2019.

Annex 2: Employment distribution (percentage) by size, in legal units, GENs, and groups of the groups in sample according to their main activity
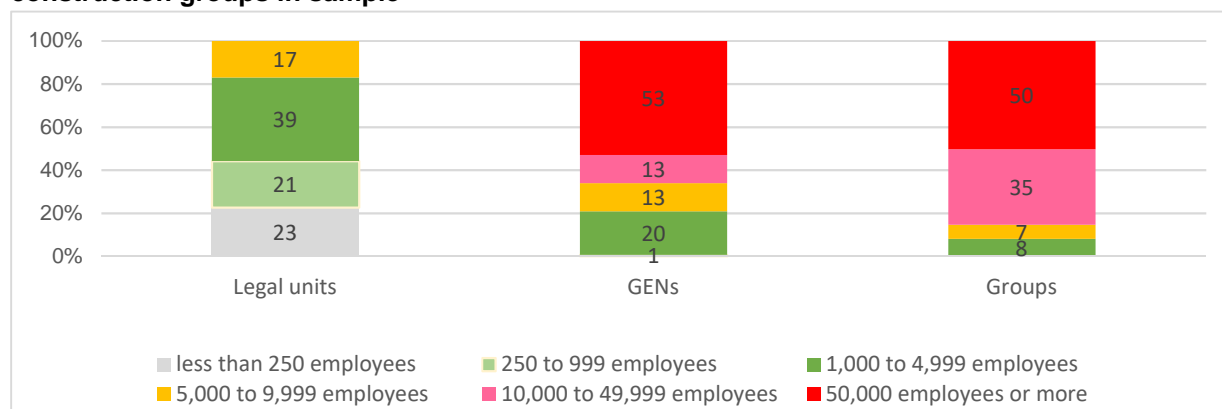
Annex 2, Chart 1

Employment distribution (percentage) by size of legal units, GENs, and groups of the 7 telecommunication groups in sample
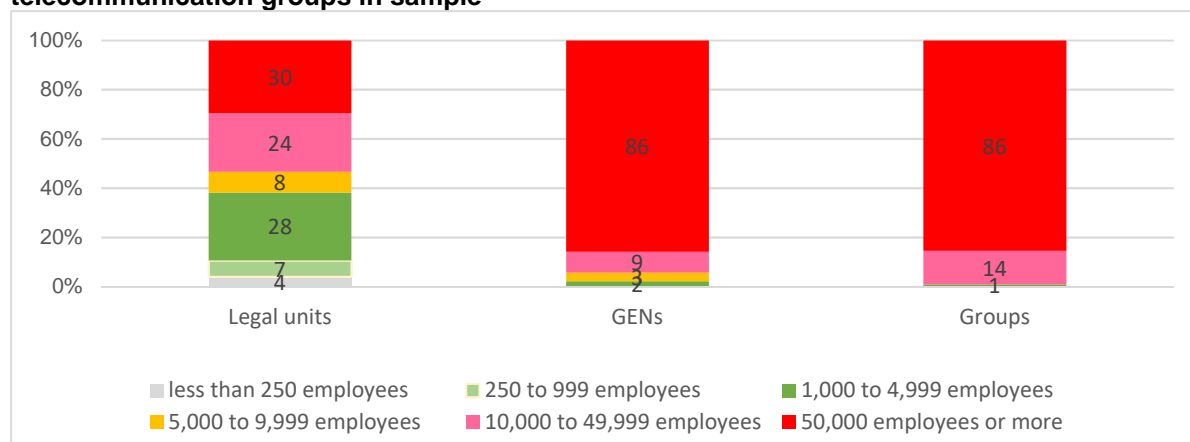
Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling
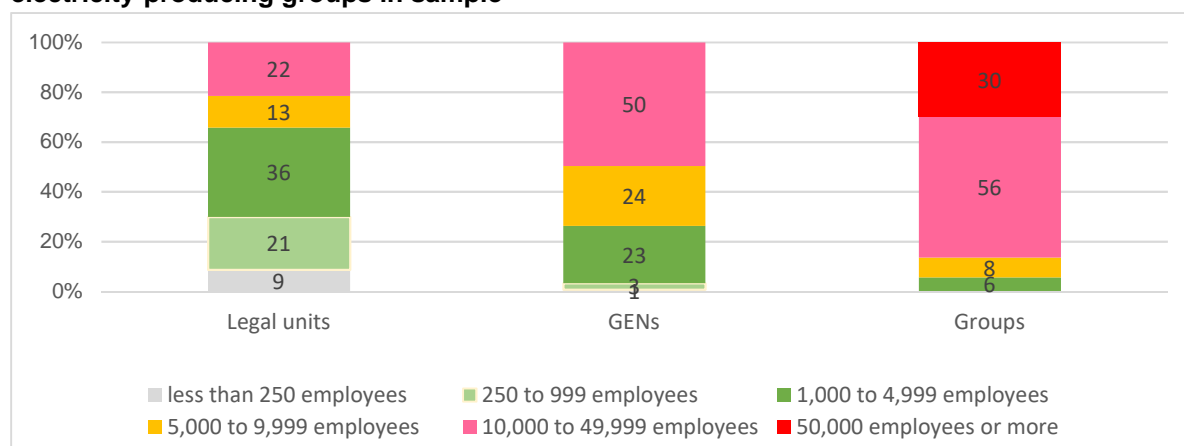
Annex 2, Chart 2

Employment distribution (percentage) by size of legal units, GENs, and groups of the 10 construction groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

Annex2, Chart 3

Employment distribution (percentage) by size of legal units, GENs, and groups of the 12 electricity-producing groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling
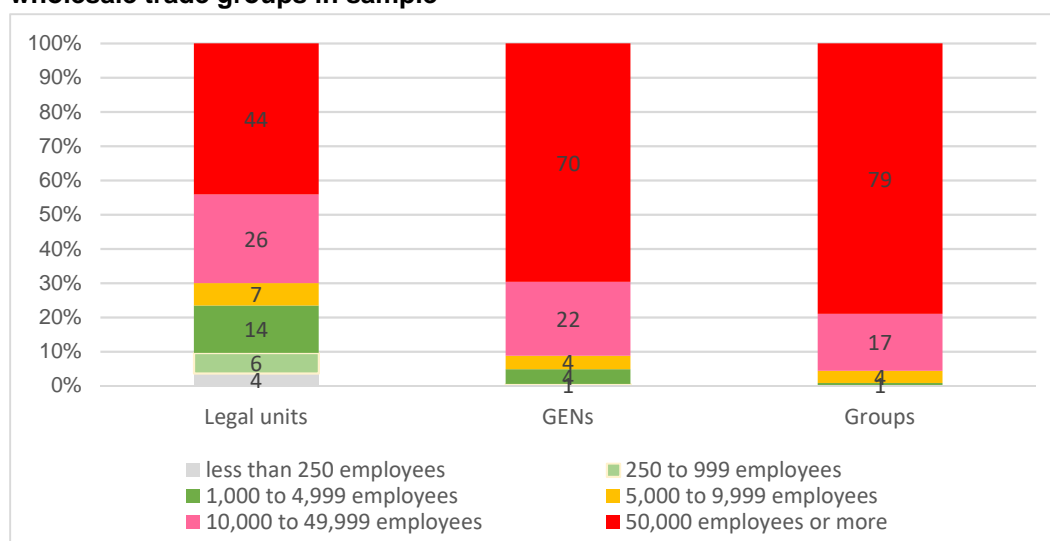
18

Chart 3

Employment distribution (percentage) by size of legal units, GENs, and groups of the 7 wholesale trade groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

Chart 4

Employment distribution (percentage) by size of legal units, GENs, and groups of the 7 wholesale trade groups in sample

Source: Eurostat, results of the 2015-2016-2017 grants on European Profiling

References (all available on Internet)

Alonzi and Migliardo, 2018: "The implementation of ISTAT automatic profiling to support the delineation of complex enterprises", paper for the 26th Meeting of the Wiesbaden Group on Business Registers

Béguin and Hecquet, 2015: "An economic definition of enterprises for a clearer vision of France's economic fabric", *Enterprises in France*, Insee

Branska-Lateva, Hecquet and Morganti, 2017: "Addressing the challenges of Globalisation: ESBRs Business Architecture, European Profiling and other related developments", paper for the 2017 Meeting of the Group of Experts on Business Registers

Council Regulation (EEC) No 177/2008 of 20 February 2008 establishing a common framework for business registers for statistical purposes and repealing Council Regulation (EEC) No 2186/93

Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community

Damgaard and Elkjaer, 2017: "The Global FDI Network: Searching for Ultimate Investors", IMF Working paper, WP/17/258

Dauré and Fesseau, 2019, "French multinational companies in 2015: 5.5 million employees outside of France" *Insee Focus* n°142, Insee

Eurostat: Business Registers Recommendations Manual, 2010 edition

Eurostat C1/NAWG/934, 2017: "Globalisation – conceptual issues": paper for discussion to the Meeting of the National Accounts Working Group

Eurostat, Enterprise Architecture Reference Framework

Eurostat: EuroGroups register, *Statistics explained*

Eurostat, Foreign affiliates statistics (FATS), *Statistics explained*

Eurostat, Structural business statistics (SBS), *Statistics explained*

Eurostat, 2015: "Notice of intention of the Business Statistics Directors Group and the Directors of Macroeconomic Statistics on the consistent implementation of Council Regulation (EC) No 696/93 of June 2015

Hecquet 2019, "European Profiling to better measure Multinational Entreprise Group's activities", paper for the Conference of European Statisticians, Group of Experts on National Accounts

IMF, 2018: "Final report of the Task Force on Special Purpose Entities"

Insee, 2015: "Profiling in France, Implementation and results", paper for the Conference of European Statisticians, Group of Experts on National Accounts

Ionescu, 2019: "Data integration methods and tools in the ESBRs", paper for the Conference on New techniques and technologies in Statistics

Morganti, 2019: "How European profiling could support the exchange and sharing of economic data in the future", paper for the Conference of European Statisticians, Group of Experts on National Accounts

Morganti, 2018: "The Interoperability Framework of the European System of Business Registers" paper for the 26th Meeting of the Wiesbaden Group on Business Registers

Xirouchakis and Hecquet, 2018: "Improving the quality of Business Statistics through Profiling", paper for the European Conference in Official statistics