

Businesses behaviors and sustainable development.

Overview.

In the last years, sustainability has been associated with businesses, looking to the impact of their activities on environment and on people wellbeing and which one of the territories where they operate¹.

The growing interest on environment impacts and corporate social responsibility issues, has pushed research toward new indicators measuring these phenomena. Although the dashboard of indicators building on wellbeing and sustainable development themes are spread at international level², measurement of businesses micro aspects (complementary to the ones of the Environmental National Accounts) is running without structured and shared system inside the international statistical system. Istat has, therefore, started an initiative at experimental level in order to collect information directly to the enterprise level, aiming to elaborate some new indicators on sustainability spreading and orientation by the Italian business. The goal of the project launched by Istat is to give an integrate informative picture, continuing in evolution, useful in particular for analyzing the businesses economic performances (i.e. productivity of labor), who adopted business models oriented to sustainable development.

The aim of this experimental statistics is, therefore, to spread the first data, analyzing business characteristics in terms of environmental and social sustainability and their relationship with the traditional economic measures³.

From a point of view of businesses for environmental sustainability is conceived those actions towards the reduction of negative impacts on environment, coming from their activities, for example the control and the reduction of the energy use, the increased use of renewable energies, the control and the use of water usage, the recycle and the treatment of wastes, the

¹ This way of surveys comes from the so-called approach “beyond GDP” (Report of the Commission Stiglitz (2009) Sen A., Stiglitz J., Fitoussi J.P., and the Report by the Commission on the Measurement of Economic Performance and Social Progress, and its updating e il suo aggiornamento (2018), Stiglitz J., Fitoussi J.P., Durand M., Beyond GDP Measuring What Counts for Economic and Social Performance. Moreover the concept of sustainable development is deriving also from the Bundtland Report “Our Common Future” in 1987, and the Final Document of RIO+20 Conference on “The Future We Want” in 2012.

² For an overview at European level see the deliverable 1.1 of the MAKSWELL Project (MAKING Sustainable development and WELL-being frameworks work for policy analysis:

<https://www.makswell.eu/projectoutput/deliverables.html>).

³ Preliminary results and analysis were presented inside the Annual Report of Istat- Chap. 5 in 2019 and inside the Business Competitiveness Report 2018 – Chap. 2.

reduction of emissions on air, the reuse of primary secondary raw materials (own or by third party), the recycle of wastes con regeneration a closed cycle, the shared usages, the designing of products useful to be disassembled at the end of their life in order to recovered components useful for the new production --), the reuse of the wasted materials for new production of other goods and services with temporary ownership, single or multiple – housing, transports, hostelry, laboratory spaces, offices - .

For social sustainability, we mean the set of businesses behaviors which imply positive effects on workers wellbeing, equitable among age classes and gender, giving value at capacities and skills (in terms of security, health, education, democracy, participation and justice). This human well-being is than spread on territories as well, where businesses operating, which adopt productions and operating ways coherent with this aim.

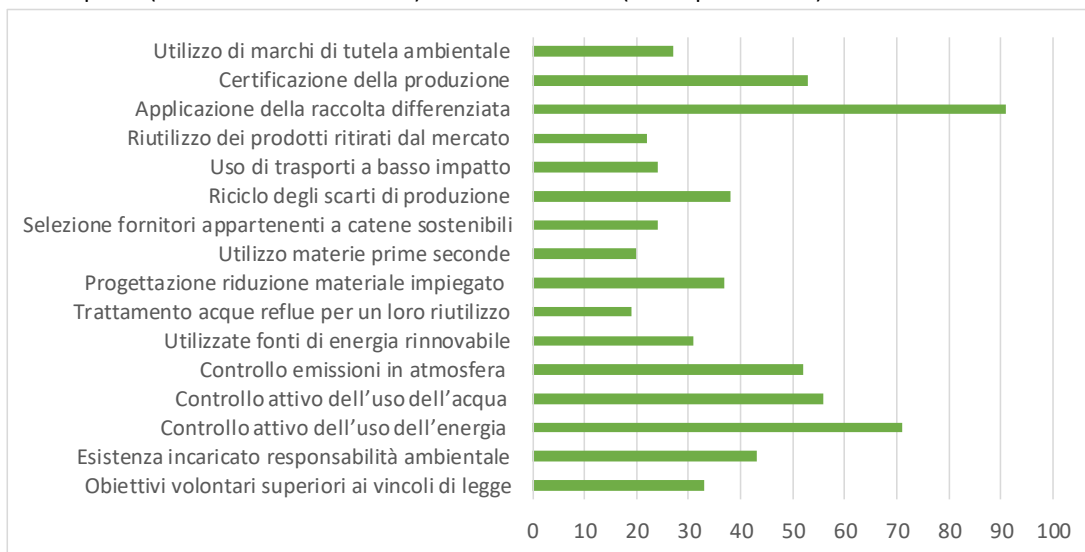
Data analysis.

The Italian businesses with 50 and more employees show clear signals of orientation to sustainable development and of increased attention to natural and social environment, both internal and external.

In particular from the International sourcing survey on businesses we know that more than 91% of businesses is making collection of differentiated waste, the 71% is actively controlling the energy use, the 56% is controlling the water use and over the half of businesses is controlling the emissions on air. However only the 19% of middle and large businesses is treating the reflux water and only one fifth is using primary secondary row materials (Figure 1).

Firm's behaviour has also been affected by the National and European laws establishing, among other legal obligations, that large firms have to report on their non financial behaviours in order to reach a sustainable performance (DL n.254/2016).

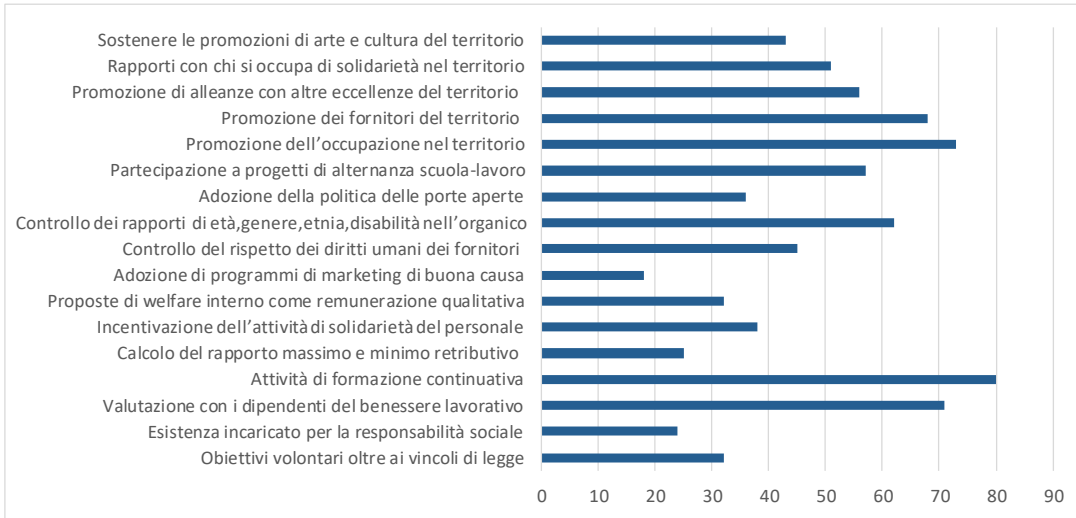
Figura 1. Imprese con 50 e più addetti che hanno adottato misure per ridurre l'impatto ambientale dell'attività dell'impresa (sostenibilità ambientale). Anni 2015-2017 (valori percentuali)



Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

A large percentage of firms (80%), with more than 50 employees, undertakes lifelong training; 73% of firms fosters employment in their geographical area and 71% assesses the employees' wellbeing. A small percentage of firms (18%) adopt programs of "good cause related marketing" and 24% of them hire a professional worker to deal with social responsibility (Fig. 2).

Figura 2. Imprese con 50 e più addetti che hanno adottato misure per migliorare l'impatto sociale derivante della loro attività (sostenibilità sociale). Anni 2015-2017 (valori percentuali)

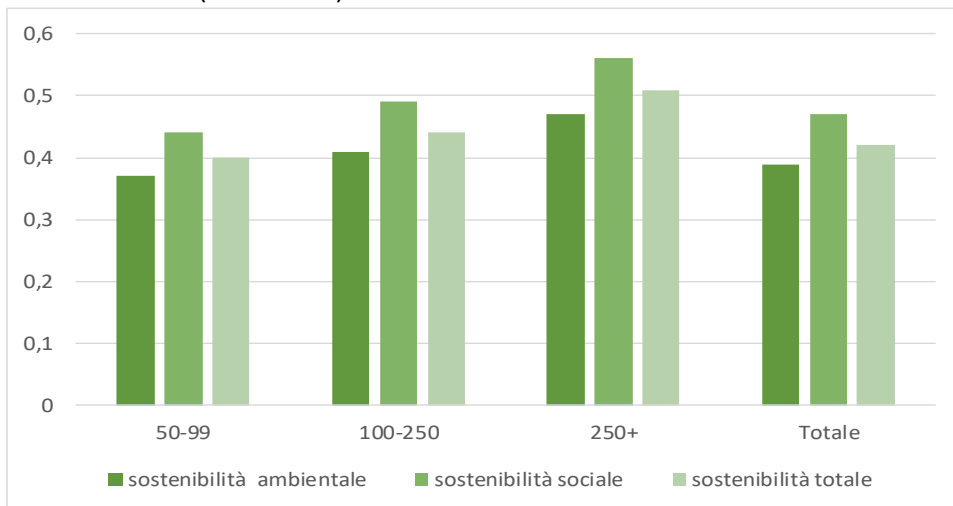


Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

The firms' size influences their behaviour in relation to the environmental and social sustainability for all the investigated economic activities (Table 1 e 2, attached).

In addition, sustainability indexes (Fig. 3), which measure the intensity of firm involvement in this field (in other words the number of sustainable activities they contemporarily perform, see Methodological note), confirm the positive relation between the firm size and its sustainable activities. As far as the environmental sustainability is concerned, all the firms are smoothly sustainable (the index value is between 0.25-0.50), while for social sustainability only firms with more than 250 employees are moderately sustainable (the index value is between 0.50-0.75).

Figura 3. Indici di sostenibilità delle imprese con 50 e più addetti per classe dimensionale. Anni 2015-2017 (valori medi)

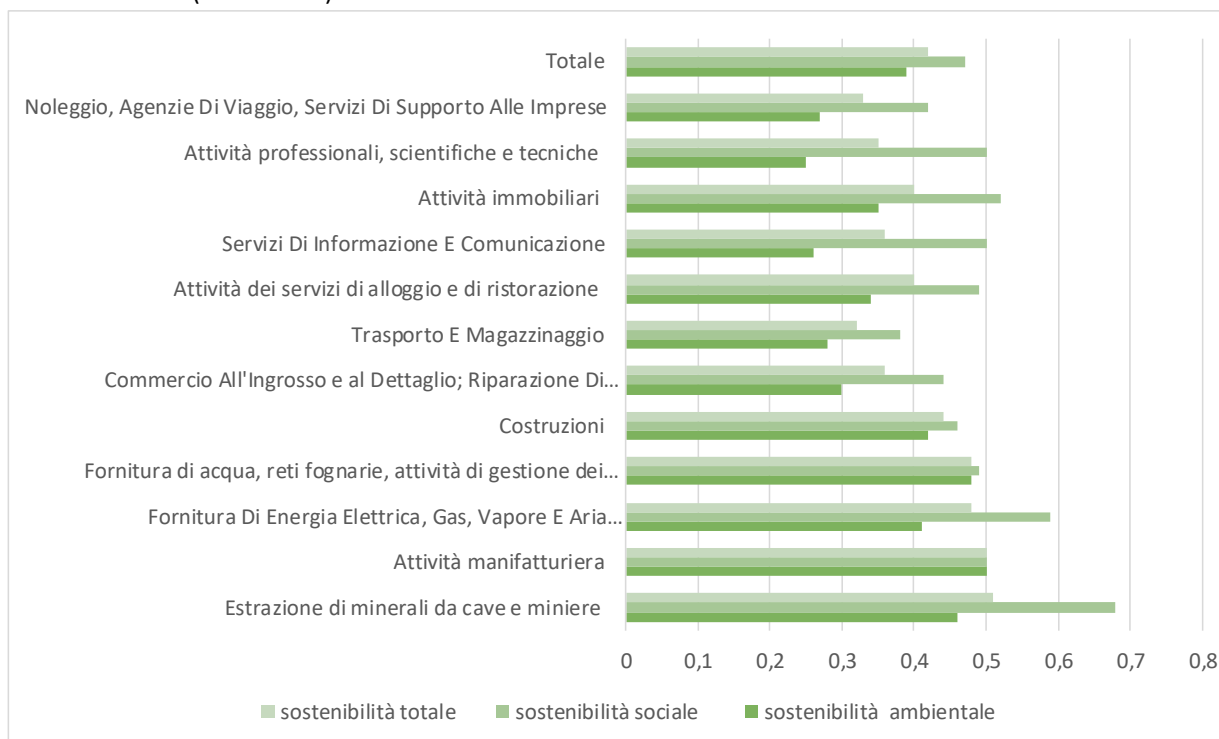


Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

Analyzing firm behavior by economic sector, taking into account if they produce goods or services (beyond the materiality or not of the production processes), we may find that regulatory requirements are very strict for the environment protection, in particular for

energy, or for Water and waste.

Figura 4. Indici di sostenibilità delle imprese con 50 e più addetti per attività economica- sezione Anni 2015-2017 (valori medi)



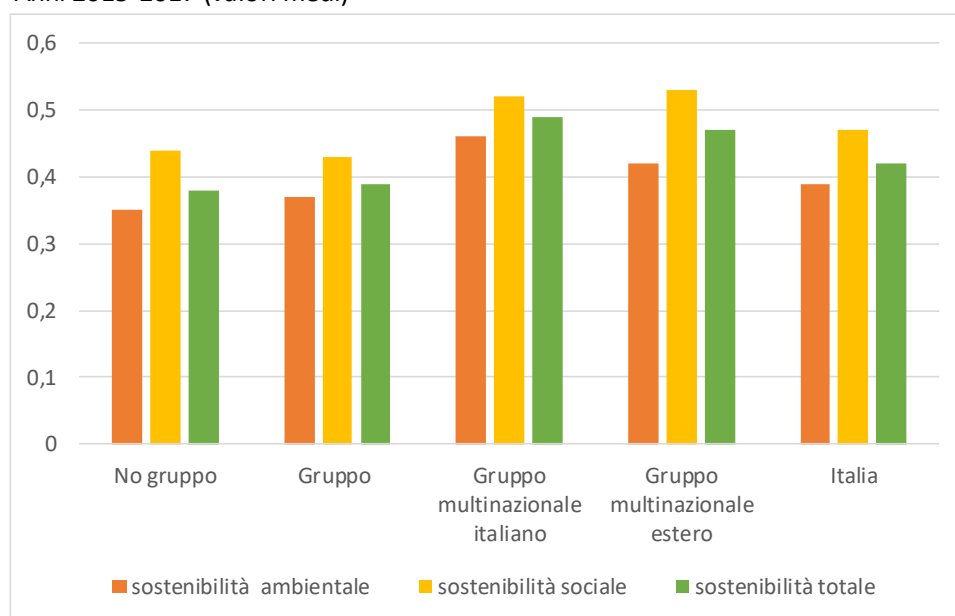
Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

Observing industries classified by section of ATECO (Fig. 4), the Manufacturing industry shows the higher environmental sustainability level (average value 0.50), followed by Water supply and Waste (0.48) and by Mining and quarrying (0.46). However, as far as social issues are concerned (where the value of indexes are higher in all sections compared to the environmental issues), the index shows the highest values for the Mining and quarrying industry (0.68), followed by Energy and gas supply industry follows (0.59). Summing up the two relevant aspects of sustainability, that is both the environmental and social issues, the Mining and quarrying is the most virtuous industry (0.51), followed by the Manufacturing industry (0.50). The least sustainable section is Transport and storage (0.32), followed by the Rental industry, Travel Agencies and Business services (0.33).

Within the divisions, that of Papermaking and paper products is the one with the highest environmental sustainability index (0.65), followed by the Beverage and Metallurgy industry (0.59) (Table 13, attached). On the contrary, division of Travel Agencies, Tour operators, and Booking services are relatively not sustainable (the Index is equal to 0.11). Similarly, divisions of Research, selection, personnel supply show a relatively low level of sustainability (0.14), and Film production, video and television, music and sound recording activities (0.17). The divisions of Crude oil and natural gas extraction (0.88), Electricity, gas, steam and air conditioning (0.59) and Business management and management consultancy activities (0.59) show high social sustainability indices, while the divisions of Tobacco Industries (0.22), Remediation and other waste management services divisions (0.23) are socially little virtuous.

Analyzing the organization of firms, businesses belonging to a group undertake more environmental sustainable activities with respect to businesses not belonging to a group, except for firms in the sector of Low-impact transport utilization (Table 7). Indeed, firms belonging to Italian multinational groups are more concerned about environmental protection than companies belonging to foreign multinational groups, except for the following three activities: Voluntary objectives beyond legal requirements, Recruitment of sustainable suppliers and Differentiated waste collection. As far as environment protection is concerned both Italian and Foreign multinational companies are relatively more involved in Differentiated waste collection (respectively 93% and 94% of multinational companies), Use of energy control (respectively 78% and 74% of multinational companies), Production certification and Control of emissions in the atmosphere (respectively 64% e 57% of multinational companies). In addition, both Italian and Foreign multinational companies are more involved in the social sphere, especially for Training activities (respectively 89% and 84%) and Enhances employment in geographical areas where they operate (respectively 71% and 78%). Sustainability indexes (Fig. 5) show that Italian multinational companies are more virtuous in the field of environmental safeguard, while foreign multinational companies, which are resident in Italy, behave better in the social sphere. Both Italian and Foreign multinational companies show higher sustainability indexes (in environmental and social field) with respect to the average of the National firms.

Figura 5. Indici di sostenibilità delle imprese con 50 e più addetti per appartenenza a gruppi
Anni 2015-2017 (valori medi)



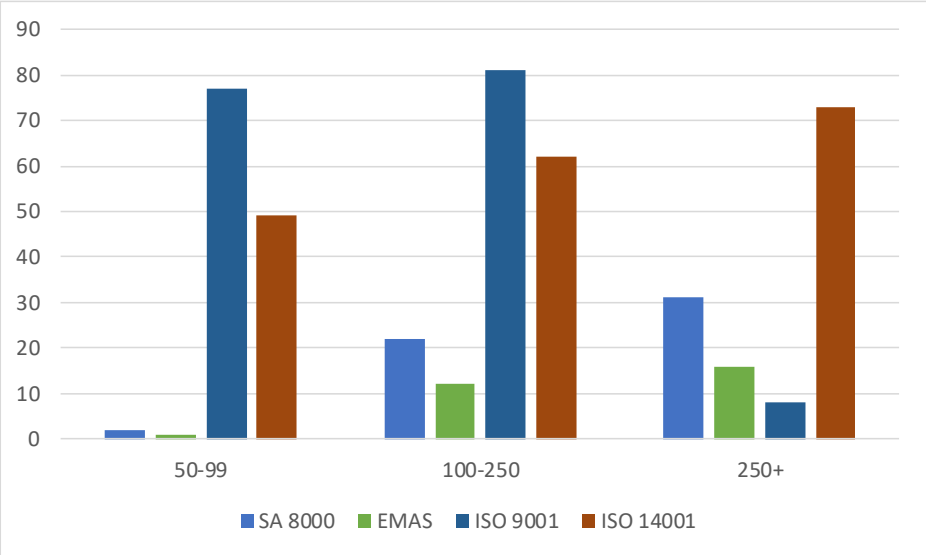
Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

If we consider the respondent businesses⁴ in relation to the types of certification of production

⁴ For reasons of reliability of the estimates, responses to the questionnaire do not allow processing of data with the expected detail. However, it was decided to process the percentages only on respondents by type of certification and budget.

and the sustainability reports, it appears that almost three quarters of medium-large companies declare to obtain an ISO 9001 certification, more than half of the companies an ISO 14001 certification, just over a fourth the SA8000 certification and just over 10% the EMAS certification (Figure 6).

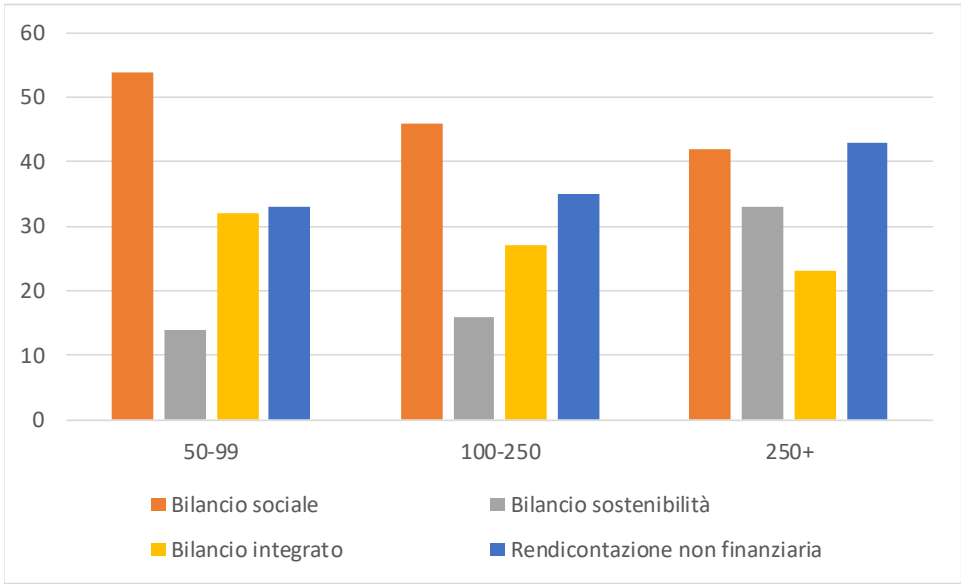
Figura 6. Imprese con 50 e più addetti che hanno ottenuto una certificazione per dimensione di impresa. Anni 2015-2017 (valori percentuali sulle imprese rispondenti)



Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

The survey deals also with the production of any official document related to sustainability (Fig. 7). Firms have answered that the main document which shows the number of sustainable activities of a company is the Social Budget (especially for firms with 50-99 employees). In addition, firms may issue the Non-financial Reporting (especially firms with more than 250 employees, according to the law prescriptions) and the Integrated Budget.

Figura 7. Imprese con 50 e più addetti che hanno redatto un bilancio per dimensione di impresa. Anni 2015-2017 (valori percentuali sulle imprese rispondenti)

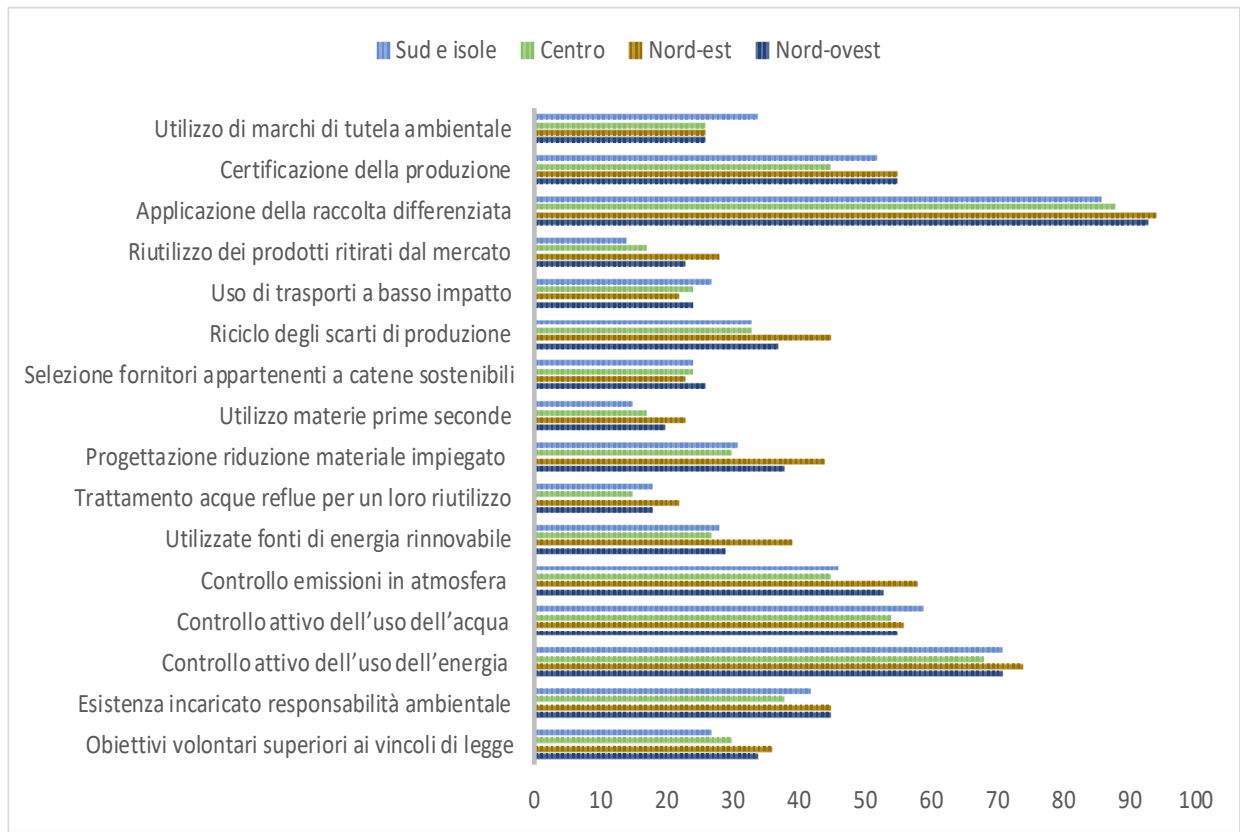


Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

Considering the legal branches of firms, the highest percentage of companies concerned about all the activities related to environmental sustainability is located in the North-East of Italy, except for the activities related to the Selection of suppliers belonging to sustainable chains and the Use of low-impact transport, which are more spread in the North-West of Italy. In the South of Italy is located the highest percentage of firms concerned about the Active control of water utilization and which Provides environmental protection labels (Fig. 8).

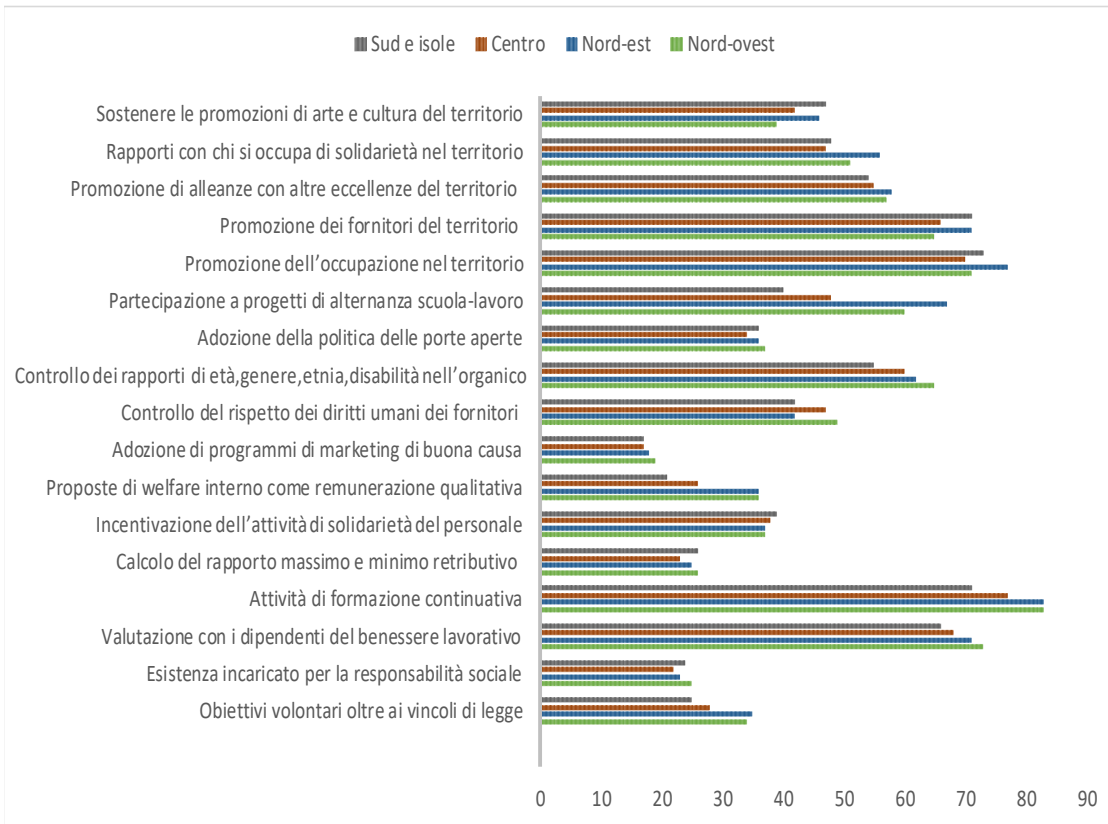
While for social sustainability the North-West has proportions of firms equal to or higher than the North-East, in almost all activities, except for Participation in alternating school-work projects, Promotion of employment and local suppliers, Promotion of alliances with other local excellences, Relationships of those who deal with local solidarity and Support of local art and culture promotions; for the latter activity, it is the South of Italy that has the highest proportion of businesses (Figure 9).

Figura 8. Imprese con 50 e più addetti che hanno adottato misure per ridurre l'impatto ambientale dell'attività dell'impresa (sostenibilità ambientale) per ripartizione geografica. Anni 2015-2017 (valori percentuali)



Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

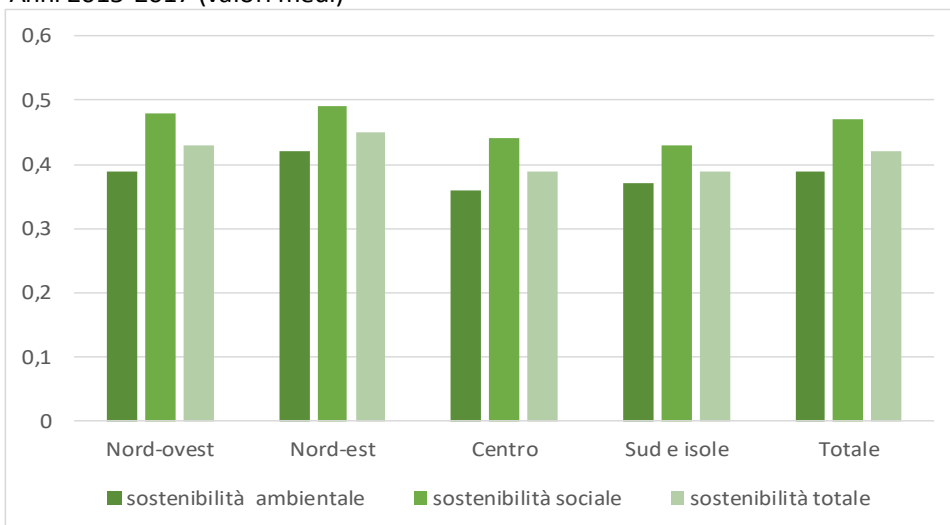
Figura 9. Imprese con 50 e più addetti che hanno adottato misure per migliorare l'impatto sociale derivante della loro attività (sostenibilità sociale) per ripartizione geografica. Anni 2015-2017 (valori percentuali)



Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

Looking to the total indexes of sustainability, the social indices show higher values than the environmental ones for all the geographical areas. The North-East is the most virtuous area for both, while the Centre is the least virtuous one for the environment protection and the South for the social sphere.

Figura 10. Indici di sostenibilità delle imprese con 50 e più addetti per ripartizione geografica Anni 2015-2017 (valori medi)



Fonte: Istat, Indagine sull'internazionalizzazione delle imprese

The latest “Annual Report”⁵, published by the Istat in 2019, includes a study where the survey data on sustainability were integrated with data on the economic performance of businesses. The results of the analysis show a positive correlation between the sustainable good practices of firms and the apparent labor productivity. Moreover there is evidence that, ceteris paribus, fostering environmental and social sustainability brings about a “premium” in terms of higher productivity (productivity here is value added per employee⁶). This positive correlation⁷ applies only to firms with human and physical capital endowments above the median values, taking into account the firms included in the sample (+ 50 employee). The “premium” is null as matter of fact if levels of both capitals are below this threshold.

Finally, in order to draw a profile of the medium/large firms showing the highest sustainability indexes (higher than 0.5 both total than the two components), we highlight their following characteristics: they are older than the companies which show lower indices; they have a higher number of employees and register a higher labor productivity; they exhibit a higher profitability (the MOI/turnover ratio), a higher exports and imports to turnover ratio, a higher labor to capital ratio and finally their employees show a greater work experience. Finally, the group membership favors the firm’s sustainable behavior, as we have already highlighted previously (Table 16).

⁵ ISTAT, Rapporto annuale 2019

⁶ A linear regression model is used which estimates the associative profiles existing between the levels of human capital (average years of schooling of the workforce and specific experience gained at the firm) and physical capital (technical assets - tangible and intangible - per employee), the sustainability profiles (environmental and social) and the productivity levels of each firm, under the same conditions: sector (ATECO divisions), size class, vertical integration levels (value added on turnover), firm capitalization levels (equity out of total sources of financing), internationalization flag (exports). The dataset integrates the data of the Survey on the Internationalization of businesses with those of the Istat register system.

⁷ A similar effect had been shown in Istat, Report on the Competitiveness of the Productive Sectors, 2018.

Tavola 16. Profili economici delle imprese con 50 addetti ed oltre per il loro grado di sostenibilità. Anni 2015-2017

	età impresa (anni)	addetti (numero)	produttiv ità lavoro	redditività (MOL/Fat turato)	incidenz a esportazi oni sul fatturato	incidenz a importazi oni sul fatturato	apparten za a gruppo (%)	indice patrimon iale	capitale per addetto	esperien za/pro
<i>sostenibilità ambientale</i>										
non sostenibili e poco	23,76	166,73	58.610	6,82	12,17	11,98	0,61	26,9	68.007,43	8,2
mediamente e altamente	28,82	335,94	77.519	9,29	26,39	17,09	0,7	33,16	99.396,20	10,49
<i>sostenibilità sociale</i>										
non sostenibili e poco	24,42	139,35	59.567	6,58	16,03	11,98	0,62	27,29	63.069,28	8,72
mediamente e altamente	26,16	331,43	72.465	8,99	21,3	15,75	0,68	31,07	96.568,85	9,2
<i>sostenibilità ambientale e sociale</i>										
non sostenibili e poco	23,84	150,34	56.154	6,28	12,87	11,98	0,6	26,69	65.406,14	8,3
mediamente e altamente	27,71	331,67	76.008	9,23	23,66	16,26	0,7	32,35	98.146,05	9,87
totale	25,22	215,51	67.251	8,06	19,47	14,57	0,64	28,72	77.453,75	8,86

Fonte: Istat, Indagine sull'internazionalizzazione delle imprese e registri sulle imprese

Methodology

Following the first experimentation of questions in the Survey on Trust in November 2017⁸, some questions were introduced as part of the Business Internationalization Survey, conducted in 2018, to investigate the topic. Some results have already been disseminated in the Annual Report of Istat 2019 and others (16 tables in the attached file) are disseminated through the actual experimental statistics. With regard to the Survey on the Internationalization of firms, please refer to the methodology established in the survey design for details. For data regarding sustainability in general, the total response rate was 70%. The survey addressed a sample of over 15,000 companies operating in various productive sectors of industry and market services; the survey collected information on the actions actually taken by firms beyond the legal obligations, between 2015 and 2017, in order to reduce the environmental impact and increase the social impact of their business. Information on the survey and the survey questionnaire can be found here: <https://www.istat.it/it/archivio/214932>.

With the data collected from the aforementioned survey, in addition to the descriptive statistics, a sustainability index was calculated, which measures the degree of intensity starting from the number of sustainable activities carried out simultaneously by the companies. The activities carried out by firms and investigated in the survey in terms of sustainability are all unrelated to each other, and according to a training model, they define the latent variable "sustainable companies", classifiable in four classes, as described in the following paragraph.

$$I_y = \sum_{y=1}^n Xy \quad 0 \leq I_y \leq 1$$

I_y = sustainability index

$I_y = 1$ maximum sustainability

$I_y = 0$ absence of sustainability

X = business

y = sustainable activity

n = number of sustainable activities

For each group of firms, according to size, economic sector, distribution, group membership, sustainable environmental activities and sustainable social activities, the arithmetic averages of the sustainability indices were calculated.

Based on the values assumed by the indicator, the companies were classified into four groups: unsustainable (0-0.25), slightly sustainable (0.26-0.50), moderately sustainable (0.51-0.75) and

⁸ That concerned: investments in circular processes, long-term planning, stakeholder involvement, assessment of social impact, reduction of environmental impact, inclusion of externalities in the value chain, staff training and the reasons for adopting the aforementioned activities.

highly sustainable (0.76-1). Each activity was weighed in the same way, because it is believed that they are all equally important in defining the concept of sustainability investigated.

Finally, these indicators and the data from the survey for each firm have been combined with the data from the system of business registers so far developed (ASIA, E-FRAME, CO-WEB ...) to build business database and sustainability. This made it possible to analyze together the three aspects of sustainability: environmental, social and economic.

The creation of the sources system benefited from the research protocol between Istat and PLEF (Planet Life Economy Foundation), which provides, inter alia, "the development of databases and integrated and harmonized information systems on the subject of businesses and sustainable development ". The survey definitions were developed in this context and the definitions of the GRI indicators⁹ for the part relating to the non-financial declarations were followed. In 2018 a seminar was organized where the results on the theme of the sustainable development of businesses obtained from the collaboration between the National Institute and the PLEF Foundation were presented, and further information needs were collected from stakeholders connected to the topic¹⁰.

⁹ GRI Global Reporting Standards, <https://www.globalreporting.org/standards/>

¹⁰ For further information see: <https://www.istat.it/it/archivio/222287>.

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List of attached tables:

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Tavola 2. Imprese con 50 e più addetti che hanno adottato misure per migliorare l'impatto sociale derivante dalla loro attività (sostenibilità sociale) per classe dimensionale. Anni 2015-2017 (valori percentuali)

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