Istat

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Innovation in Italian Enterprises

Years 2006-2008

Istat makes available the results from the latest Innovation survey in the Italian enterprises. The survey covers innovation activities of the enterprises with at least ten employees operating in industry, construction and services in 2006-2008.
The Italian Innovation survey is part of the EU Community Innovation Survey (CIS), carried out on a two-year basis (from 2004 onwards) by all EU Member States and candidate countries, plus Norway and Iceland. CIS provides information on a number of dimensions of innovation so as to monitor Europe's progress on innovation and, since 2000, CIS has also become one of the major sources of data for the European Innovation Scoreboard.
Since 2004, CIS has been conducted under the Commission Regulation No 1450/2004, which establishes the legal basis for innovation statistics and makes it compulsory to deliver data every two years on some key variables.
In order to ensure a sound comparability across countries, the CIS is carried out on the basis of a standard core questionnaire and a harmonised survey methodology developed by Eurostat, in close cooperation with the participating countries. The methodological basis of CIS is provided by the OECD Oslo Manual. To this regard, the CIS2006 was conducted by keeping the same survey questionnaire and the same methodology used for the previous CIS4, thus allowing to compare data and to analyse trends with the results from CIS4 and CIS2006.
For most indicators here published, breakdowns are given at both size-class (by employees) and economic activities levels (in accordance with NACE Rev.2). Results tables of the Italian CIS2008 survey are available in .xls format.

Main results

The diffusion of innovation. In 2006-2008, 33.1 per cent of all enterprises with at least ten employees were innovation active[1] and most of them (30.7 per cent of all enterprises) were successful innovators[2] (Table 1). Large enterprises (250+ employees) were the most innovative enterprises across the Italian economy (65.1 per cent) in the period surveyed, well ahead of the medium and small enterprises, that were innovative in respectively 49.8 per cent and 28.2 per cent of total (Figure 1). Innovation is more frequent in industry than in services and construction: 41.1 per cent of industrial enterprises stated to have introduced at least an innovation in 2006-2008 against to 20.3 per cent and 23.9 per cent of the other two sectors. Within industry, the most innovative enterprises were found in Pharmaceutical products (75.5 per cent), Computer, electronic and optical products (69.1 per cent), Chemicals (63.4 per cent) and Motor vehicles (58.4 per cent) (Table 2). Turning to services, the highest proportions of innovative enterprises were in Telecommunications, where two thirds of the enterprises innovated in 2006-2008 (Table 3). The sector is followed by Computer programming (60.9 per cent) and R&D sector (60.8 per cent).

[1] Enterprises classified as innovation active are those that have either introduced a product innovation onto the market or implemented a process innovation in their enterprises in 2006-2008 or had on-going innovation activities by the end of 2008.
[2] Innovators (or innovative enterprises) are a sub-set of innovation-active enterprises and are those that have introduced a new product onto the market or implemented a new process in the period surveyed.

Types of innovation. In 2006-2008, most of innovators were oriented to both product and process innovation (Figure 2). As a whole, more than half of innovators chose this innovation modality, against 27.8 per cent of enterprises active just in process innovation and 20.5 per cent that introduced only product innovations (Table 4). The combination of new products and new processes was much more relevant in large enterprises, where almost two thirds of innovators were involved in both the innovations, against a 49.6 per cent of the smaller ones. By converse, the last ones directed more frequently (than other enterprises) their innovation strategies to process innovations (28.6 per cent against 20.8 per cent of enterprise with 250+ employees).

Despite the predominance of an innovation model based on integration of new processes and new products, some differences are found with respect to the economic activity. In industry, the percentage of 'product-process' innovators rose to 56.0 percent, while it dropped to 46.0 percent in the construction and to 45.8 per cent in services sectors.

The greatest shares of 'product innovators only' were found in services (26.3 percent), while the enterprises that directed their innovation activities just to new processes are those active in construction (35.0 percent). The kind of innovation varies also within industry and services.

In industry, the enterprises that invested more in both product and process innovation were those involved in the manufacture of rubber and plastic products (75.9 percent), motor vehicles (75.4 percent), computer, electronic and optical products (69.8 percent) and electrical equipment (66.9 percent) (Table 5). The industrial sectors that, on the contrary, chose to innovate more in their own processes only are water collection, treatment and supply (79.5 percent), mining and quarrying (67.8 percent), electricity (47.1 percent).

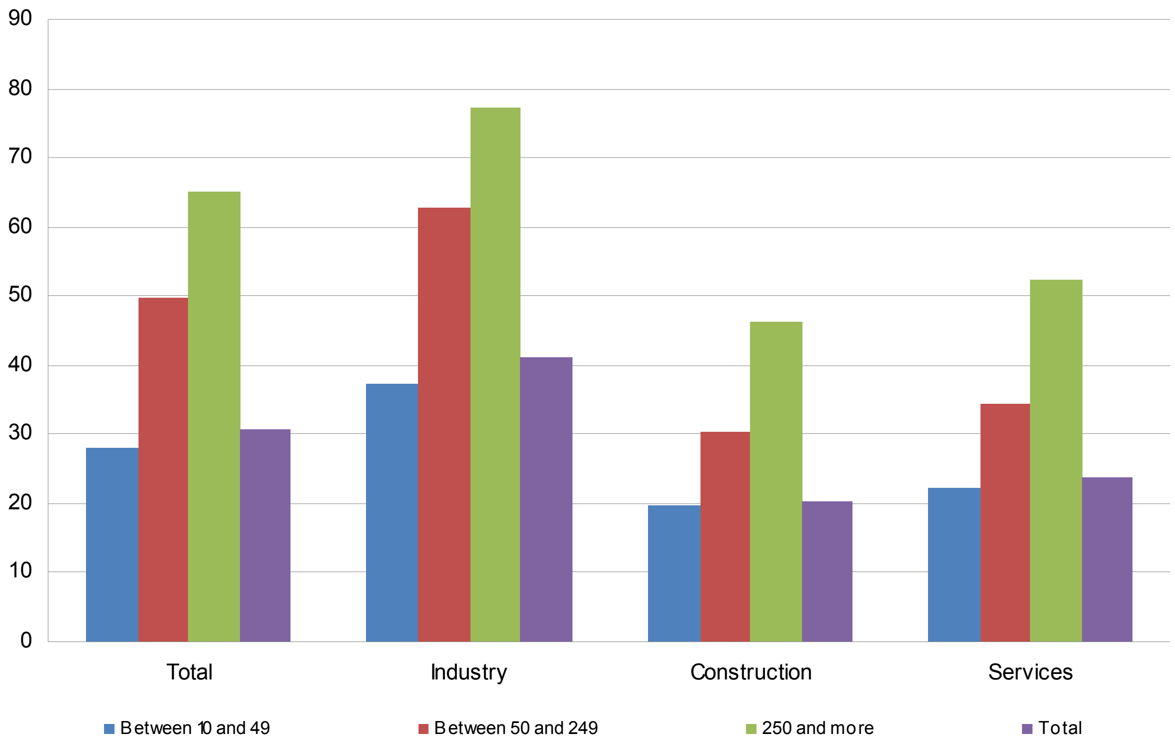
Finally, the attitude to introduce product innovation only in industry was more frequent in chemicals (33.6 percent), coke and refined petroleum products (29.3 percent), electrical equipment (27.9 percent), pharmaceutical products (27.7 percent). In services, where the joint product-process innovation still was the main output of innovation activities, the most representative sectors of this trend are publishing activities (68.4 percent), insurance (67.5 percent), computer programming, consultancy and related activities (64.1 percent), financial service activities (61.5 percent), postal activities (58.2 percent) (Table 6).

The enterprises that reported more frequently 'process innovations only' were Warehousing and support activities for transportation (53.4 percent) and Real estate activities (45.0 percent), while 'product innovation only' was adopted more by telecommunications (50.8 percent).

Innovation expenditure. In 2008, innovation expenditure across the Italian enterprises was estimated to be around 28 billion of euros, declining by 3 per cent from 2006 (Table 7). Expenditure per employee (measured taking into account just the innovative enterprises) was 6,400 euros. The major contribution is given by industry, whose expenditure amounted to 18,6 billion and accounted for two thirds of total in the year. The next largest share of innovation expenditure comes from services, which totalled 8.8 billion (31.6 per cent of total), while construction invested in innovation just 494 million (1.8 per cent of total). Industry is also the sector that spent more in innovation per employee (7.900 euros per employee on innovators). Looking at firm size, the majority of expenditure was carried out by large firms that spent 13.2 billion on innovation activities in 2008 (47.1 per cent of the total) against 7.1 billion in medium-sized enterprises (25.5 per cent) and 7.6 million in the small ones (27.4 per cent). Innovation expenditure per employee differs greatly from one sector to another. The highest values of innovation expenditures per employee in industry came from mining and quarrying (19,200 euros), followed by electrical equipment (17,300 euros) and pharmaceutical industry (15,700 euros) (Table 8). An innovation expenditure per employee greater than 10,000 euros was also found in other transport equipment, chemicals and paper products. In services, R&D ranked first, with a value of 94,200 euros spent in innovation per employee, followed by architectural and engineering activities that was greatly behind in terms of this indicator (12,800 euros), telecommunications (12,400 euros) and computer activities (7,700 euros) (Table 9).

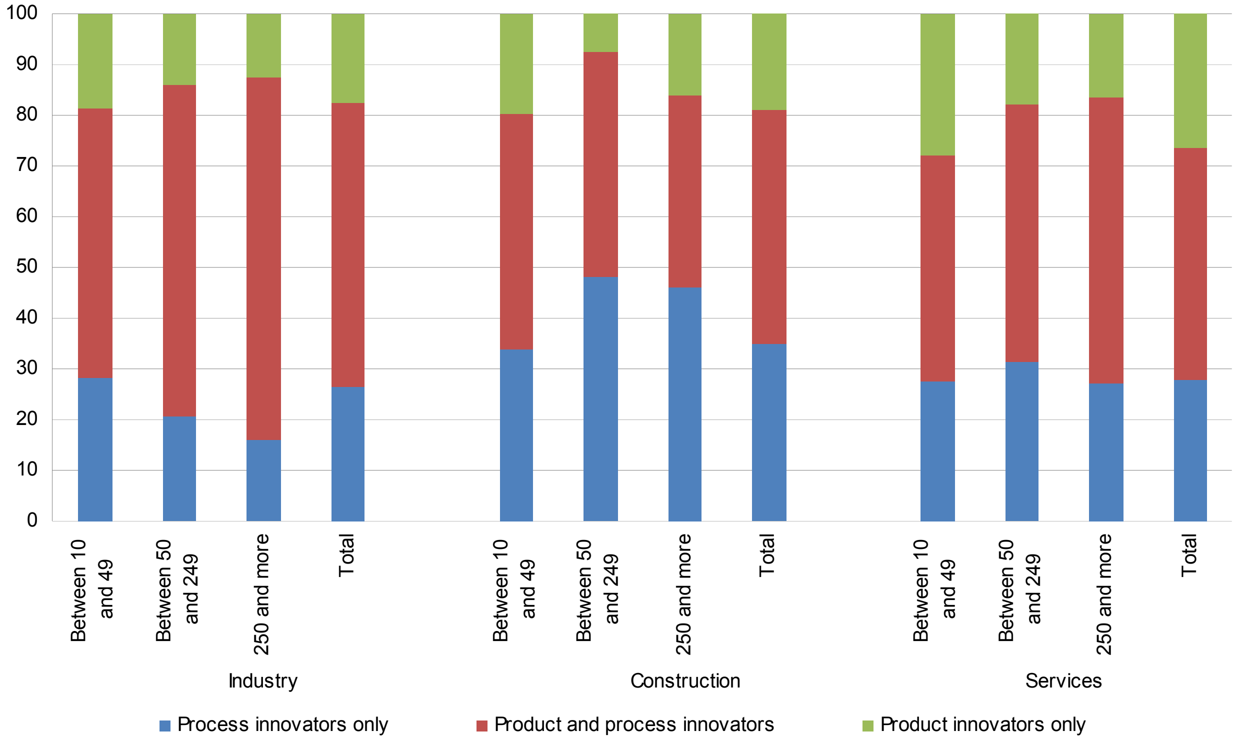
Co-operation for innovation. Among innovators, 15.6 percent cooperated with other enterprises, universities or public research institutes in 2006-2008 (Table 10). The main co-operation partners were suppliers (9.1 percent of innovators collaborate with them), while scientific community was less frequently involved in innovation activities of Italian enterprises (4.5 percent developed co-operation agreements with universities and just 1.7 percent with public research institutes).
The co-operation partners were mainly found in Italy (14.3 percent of innovators stipulated co-operation agreements within the national territory), while just 4 percent of innovative enterprises cooperated with a partner in another EU27 Member State, EFTA or candidate country[3], and much lower shares were registered with a partner in the United States, India or China (Table 11).

Figure 1 – Innovative enterprises by macro-sector and size class – Years 2006-2008 *(as a percentage of all enterprises)*



3 Includes the EU27 Member States: Belgium, Bulgaria, Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom; EFTA countries: Iceland, Liechtenstein, Norway and Switzerland; and Candidate countries: Croatia, the Former Yugoslavian republic of Macedonia and Turkey.

Figure 2 – Product and process innovators by macro-sector and size class. Years 2006-2008 *(as a percentage of all enterprises)*



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