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ANPAL
Agenzia Nazionale Politiche Attive del Lavoro

UNIONCAMERE

EXCELSIOR INFORMA
COMPANY EMPLOYMENT SCHEMES OBTAINED FROM THE CHAMBER OF COMMERCE SYSTEM

PROGETTO EXCELSIOR
SISTEMA INFORMATIVO PER L'OCCUPAZIONE E LA FORMAZIONE

Year 2022

SUMMARY

The international problems of a political and economic nature linked to the conflict in Ukraine do not so far seem to have had a negative impact on the 2022 employment requirements forecast by private industrial and services companies operating in Italy. Among the companies with employees, those that have planned to hire are 60% of the total, a percentage substantially in line with that recorded last year. On the other hand, we notice significant growth in expected inflow of workers into companies - with any form of contract - passing from 4.6 million units in 2021 to around 5.2 million in the current year (an increase of about 11%). While the propensity of companies to resort to young workers remains almost unchanged, a significant increase in their difficulty in recruiting the profiles they are seeking emerges, concerning 41% of inflow (compared to 32% last year). In almost two out of three cases, the expected recruiting problems appear to come from a scarce presence of people available and only in one out of three cases it can be attributed to an inadequate skill-set of candidates or to other reasons.

	COMPANIES HIRING	OUT OF ALL COMPANIES WITH EMPLOYEES	EXPECTED INFLOW	YOUNG PEOPLE	DIFFICULTY IN RECRUITING
2022	**784,560**	**60%**	**5,179,140**	**29%**	**41%**
2021	776,590	61%	4,638,980	28%	32%

N.B. Due to the rounding off, the sum of the single percentage values may differ by 100. This note applies to all graphs in the bulletin showing percentage compositions.

Unless otherwise specified, the source is: Unioncamere - ANPAL, Excelsior Information System, 2022

INFLOW EXPECTED IN 2022: BUSINESS AREAS AND BUSINESS SECTORS

Among the various business areas, the production of goods and/or service provision is also confirmed in 2022 as the one that concentrates the highest number of planned inflow, with a share of the total equal to 47%, in line with what was recorded the previous year. Among the various business areas, information systems, planning, research and development and installation and maintenance stand out, sharing high levels of difficulty in recruiting the required profiles (between 56 and 61%). From a sectoral point of view, and considering only the employee component, the highest rates of inflow are recorded in tourism (80.9%) and construction (45.9%), in both cases an increase compared to 2021. Moreover, these two sectors are characterised by a prevalence of small businesses and, at the same time, by a high turnover of workers, who often enter the company with unstable contracts. Furthermore, the construction sector is the one that shows the greatest growth in the number of inflow, with an increase of 20% between 2021 and 2022.

BUSINESS AREAS	2022			2021	
	INFLOW (*)	% inflow	% diff. rec.	% inflow	% diff. rec.
TOTAL	5,179,140	100	41	100	32
Direction and General services areas	239,630	4.6	43	4.1	34
1 General management and human resources	28,550	0.6	35	0.6	23
2 Secretariat, staff and general services	95,540	1.8	25	1.9	17
3 Information systems	115,540	2.2	61	1.6	57
Administrative areas	259,770	5.0	36	4.5	20
1 Administration, legal	106,470	2.1	40	1.6	18
2 Accounting, management control, finance	153,300	3.0	33	2.9	22
Technical and planning areas	688,630	13.3	53	13.4	44
1 Planning and research and development	165,950	3.2	56	2.7	47
2 Installation and maintenance	430,350	8.3	56	8.6	48
3 Certification, quality control, safety, environment	92,340	1.8	30	2.1	27
Production of goods and provision of services area	2,439,470	47.1	42	46.7	32
Commercial and sales areas	885,700	17.1	32	19.4	28
1 Sales	565,080	10.9	34	12.7	27
2 Marketing, commercial, communication, public relations	120,150	2.3	40	2.8	37
3 Customer assistance	200,470	3.9	24	4.0	24
Logistics areas	665,940	12.9	35	11.8	29
1 Purchasing and internal handling of goods	173,790	3.4	26	2.8	17
2 Transportation and distribution	492,140	9.5	38	8.9	32

INFLOW BY BUSINESS SECTOR *(% by size class)**
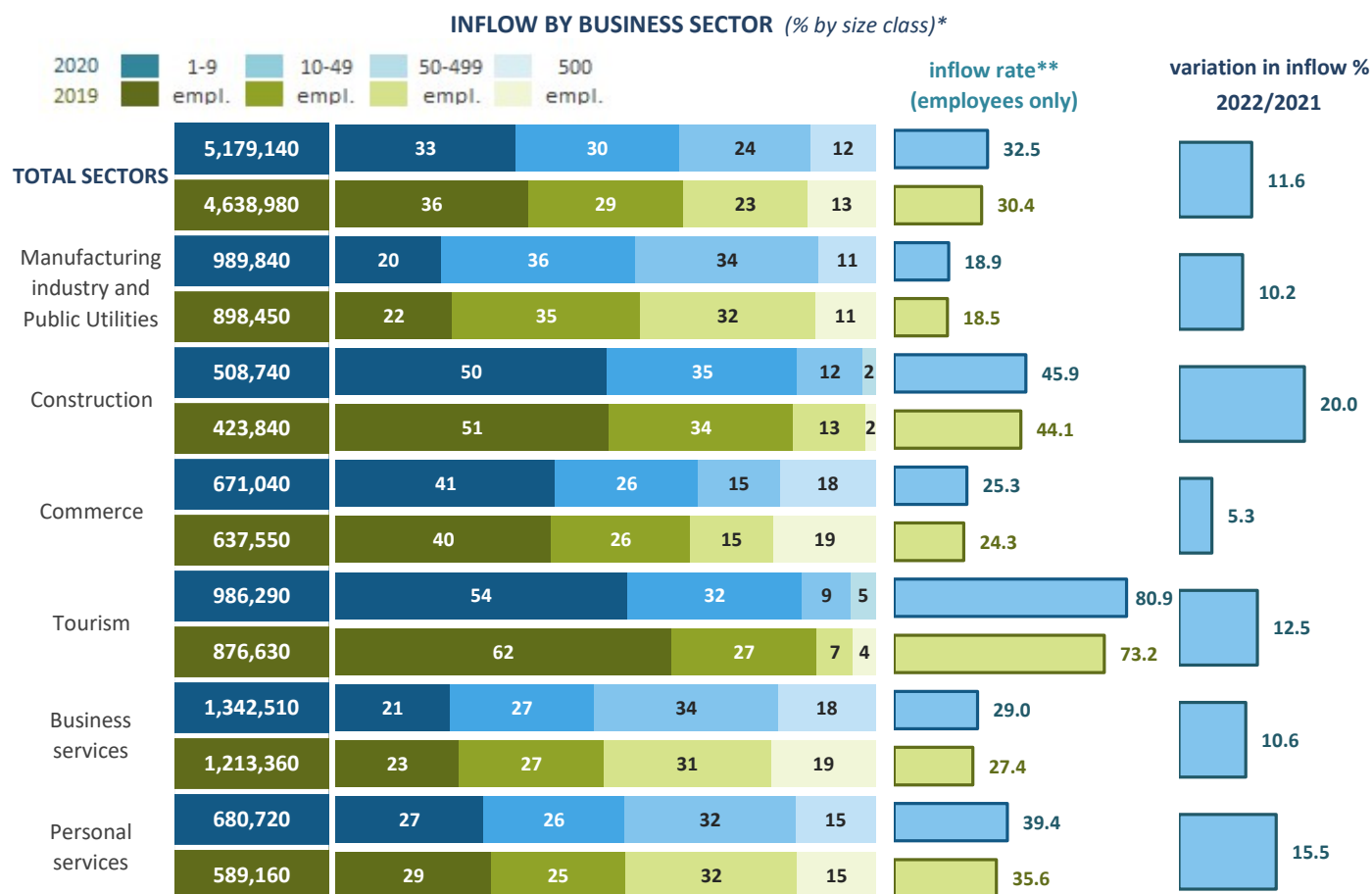
* Activation of contracts for employees and non-employees (with a duration > 20 days) planned by companies with employees.

** The inflow rate is calculated as the ratio between the expected new employees and the number of existing employees for companies in the sector.

MAIN CHARACTERISTICS OF EXPECTED INFLOW BY BUSINESS SECTOR

DIFFICULTY IN RECRUITING	**41%**	**EXPERIENCE**	**67%**	**GENDER**	**18%**		

DIFFICULTY IN RECRUITING	**41%**	EXPERIENCE	**67%**	GENDER	
for lack of candidates	**25%**	*in the profession*	**24%**	*female*	**18%**
due to inadequate skill set	**12%**	*in the sector*	**43%**	*male*	**33%**
for other reasons	**4%**	*non requested*	**33%**	*equally suitable*	**49%**

At the sectoral level, there are critical issues in the link between demand and supply of labour especially for five sectors, for which the difficulty in recruiting regards more than half of the figures requested: trade and repair of vehicles (55%), metallurgical and metal products industries (53%), wood and furniture industries, construction, IT and telecommunications services (all three with percentages around 52%). Difficulties in recruiting are mainly due to a scarce presence of candidates while less frequently the cause is insufficient skill-set of the people interested in joining the company. The sectors that require a higher level of experience are, however, healthcare-welfare (experience is required for 86% of inflow) and media and communications services (83%). Experience should preferably be obtained in the profession to be performed rather than only in the sector. 18% of inflow involves immigrant personnel, with higher shares in business operational services (30%), transport/logistics (29%) and social and healthcare services (23%).
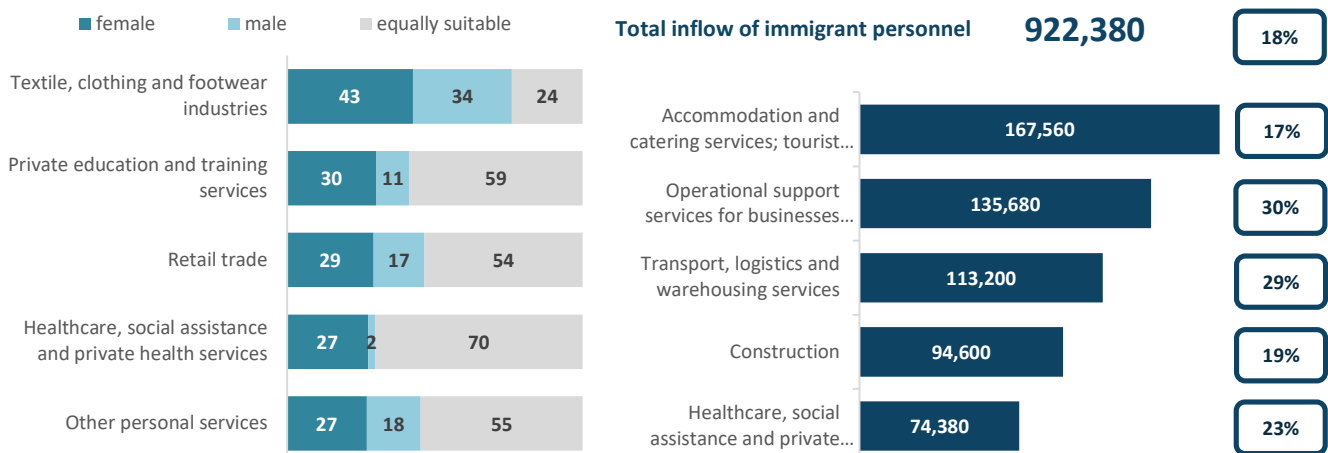
THE MAIN SECTORS...

...WITH THE GREATEST **DIFFICULTY IN RECRUITING** (%)

■ Inadequate skill set ■ Lack of candidates ■ Other reasons

Sector	Inadequate skill set	Lack of candidates	Other reasons
Trade and repair of motor vehicles and motorcycles	21	31	3
Metallurgical and metal products industries	17	33	3
Wood and furniture industries	19	30	2
Construction	19	29	4
IT and telecommunications services	18	30	3

...IN WHICH SPECIFIC **EXPERIENCE** IS MOST OFTEN REQUIRED (%)

■ Experience in the profession ■ Experience in the sector

Sector	Experience in the profession	Experience in the sector
Healthcare, social assistance and private health services	54	32
Media and communication services	44	39
Construction	22	58
Private education and training services	40	39
Textile, clothing and footwear industries	28	46
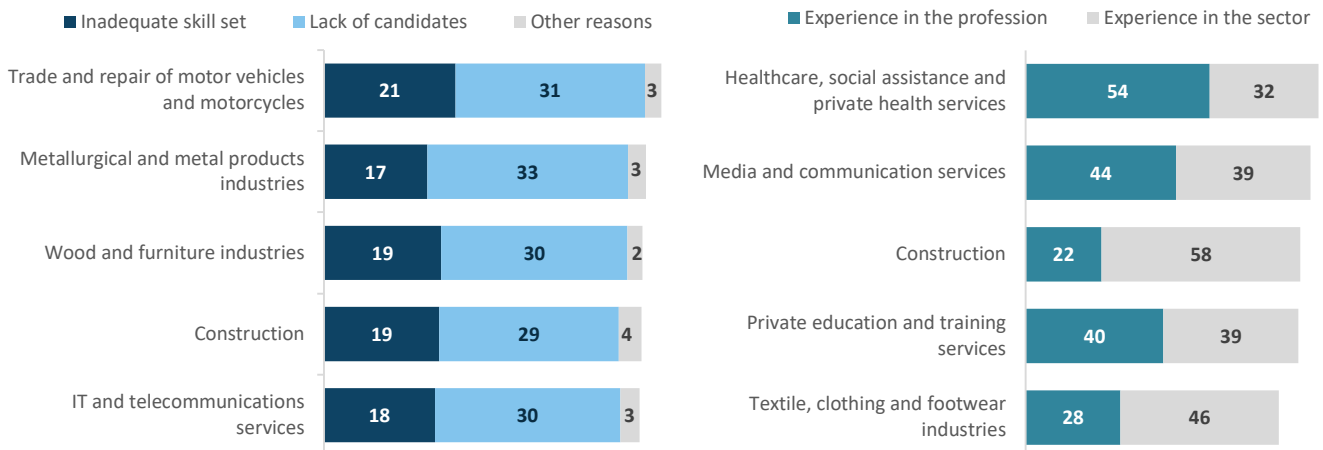
...IN WHICH STAFF IS SOUGHT **BY GENDER** (%)

■ female ■ male ■ equally suitable

Sector	female	male	equally suitable
Textile, clothing and footwear industries	43	34	24
Private education and training services	30	11	59
Retail trade	29	17	54
Healthcare, social assistance and private health services	27	2	70
Other personal services	27	18	55

... WITH GREATER INFLOW OF **IMMIGRANT PERSONNEL**
(a.v. and % of total inflow in the sector)

Total inflow of immigrant personnel **922,380** **18%**

Sector	a.v.	%
Accommodation and catering services; tourist...	167,560	17%
Operational support services for businesses...	135,680	30%
Transport, logistics and warehousing services	113,200	29%
Construction	94,600	19%
Healthcare, social assistance and private...	74,380	23%

% share of difficult to recruit/experienced/gender-specific new hires out of each sector's total inflow. The sectors are presented in descending order with respect to the variable indicated in the graph.

MAIN CHARACTERISTICS OF EXPECTED INFLOW BY PROFESSION

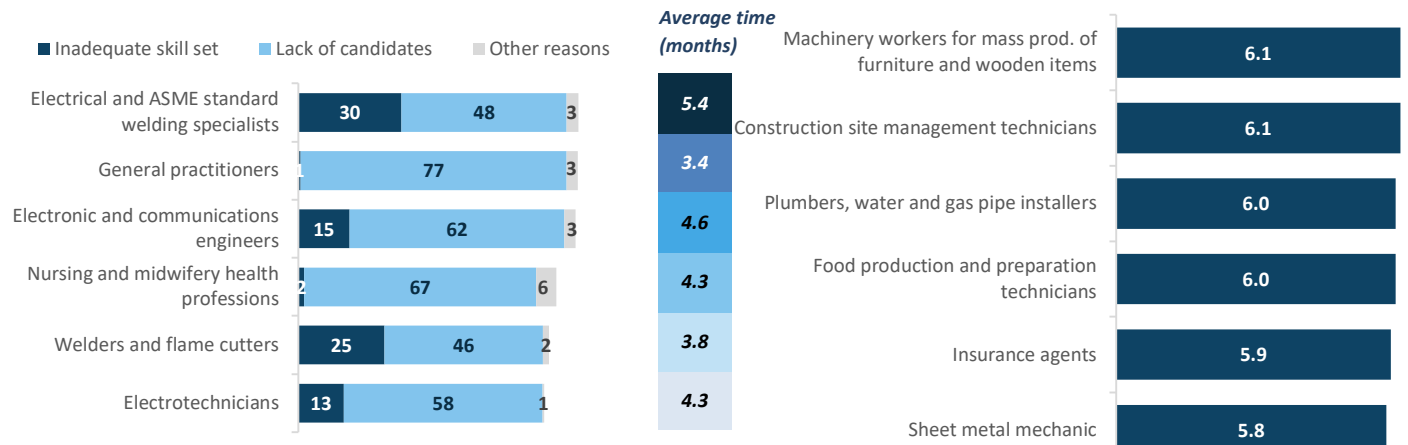## TOTAL INFLOW AND RELATIVE DIFFICULTY IN RECRUITING AND AVERAGE SEARCH TIME

Profession	Total inflow	diff. rec. %	Average time (months)
Specialised labourers	758,650	55.4	4.7
Technical professions	698,690	48.7	3.9
Managers, intellectual, scientific and highly-specialised professions	350,870	47.5	3.7
Plant operators and stationary and mobile machinery operators	710,120	43.2	3.4
Skilled professions in commercial activities and services	1,418,840	37.9	2.8
Impiegati	430,490	28.9	3.2
Unskilled professions	811,470	25.0	2.4
Total inflow	**5,179,140**	40.5	3.3

The professional group for which the greatest difficulty in recruiting is expected, is that of skilled labourers, difficulties affecting 55% of planned inflow. Consequently, companies take an average of almost 5 months before being able to find the candidate with the required characteristics. Particularly high difficulties in recruiting, around 48-49%, also regard high-profile groups, i.e. technicians and managers/specialists, for whom the average search time required by companies is just under 4 months. When going deeper into the details of the individual professions, however, it emerges that in some cases the search time required by companies reaches or exceeds 6 months: food and construction technicians, among the technical figures; furniture production workers and plumbers, among the labourers.

THE MAIN PROFESSIONS...

...FOR WHICH INFLOW IS DIFFICULT TO RECRUIT (%)

Legend: ■ Inadequate skill set ■ Lack of candidates ▢ Other reasons

Profession	Inadequate skill set	Lack of candidates	Other reasons	Average time (months)
Electrical and ASME standard welding specialists	30	48	3	5.4
General practitioners		77	3	3.4
Electronic and communications engineers	15	62	3	4.6
Nursing and midwifery health professions	2	67	6	4.3
Welders and flame cutters	25	46	2	3.8
Electrotechnicians	13	58	1	4.3

...WITH GREATER AVERAGE SEARCH TIME (months)

Profession	Average time
Machinery workers for mass prod. of furniture and wooden items	6.1
Construction site management technicians	6.1
Plumbers, water and gas pipe installers	6.0
Food production and preparation technicians	6.0
Insurance agents	5.9
Sheet metal mechanic	5.8

% Share of inflow of workers difficult to recruit against total inflow of each profession. The professions indicated in the bulletin refer to the "groups" (four-digit codes) used in the ISTAT 2011 classification of professions. It should be noted that the main professions are those with an expected inflow of at least 4000 workers.

CONTRACTS BY LARGE PROFESSIONAL GROUP (%)

Legend: ■ open-ended ■ fixed term ▢ apprenticeship ▢ other employment contracts ▢ agency work ▢ other NON employment contracts

Group	open-ended	fixed term	apprenticeship	other employment contracts	agency work	other NON employment contracts
TOTAL	19	53	6	11		3	9
Managers, intellectual, scientific and highly-specialised professions	31	30		3	1	34
Technical professions	27	32	4	7	1	30
Office workers	20	47	6	18	2	7
Skilled professions in commercial activities and services	12	65	7	4	8	4
Specialised labourers	24	52	10	8	1	5
Plant operators and stationary and mobile machinery operators	17	52	5	24		1	1
Unskilled professions	14	63	3	16	3	1

INFLOW REPLACING OUTGOING PERSONNEL AND NEW FIGURES BY LARGE PROFESSIONAL GROUP (%)

Legend: ■ As a replacement for outgoing personnel ■ New professional figures

Group	As a replacement for outgoing personnel	New professional figures
TOTAL	32.2	18.6
Managers, intellectual, scientific and highly-specialised professions	34.9	21.2
Technical professions	33.2	18.8
Office workers	34.1	22.6
Skilled professions in commercial activities and services	33.9	22.1
Specialised labourers	25.0	17.5
Plant operators and stationary and mobile machinery operators	32.2	10.4
Unskilled professions	32.6	17.0
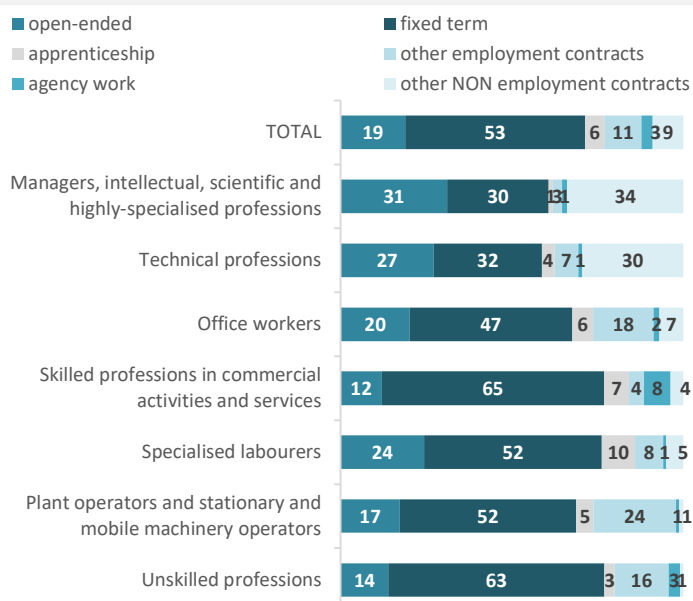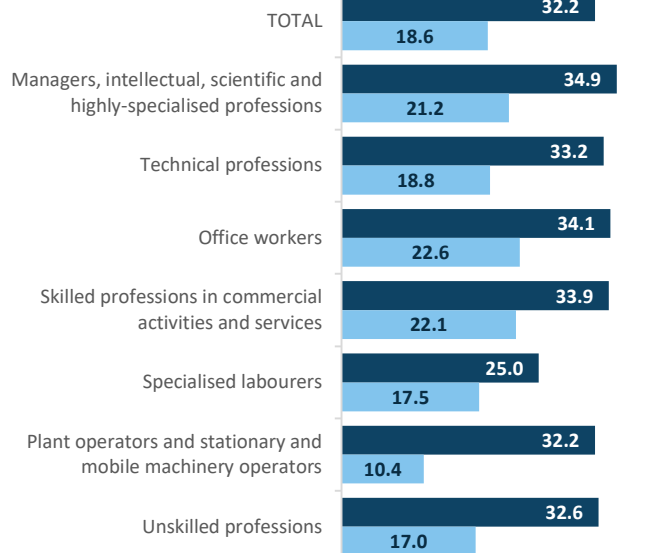
MANAGERS, HIGHLY SPECIALISED PROFESSIONS AND TECHNICIANS

1,049,560 inflow

The demand for skills is **particularly** high for managerial, specialist and technical figures and various skills, especially transversal ones, are required for almost all inflow. The demand for digital skills also stands out, at 95%, while demand for "green" skills is at 68%. On the other hand, companies seem to place less importance on the ability to communicate in foreign languages and on the application of "4.0" technologies for process innovation; however, the latter is typical **of the figures working in the** industrial sector.

"KEY" SKILLS BASED ON THE REQUIRED LEVEL (%)
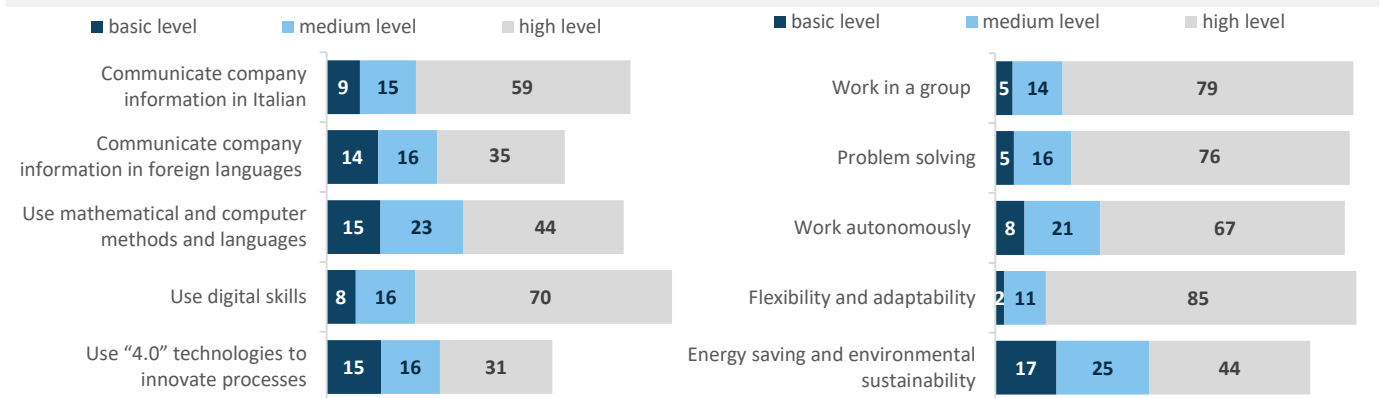
- ■ basic level ■ medium level ▪ high level

Skill	basic	medium	high
Communicate company information in Italian	9	15	59
Communicate company information in foreign languages	14	16	35
Use mathematical and computer methods and languages	15	23	44
Use digital skills	8	16	70
Use "4.0" technologies to innovate processes	15	16	31
Work in a group	5	14	79
Problem solving	5	16	76
Work autonomously	8	21	67
Flexibility and adaptability	2	11	85
Energy saving and environmental sustainability	17	25	44

MAIN CHARACTERISTICS OF THE PROFESSIONS MOST IN DEMAND (%)

Code - Profession	INFLOW (A.V.)	young people under 30	with experience	female gender	new figures	Average time (months)
3334-Sales and distribution technicians	93,300	18.5	74.7	16.8	22.0	3.9
3212-Rehabilitation health professions	69,190	29.2	92.8	20.7	7.2	2.7
3312-Accounting and similar professions	55,490	27.8	74.2	23.8	24.1	3.6
3211-Nursing and midwifery health professions	52,330	19.5	89.3	8.9	2.5	4.3
3121-Technical programmers	43,360	41.0	87.0	-	12.9	4.6
2114-Software analysts and designers	37,120	27.2	91.1	1.4	15.1	4.0
3122-Technical experts in applications	35,120	58.2	63.8	5.7	11.2	4.0
3422-Teachers in the field of vocational training	34,280	7.4	90.1	5.3	20.1	2.8
3346-Sales representatives	27,340	14.3	87.4	5.8	23.5	4.1
2217-Industrial and management engineers	25,780	15.5	92.0	9.9	34.8	4.2
3152-Building site management technicians	25,780	14.2	94.8	-	36.5	6.1
2515-Market relations specialists	22,830	14.7	86.6	12.6	30.7	3.8

THE MOST DIFFICULT PROFESSIONS TO RECRUIT BY MAIN REASONS (%)
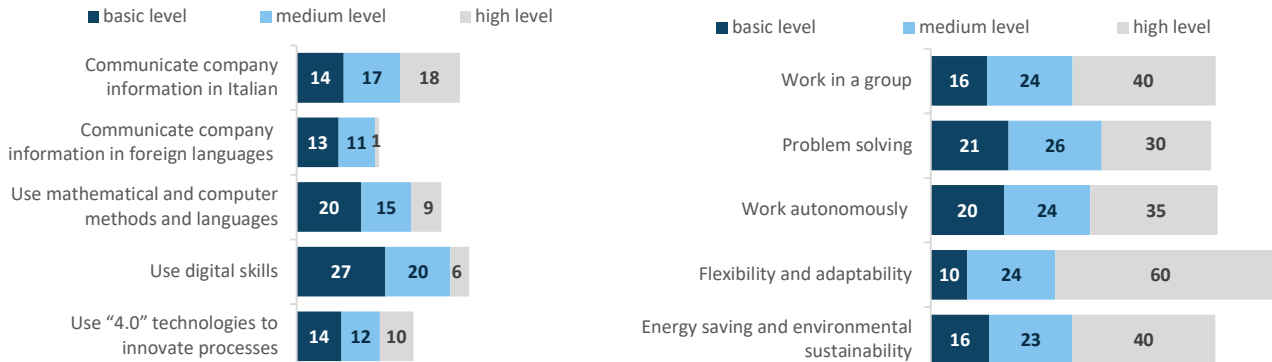
■ Inadequate skill set ■ Lack of candidates ▪ Other reasons

Profession	INFLOW	of which DIFFICULT TO RECRUIT	Inadequate skill set	Lack of candidates	Other reasons	average search time (months)
3334-Sales and distribution technicians	93,300	39,590	17	22	3	3.9
3211-Nursing and midwifery health professions	52,330	39,210	2	67	6	4.3
3212-Rehabilitation health professions	69,190	32,730	9	35	3	2.7
3121-Technical programmers	43,360	26,510	13	45	3	4.6
2114-Software analysts and designers	37,120	23,960	16	41	8	4.0
3312-Accounting and similar professions	55,490	19,370	15	20	0	3.6
3122-Technical experts in applications	35,120	16,480	20	24	2	4.0

OFFICE WORKERS, COMMERCIAL PROFESSIONS AND SERVICES

1,849,330 inflow

Also for the intermediate professional figures, transversal skills are considered necessary for the vast majority of inflow, in particular flexibility and the ability to work in a team (required in over 90% of cases). For various professions in this group, the demand for young people under 30 is over 40%. Among these, that of hairstylists stands out, with almost two thirds of demand for young people particularly difficult to find and companies need more than 4 months to find a candidate who possesses the characteristics sought.

"KEY" SKILLS BASED ON THE REQUIRED LEVEL (%)

Legend: basic level, medium level, high level

Skill	basic level	medium level	high level
Communicate company information in Italian	11	20	48
Communicate company information in foreign languages	17	21	23
Use mathematical and computer methods and languages	19	17	15
Use digital skills	21	21	23
Use "4.0" technologies to innovate processes	13	11	9

Skill	basic level	medium level	high level
Work in a group	10	19	62
Problem solving	16	25	42
Work autonomously	16	27	43
Flexibility and adaptability	7	20	69
Energy saving and environmental sustainability	15	23	44

MAIN CHARACTERISTICS OF THE PROFESSIONS MOST IN DEMAND (%)

Code - Profession	INFLOW (A.V.)	young people under 30	with experience	female gender	new figures	Average time (months)
5223-Waiters and similar professions	365,820	46.7	68.8	20.1	25.5	2.9
5122-Retail sales clerks	357,260	46.3	60.1	33.5	14.7	2.2
5221-Hotel and restaurant chefs	211,600	23.5	84.4	9.4	34.4	3.7
4112-Administration and back-office employees	148,390	23.0	63.7	40.4	23.8	3.7
5224-Baristas and similar professions	145,880	53.8	59.0	34.1	31.0	2.9
5311-Qualified professions in health and social services	80,890	12.2	82.9	27.2	2.3	2.2
4221-Reception an information clerks in companies and public institutions	55,290	45.5	37.7	35.0	27.4	2.9
5222-Food preparation, cooking and distribution workers	54,340	35.6	58.9	27.7	12.7	1.9
4111-Secretarial staff	48,490	35.7	56.6	63.1	33.0	3.2
5431-Hairstylists	43,270	64.6	63.8	38.3	28.0	4.4
5443-Personal care workers	40,890	13.1	87.1	39.6	6.2	2.1
4222-Accommodation and catering services reception staff	38,020	28.3	84.4	26.5	24.6	3.2

THE MOST DIFFICULT PROFESSIONS TO RECRUIT BY MAIN REASONS (%)

Legend: Inadequate skill set, Lack of candidates, Other reasons

Code - Profession	INFLOW	of which DIFFICULT TO RECRUIT	Inadequate skill set	Lack of candidates	Other reasons	average search time (months)
5223-Waiters and similar professions	365,820	162,440	11	29	5	2.9
5221-Hotel and restaurant chefs	211,600	98,260	13	30	3	3.7
5122-Retail sales clerks	357,260	97,070	10	14	3	2.2
5224-Baristas and similar professions	145,880	51,990	11	19	5	2.9
4112-Administration and back-office employees	148,390	49,620	19	14	1	3.7
5311-Qualified professions in health and social services	80,890	37,430	7	37	3	2.2
5431-Hairstylists	43,270	21,740	22	25	3	4.4

SPECIALISED LABOURERS, PLANT AND MACHINE OPERATORS

1,468,780 inflow

Even for labourer profiles, companies consider transversal skills to be decidedly important, especially flexibility and the ability to adapt (required for 95% of inflow). For these profiles, the share of "new" figures is limited, except for bricklayers and electricians. Search times of about 6 months for plumbers and electricians.

"KEY" SKILLS BASED ON THE REQUIRED LEVEL (%)

■ basic level   ■ medium level   ■ high level

	basic	medium	high
Communicate company information in Italian	14	17	18
Communicate company information in foreign languages	13	11	1
Use mathematical and computer methods and languages	20	15	9
Use digital skills	27	20	6
Use "4.0" technologies to innovate processes	14	12	10

■ basic level   ■ medium level   ■ high level

	basic	medium	high
Work in a group	16	24	40
Problem solving	21	26	30
Work autonomously	20	24	35
Flexibility and adaptability	10	24	60
Energy saving and environmental sustainability	16	23	40

MAIN CHARACTERISTICS OF THE PROFESSIONS MOST IN DEMAND (%)

Code - Profession	INFLOW (A.V.)	young people under 30	with experience	female gender	new figures	Average time (months)
7423-Heavy vehicle and truck drivers	199,390	6.6	88.5	-	12.1	3.4
6121-Stone, brick, fire-brick masons	182,790	17.0	85.7	-	23.4	4.3
7421-Taxi drivers, and drivers of cars, vans and other vehicles	77,900	21.4	48.2	1.2	12.3	2.8
6137-Electricians in civil construction and similar professions	77,250	36.8	76.5	-	19.7	5.6
7444-Forklift drivers	56,670	24.2	51.0	1.5	5.7	3.2
7211-Operators of automatic and semi-automatic industrial machine tools	54,180	47.3	59.3	3.4	4.8	5.4
6233-Industrial machinery mechanics and fitters and similar professions	54,060	29.2	74.9	-	10.1	4.6
7281-Workers assigned to industrial product packaging machines	52,000	23.9	34.8	35.2	10.4	1.8
6214-Metal structure fitters	39,200	28.0	77.8	-	12.5	5.2
6223-Machine toolmakers and similar professions	39,040	42.3	64.7	1.5	10.0	5.0
6241-Installers and repairers of electrical and electromechanical equipment	38,880	36.3	74.4	2.1	10.7	4.8
6136-Plumbers and water and gas pipe installers	36,580	38.1	69.8	-	17.0	6.0

THE MOST DIFFICULT PROFESSIONS TO RECRUIT BY MAIN REASONS (%)

■ Inadequate skill set   ■ Lack of candidates   ■ Other reasons

	INFLOW	of which DIFFICULT TO RECRUIT	Inadequate skill set	Lack of candidates	Other reasons	average search time (months)
7423-Heavy vehicle and truck drivers	199,390	111,520	13	39	4	3.4
6121-Stone, brick, fire-brick masons	182,790	84,230	15	27	3	4.3
6137-Electricians in civil construction and similar professions	77,250	49,020	27	32	5	5.6
6233-Industrial machinery mechanics and fitters and similar professions	54,060	32,670	22	35	3	4.6
7211-Operators of automatic and semi-automatic industrial machine tools	54,180	32,250	14	42	4	5.4
6136-Plumbers and water and gas pipe installers	36,580	25,010	25	38	5	6.0
6241-Installers and repairers of electrical and electromechanical equipment	38,880	24,460	23	38	2	4.8

811,470 inflow

Even for figures classified as "unskilled" flexibility and adaptability are required for the vast majority of inflow (92%). However, the demand for other transversal skills is also very frequent, involving over two-thirds of inflow. However, the age of the candidates is not considered a key factor: the share of inflow explicitly aimed at young people is in fact generally modest, with the exception of delivery workers for whom requests for under 30s reach 67%.

"KEY" SKILLS BASED ON THE REQUIRED LEVEL (%)
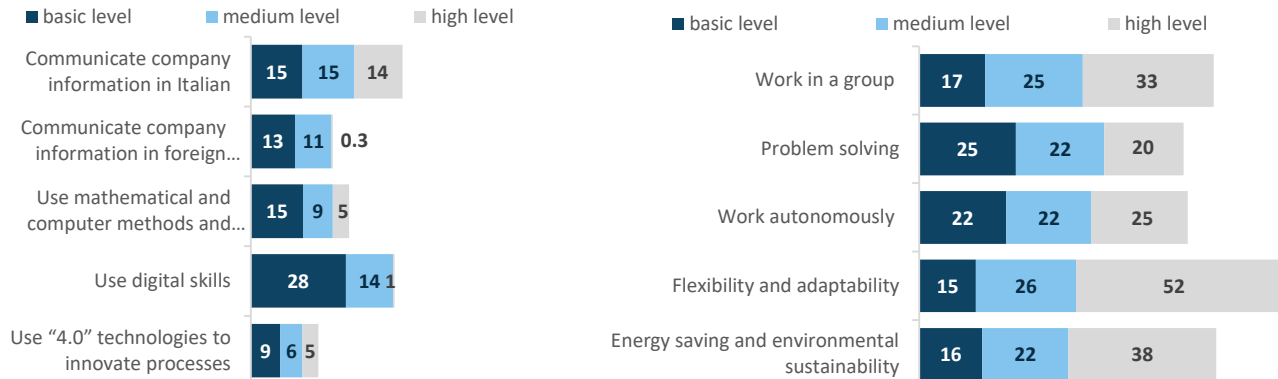
■ basic level ■ medium level ▫ high level

Skill	basic	medium	high
Communicate company information in Italian	15	15	14
Communicate company information in foreign…	13	11	0.3
Use mathematical and computer methods and…	15	9	5
Use digital skills	28	14	1
Use "4.0" technologies to innovate processes	9	6	5

■ basic level ■ medium level ▫ high level

Skill	basic	medium	high
Work in a group	17	25	33
Problem solving	25	22	20
Work autonomously	22	22	25
Flexibility and adaptability	15	26	52
Energy saving and environmental sustainability	16	22	38

MAIN CHARACTERISTICS OF THE PROFESSIONS MOST IN DEMAND (%)

Code - Profession	INFLOW (A.V.)	young people under 30	with experience	female gender	new figures	Average time (months)
8143-Unskilled office and business cleaning personnel	344,960	7.0	45.8	34.8	14.3	2.2
8132-Unskilled packaging and warehousing personnel	188,060	32.7	33.3	3.6	14.7	2.5
8141-Unskilled accommodation and ship cleaning personnel	41,670	7.5	52.3	66.7	37.2	2.4
8131-Porters, freight workers and similar	40,370	25.9	30.3	-	10.5	3.1
8431-Unskilled personnel in industrial activities and similar professions	40,370	24.7	34.9	14.9	23.1	2.9
8142-Unskilled catering personnel	35,670	12.5	32.7	35.0	32.5	2.5
8161-Unskilled personnel assigned to custodial services for buildings, equipment and goods	34,000	14.0	38.6	2.0	21.3	1.9
8312-Unskilled personnel assigned to green space maintenance	21,720	14.4	62.4	-	13.1	2.8
8145-Sanitation workers and other waste collectors and separators	20,200	13.2	36.2	2.0	4.1	2.1
8133-Delivery workers	13,720	67.1	15.3	-	16.7	3.1
8421-Unskilled civil construction labourers and personnel, and similar professions	12,830	26.7	46.6	-	29.6	2.9
8211-Unskilled staff in recreational and cultural services	6,710	33.3	31.2	5.0	39.9	4.0

THE MOST DIFFICULT PROFESSIONS TO RECRUIT BY MAIN REASONS (%)

■ Inadequate skill set ■ Lack of candidates ▫ Other reasons

Profession	INFLOW	of which DIFFICULT TO RECRUIT	Inadequate skill set	Lack of candidates	Other reasons	average search time (months)
8143-Unskilled office and business cleaning personnel	344,960	99,290	5	18	6	2.2
8132-Unskilled packaging and warehousing personnel	188,060	35,690	6	12	2	2.5
8141-Unskilled accommodation and ship cleaning personnel	41,670	11,830	5	22	2	2.4
8431-Unskilled personnel in industrial activities and similar professions	40,370	9,580	5	17	2	2.9
8142-Unskilled catering personnel	35,670	8,970	2	19	4	2.5
8312-Unskilled personnel assigned to green space maintenance	21,720	7,670	7	22	7	2.8
8131-Porters, freight workers and similar	40,370	7,470	5	12	2	3.1

MAIN CHARACTERISTICS OF EXPECTED INFLOW BY AGE GROUP

Considering all professional figures as a whole, being under 30 is considered a preferential requirement for almost 29% of planned inflow in 2022, to which a similar portion for which the age of the candidates is indifferent must be added. For 34% of inflow, companies prefer candidates between 30 and 44 years of age, while people over 44 are generally only sought in 8% of cases, mainly for managerial roles. The difficulty in recruiting young people under 30 is equal to 41% of inflow, in line with the average for all ages, but it exceeds 70% for pharmacists and electronics technicians.

EXPECTED INFLOW BY AGE GROUP
of which up to 29 years: **1,486,680**

- indifferent 29%
- up to 29 years 29%
- over 44 years 8%
- 30-44 years 34%
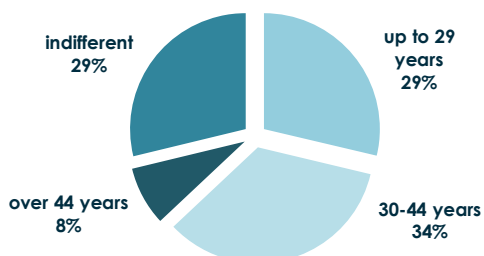
Young people are most in demand in the retail sector (42% of inflow) and in IT and telecommunications services (41%). In three other sectors, however, the portion of young people exceeds 35%: advanced business services, personal services and tourism/catering.

PROFESSIONS WITH THE GREATEST DIFFICULTY IN RECRUITING YOUNG PEOPLE
(expected inflow of young people - % share and a.v.)

	Average difficulty in recruiting young people 41%	**difficult to recruit young**	**young inflow**
Pharmacists	73%	5,050	6,920
Technical programmers	68%	12,060	17,780
Plumbers and water an gas pipe installers	67%	9,360	13,930
Industrial machinery mechanics and fitters and similar professions	67%	10,570	15,760
Electricians in civil construction and similar professions	67%	19,040	28,460
Machine toolmakers and similar professions	65%	10,790	16,530
Artisan mechanics, car repairers and maintenance workers and similar professions	64%	10,420	16,160
Nursing and midwifery health professions	63%	6,460	10,220
Industrial designers and similar professions	63%	5,770	9,130
Operators of automatic and semi-automatic industrial machine tools	62%	15,950	25,600

MAIN BUSINESS SECTORS LOOKING FOR YOUNG PEOPLE *(% of young people out of the total for the sector)*

	up to 29 years	Indifferent	30 years and over
Accommodation and catering services; tourist services	36	31	33
Retail trade	42	23	35
Construction	22	23	56
Other personal services	38	33	29
Advanced business support services	35	21	44
Metallurgical and metal products industries	33	22	45
Operational support services for businesses and individuals	14	45	41
Healthcare, social assistance and private health services	20	38	42
Industries manufacturing machines and equipment and means of…	33	19	48
IT and telecommunications services	41	23	36

The top 10 sectors in terms of young inflow up to 29 years of age (by absolute value) were selected

FIELDS OF STUDY THAT OFFER THE GREATEST JOB OPPORTUNITIES

In 2022, 15% of inflow is required to have a degree, a share that exceeds the figure recorded in 2021 by one per cent. However, for 30% of inflow, companies indicated the secondary or post-secondary school diploma as their preferred level of education, while the professional qualification or diploma is indicated for 19% of inflow.

The most requested degrees are traditionally those in the fields of Economics and engineering, followed by those in the healthcare and paramedical fields. Among the diplomas, the demand is mainly for the administrative, tourism and mechanical fields; among the qualified, the catering, mechanical and construction sectors prevail. Data on the demand for figures with professional qualifications or diplomas are presented using two different approaches. In addition to figures with expressly indicated professional qualifications and diplomas ("explicit inflow"), companies are also looking for workers who have completed their generic "compulsory schooling." Following a specific in-depth study, cases were encountered in which this requirement is associated with professions for which there are three-year professional training courses formally offered among the 26 of the State-Regions Agreement of 1 August 2019. A further potential demand for professional qualifications was thus identified, which, combined with the explicit qualification, provides an overall estimate of the "potential inflow" for which a professional qualification is required, which would amount to 36% of the total.

FIELDS OF STUDY MOST HIGHLY REQUESTED

		Expected inflow (a.v.)	% of the total	% difficult to recruit	% with experience
UNIVERSITY		**782,720**	**15%**	**47%**	**88%**
of which with post-graduate training		*117,340*	*2%*	*50%*	*96%*
Economics specialisation		206,640		36%	80%
Teaching and education specialisation		116,040		46%	94%
Healthcare and paramedical specialisation		76,480		65%	91%
Civil engineering and architecture specialisation		57,300		49%	92%
Mathematical, physical and computer sciences specialisation		54,270		60%	88%
HIGHER TECHNICAL EDUCATION (HTE)		**51,590**	**1%**	**56%**	**78%**
SECONDARY *(5-year diploma)*		**1,488,750**	**29%**	**40%**	**69%**
Administration, finance and marketing specialisation		439,710		30%	63%
Tourism, food and wine and hospitality specialisation		226,330		48%	77%
Mechanics, mechatronics and energy specialisation		152,950		56%	70%
Social and healthcare specialisation		125,310		42%	83%
Transportation and logistics specialisation		107,980		28%	51%
Professional QUALIFICATION *(3-year)* or	**explicit inflow**	**1,006,300**	**19%**	**48%**	**70%**
Professional DIPLOMA *(4-year)*	**potential inflow**	**1,876,090**	**36%**	**43%**	**65%**
Catering specialisation	explicit: 256,040 / potential: 506,540			40%	67%
Mechanical specialisation	explicit: 163,670 / potential: 275,390			51%	60%
Building specialisation	explicit: 76,790 / potential: 227,680			48%	86%
Agri-food processing specialisation	explicit: 69,860 / potential: 163,480			39%	57%
Sales services specialisation	explicit: 57,650 / potential: 163,450			30%	53%

■ explicit inflow
■ potential inflow

The percentages of difficult to recruit inflow and inflow with experience refer to potential inflow

		Expected inflow (a.v.)	% of the total	% difficult to recruit	% with experience
NO QUALIFICATION	**explicit inflow**	**1,849,780**	**36%**	**34%**	**54%**
	potential inflow	**980,000**	**19%**	**31%**	**50%**

SKILLS REQUIRED BASED ON QUALIFICATION

In addition to indicating which skills they require, companies indicate their degree of importance in relation to the qualifications and fields of education of the candidates. For example, digital skills are considered important for 70% of university graduates, but it reaches 90% in the case of engineering and architecture university graduates and, of course, for almost all (99%) in the case of university graduates in mathematical and physical sciences and information technology. Digital skills are particularly important for people with ITS (Higher Technical Institute) diplomas (72%). Those linked to "4.0" technologies and applications and the use of mathematical and IT methods are, instead, of high importance (over 70%) only for university graduates in mathematical, physical and IT sciences. Transversal skills (or *soft skills*) are the most in demand, but again indicating greater importance for tertiary qualifications.

VERY IMPORTANT SKILLS BY MAIN FIELDS OF STUDY (*)

Key:
- from 1% to 33%
- from 34% to 66%
- from 67% to 100%

	Soft				Green	Technological				Communicative	
	Work in a group	Problem solving	Work autonomously	Flexibility and adaptability	Energy saving and environmental sustainability	Use mathematical and computer methods and languages	Use digital skills	Use "4.0" technologies to innovate processes	Communicate company information in Italian	Communicate company information in foreign languages
UNIVERSITY	82%	79%	68%	86%	45%	47%	70%	31%	60%	37%
Economics specialisation	83%	77%	69%	84%	46%	49%	78%	30%	64%	40%
Teaching and education specialisation	80%	73%	62%	82%	41%	28%	50%	10%	47%	25%
Healthcare and paramedical specialisation	71%	73%	58%	83%	35%	21%	31%	11%	47%	10%
Civil engineering and architecture specialisation	88%	86%	75%	89%	61%	60%	90%	32%	57%	25%
Mathematical, physical and computer sciences specialisation	87%	84%	69%	90%	40%	83%	98%	71%	62%	47%
HIGHER TECHNICAL EDUCATION (HTE)	71%	74%	66%	80%	48%	51%	72%	47%	46%	27%
SECONDARY *(5-year diploma)*	64%	52%	47%	73%	43%	21%	34%	14%	44%	19%
Administration, finance and marketing specialisation	67%	52%	46%	74%	36%	26%	52%	12%	52%	23%
Tourism, food and wine and hospitality specialisation	70%	48%	50%	74%	56%	14%	16%	11%	54%	36%
Mechanics, mechatronics and energy specialisation	55%	52%	47%	73%	46%	19%	24%	23%	31%	7%
Social and healthcare specialisation	57%	42%	33%	67%	31%	7%	4%	6%	24%	2%
Transportation and logistics specialisation	53%	41%	36%	68%	41%	15%	11%	10%	29%	6%
Professional QUALIFICATION *(3-year)* **or Professional DIPLOMA** *(4-year)***	48%	30%	38%	61%	41%	9%	8%	8%	31%	11%
Catering specialisation	55%	28%	39%	60%	47%	8%	5%	6%	43%	24%
Mechanical specialisation	36%	25%	31%	57%	33%	8%	6%	10%	14%	1%
Building specialisation	44%	28%	41%	58%	40%	8%	0%	7%	18%	0%
Agri-food processing specialisation	43%	25%	33%	56%	44%	10%	2%	6%	23%	6%
Sales services specialisation	62%	38%	45%	70%	39%	11%	24%	8%	59%	18%
NO QUALIFICATION	30%	20%	25%	52%	38%	4%	0%	4%	14%	0%

* The companies assign a score ranging from 0 (skill not required) to 4 (skill of the utmost importance) to each skill; the skills considered to be "very important" are those to which the companies assign a score of 3 or 4.

** The data refers to the potential inflow with a professional diploma or qualification. Please refer to the introductory text on page 10 "The fields of study that offer greatest job opportunities" for the definition of potential inflow.

COMPANIES HIRING

During 2022, 60% of companies with employees planned to hire (percentage in line with that of 2021). The sectors with the largest number of companies hiring are: tourism (75%), healthcare and transport/logistics (both 72%), public utilities (70%), as well as chemical-pharmaceutical industries and construction (both 68%).

The selection channels mainly used by companies are direct knowledge of the candidates (42%), followed by curriculum vitae received and indications from known individuals (33% for both methods). For larger companies, on the other hand, the use of more formal and structured channels such as curriculum vitae sent by candidates (up to 66%) or the use of the web and social channels (up to 34%) is more frequent.

Investments in digital transformation are particularly frequent, which in 2022 are planned by 70% of companies with employees and the number of companies investing in green skills reaches 54%.

COMPANIES HIRING IN 2021 BY SECTOR (% of total companies in the sector)

60%

Companies hiring

Sector	%
Accommodation and catering services; tourist services	75
Healthcare, social assistance and private health services	72
Transport, logistics and warehousing services	72
Public utilities (energy, gas, water, environment)	70
Chemical, pharmaceutical and oil industries	68
Construction	68
Rubber and plastic materials industries	65
Private education and training services	64
Food, beverage and tobacco industries	61
Industries manufacturing machines and equipment and means of…	61

RECRUITMENT CHANNELS USED BY COMPANIES
(% of total companies that indicate at least one selection channel by size class*)

Legend: ■ 1-9 employees ■ 10-49 employees ■ 50-499 employees ■ 500 employees and over
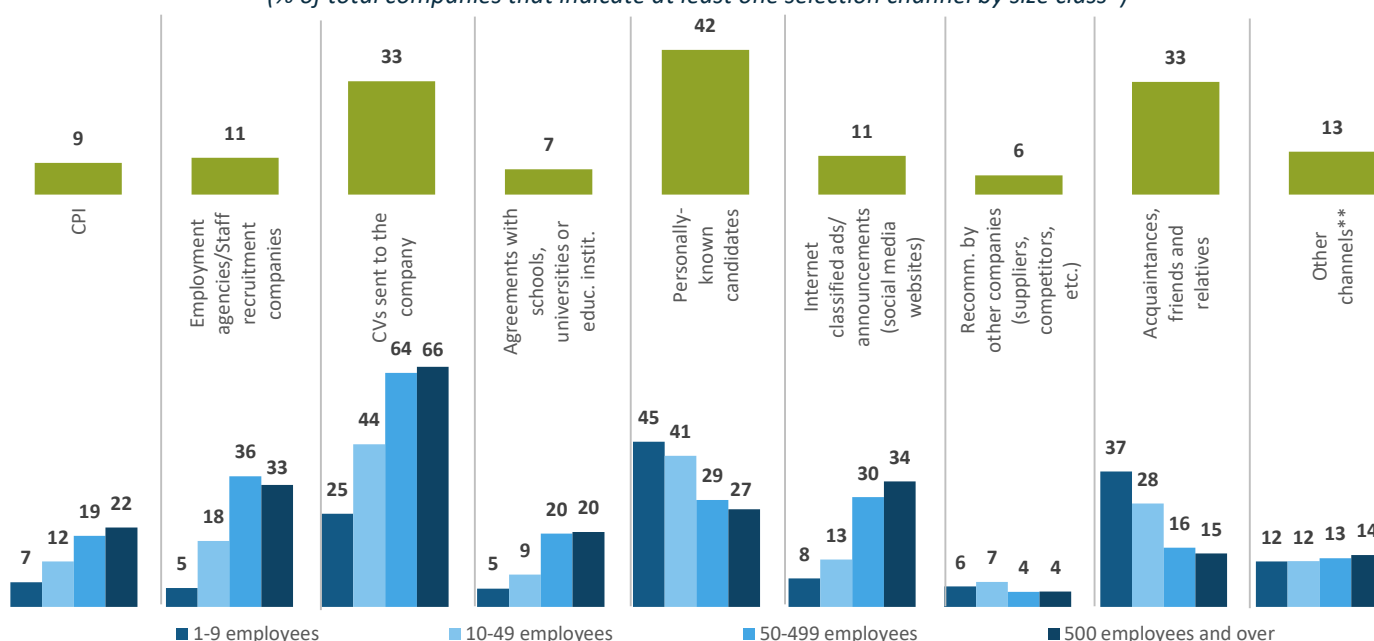
* This is a multiple choice question on the questionnaire, and the total can exceed 100.

**Trade associations/trade unions, classified ads/announcements in newspapers, labour consultants, other channel

DIGITAL TRANSFORMATION AND GREEN INVESTMENTS

68%	**70%**	**39%**	**54%**
Companies that invested in digital transformation between 2017 and 2021 (out of the total number of companies)	Companies that are investing in digital transformation in 2022 (out of the total number of companies)	Companies that invested in green skills in 2021 (out of the total number of companies)	Companies that are investing in green skills in 2022 (out of the total number of companies)

COMPANIES INVESTING IN DIGITAL TRANSFORMATION

AREAS OF INVESTMENT*
(% of companies that have made investments)

Technological

Area	2017-2021	2022
High speed internet, cloud, mobile, big data analytics	34	43
IT security	33	42
Software tools for data acquisition and management	33	40
IoT (Internet of Things), machine-to-machine communication technologies	24	30
Augmented and virtual reality to support production processes	20	26
Advanced robotics (3D printing, interconnected and programmable robots)	22	25

Organisational

Area	2017-2021	2022
Adoption of new rules for health security for workers, use of new aids, risk management	38	42
Strengthening of the administrative/managerial and legal/regulatory department as a result of the digital transformation	25	33
Adoption of smart working tools	31	35
Adoption of advanced management systems to promote integration and collaboration between corporate functions	27	35
Adoption of continuous detection systems and analysis, in real time, of the "performance" of all areas of the company	25	32
Adoption of an digital network integrated with external networks of product/service providers	22	29
Adoption of a digital network integrated with external networks of business customers (B to B)	20	27

Business models

Area	2017-2021	2022
Analysis of behaviour and needs of customers to guarantee the personalisation of the product/service offered	29	39
Digital marketing (use of channels/digital tools for the promotion and sale of products/services)	27	38
Use of Big data for market analysis	16	24

■ 2017-2021   ■ 2022

* Companies that reported making high-value investments in every aspect of the digital transformation during the two periods

DIGITAL TRANSFORMATION IN 2022 BY REGION
(% of total companies by region)

74

63
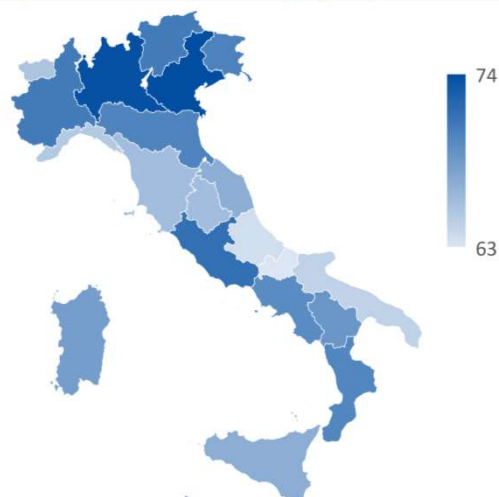
In 2022, the relevance of investments in digital transformation grew in all areas compared to the previous period (2017-2021). From a more strictly technological point of view, an increase in the use of high-speed Internet, cloud, mobile, big data and the increase in IT security emerges in particular (both with +8 percent for indications of high importance, reaching 42% of cases). There were also significant increases in software tools for data acquisition and management (+7 percent, at 40%). In the organisational sphere, a strengthening of the administrative and regulatory area following digital transformation and the adoption of advanced management systems for integration between the various company functions are growing (both +8 percent, at 33-35%). With reference to business models, the greatest increase regards the use of digital marketing (+11, reaching 38%).

From a territorial point of view, there is a greater propensity to invest in digital transformation by companies located in Lombardy and Veneto.

ONGOING TRAINING AND SCHOOL/WORK CONNECTION

COMPANIES THAT CARRY OUT TRAINING COURSES

In 2021 about 315 thousand companies had organised training courses for their employees, i.e. 22% of the total. In 2022 there was a slight increase on this front: over 329 thousand companies have carried out training (or plan to carry it out), 23% of the total. The purpose of the training carried out by companies in 2021 was above all to update personnel already present in the company on tasks already performed (70% of companies), while training activities aimed at training new hires were less frequent (17%) or to train existing staff to carry out new tasks (13%). The training is mainly carried out through coaching or external courses, and, to a lesser extent, through in-house courses, and is preferentially funded using the company's own resources.

314,510 (no. training companies)	← Companies that carried out training courses in **2021** →	**22%** (% of total companies)
329,120 (no. training companies)	← Companies that did or intend to carry out training courses in **2022** →	**23%** (% of total companies)

COMPANIES BY MAIN PURPOSE OF TRAINING - 2021

(composition % of total training companies)

- to train new hires: 17
- to update existing staff on the tasks they already perform: 70
- to train existing staff to perform new tasks: 13

COMPANIES BY TRAINING COURSE TYPE

(% of total companies, multiple choice)

2021 ▪ 2022

- coaching: 24 / 23
- in-house courses: 8 / 9
- external courses: 17 / 18
- other: 14 / 15
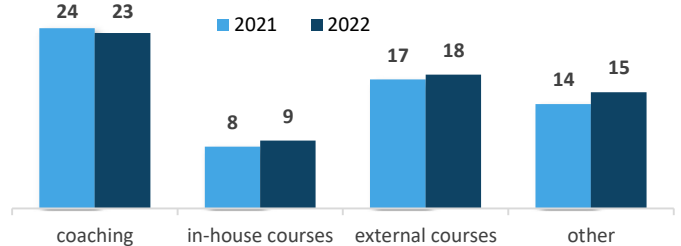
COMPANIES BY TRAINING AREA - 2022

(composition % of total training companies with courses)

- Green transition and environmental sustainability: 28
- Digitisation: 42
- No training on digitisation and green transition expected: 48
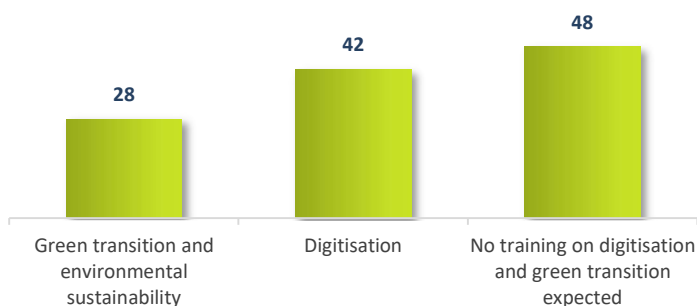
COMPANIES BY TRAINING FUNDING METHOD - 2022

(composition % of total training companies with courses)

- Structural/ESF/ERDF Funds: 9.0
- In-house resources: 78.2
- Inter-professional funds: 19.0
- Other funding channels: 4.0
- Grants from Bilateral Entities: 11.3
- Indirect funding channels: 1.0
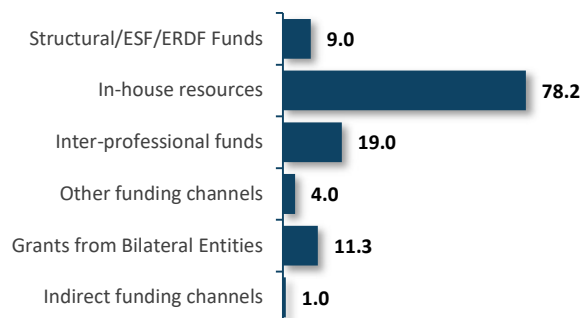
This is a multiple choice question

APPRENTICESHIP ACTIVITIES

Companies that hosted apprentices in 2021	**12%**
of which, in collaboration with schools (school-work alternation)	**7%**
Number of apprentices hired in 2022	**29%**

In 2021, 12% of companies (among those with employees) hosted one or more students for an apprenticeship period. For nearly a third of these apprentices, companies considered hiring them in 2022. This reveals the usefulness of this training tool for the purpose of recruiting personnel and directly verifying their abilities.

INFLOW IN THE VARIOUS REGIONS

Almost half of the total expected inflow in Italy is concentrated in the larger regions, starting with Lombardy and followed at a certain distance by Lazio, Veneto and Emilia-Romagna. At a territorial level, it is evident that the greatest difficulties in finding the profiles sought are reported by companies in the North East, where almost 46% of the figures are difficult to recruit. A difficulty higher than the national average is also recorded in the North West (41.7%), as well as in Tuscany, Umbria and Marche. In Lazio and in the southern regions, the difficulties in recruiting are more modest, although they still affect more than 35% of the planned inflow. Another particularly important aspect regards the incidence of university graduates on total planed inflow, which in 2022 is higher in Lombardy and Lazio (about 20% of total inflow) and in Piedmont, Campania and Sicily (around 16- 17%). In all the other regions, the number of university graduates is lower than the national average and is particularly low in Valle d'Aosta and Abruzzo (less than 9%). The nationwide differences in the qualitative characteristics of inflow clearly reflect the different economic structures and company sizes present in the relative areas, but also allow for local specificities and problems to be identified, which are extremely important elements for the purposes of guidance and active employment policies.

	TOTAL INFLOW (a.v.)	% difficult to recruit	% university graduates	variation % 2022/2021
ITALY	**5,179,140**	**40.5**	**15.1**	**11.6**
NORTH WEST	1,526,910	41.7	18.6	11.2
NORTH EAST	1,244,820	45.8	12.3	12.3
CENTRAL	1,019,600	38.7	15.2	11.4
SOUTH AND ISLANDS	1,387,800	35.8	13.8	11.7
PIEMONTE	345,650	43.3	17.1	12.1
VALLE D'AOSTA	16,920	45.4	8.6	-3.1
LOMBARDIA	1,032,320	41.0	19.9	10.9
LIGURIA	132,020	41.8	13.2	13.7
TRENTINO ALTO ADIGE	159,350	50.3	11.4	-0.1
VENETO	502,360	45.4	11.2	12.4
FRIULI VENEZIA GIULIA	108,040	48.3	12.9	8.2
EMILIA ROMAGNA	475,070	44.2	13.7	18.3
TOSCANA	326,610	41.9	11.2	12.8
UMBRIA	61,670	46.3	10.5	19.5
MARCHE	133,730	42.9	10.3	14.9
LAZIO	497,590	34.4	19.6	8.7
ABRUZZO	114,050	40.8	8.9	11.7
MOLISE	18,810	37.1	11.8	7.3
CAMPANIA	395,800	35.0	15.8	13.2
PUGLIA	289,630	33.7	13.4	11.8
BASILICATA	36,820	38.0	10.2	8.5
CALABRIA	101,400	36.8	12.2	7.1
SICILIA	288,040	35.3	16.2	12.8
SARDEGNA	143,250	38.3	10.1	9.8

DIFFICULTY IN RECRUITING PROFESSIONAL FIGURES IN THE VARIOUS REGIONS
(% of total inflow by province)

53

32
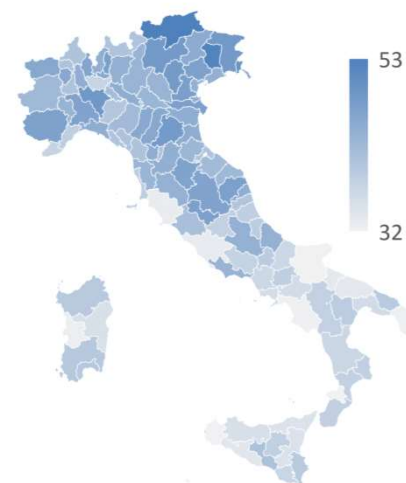
DEMAND FOR UNIVERSITY GRADUATES IN THE VARIOUS REGIONS
(% of total inflow by province)

27

6
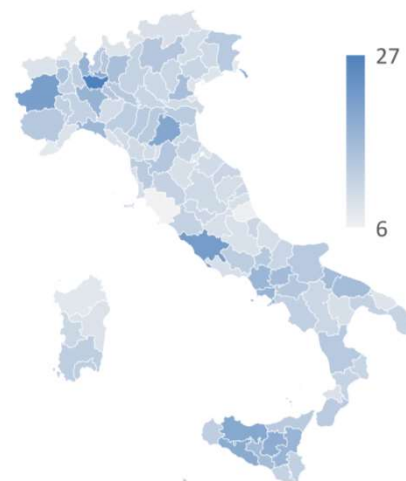
Note on methodology

The data presented comes from the Excelsior survey carried out by Unioncamere in agreement with the National Agency for Active Labour Policies (ANPAL). The survey, which is included in the National Statistical Programme (UCC-00007) among those that imply an obligatory response, has been carried out on a monthly basis since 2017.

The information contained in this bulletin was acquired by processing all the information obtained through the monthly surveys carried out until the month of August 2022, mainly by using the compilation technique in CAWI mode, carrying out about 285,000 interviews at companies, a representative sample of companies with employees in 2021 in the various industrial and services sectors. The estimate of the inflow forecast is obtained through modelling of the historical series of data taken from administrative sources on companies and employment, suitably integrated with the sample data relative to each monthly survey. Inflow (i.e. the number of employment contracts that companies intend to enter into in a certain period) and the relative characteristics refer to the hiring of employees and flows of collaborators, temporary workers and other non-employee workers. The data regarding the forecast for the entire year therefore no longer come from a specific annual survey, but from the integrated processing of the available monthly surveys.

The following graph compares the data in the Excelsior monthly forecasts with the final data obtained from the Ministry of Labour Mandatory Communications. The data of the Mandatory Communications is processed in such a way as to connect it to the field of observation of the Excelsior Project, through the exclusion of contracts longer than 30 days, of the Agriculture, Forestry and Fishing sectors (Ateco 01-02-03), of Public Administration (Ateco 84) and Activities of families and cohabitants as employers of domestic staff, production of undifferentiated goods and services by families and cohabitants for their own use (Ateco 97-98-99). The operations to connect the MCs to the Excelsior field of observation, while not allowing an alignment of the columns - due to the structure of the provision of data made available - show a correlation between the two series equal to 81% for the period July 2017 - August 2022.

Monthly trends Excelsior and MC data
(July 2017-August 2022)
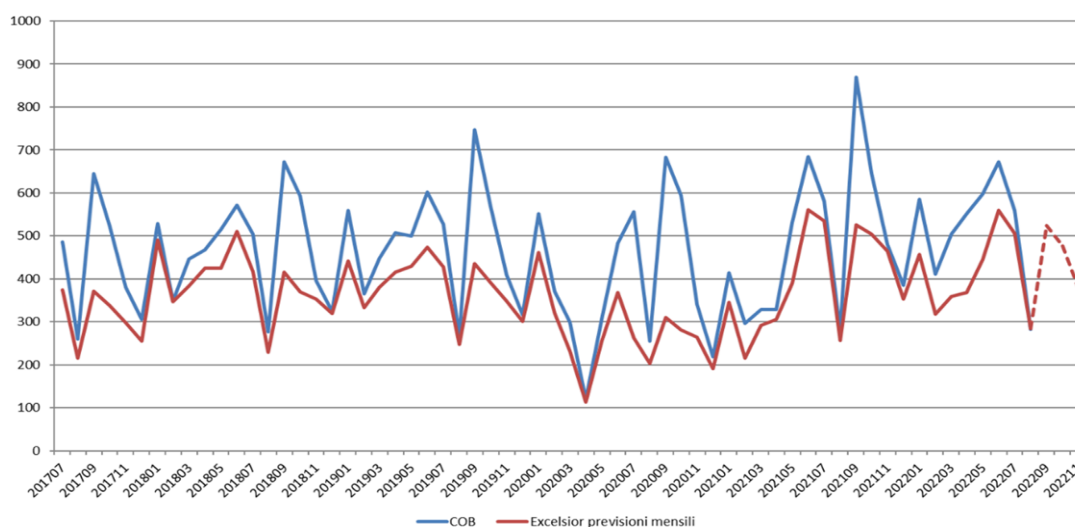
Source: Elaboration of data from Excelsior Unioncamere - Anpal and CO Ministry of Labour, various years

In this bulletin, the analysis is mainly focused on the characteristics of the inflow planned for the year 2022, according to the professional profiles and levels of education required. There are also some qualitative comparisons with the 2021 data. The results of the survey are available at provincial and regional level according to a variable number of economic

Excelsior Informa is created by Unioncamere in collaboration with ANPAL as part of the Excelsior Information System.

For in-depth information, refer to the following website: **http://excelsior.unioncamere.net** where data and analyses referring to all the regions and all the provinces is available.

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