

Directorate General Strategy, People and Data

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Banco de España Business Activity Survey (EBAE) microdata
BELab user guide

Statistics Department

Data available: 2020 Q4 – 2026 Q2

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1 Introduction

The Bank of Spain Survey on Business Activity (EBAE) is a quarterly survey carried out among a wide sample of Spanish non-financial companies, with the aim of assessing the evolution of business activity during the current quarter and the short-term outlook. The EBAE provides real-time extraction of valuable information regarding turnover, employment, prices paid and charged, as well as the main limiting factors of business activity, thereby contributing significantly to the diagnosis of the current economic situation.

The **methodological note** published on the Bank of Spain's website describes in detail the main characteristics of the survey in terms of sample design, the questionnaire, fieldwork, etc. BELab provides access to the anonymised microdata from this survey, adding economic and financial information from the integrated CBSO database.

2 Description of the dataset

Some of the characteristics of the available dataset are outlined below.

Identification codes	Internal code (anonymised)
Time horizon	From 2020 Q4 onwards
Frequency	Quarterly
Frequency of data delivery to BELab	Yearly
Updating procedure	The data from the four quarterly waves in year t-1 are loaded in year t
Geographical area covered	Spanish non-financial corporations
Data source	The data come from a quarterly survey of a sample of Spanish non-financial corporations to obtain qualitative information on economic activity. A set of variables relating to the respondent firms drawn from the information available in the integrated CBSO database have been added to these data.
Data Citations	For any study or other document made available to the public that contains information derived from the provided data, the researcher is obliged to properly cite the data source as follows: "Bank of Spain Survey on Business Activity – EBAE. BELab. Bank of Spain/CORPME, Spanish Association of Property and Trade Registrars. DOI: 10.48719/BELab.EBAE20T426T2_01"
Format of the information	<ul style="list-style-type: none">- In .csv format.- Zero values are differentiated from missing (blank) values.- By default, all available variables are provided and it is for researchers to decide whether or not to use them in their work.
Universe	Qualitative information on the business activity of a sample of non-financial corporations, combined with quantitative indicators from the integrated CBSO database.

3 Description of the EBAE variables

Nomenclature	Code	Description	Values
Company identifier	codigo	A numerical identifier associated with the firm, resulting from anonymising each firm's unique identification code.	
Wave	ola	Number of the wave to which the data correspond	1 = 2020T4 23 = 2026T2
Quarter	trim	Quarter to which the data correspond	
Sector of activity	rama12	The firm's sector of activity	1 = Agriculture 2 = Industry and energy 3 = Construction 4 = Distributive trade 5 = Transportation 6 = Accommodation and food service activities 7 = Information and communication 8 = Real estate activities 9 = Professional, scientific and technical activities 10 = Administrative activities 11 = Non-market services 12 = Recreation, entertainment and other service activities
Enterprise size	gempleo	Enterprise size, by number of employees	1 = < 10 employees 2 = 10-49 employees 3 = 50-249 employees 4 = ≥ 250 employees
Region	nuts1	Company region (NUTS1 level)	NUTS1 (Canarias, Centro, Este, Madrid, Noreste, Noroeste, Sur na=no disponible)
Elevation factor (employment)	peso_l	Elevation factor so that the sample replicates the distribution of employment by branches (15) and size (4) of the Social Security Business Statistics	
Elevation factor (companies)	peso_b	Elevation factor so that the sample replicates the distribution of the number of companies by branches (15) and size (4) of the Social Security Business Statistics	
Turnover (current quarter)	fact_tcorr	Change in turnover in the current quarter	-2 = Steep decrease
Turnover (following quarter)	fact_tsig	Expected change in turnover in the following quarter	-1 = Slight decrease 0 = Stable
Employment (current quarter)	emp_tcorr	Change in employment in the current quarter	1 = Slight increase
Employment (following quarter)	emp_tsig	Expected change in employment in the following quarter	2 = Steep increase

Input prices (current quarter)	pi_tcorr	Change in input prices in the current quarter	
Input prices (following quarter)	pi_tsig	Expected change in input prices in the following quarter	
Output prices (current quarter)	po_tcorr	Change in output prices in the current quarter	
Output prices (following quarter)	po_tsig	Expected change in output prices in the following quarter	
Current Investment	inv_tcorr	Evolution of the company's investment in the current quarter (available from wave 8)	
Next Investment	inv_tsig	Evolution of the company's investment in the following quarter (available from wave 8)	-2 = Steep decrease -1 = Slight decrease 0 = Stable 1 = Slight increase 2 = Steep increase
Current Margins	marg_tcorr	Evolution of the company's margins in the current quarter (available in waves 8 and 9)	
Next Margins	marg_tsig	Evolution of the company's margins in the following quarter (available in waves 8 and 9)	
Current Profits	benef_tcorr	Evolution of the company's profits in the current quarter (available in waves 8 and 9)	
Next Profits	benef_tsig	Evolution of the company's profits in the following quarter (available in waves 8 and 9)	
Debt	deuda	Evolution of the company's debt in the current quarter (available from wave 10)	
Delayed Debt Payments	ret_deu	Delays in the payment of the company's debt (available in waves 13 and 15)	1= Yes 2= No
Delayed Supplier Payments	ret_prov	Delays in payments to the company's suppliers (available in waves 14 and 15)	3= Not applicable
Linkage to Wages and Inflation	salinf	Linking company wages to inflation (available in waves 10, 14, and 18)	1 = Very close link to past inflation 2 = Partial link to past inflation 3 = Very close link to expected inflation 4 = Partial link to expected inflation 5 = No link to inflation
NGEU Request	ngeu	Requesting a subsidy or submitting a tender associated with the MRR (available in wave 10)	1 = Request submitted and granted 2 = Request submitted but not yet resolved 3 = Request submitted but not granted 4 = Request not submitted or planned for the next 12 months 5 = Request not submitted but planned for the next 12 months

Investment Drivers (Demand)	inv_dem	Effect of demand trends on investment (available in wave 11)	1= Very negative 2= Negative 3= Neutral 4= Positive 5= Very positive	
Investment Drivers (Availability of Own Resources)	inv_dispr	Effect of the availability of equity on investment (available in wave 11)		
Investment Drivers (External Financing)	inv_fin	Effect of conditions and access to external financing on investment (available in wave 11)		
Investment Drivers (Availability of Labor)	inv_disp	Effect of labor availability on investment (available in wave 11)		
Investment Drivers (Uncertainty)	inv_inc	Effect of uncertainty about economic conditions on investment (available in wave 11)		
Investment Drivers (NGEU Requests)	inv_ngeu	Effect of requesting subsidies or participating in tenders under the MRR (NGEU) on investment (available in wave 11)	1= Very negative 2= Negative 3= Neutral 4= Positive 5= Very positive	
Impact on Labor Availability (Production)	dis_prod	Impact of labor availability problems on the company's production/sales Company (available in wave 12)		
Impact on Labor Availability (Investment)	dis_inv	Impact of labor availability problems on company investment (available in wave 12)		
Impact on Labor Availability (Hiring)	dis_cont	Impact of labor availability problems on new hires in the company (available in wave 12)		
Impact on Labor Availability (Salaries)	dis_sal	Impact of labor availability problems on company wages (available in wave 12)		
Reasons for Labor Availability (High Qualification)	trab_al	Reasons for labor availability problems for high-skilled workers (available in wave 12)		1 = Difficulty finding workers with the required qualifications 2 = Difficulty retaining workers in the company 3 = Difficulty offering competitive working conditions 4 = Difficulty offering competitive salaries
Reasons for Labor Availability (medium qualification)	trab_med	Reasons for labor availability problems for medium-skilled workers (available in wave 12)		
Reasons for labor availability (low qualification)	trab_baj	Reasons for labor availability problems for low-skilled workers (available in wave 12)		
Determinants of business activity (Demand)	c_dem	Effect of demand on the firm's business activity		1 = Very negative 2 = Negative 3 = Neutral 4 = Positive 5 = Very positive
Determinants of business activity (External finance)	c_fin	Effect of access to external finance		
Conditions of activity (Debt interest expenses)	c_gint	Effect of interest expense on debt (only available from wave 13 onwards)		
Determinants of business activity (Customer collections)	c_cob	Effect of collections from customers on the firm's business activity		

Determinants of business activity (Supplies from usual suppliers)	c_sum	Effect of obtaining supplies from usual suppliers on the firm's business activity	1 = Very negative 2 = Negative 3 = Neutral 4 = Positive 5 = Very positive
Determinants of business activity (Availability of labour)	c_disp	Effect of the availability of labour on the firm's business activity	
Determinants of business activity (Competition)	c_comp	Effect of pressure from competition on the firm's business activity	
Determinants of business activity (Pandemic-related uncertainty)	c_inccovid	Effect of pandemic-related uncertainty on the firm's business activity	
Determinants of business activity (Economic policy uncertainty)	c_incpol	Effect of economic policy uncertainty on the firm's business activity	
Determinants of business activity (Energy costs)	c_energ	Effect of the cost of energy inputs on the firm's business activity (AVAILABLE FROM WAVE 5)	
Determinants of business activity (Duration of supply difficulties)	dur_dsum	Expected duration of supply difficulties (expected resolution date). Available from waves 5 to 11	Waves 5 and 6 1 = Until mid-2022 2 = Until the end of 2022 3 = Until mid-2023 4 = Until the end of 2023 or later Waves 7 and 8 1 = Until the end of 2022 2 = Until mid-2023 3 = Until the end of 2023 4 = In 2024 or later Waves 9 and 10 1 = Until mid-2023 2 = Until the end of 2023 3 = In 2024 or later Wave 11 1 = Until the end of 2023 2 = Until the first half of 2024 3 = Until the end of 2024 4 = In 2025 or later
Turnover compared with pre-COVID-19 level	fact_dif19	Change in turnover in the current quarter compared to the level observed in the fourth quarter of 2019 (available until wave 12)	1 = ≤ -50% 2 = Between -50% and -30% 3 = Between -30% and -15% 4 = Between -15% and -10% 5 = Between -10% and -5% 6 = Between -5% and 0% 7 = Unchanged 8 = Between 0% and 5% 9 = Between 5% and 10% 10 = > 10%
Employment compared with pre-COVID-19 level	emp_dif19	Change in employment in the current quarter compared with its 2019 Q4 level	
Recovery outlook	fecha_nivelprecovid	When the respondent expects to recover its pre-pandemic level of activity	See Annex 1*

Measures in response to COVID-19 (Teleworking)	m1_telet	Degree of importance of teleworking as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	1 = Unimportant 2 = Mostly unimportant 3 = Important 4 = Highly important
Measures in response to COVID-19 (e-commerce)	m1_vonline	Degree of importance of the greater use of e-commerce as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (ERTE)	m1_erte	Degree of importance of furlough schemes (ERTEs by their Spanish initials) as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Lay-offs)	m1_despido	Degree of importance of lay-offs as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Wages)	m1_sal	Degree of importance of wage cuts as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Investment cuts)	m1_rinv	Degree of importance of cuts to planned investments as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (ICO)	m1_ico	Degree of importance of the ICO-backed credit lines as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Other loans)	m1_ocred	Degree of importance of access to other loans not backed by the ICO as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Tax deferrals)	m1_aptrib	Degree of importance of the deferral of tax debts as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures in response to COVID-19 (Rent renegotiation)	m1_alq	Degree of importance of rent deferral or renegotiation as an adjustment measure for mitigating the effects of COVID-19 (ONLY AVAILABLE IN WAVE 1)	
Measures taken or planned for the next six months (Reinstatement of furloughed workers)	m_recerte	Reinstatement of furloughed workers (available in waves 2-7)	1 = No 2 = Unlikely 3 = Highly likely 4 = Yes
Measures taken or planned for the next six months (Application for furlough scheme)	m_solerte	Application for a new furlough scheme or inclusion of workers in an existing scheme (available in waves 2-7)	

Measures taken or planned for the next six months (Working hour or wage cuts)	m_ajus	Cuts to working hours or wages of workforce (available in waves 2-7)	<p>1 = No</p> <p>2 = Unlikely</p> <p>3 = Highly likely</p> <p>4 = Yes</p>	
Measures taken or planned for the next six months (Close)	m_cierre	View as to the likelihood of the business having to close (available in waves 2-7)		
Measures taken or planned for the next six months (Teleworking)	m_telet	Maintain or increase the use of teleworking (available in waves 2-7)		
Measures taken or planned for the next six months (New sales channels)	m_canales	Roll-out of new sales channels (available in waves 2-7)		
Measures taken or planned for the next six months (New markets/products)	m_mercad	Entry into new markets and/or launch of new products (available in waves 2-7)		
Measures taken or planned for the next six months (New IT investment)	m_tecno	New IT and digitalization investment (available in waves 2-7)		
Measures taken or planned for the next six months (Investment cuts)	m_rinv	Cuts to planned investments (available in waves 2-7)		
Measures taken or planned for the next six months (Capital increase)	m_capit	Carry out a capital increase (available in waves 2-7)		
Measures taken or planned for the next six months (ICO)	m_ico	Apply for new ICO-backed credit lines (available in waves 2-7)		
Measures taken or planned for the next six months (NGEU)	m_ngeu	Submit projects for NGEU funds (available in waves 2-7)		
Measures taken or planned for the next six months (Direct assistance)	m_ayud	Apply for direct assistance to address the impact of the pandemic (available in waves 4-7)		
Price expectations one year ahead (Input prices)	pi_1year	Forecast of input prices one year ahead (available in waves 5-7)		-2 = Steep decrease
Price expectations one year ahead (Output prices)	po_1year	Forecast of output selling prices one year ahead (available in waves 5-7)		-1 = Slight decrease
Price expectations one year ahead (Labour costs)	cl_1year	Forecast of labour costs one year ahead (available in waves 5-7)	0 = Stable	
			1 = Slight increase	
			2 = Steep increase	

Impact of war in Ukraine (Energy inputs)	impguerra_inputen	Effect on the firm's business activity of the increase in the cost of energy inputs associated with the war in Ukraine (available in wave 7)	<p>1 = Very negative</p> <p>2 = Negative</p> <p>3 = Neutral</p> <p>4 = Positive</p>
Impact of war in Ukraine (Non-energy inputs)	impguerra_inputne n	Effect on the firm's business activity of the increase in the cost of non-energy inputs associated with the war in Ukraine (available in wave 7)	
Impact of war in Ukraine (Supplies)	impguerra_sum	Effect on the firm's business activity of difficulties in obtaining supplies from usual suppliers associated with the war in Ukraine (available in wave 7)	
Impact of war in Ukraine (International demand)	impguerra_di	Effect on the firm's business activity of changes in international demand for its products associated with the war in Ukraine (available in wave 7)	
Impact of war in Ukraine (Domestic demand)	impguerra_dn	Effect on the firm's business activity of changes in domestic demand for its products associated with the war in Ukraine (available in wave 7)	
Impact of war in Ukraine (Investment cuts)	impguerra_inv	Effect of the war in Ukraine on the firm's investment decisions (available in wave 7)	
Impact of the war in Ukraine (potential Russian gas cutoff)	impguerra_corteg	Effect of the war in Ukraine on the company's investment decisions (available in waves 8 to 9)	
Impact of the Red Sea	imp_mrojo	Impact of the Red Sea conflict (available in wave 14)	<p>1 = No significant effects</p> <p>2 = Positive</p> <p>3 = Negatively, due to delays in delivery of goods</p> <p>4 = Negatively, due to higher transportation costs</p> <p>5 = Negatively, due to the need to accumulate more inventory</p> <p>6 = Negatively, due to having to find more expensive alternative suppliers</p>
Impact of Chinese trade tensions	imp_china	Impact of the increase in trade tensions with China (available in wave 14)	
Influence of the minimum wage (SMI)	inc_smi	Percentage of workers affected by the minimum wage (available in wave 18)	<p>1= 0-5%</p> <p>2= 5-10%</p> <p>3= 10-15%</p> <p>4=15-20%</p> <p>5=20-25%</p> <p>6=25-50%</p> <p>7= 50-75%</p> <p>8=>75%</p>
SMI measures (layoffs)	smi_desp	Degree of relevance of the reduction in employment through layoffs due to the minimum wage increases since 2019 (available in wave 18)	<p>1 = Not relevant</p> <p>2 = Slightly relevant</p>
SMI measures (hiring)	smi_cont	Degree of relevance of the reduction in new hires due to the minimum wage increases since 2019 (available in wave 18)	<p>3 = Relevant</p> <p>4 = Very relevant</p>

SMI measures (working hours)	smi_jor	Degree of relevance of the reduction in working hours due to the minimum wage increases since 2019 (available in wave 18)	<p>1 = Not relevant</p> <p>2 = Slightly relevant</p> <p>3 = Relevant</p> <p>4 = Very relevant</p>
SMI measures (salary costs)	smi_sal	Degree of relevance of the reduction in other components of salary costs due to the minimum wage increases since 2019 (available in wave 18)	
SMI measures (non-labor costs)	smi_cnl	Degree of relevance of the reduction in other non-labor costs in response to the minimum wage increases since 2019 (available in wave 18)	
SMI measures (prices)	smi_pv	Degree of relevance of the increase in the company's selling prices in response to the minimum wage increases since 2019 (available in wave 18)	
SMI measures (margins)	smi_mar	Degree of relevance of the reduction in the company's margins in response to the minimum wage increases since 2019 (available in wave 18)	
Utilization of productive capacity	cap	Degree of utilization of productive capacity (available from wave 19)	<p>1 = Excessive (the company has idle capacity)</p> <p>2 = Adequate</p> <p>3 = Insufficient (demand is greater than my productive capacity)</p>
Business outlook in 1 year	fact_1year	Expected turnover level in 1 year (available from wave 21)	<p>1 = Significantly lower (approx. decrease greater than 5%)</p> <p>2 = Slightly lower (approx. decrease less than 5%)</p> <p>3 = Stable</p> <p>4 = Slightly higher (approx. increase less than 5%)</p> <p>5 = Significantly higher (approx. increase greater than 5%)</p>
Uncertainty about turnover level in 1 year	inc_1year	Level of uncertainty about turnover in 1 year (available from wave 21)	<p>1 = Very low / much lower than usual</p> <p>2 = Low / lower than usual</p> <p>3 = Normal / in line with usual levels</p> <p>4 = High / higher than usual</p> <p>5 = Very high / much higher than usual</p>
Impact of the Iran war	Iran_cenerg	Impact of the Iran war on activity via increased energy input costs (available in wave 23)	<p>1 = Very negatively</p> <p>2 = Negatively</p> <p>3 = No significant effects</p> <p>4 = Positively</p>
Impact of the Iran war	Iran_cnenerg	Impact of the Iran war on activity via increased non-energy input costs (available in wave 23)	
Impact of the Iran war	Iran_senerg	Impact of the Iran war on activity via energy input supply (available in wave 23)	

Impact of the Iran war	Iran_snerg	Impact of the Iran war on activity via non-energy input supply (available in wave 23)	1 = Very negatively 2 = Negatively 3 = No significant effects 4 = Positively
Impact of the Iran war	Iran_dint	Impact of the Iran war on activity via international demand for products/services (available in wave 23)	
Impact of the Iran war	Iran_dnac	Impact of the Iran war on activity via domestic demand for products/services (available in wave 23)	
Impact of the Iran war	Iran_dnac	Impact of the Iran war on activity via investment decisions due to increased uncertainty (available in wave 23)	

4 Integrated CBSO database variables

4.1 Identifying variables in the integrated CBSO database

Compliance with CBSO quality standards	calidad_2019	Indicates whether or not the firm meets the quality standards defined by the CBSO, including the standard on reliable units.	S Yes, it does N No, it does not
Consistent staff	peco_2019	Indicator of whether or not the questionnaire has passed the consistent staff test defined by the CBSO.	S Yes N No
Reliable units	fiab_2019	Indicates whether or not, in the CBSO's opinion, the firm presents its data with reliable units.	S Reliable N Unreliable
Statistical size	tamest_2019	Size identifier calculated on statistical criteria. It has a length of one numerical position.	0 Not reported 1 Large 2 Medium 3 Small 4 Microenterprise
Size (European Recommendation)	tamrec_2019	Size identifier as per the criteria of European Recommendation 2003/361/EC. It has a length of one numerical position.	0 Not reported 1 Large 2 Medium 3 Small 4 Microenterprise
Year of incorporation	anyconst_2019	Year in which the firm was incorporated. It has a length of four numerical positions.	

4.2 Economic and financial variables in the integrated CBSO database

Output value	output_20XX
Gross value added (GVA)	gva_20XX
Personnel costs per worker	pcost_20XX
Gross operating profit (GOP)	gop_20XX
GVA / Output	gva_output_20XX
GOP / Output	gop_output_20XX
R.1 Return on assets (book values) (closing balances)	r1_20XX
R.2 Interest on borrowed funds / interest-bearing borrowing (closing balances)	r2_20XX
R.3 Return on equity (book values) (closing balances)	r3_20XX
R.4 ROA - cost of debt (R.1 - R.2) (book values) (closing balances)	r4_20XX
Debt ratio (interest-bearing borrowing / net assets, book values, closing balances) (E.1)	e1_20XX
Debt ratio (interest-bearing borrowing / (GOP + finance revenue), closing balances) (E.2)	e2_20XX
Interest burden (interest on borrowed funds / (GOP + finance income))	int_burden_20XX
Average supplier payment period (days)	apps_20XX
Average customer collection period (days)	accp_20XX
Permanent employment / Total average employment	fixemp_20XX
Intangible assets / Total assets	intang_20XX
Liquidity ratio (Cash and cash equivalents / Total assets)	liquid_20XX

Annex 1. Detailed description of EBAE variables

- Recovery outlook (fecha_nivelprecovid)

WAVE 1	WAVE 2	WAVE 3	WAVE 4	WAVE 5	WAVE 6	WAVE 7	WAVE 8	WAVE 9
1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered	1 = Already recovered
2 = Over the rest of 2020	2 = In 2021 H1	2 = In 2021 H2	2 = In 2021 Q4	2 = In 2022 H1	2 = In 2022 H1	2 = In 2022 H1	2 = In 2022 H2	2 = In 2023 H1
3 = In 2021	3 = In 2021 H2	3 = In 2022	3 = In 2022	3 = In 2022 H2	3 = In 2022 H2	3 = In 2022 H2	3 = in 2023	3 = In 2023 H2
4 = In 2022	4 = In 2022	4 = In 2023	4 = In 2023	4 = In 2023	4 = In 2023	4 = In 2023	4 = in 2024	4 = En 2024
5 = From 2022	5 = From 2022	5 = From 2023	5 = From 2023	5 = In 2024	5 = In 2024	5 = In 2024	5 = from 2024	5 = from 2024
6 = Too much uncertainty	6 = Too much uncertainty	6 = Too much uncertainty	6 = Too much uncertainty	6 = From 2024	6 = From 2024	6 = From 2024	6= Too much uncertainty	6 = Too much uncertainty
-	-	-	-	7 = Too much uncertainty	7 = From 2024	7 = From 2024		

Annex 2. Artificial Intelligence Module (Wave 17: November 2024)

Company identifier	codigo	A numerical identifier associated with the firm, resulting from anonymizing each firm's unique identification code.	
Wave	ola	Wave number to which the data correspond	17 = 2024Q4
Sector of activity	rama12	The firm's sector of activity	<p>1 = Agriculture</p> <p>2 = Industry and energy</p> <p>3 = Construction</p> <p>4 = Distributive trade</p> <p>5 = Transportation</p> <p>6 = Accommodation and food service activities</p> <p>7 = Information and communication</p> <p>8 = Real estate activities</p> <p>9 = Professional, scientific and technical activities</p> <p>10 = Administrative activities</p> <p>11 = Non-market services</p> <p>12 = Recreation, entertainment and other service activities</p>
Enterprise size	gempleo	Enterprise size, by number of employees	<p>1 = < 10 employees</p> <p>2 = 10-49 employees</p> <p>3 = 50-249 employees</p> <p>4 = ≥ 250 employees</p>
Elevation factor (employment)	peso_l	Elevation factor so that the sample replicates the distribution of employment by branches (15) and size (4) of the Social Security Business Statistics	
Elevation factor (companies)	peso_b	Elevation factor so that the sample replicates the distribution of the number of companies by branches (15) and size (4) of the Social Security Business Statistics	
Degree of use of technologies	cnube	Degree of use of cloud computing	<p>1 = No current use and no short-term plans to use it</p> <p>2 = No current use, but plans to start using it within the next 12 months</p> <p>3 = Very occasional use or in pilot/experimental form</p> <p>4 = Moderate use</p> <p>5 = High use</p>
	ia_pred	Degree of use of predictive artificial intelligence	
	ia_gen	Degree of use of generative artificial intelligence	
	robot	Degree of use of advanced robotics	
	intercon	Degree of use of production process interconnection	

Most relevant use of technologies	uso_cnube	If cloud computing is used, most relevant factor for deciding its use	<p>1 = No current use 2 = Automating tasks or processes previously carried out by company employees 3 = Improving existing production processes through automation 4 = Improving the quality or reliability of processes underpinning activity 5 = Expanding the range of goods or services supplied</p>
	uso_iapred	If predictive AI is used, most relevant factor for deciding its use	
	uso_iagen	If generative AI is used, most relevant factor for deciding its use	
	uso_robot	If advanced robotics is used, most relevant factor for deciding its use	
	uso_intercon	If production process interconnection is used, most relevant factor for deciding its use	
Purposes of AI use	prop_ia_marketing	Uses or plans to use AI systems for marketing or sales	<p>1 = Yes 0 = No</p>
	prop_ia_prod	Uses or plans to use AI systems for production processes or service provision	
	prop_ia_admin	Uses or plans to use AI systems for administrative processes, business management, accounting, or financial management	
	prop_ia_logis	Uses or plans to use AI systems for logistics tasks	
	prop_ia_segur	Uses or plans to use AI systems for IT security (cybersecurity)	
	prop_ia_id	Uses or plans to use AI systems for R&D activities	
AI obstacles	obs_costes	Relevance of excessively high costs as an obstacle to AI adoption	<p>1 = Not relevant 2 = Slightly relevant 3 = Relevant 4 = Very relevant 0 = Not applicable</p>
	obs_cualif	Relevance of lack of qualified personnel as an obstacle	
	obs_incomp	Relevance of incompatibility with existing equipment, software, or systems as an obstacle	
	obs_datos	Relevance of difficulties with availability or quality of data as an obstacle	
	obs_regul	Relevance of regulation as an obstacle	
	obs_inclegal	Relevance of legal uncertainty as an obstacle	
	obs_etic	Relevance of ethical considerations as an obstacle	
	obs_util	Relevance of lack of usefulness of AI technologies as an obstacle	
Employment impact	imp_emp	Impact of AI technologies on the company's level of employment	<p>1 = Decrease 2 = No change 3 = Increase</p>

Annex 3. Artificial Intelligence Module (Wave 22: February 2026)

Company identifier	codigo	A numerical identifier associated with the firm, resulting from anonymising each firm's unique identification code.	
Wave	ola	Wave number to which the data correspond	22 = 2026Q1
Sector of activity	rama12	The firm's sector of activity	<ul style="list-style-type: none"> 1 = Agriculture 2 = Industry and energy 3 = Construction 4 = Distributive trade 5 = Transportation 6 = Accommodation and food service activities 7 = Information and communication 8 = Real estate activities 9 = Professional, scientific and technical activities 10 = Administrative activities 11 = Non-market services 12 = Recreation, entertainment and other service activities
Enterprise size	gempleo	Enterprise size, by number of employees	<ul style="list-style-type: none"> 1 = < 10 employees 2 = 10-49 employees 3 = 50-249 employees 4 = ≥ 250 employees
Elevation factor (employment)	peso_l	Elevation factor so that the sample replicates the distribution of employment by branches (15) and size (4) of the Social Security Business Statistics	
Elevation factor (companies)	peso_b	Elevation factor so that the sample replicates the distribution of the number of companies by branches (15) and size (4) of the Social Security Business Statistics	
Degree of use of technologies	cnube	Degree of use of cloud computing	<ul style="list-style-type: none"> 1 = No current use and no short-term plans to use it 2 = No current use, but plans to start using it within the next 12 months 3 = Very occasional use or in pilot/experimental form 4 = Moderate use 5 = High use
	ia_pred	Degree of use of predictive artificial intelligence	
	ia_gen	Degree of use of generative artificial intelligence	
	robot	Degree of use of advanced robotics	
	intercon	Degree of use of production process interconnection	

Most relevant use of technologies	uso_iapred	If predictive AI is used, most relevant factor for deciding its use	<p>1 = No current use 2 = Automating tasks or processes previously carried out by company employees 3 = Improving existing production processes through automated processes 4 = Improving the quality or reliability of processes underpinning operations 5 = Expanding the range of goods or services supplied 6 = Reducing costs 7 = Increasing output or sales with similar resources</p>
	uso_iagen	If generative AI is used, most relevant factor for deciding its use	
AI usage activities	act_ia_marketing	Uses or plans to use AI systems for marketing or sales	<p>1 = Yes 0 = No</p>
	act_ia_prod	Uses or plans to use AI systems for production processes or service provision	
	act_ia_gestionint	Uses or plans to use AI systems for internal management tasks, regulatory compliance, etc.	
	act_ia_logis	Uses or plans to use AI systems for logistics tasks	
	act_ia_segur	Uses or plans to use AI systems for IT security (cybersecurity)	
	act_ia_contab	Uses or plans to use AI systems for accounting or financial management tasks	
	act_ia_id	Uses or plans to use AI systems for R&D activities	
	act_ia_rrhh	Uses or plans to use AI systems for human resources management tasks	
AI obstacles	obs_costes	Relevance of excessively high costs as an obstacle to AI adoption	<p>1 = Not relevant 2 = Slightly relevant 3 = Relevant 4 = Very relevant</p>
	obs_cualif	Relevance of lack of qualified personnel as an obstacle	
	obs_incomp	Relevance of incompatibility with existing equipment, software, or systems as an obstacle	
	obs_datos	Relevance of difficulties with availability or quality of data as an obstacle	
	obs_regul	Relevance of regulation as an obstacle	
	obs_inclegal	Relevance of legal uncertainty as an obstacle	
	obs_eti	Relevance of ethical considerations as an obstacle	
	obs_util	Relevance of lack of usefulness of AI technologies as an obstacle	
	obs_conoc	Relevance of lack of knowledge about AI technologies as an obstacle	

Impact of AI in the previous 3 years	imp_emp_p	Impact of AI technologies on company employment over the past three years	<p>1 = Significant decrease</p> <p>2 = Moderate decrease</p> <p>3 = No effects</p> <p>4 = Moderate increase</p> <p>5 = Significant increase</p>	
	imp_prod_p	Impact on productivity (past 3 years)		
	imp_inv_p	Impact on investment (digitalization, training, databases) (past 3 years)		
	imp_gext_p	Impact on spending on external services (past 3 years)		
Expected impact of AI in the next 3 years	imp_emp_f	Impact on employment (next 3 years)		
	imp_prod_f	Impact on productivity (next 3 years)		
	imp_inv_f	Impact on investment (next 3 years)		
	imp_gext_f	Impact on spending on external services (next 3 years)		
Impact of AI by type of employment	imp_emp_rep	Impact on employment in repetitive or routine tasks (next 3 years)		<p>1 = Yes</p> <p>0 = No</p>
	imp_emp_analis	Impact on employment in analytical/problem-solving tasks (next 3 years)		
	imp_emp_manag	Impact on employment in managerial positions (next 3 years)		
Firm responses to AI	r_ia_formacion	Plans to increase AI training for current staff		
	r_ia_contratar	Plans to hire staff with different profiles or skills		
	r_ia_reasig	Plans to reassign staff to different tasks within the company		
	r_ia_redjunior	Plans to reduce the pace of hiring junior staff		
	r_ia_redsenior	Plans to reduce the pace of hiring senior staff		
	r_ia_redempleo	Plans to reduce the total number of employees		
AI impact on workplace social interaction	soc_ayudam	AI reduces the frequency of asking for help among colleagues within the same department	<p>1 = Not at all</p> <p>2 = A little</p> <p>3 = Quite a lot</p> <p>4 = A lot</p>	
	soc_ayudao	AI reduces the frequency of asking for help among colleagues from other departments		
	soc_inter	AI has replaced interactions that previously occurred between colleagues and reduced team cohesion		
	soc_auton	AI allows more autonomous work within the company		
	soc_efic	AI improves efficiency at the expense of social interaction among colleagues		