

12 June 2023

REGIONAL DEVELOPMENT COMPOSITE INDEX
2021

FIVE OUT OF THE 25 NUTS 3 SUB-REGIONS STOOD ABOVE THE NATIONAL AVERAGE IN TERMS OF REGIONAL DEVELOPMENT

In 2021, there was an increase, compared to the previous year, in the territorial disparity of the results of the *competitiveness index* - reaching the highest value of the entire series - and of the *cohesion index*, standing out, in this dimension, the evolution registered in the coefficient of variation: 6.6% in 2020 and 7.1% in 2021.

In 2021, according to the *regional development composite index*, five out of the 25 NUTS 3 sub-regions stood above the national average in terms of the overall regional development – the metropolitan areas of Lisboa (106.06) and Porto (103.32), Cávado (101.36), Região de Aveiro (101.22) and Região de Coimbra (100.39).

In the *competitiveness index* only four sub-regions stood above the national average: Área Metropolitana de Lisboa (113.17), standing out from Região de Aveiro (106.88), Área Metropolitana do Porto (106.10) and Alentejo Litoral (101.80). The *competitiveness* revealed the highest disparity among the three dimensions of regional development.

In the *cohesion index*, eight NUTS 3, mostly from the mainland coast, stood above the national average. In this dimension, Região de Coimbra (106.66), Cávado (106.21) and Área Metropolitana de Lisboa (105.79) stood out with the highest values.

The *environmental index* results highlight the inner mainland sub-regions and the two autonomous regions with higher values. The national average was exceeded by 16 NUTS 3, with a regional disparity lower than the one observed for *competitiveness* and *cohesion*. Terras de Trás-os-Montes (112.49) was the sub-region with the highest score in the *environmental index*.

The **Regional Development Composite Index** (ISDR) relies on a conceptual framework which benefits from a multidimensional approach to regional development that encompasses three dimensions: *competitiveness*, *cohesion* and *environmental quality*. The statistical unit observed is the NUTS III sub-regions. The technical note at the end of this press release contains the list of indicators considered and their relation with each of the three indexes, and the correlation matrix of the input indicators to compute ISDR is also presented.

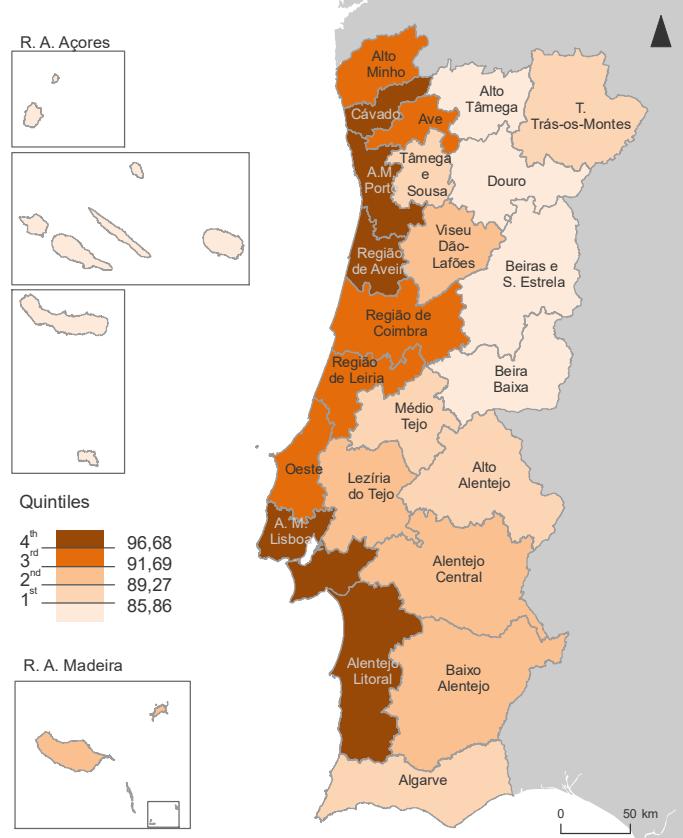
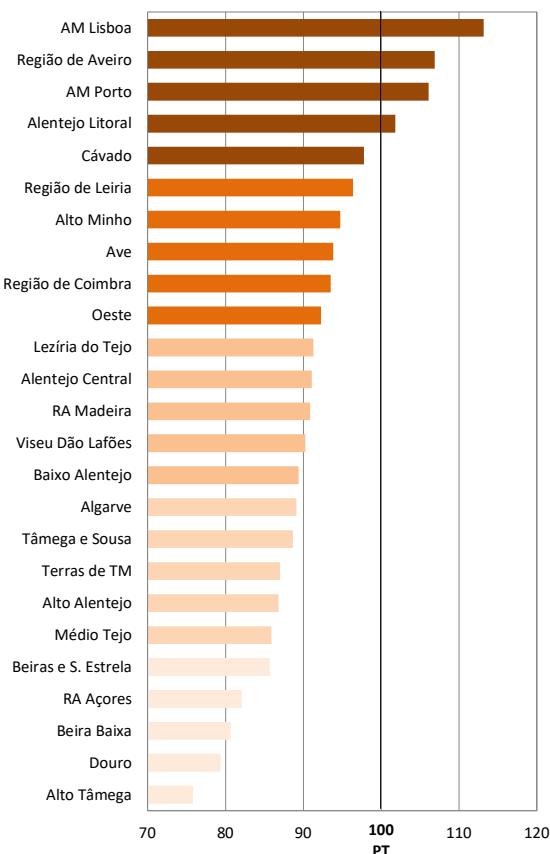
The methodological options as well as annual results data for the 2011-2021 period are available at www.ine.pt, in accordance with the technical note included in the end of this press release.

With the release of the 2021 results, Statistics Portugal plans to end the production cycle of ISDR's version 2.1. It is intended that the next version of the ISDR will incorporate the new referential organization of NUTS established by the Delegated Regulation (EU) 2023/674 of the Commission, of 26 December 2022, and which includes amendments in NUTS 3 and 2. This new version of the ISDR will depend on the availability of information according to the new NUTS 2024 geography.

1. The NUTS 3 performance in 2021: competitiveness, cohesion and environmental quality

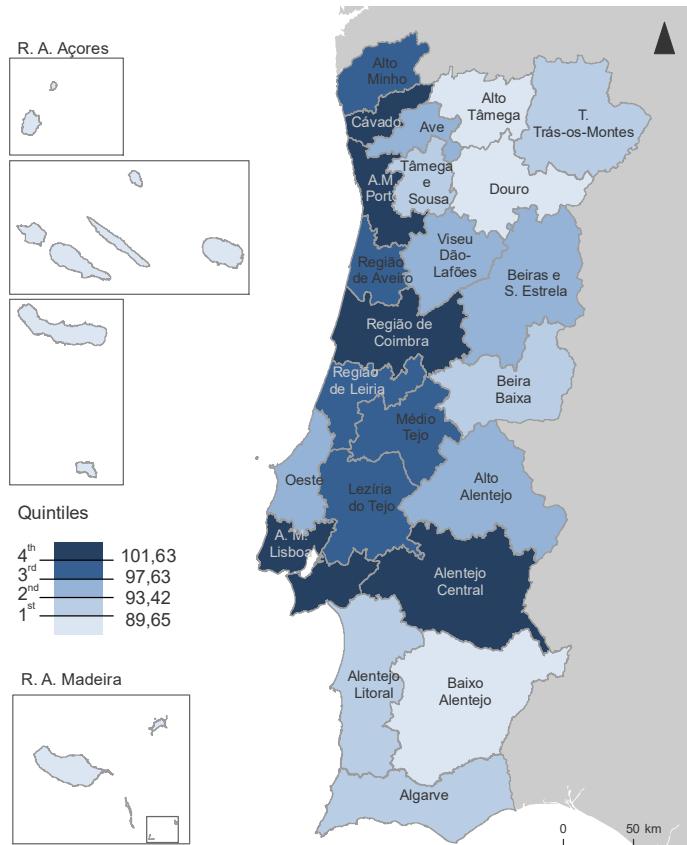
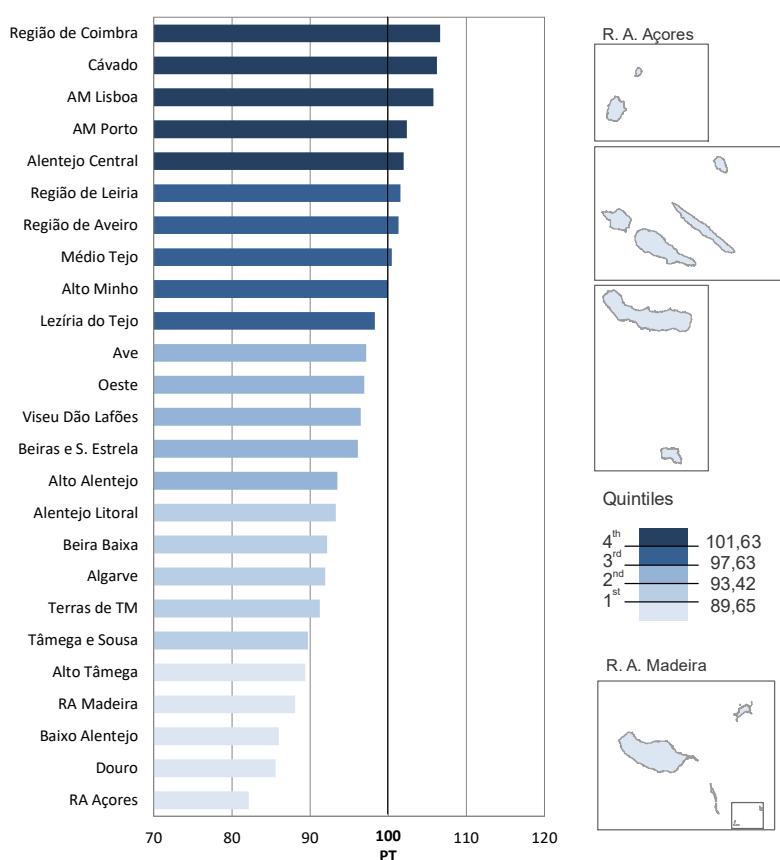
Competitiveness index

Figure 1. Competitiveness (Portugal = 100), NUTS 3, 2021



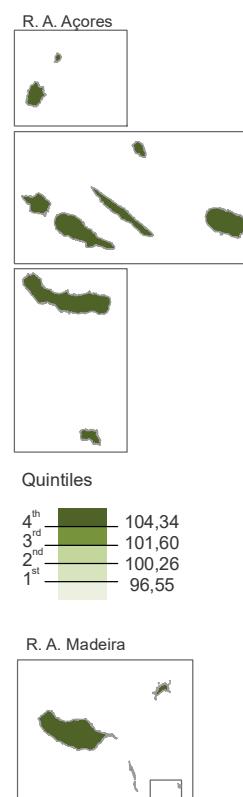
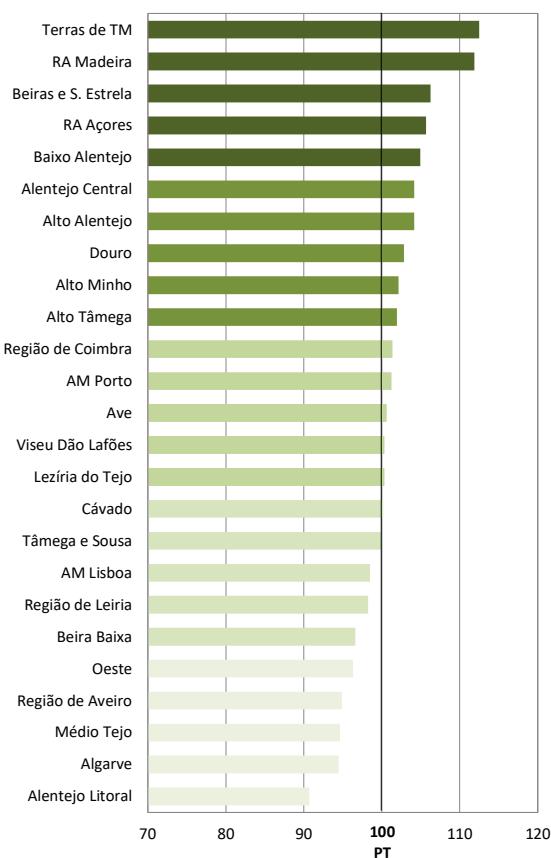
Cohesion index

Figure 2. Cohesion (Portugal = 100), NUTS 3, 2021



Environmental quality index

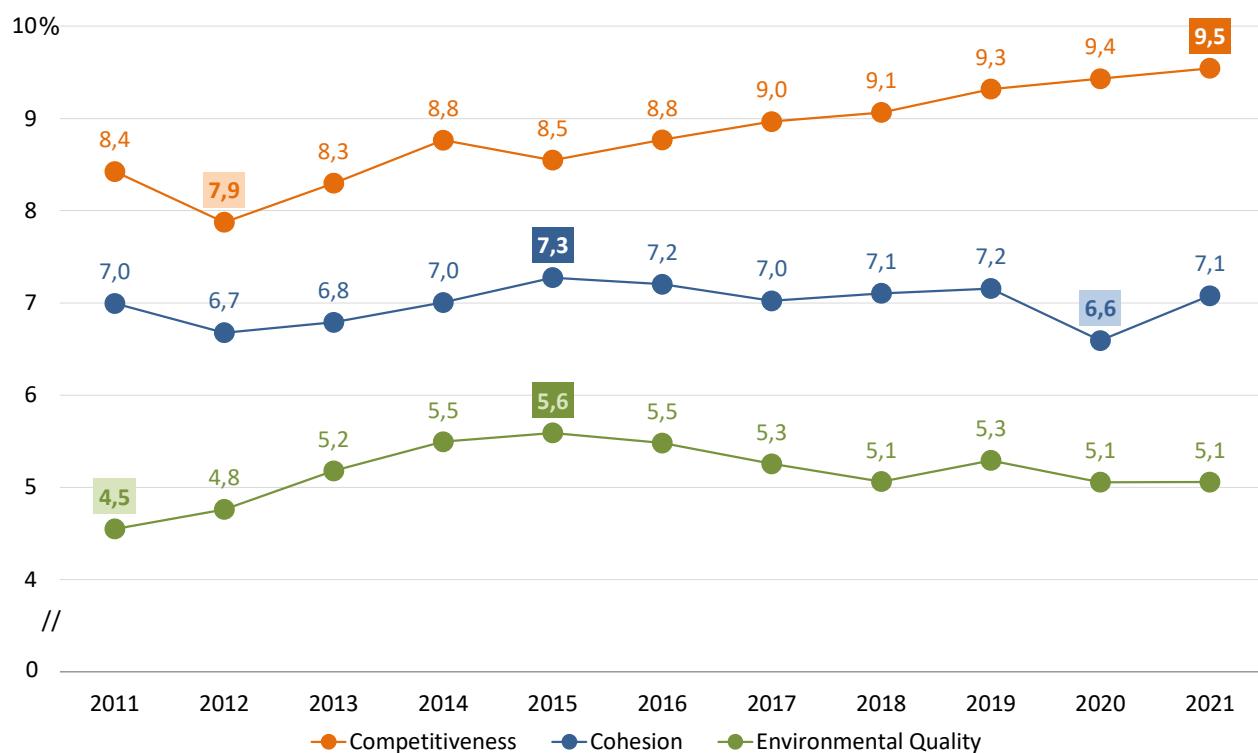
Figure 3. Environmental quality (Portugal = 100), NUTS 3, 2021



2. The joint analysis of regional development

Evolution of interregional disparities

Figure 4. Coefficient of variation of the partial indexes of competitiveness, cohesion and environmental quality, 2011-2021



Overall index of regional development in 2021

Figure 5. Overall index of regional development (Portugal = 100), NUTS 3, 2021

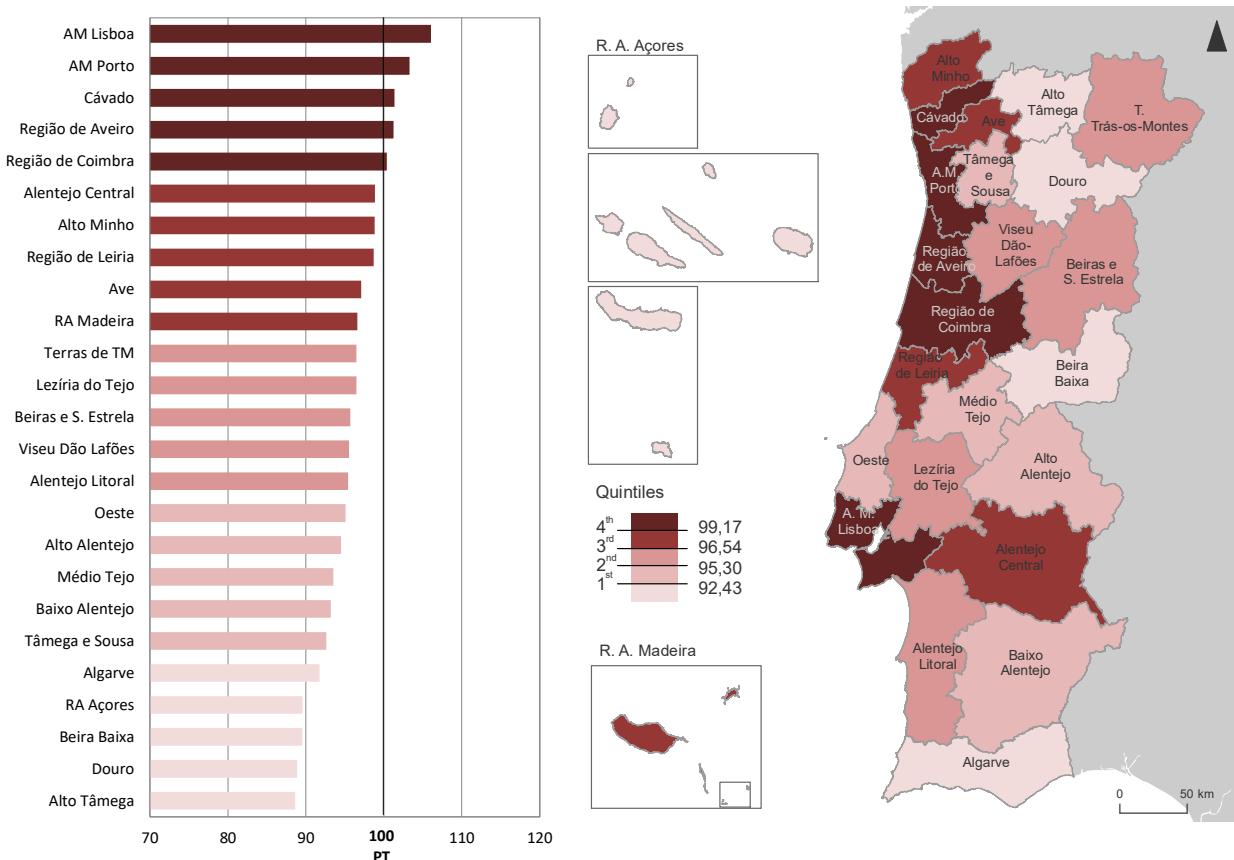


Figure 6. Correlation matrix, NUTS 3, 2021

	Overall index	Competitiveness	Cohesion	Environmental quality
Overall index	-			
Competitiveness	0,9	-		
Cohesion	0,8	0,7	-	
Environmental quality	0,0	-0,3	-0,3	-

Figure 7. Overall index of regional development, competitiveness, cohesion and environmental quality (Portugal = 100),
NUTS 3, 2021

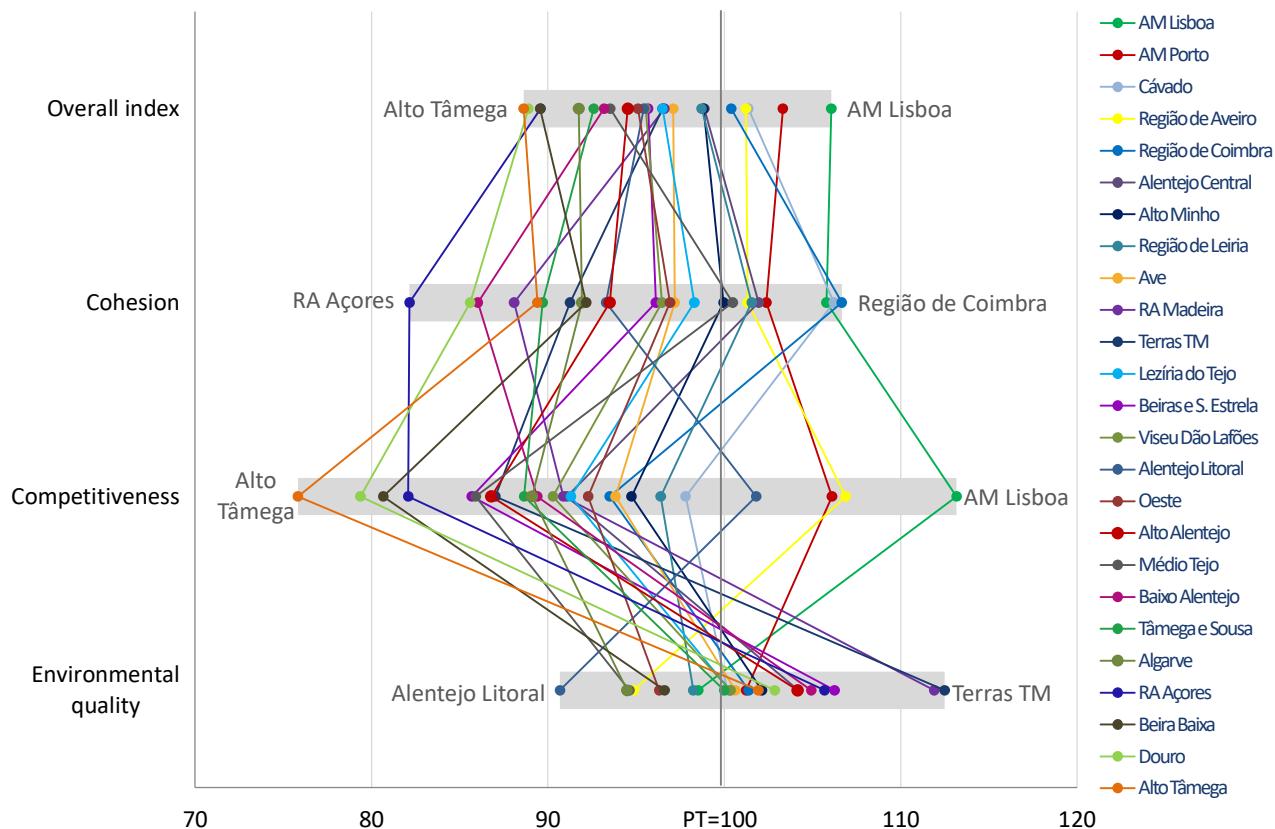
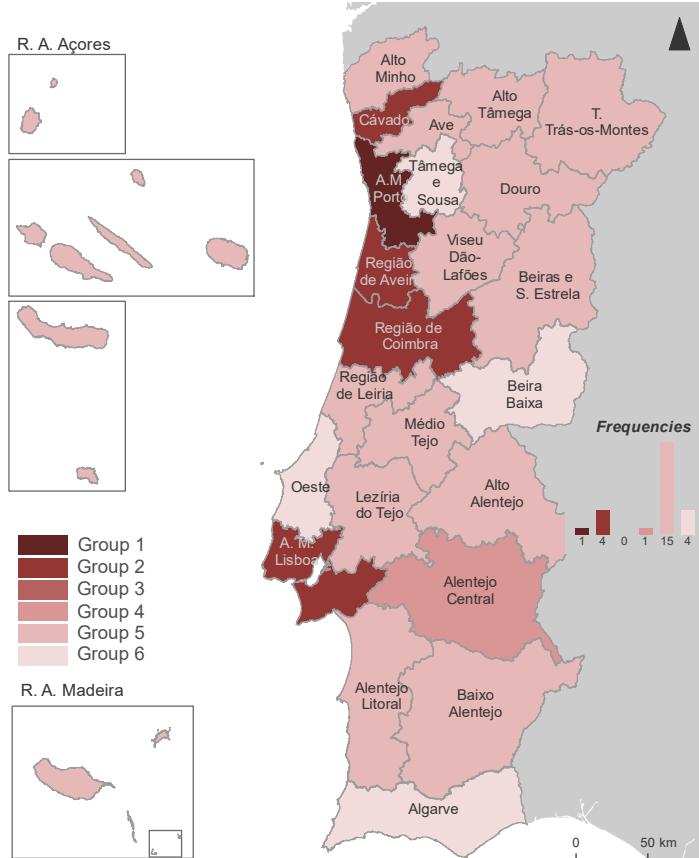


Figure 8. Overall index of regional development, competitiveness, cohesion and environmental quality: performance in relation to the national average (Portugal = 100), NUTS 3, 2021

	ISDR > 100	ISDR < 100
COMP > 100		
COES > 100	AM Porto	
AMB > 100		
COMP > 100		
COES > 100	AM Lisboa	
AMB < 100	Região de Aveiro	
COMP > 100		
COES < 100		
AMB > 100		
COMP < 100		
COES > 100	Cávado Região de Coimbra	Alentejo Central
AMB > 100		
COMP > 100		
COES < 100		Alentejo Litoral
AMB < 100		
COMP < 100		
COES > 100		Médio Tejo Região de Leiria
AMB < 100		
COMP < 100		
COES < 100		Alto Alentejo Alto Minho Alto Tâmega Ave Baixo Alentejo Beiras e S. Estrela
AMB > 100		Douro Lezíria do Tejo RA Acores RA Madeira Terras TM Viseu Dão Lafões
COMP < 100		
COES < 100		Algarve Beira Baixa Oeste Tâmega e Sousa
AMB < 100		



Note: The acronym ISDR refers to the overall index of regional development, COMP to the competitiveness index, COES to the cohesion index and AMB to the environmental quality index.

TECHNICAL NOTE

The Regional Development Composite Index (ISDR) is calculated annually for the Portuguese NUTS 3 sub-regions. Three dimensions are considered - *competitiveness*, *cohesion*, and *environmental quality* - which, considering data availability, determined the selection of base indicators for the calculation of the index for the 25 Portuguese regions (NUTS-2013). It is, however, worthwhile to highlight the diversity of territorial contexts among these regions, of which the autonomous regions and the metropolitan areas are representative, as well as the heterogeneity regarding the size of the 25 Portuguese NUTS 3, namely in terms of population.

Based on a matrix of 65 statistical indicators, for the 25 Portuguese NUTS 3, properly normalized (statistical standardization and minmax rescaling, with the minimum and maximum reference values extracted from the set of 65 standardized indicators for the time span available), distributed by three dimensions – *competitiveness*, *cohesion* and *environmental quality* – and subsequently aggregated by a non-weighted average, for the dimensions level as well as from the dimensions level to the *overall index* level, four composite indicators are produced – *competitiveness*, *cohesion*, *environmental quality* and *overall index of regional development*. The four composite indicators are referenced to the national value (Portugal = 100), being the national value the average of the NUTS 3 indexes weighted by the resident population. As the national value, the indexes for the NUTS 2 regions correspond to the population weighted average indexes of their respective NUTS 3.

The ISDR methodological options are presented in the [methodological document](#) Índice Sintético de Desenvolvimento Regional, código 127 / versão 2.1, INE (available at www.ine.pt, in Metadata, Metadata System, Methodological documentation).

Comparing to the results released in 2022 for the 2011-2020 period, the maximum and minimum reference values do not change, remaining associated with the same region and the same individual indicator – the minimum value corresponds to the *energy intensity of the economy in final energy* observed in 2014 in Alentejo Litoral and the maximum corresponds to the *lodging capacity in hotel establishments with 3 or more stars per 1 000 inhabitants* observed in 2020 in Algarve.

In this edition of ISDR, compared to the previous version, it was not possible to count on additional information that would allow updating the indicator *Proportion of urban waste landfilled* associated to the *environmental quality* component.

The ISDR results for the 2011-2021 series incorporate the results of the Provisional Resident Population Estimates. In the indicators *Proportion of resident population in urban areas with 10 000 or more inhabitants (Competitiveness)* and *Proportion of resident population in urban areas with 5 000 or more inhabitants (Cohesion)* the delimitation of urban areas and respective population scaling evaluated based on information from the 2011 Census were maintained.

Annual figures for the 2011-2021 period, in accordance with the 2.1 version of the methodological document, are available at www.ine.pt, in Statistical information, Statistical data, Database:

[Regional development composite index \(Overall index\)](#)

[Regional development composite index \(Competitiveness\)](#)

[Regional development composite index \(Cohesion\)](#)

press release

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Regional development composite index (Environmental quality)

The following table lists the 65 indicators that are part of the Regional Development Composite Index with the association to their respective dimension, and the correlation matrix of the baseline indicators is also presented.

Date of next the press release – 2024

List of individual indicators of the *Regional Development Composite Index*

Code	Designation	Competitiveness	Cohesion	Environmental quality
COMP1	Gross domestic product per inhabitant	+		
COMP2	Apparent labour productivity	+		
COMP3	Proportion of sales and services rendered abroad in the turnover of companies	+		
COMP4	Population density	+		
COMP5	Persons employed in establishments by 100 inhabitants in active age	+		
COMP6	Renewal index of the population in active age	+		
COMP7	Proportion of employees with higher education	+		
COMP8	Potential Broadband Territorial Coverage (ADSL)	+		
COMP9	Lodging capacity in hotel establishments with 3 or more stars per 1 000 inhabitants	+		
COMP10	Proportion of resident population in urban areas with 10 000 or more inhabitants	+		
COMP11	Participation rate in youth oriented education/training modalities at upper secondary education	+		
COMP12	Degree of specialisation within advanced competitive factors	+		
COMP13	Proportion of sales and services rendered abroad in the turnover of companies in high and medium-high technology sectors	+		
COMP14	Proportion of gross value added in international activities branches	+		
COMP15	Technological intensity of industrial activity and services	+		
COMP16	Proportion of persons employed in information and communication technology activities	+		
COMP17	Proportion of employees that have changed enterprise of work related to total employment	+		
COMP18	Enterprises birth rate	+		
COMP19	Survival rate of enterprises on international activities' branches	+		
COMP20	Proportion of persons employed in enterprises with mostly foreign capital	+		
COMP21	Proportion of gross expenditure on research and development (GERD) by enterprises in enterprises' GVA	+		
COMP22	Proportion of gross expenditure on research and development (GERD) in GDP	+		
COMP23	Crude migratory rate	+		
COMP24	Net attraction rate of employees	+		
COMP25	Persons employed, inside and outside the territorial unit, of enterprises with head office in the territorial unit per person employed in the territorial unit of enterprises with head office outside the territorial unit	+		
COES1	Life expectancy at birth	+		
COES2	Quinquennial infant mortality rate	-		
COES3	Municipal dispersion of family income per inhabitant	-		
COES4	Family income per inhabitant	+		
COES5	Retention capacity of the generated income	+		
COES6	General fertility rate	+		
COES7	Young registered unemployment per young person	-		

Code	Designation	Competitiveness	Cohesion	Environmental quality
COES8	Medical doctors per 1 000 inhabitants by place of residence			+
COES9	Pharmacies and mobile medicine depots per 1 000 inhabitants			+
COES10	Teachers per students enrolled in tertiary education			+
COES11	Number of live shows performances per 1 000 inhabitants			+
COES12	Proportion of resident population in urban areas with 5 000 or more inhabitants			+
COES13	Gross enrolment rate in pre-primary education			+
COES14	Gross enrolment rate in upper secondary education			+
COES15	Average monthly earnings			+
COES16	Average value of social security pensions			+
COES17	Youth rate			+
COES18	Beneficiaries of social integration income of social security per 1 000 inhabitants with 15 and more years old			-
COES19	Retention and desistance rates in primary and lower secondary education			-
COES20	Transition/completion rate in upper secondary education			+
COES21	Crime rate against people			-
COES22	Registered unemployment per inhabitants in active age			-
COES23	Gender disparity in the relationship between registered unemployment and the average resident population in active age			-
COES24	Proportion of marriages between Portuguese and foreigners			+
COES25	Teenage fertility rate			-
AMB1	Safe water for consumption			+
AMB2	Air quality			+
AMB3	Urban waste collected per inhabitant			-
AMB4	Wastewater sewerage per capita			-
AMB5	Local and regional non-governmental organizations for environment (ONGA) members per 1 000 inhabitants			+
AMB6	Proportion of use of potential non-urban land			+
AMB7	Proportion of urban waste landfilled			-
AMB8	Proportion of urban waste selective collected			+
AMB9	Proportion of classified areas in the total area			+
AMB10	Burnt forest rate			-
AMB11	Regional contribution to replacing fossil primary energy electricity production with renewable energy or lower emission content			+
AMB12	Proportion of the surface area of rehabilitation works in the total surface area of completed works			+
AMB13	Territorial concentration of new constructions			+
AMB14	Fresh water supplied per inhabitant			-
AMB15	Energy intensity of the economy in final energy			-



Matrix of correlations between indicators (Note: the results of Pearson's correlation coefficient >0.7 and <-0.7 are marked in gray in the matrix)

		ISDR				COMPETITIVENESS																		COHESION										ENVIRONMENTAL QUALITY																										
		IG	COMP	COES	AMB	COMP1	COMP2	COMP3	COMP4	COMP5	COMP6	COMP7	COMP8	COMP9	COMP10	COMP11	COMP12	COMP13	COMP14	COMP15	COMP16	COMP17	COMP18	COMP19	COMP20	COMP21	COMP22	COMP23	COMP24	COMP25	COEST1	COEST2	COEST3	COEST4	COEST5	COEST6	COEST7	COEST8	COEST9	COEST10	COEST11	COEST12	COEST13	COEST14	COEST15	COEST16	COEST17	COEST18	COEST19	COEST20	COEST21	COEST22	COEST23	COEST24	COEST25	AMB1	AMB2	AMB3	AMB4	AMB5
ISDR	COMP	1.0																																																										
COMP1	0.5	0.7	0.3	-0.4	1.0																																																							
COMP2	0.5	0.7	0.4	-0.4	0.8	1.0																																																						
COMP3	0.4	0.5	0.3	-0.1	0.2	0.4	1.0																																																					
COMP4	0.7	0.7	0.4	-0.1	0.5	0.4	0.0	1.0																																																				
COMP5	0.5	0.8	0.4	-0.5	0.6	0.5	0.3	0.6	1.0																																																			
COMP6	0.5	0.6	0.3	-0.2	0.5	0.4	0.1	0.6	0.7	1.0																																																		
COMP7	0.6	0.5	0.5	0.1	0.5	0.4	-0.1	0.7	0.3	0.1	1.0																																																	
COMP8	0.5	0.5	0.4	-0.2	0.1	0.3	-0.1	0.7	0.6	0.7	0.2	1.0																																																
COMP9	-0.2	-0.1	-0.2	-0.1	0.2	-0.2	-0.3	0.0	0.2	0.0	-0.2	-0.1	1.0																																															
COMP10	0.6	0.6	0.4	-0.1	0.5	0.4	0.0	0.8	0.6	0.5	0.5	0.2	1.0																																															
COMP11	0.0	0.6	-0.1	0.1	0.1	0.0	0.0	0.2	-0.1	0.3	-0.2	-0.2	1.0																																															
COMP12	0.5	0.5	0.5	-0.4	0.4	0.2	0.4	0.1	0.5	0.1	0.2	0.1	0.0	1.0																																														
COMP13	0.4	0.3	0.3	0.1	0.0	-0.1	0.6	-0.1	0.2	-0.2	-0.2	-0.1	0.0	0.6	1.0																																													
COMP14	0.5	0.6	0.4	-0.4	0.5	0.6	0.8	0.0	0.4	-0.2	-0.1	-0.1	-0.2	0.1	0.3	1.0																																												
COMP15	0.7	0.7	0.6	0.2	0.5	0.4	0.3	0.5	0.4	0.2	0.4	0.1	-0.2	0.2	-0.3	0.7	0.6	0.6	1.0																																									
COMP16	0.6	0.5	-0.5	0.1	0.5	0.5	0.2	0.7	0.4	0.4	0.8	0.5	-0.1	0.7	-0.2	0.0	-0.3	-0.1	0.3	0.1	0.0	1.0																																						
COMP17	0.4	0.6	0.5	-0.7	0.6	0.5	0.3	0.2	0.7	0.4	0.0	0.2	0.3	0.0	0.5	0.1	0.6	0.4	0.1	1.0																																								
COMP18	0.2	0.3	0.1	0.0	0.4	0.1	0.5	0.3	0.1	0.1	0.5	0.5	0.2	-0.1	0.0	0.1	0.2	0.3	0.1	0.0	1.0																																							
COMP19	-0.2	0.6	-0.3	0.1	0.0	-0.1	-0.1	0.0	0.3	-0.2	0.0	-0.2	-0.3	0.0	-0.3	0.2	-0.1	-0.2	-0.1	0.0	1.0																																							
COMP20	0.7	0.7	0.5	0.2	0.6	0.5	0.4	0.4	0.3	0.5	0.0	-0.1	-0.3	-0.1	0.3	0.1	0.5	0.4	0.5	0.3	0.2	0.1	0.5	0.2	0.1	0.0	1.0																																	
COMP21	0.7	0.7	0.2	0.2	0.5	0.3	0.5	0.3	0.5	0.3	0.4	0.3	0.1	0.3	0.1	0.5	0.4	0.5	0.3	0.2	0.1	0.5	0.2	0.1	0.0	1.0																																		
COMP22	0.8	0.6	0.7	0.3	0.4	0.1	0.0	-0.1	0.0	0.1	0.0	-0.1	0.2	0.1	0.4	0.3	0.8	0.1	0.0	1.0																																								
COMP23	0.1	0.2	0.2	-0.4	0.3	0.4	0.1	-0.2	0.0	-0.1	0.0	-0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.0	1.0																																								
COMP24	0.3	0.1	0.3	0.4	-0.3	-0.3	0.2	0.0	-0.1	0.0	0.0	-0.1	0.2	0.3	0.1	0.4	0.5	0.3	0.2	0.1	0.0	1.0																																						
COMP25	-0.2	-0.2	-0.3	0.3	-0.4	0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	-0.1	-0.1	0.0	1.0																																							
COEST1	0.6	0.5	0.8	-0.3	0.0	0.2	0.2	0.3	0.4	0.2	0.4	0.5	-0.3	0.3	0.0	0.5	0.2	0.1	0.4	0.4	0.2	0.0	0.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
COEST2	-0.1	0.2	-0.4	0.1	0.4	0.3	0.0	0.1	0.1	0.2	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
COEST3	0.1	0.2	0.2	0.5	0.3	0.1	-0.2	0.2	0.0	0.4	0.0	0.2	0.3	0.2	0.0	0.2	0.1	0.4	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
COEST4	0.7	0.7	0.5	0.3	0.8	0.0	0.1	0.3	0.4	0.2	0.1	0.5	0.6	0.4	0.1	0.1	0.2	0.4	0.4	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																
COEST5	-0.2	-0.4	-0.1	0.3	0.8	0.6	0.4	0.2	0.1	0.3	0.4	0.2	0.1	0.5	0.6	0.4	0.1	0.1	0.2	0.4	0.4	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
COEST6	0.2	0.4	0.1	0.3	0.8	0.6	0.4	0.2	0.1	0.3	0.4	0.2	0.1	0.5	0.6	0.4	0.1	0.1	0.2	0.4	0.4	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
COEST7	-0.3	-0.3	-0.5	0.4	0.0	-0.3	0.1	0.3	0.4	0.2	0.1	0.5	0.6	0.4	0.1	0.1	0.2	0.4	0.4	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
COEST8	0.5	0.3	0.2	0.2	0.1	0.4	0.1	0.1	0.6	0.2	0.0	-0.1	0.1	0.3	0.2	0.0	0.1	0.4	0.5	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0															
COEST9	-0.3	-0.4	-0.2	0.2	0.1	0.2	0.0	-0.1	0.1	0.6	0.2	0.1	0.0	-0.1	0.3	0.2	0.0	0.1	0.4	0.5	0.7	0.2	0.1	0.0	0.0</																																			