

Composite indicators for monitoring regional development – seven years of Portuguese experience

MARIA Manuel PINHO

Statistics Portugal

Unit for the Coordination of Territorial Statistics

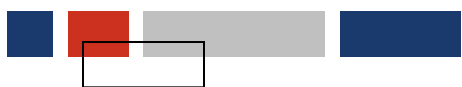
mmanuel.pinho@ine.pt

UNECE Seminar on the Role of National Statistical Offices in the
Production of Leading, Composite and Sentiment Indicators
8-10 December 2015, Palais des Nations, Geneva



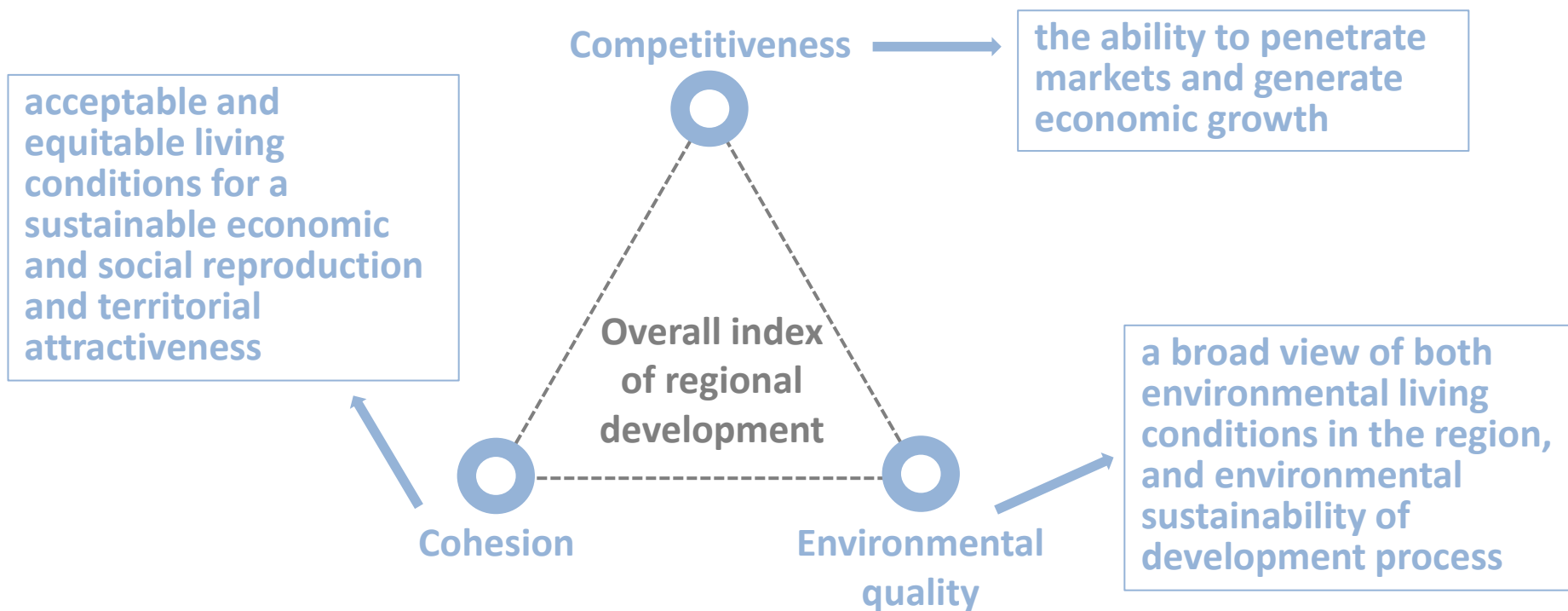
AGENDA

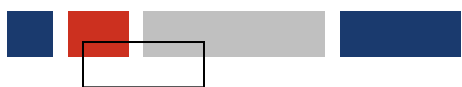
- A comprehensive view of progress – from economic growth to development
- Composite indicators – a new opportunity for National Statistical Systems
- ISDR – from an experimental project to a policy driven statistic
- A challenge for Statistics Portugal dissemination strategy



A comprehensive view of progress – from economic growth to development

- beyond GDP and other traditional indicators
- a more comprehensive view of progress
- a multidimensional approach of development





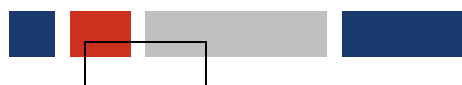
A comprehensive view of progress – from economic growth to development

At the same time ...

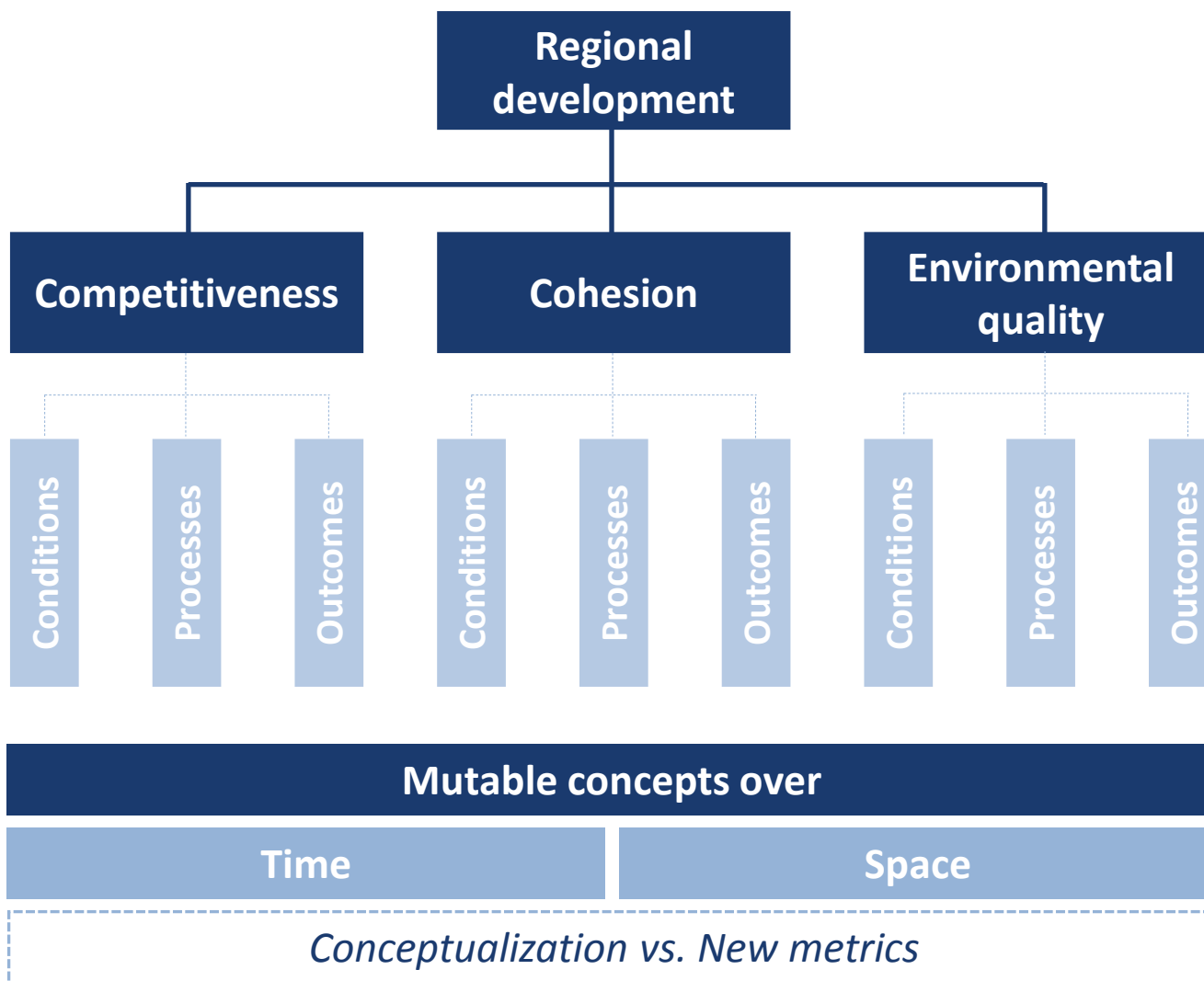
regional development as the joint and interactive product of **conditions**, **processes** and **outcomes**

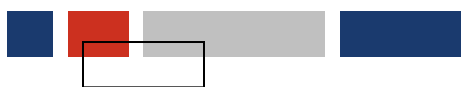


- of the **conditions** for a better regional performance
- of agents' behaviour, especially private and public policies, which represent the **processes** intended to make the best use of the existing conditions
- which, in turn, lead to **outcomes**, which express the effectiveness in the improvement of regional well-being and sustainability



A comprehensive view of progress – from economic growth to development





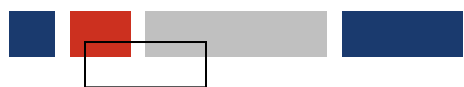
Composite indicators – a new opportunity for National Statistical Systems

- relevance of composite indicators within this multidimensional approach
- ability to integrate large amounts of information into easily understood formats and transform information into knowledge → both for analytical and political purposes
- are becoming widely used to assess territorial units' performance in various areas

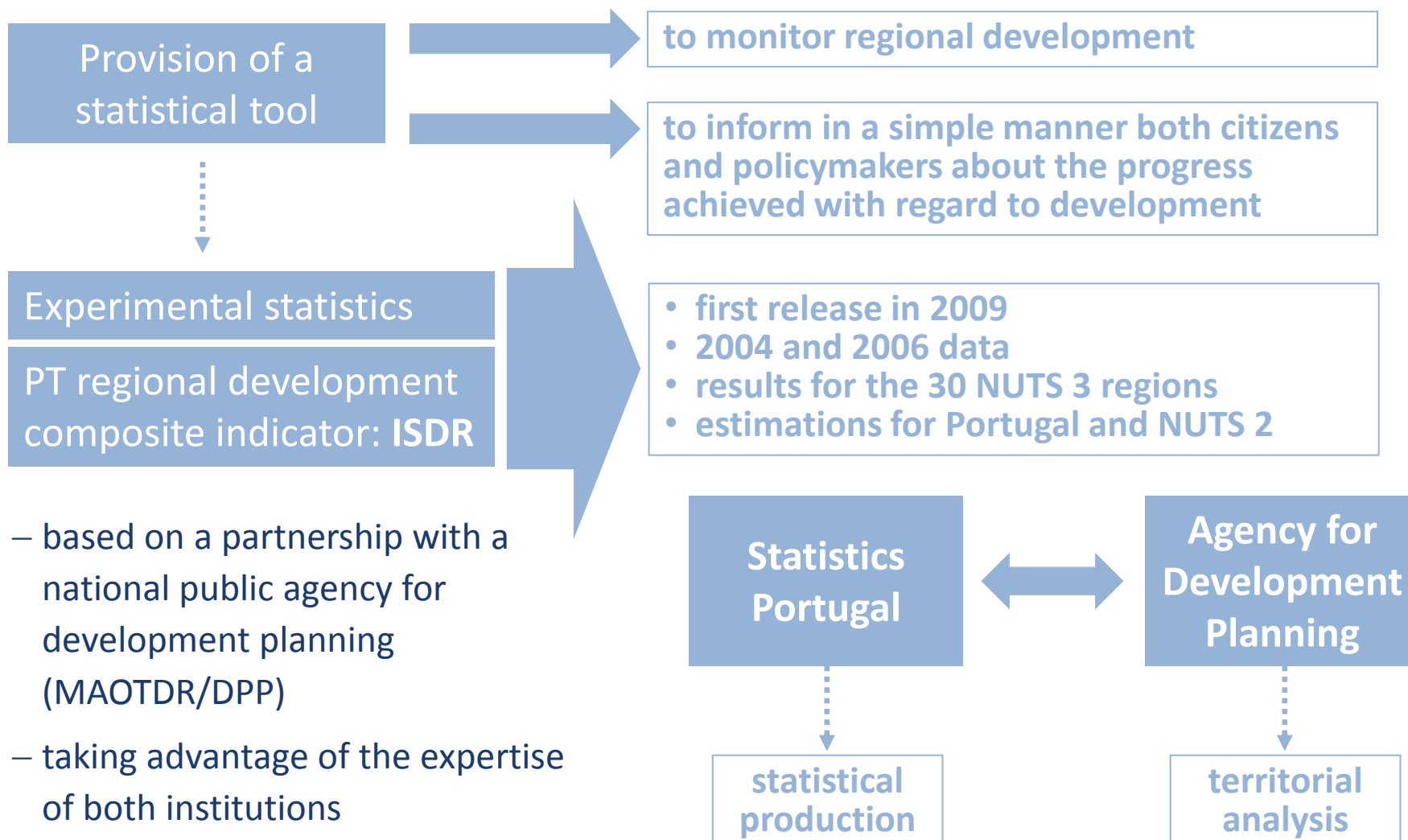


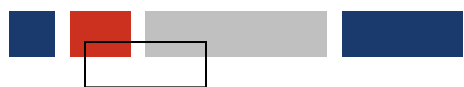
A new challenge for
National Statistical
Systems

- going beyond the standard statistical operations and demanding the assimilation of **new concepts and methodologies**
- providing the results together with a **metadata set** that both reveals the methodology adopted and clearly delimits the aim and the analytical potentialities of the results



Composite indicators – a new opportunity for National Statistical Systems

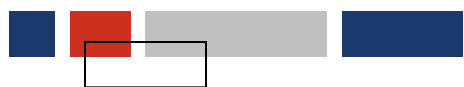




Composite indicators – a new opportunity for National Statistical Systems

*the **robustness** of the composite indicator was supported by a **sensitivity analysis** and a **joint debate** with a group of experts in the fields of regional development and statistical analysis*

- ❖ **Conceptual relevance of the primary indicators** → theoretical and statistical concepts, principal component analysis, correlation analysis
- ❖ **Methodological options** → normalization procedures (in a static scenario and in a dynamic one), aggregating and weighting procedures
- ❖ **Joint analysis of alternative scenarios** → regional volatility, sources of regional variation
- ❖ **Ability to synthesize phenomena** → comparison with other composite indicators, 'fit to purpose' analysis



ISDR – from an experimental project to a policy driven statistic

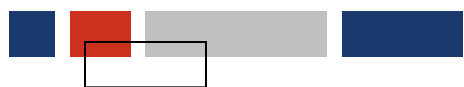
Selection of (65) individual indicators → conceptual relevance

- competitiveness – **25** indicators
- cohesion – **25** indicators
- environmental quality – **15** indicators

Sources → standard statistics (**53**) and administrative data (**12**)

Data collection → 65 indicators | Portuguese NUTS level 3 regions

Normalization of the primary indicators → statistical standardization and minmax rescaling (*with the minimum and maximum values extracted from the overall dataset*)



ISDR – from an experimental project to a policy driven statistic

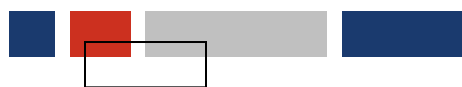
Aggregation and weighting procedures → non-weighted average

- individual indicators level → dimensions level
- dimensions level → overall index level

Estimation of national and NUTS 2 scores → population weighted average

4 composite indicators → Portugal = 100

- Competitiveness index
- Cohesion index
- Environmental quality index
- Overall index of regional development



ISDR – from an experimental project to a policy driven statistic

After the release of the first exercise of ISDR, the debate continued with national and regional authorities



reinforcing the advantages of composite indicators as tools that inform in a simple manner about complex phenomena and their progress



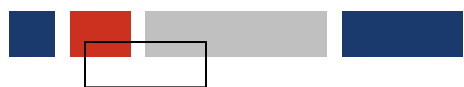
stressing the importance of providing a statistical tool for direct policy use on an annual basis
→ **regular release**

In June 2015, results were produced for the 1st time for the new Portuguese NUTS 3 and the dissemination time lag was reduced to 1,5 years

→ **relevant territorial breakdown**
→ **reduced dissemination time lag**

the conceptual framework of the composite indicator must meet the needs of policymaking

→ **assessing territorial cohesion**



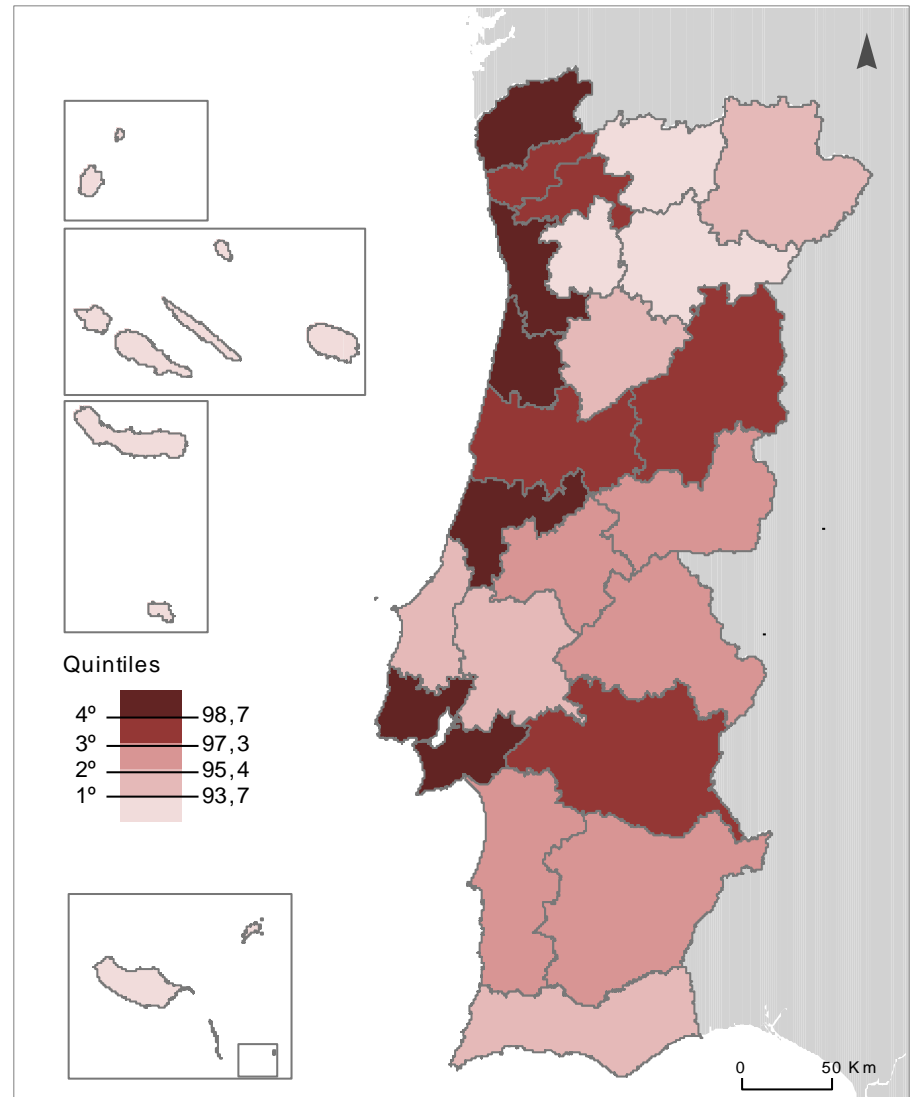
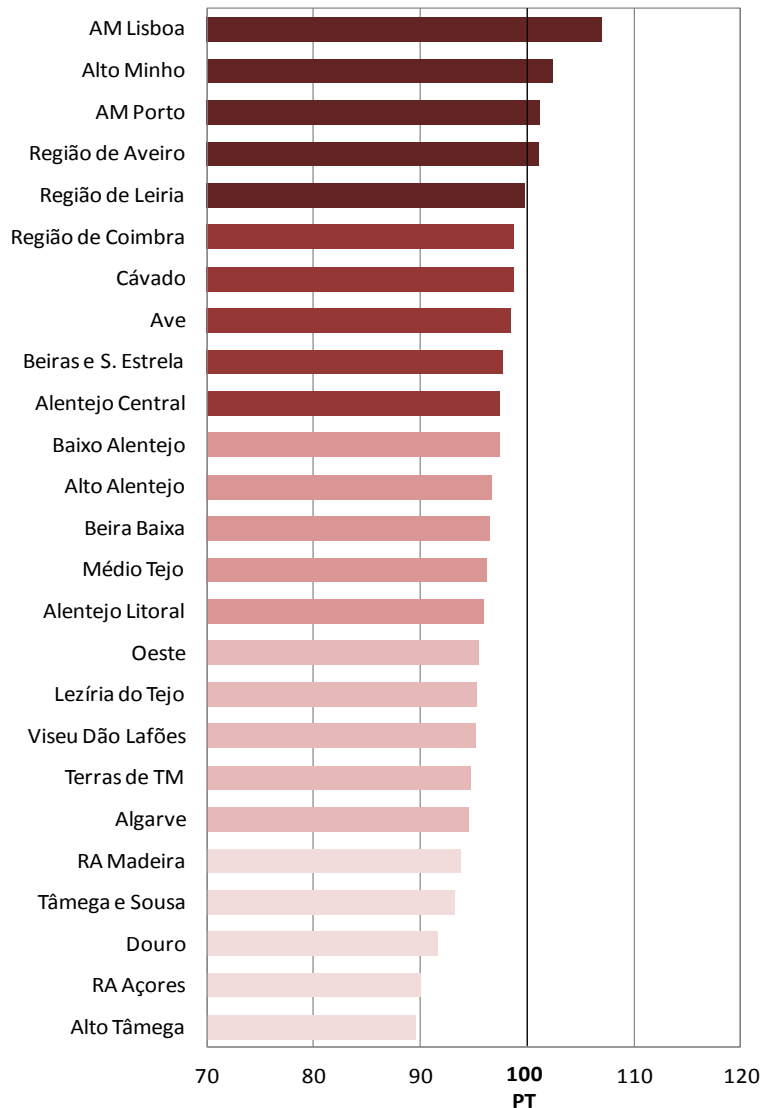
ISDR – from an experimental project to a policy driven statistic

- the 65 primary basic indicators were mainly selected from the 2007-2013 **PT-NSRF context indicators set**
- since the first release, ISDR is being using for monitoring the implementation of the 2007-2013 PT-NSRF and included in the Portuguese annual **reports on the execution of the EU structural funds**
- ISDR was considered as an ***ex ante* conditionality** for the 2014-2020 Portuguese Partnership Agreement – Portugal 2020
- in 2013, the new **local finance law** assigned ISDR with a new function in terms of policy decision-making

A new place for ISDR ...

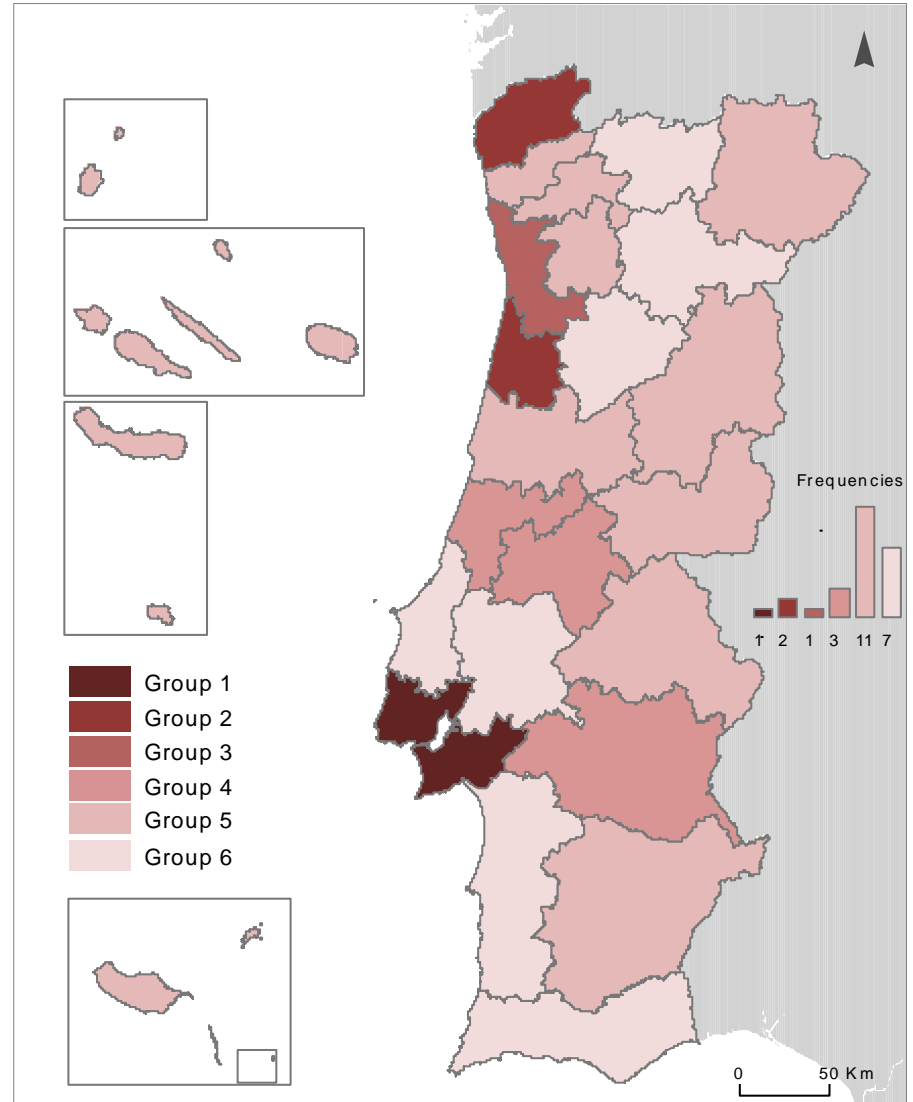
from the **technical sphere** to the centre of the **political debate** → a
new challenge for Statistics Portugal

Overall index of regional development (Portugal = 100) | NUTS 3, 2013



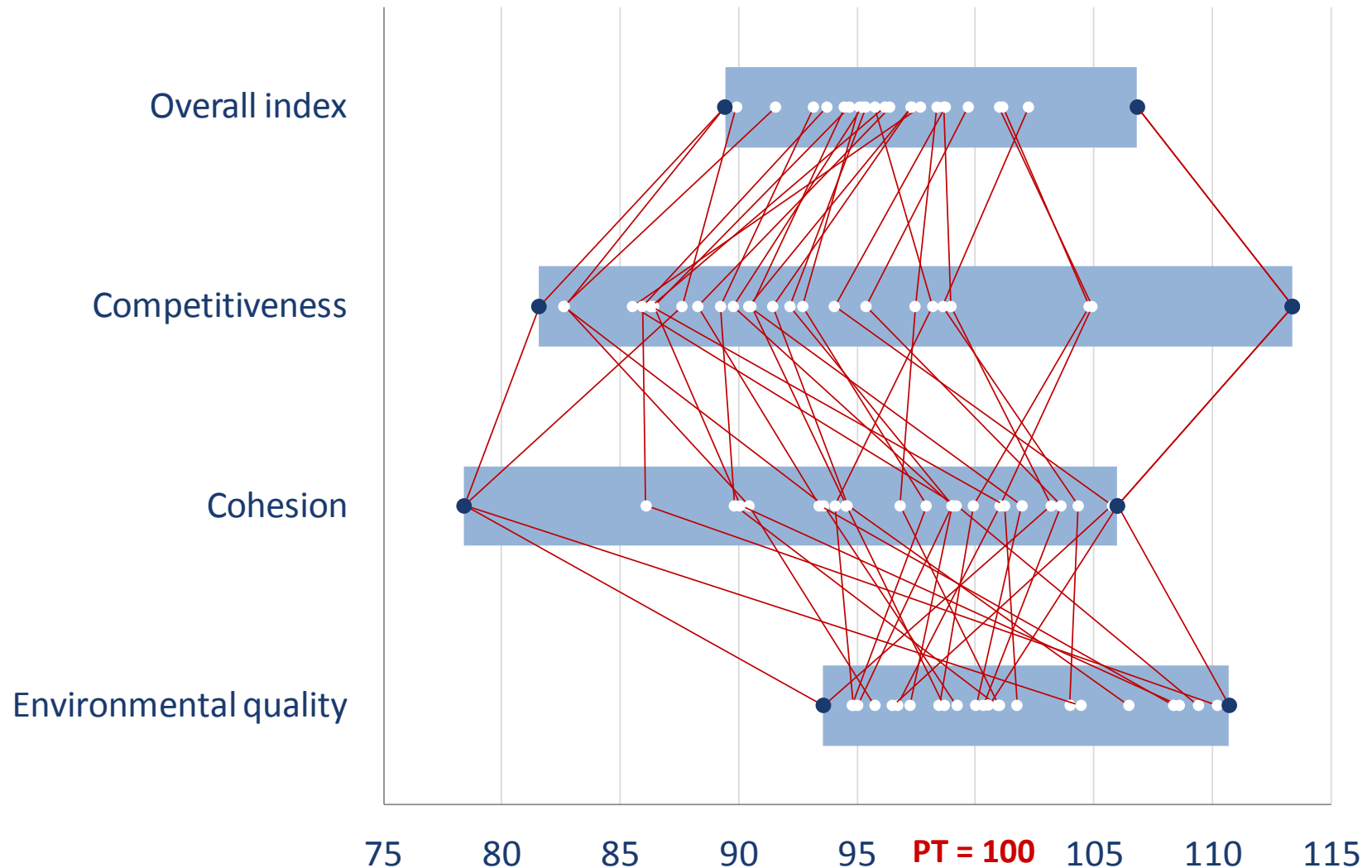
Overall index of regional development, competitiveness, cohesion and environmental quality: performance in relation to the national average (Portugal = 100) | NUTS 3, 2013

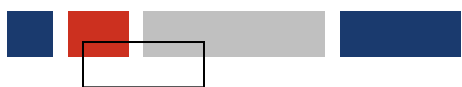
	ISDR > 100	ISDR < 100
COMP > 100 COES > 100 AMB > 100	AM Lisboa	
COMP > 100 COES > 100 AMB < 100	Região de Aveiro	
COMP > 100 COES < 100 AMB > 100		
COMP < 100 COES > 100 AMB > 100	Alto Minho	
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Overall index of regional development, competitiveness, cohesion and environmental quality

(Portugal = 100) | NUTS 3, 2013

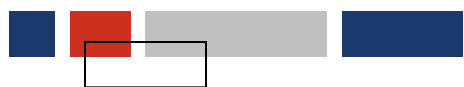




A challenge for Statistics Portugal dissemination strategy

Follows the standard multiple dissemination formats adopted for traditional statistical projects

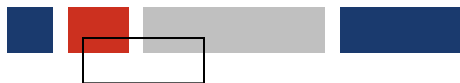
- ❖ a **press release** – a description of the results supported by graphical elements and complemented with a brief description of the methodology
- ❖ **web indicators** – four indicators (global development, competitiveness, cohesion and environmental quality) feeding the online database at Statistics Portugal website
- ❖ a **methodological document** – a detailed description of the methodology following a predefined template used for all types of statistical projects



A challenge for Statistics Portugal dissemination strategy

Issues arising from the specificity of composite indicators

- ❖ **Transparency** → the challenge to assure that all primary data is available (confidentiality, administrative sources, ...)
- ❖ **Contextual analysis** → the challenge to provide user-friendly tools to enable regional performance comparisons and to obtain results according to users weighting options
- ❖ **Methodological documentation** → the challenge to discuss the metadata and quality standards suitable to *statistical processes involving multiple data sources*
- ❖ **Production labelling** → the challenge to fully adopt the '*fit for purpose*' approach and its *differentiated quality assurance* consequences



INSTITUTO NACIONAL DE ESTATÍSTICA



STATISTICS PORTUGAL

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