European Social and Labour Market Index: Enhancing the Labour Market Policy Debate by Making Use of Official Statistics

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1   Motivation for the European Social and Labour Market Index

Harmonised labour market statistics on the situation of individuals and households within European Union countries are published regularly by Eurostat. Structural aspects and short- term developments of the supply and demand side of the labour market are monitored on a yearly basis by means of various indicators. These indicators are the basis for the labour market monitoring of the Europe 2020 strategy and the European Employment Strategy (EES). The unemployment rate is an indicator, which receives special attention and is frequently put on a level with the overall performance of a labour market. However, the unemployment rate merely shifts the attention of policy makers and the public on this one specific, albeit important facet of labour market performance. Other labour market issues, which also have an impact on the life situation of European citizens such as exclusion or equity, are more difficult to quantify, making a straight forward cross-country monitoring over time more complex. Each country has its own political and institutional background, its own challenges, strengths and weaknesses. Nevertheless such comparisons are important in order to explore possibilities to learn from "the best".

Over the past decade the Austrian employment and unemployment rates compare favourably to the rates in the rest of the Union, overshadowing shortcomings which might need to be addressed in order to make the Austrian labour market performance sustainable in the long run. Against this background, the Austrian Chamber of Labour set itself the target to gain an extended understanding of aspects relevant to the Austrian labour market and to identify dimensions which capture performance in a broader sense. For this purpose experts of the Austrian Chamber of Labour and the Austrian Institute of Economic Research selected five distinct areas which highlight different labour market perspectives:

1. Overall labour market performance
2. Orientation towards integration
3. Equity of labour market entry and continuity
4. Distribution of earnings
5. Distributional equity of the welfare state

Areas were not summarised to arrive at a consolidated labour market index, instead separate indices were constructed for each of the above dimensions for all EU-27 countries (subject to data availability). Hereby the multifaceted economic, political and societal nexuses can be depicted in a bundled fashion without obscuring European comparative issues of particular interest to Austrian policy makers.

Each index can take a value between 1 and 10, where a result of 10 points stands for the best possible outcome and 1 for the worst. According to the points reached in each area countries are partitioned into four equally large ascending groups: The low end, the lower midfield, the upper midfield and the forefront.[1] It should be noted, however, that in terms of scores reached, country differences are sometimes marginal.

Figure 1: Overview of evaluated areas
Number of included indicators, year of reference und countries considered (with available data)

	1	Overall labour market performance (EU-27, 2008) (7 indicators)
	2	Orientation towards integration (excluding EE, LU, MT, CY, 2008) (13 indicators)
Labour market monitor **"Area indices"** **(60 Indicators)**	**3**	Equity of labour market entry and continuity (excluding BG, EE, LT, 2008, 2007, 2005) (22 indicators)
	4	Distribution of earnings (EU-27, 2008) (8 indicators)
	5	Distributional equity of the welfare state (EU-27, 2007) (10 indicators)

Source: Eurostat, WIFO.

As can be depicted from Figure 1, a different number of indicators enter each area index; most indicators refer to the most recent data available for extraction from the Eurostat website, i.e. 2008 at the time of construction. From an initial set of selected indicators some were excluded due to missing information by country or by year. If indicators were viewed to be relatively stable over time, missing

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[1] The quartile frontier defines the beginning of a new group; this dividing line was derived from the distribution of scores in all area indices.

values were occasionally filled with values from the preceding year. For example, information on part-time employment due to care-taking responsibilities was only available for 2007 for the United Kingdom, and it was assumed that such a behavioural indicator does not alter from one year to the next. As data on public spending usually have a longer publication lag, area five "Distributional equity of the welfare state" refers to the year 2007.

2   Calculation Method

Three steps for calculation were conducted before indicators were summed up to an area-index score for each country.

1.   Indicators are measured in different units, for example in percent or in Euros, and hence have to be normalized; we chose to normalize indicators via the Min-Max method as scores are easily comparable across indices. In addition this method is robust towards outlying indicator values.

$$y_i^n(pos) = 9 * \left(\frac{x_i^n - \min_{i \in EU}(x_i^n)}{\max_{i \in EU}(x_i^n) - \min_{i \in EU}(x_i^n)} \right) + 1$$

$$y_i^n(neg) = 9 * \left(\frac{\max_{i \in EU}(x_i^n) - x_i^n}{\max_{i \in EU}(x_i^n) - \min_{i \in EU}(x_i^n)} \right) + 1$$

Where y_i^n is the normalized score of the *n*-th indicator in the *i*-th EU- country.

2.   Normalized indicators were rescaled to range from 1 to 10 by multiplying the score by 9 and adding 1.

3.   In order for each indicator to have a more equal influence on the area index, each normalized indicator value y_i^n is multiplied with weight (w^n).

$$By_i = \sum_{i=1}^{n} y_i^n w^n$$

For the interpretation of results it should however be noted, that even though indicators were selected via an extensive selection process, an index can never fully depict all national difference and country-specific institutional circumstances. Hence the results should be viewed as an approximation to a labour market related country pattern.

In the following sections the five areas and the respective indicators are presented together with the main results.

3   Area-Index 1: Overall Labour Market Performance

The relative level of the overall labour market performance is measured by means of seven indicators. These key figures mirror the following aspects:

- The extent of employment amongst the population of working age und the development of labour demand (employment rate, employment rate in full-time equivalents and growth of the rate of employment in comparison with the previous year),
- the magnitude of unemployment (unemployment rate) and
- the economic performance of a country (economic growth and productivity: Real GDP per capita – absolute in Euros and change over time, as well as labour productivity per employee).

Figure 2: Area-Index 1: Overall labour market performance
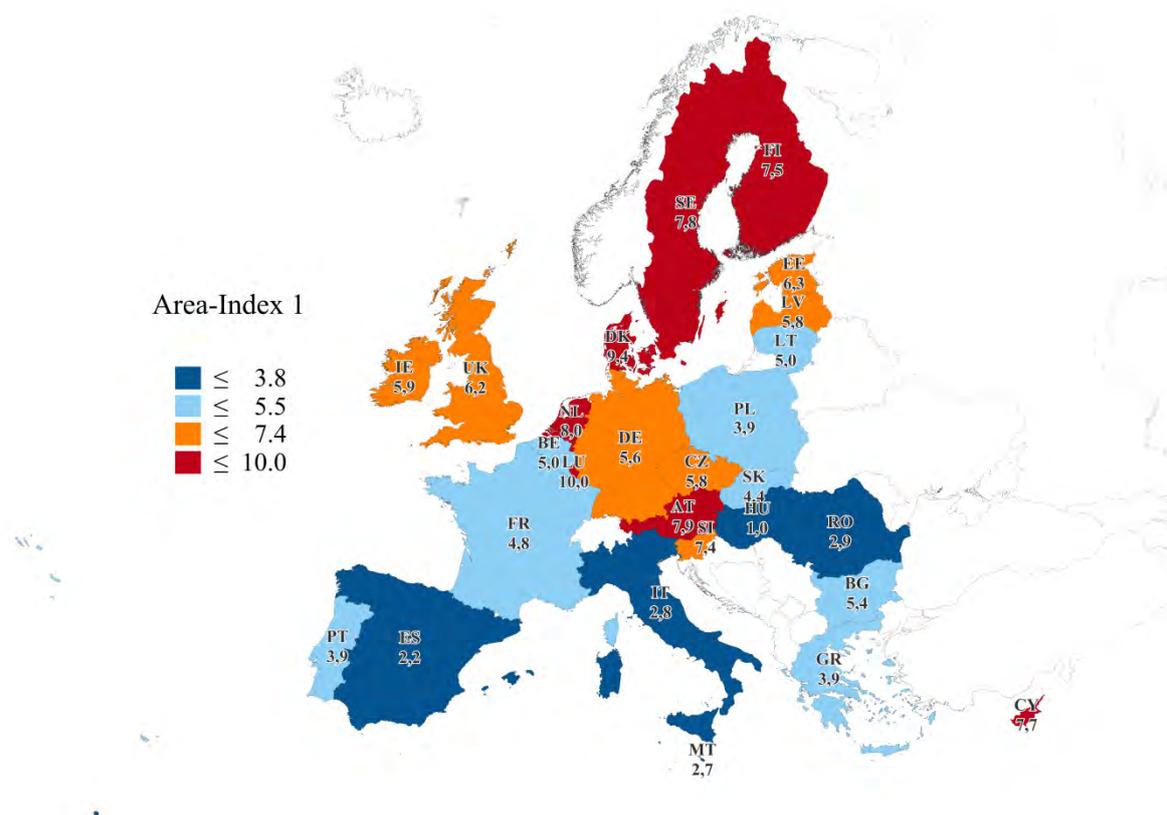
Note: Countries are categorized into four groups according to their index score: the low end (lowest 25%- group, dark blue), the lower midfield (second 25%- group, light blue), the upper midfield (third 25%- group, orange) and the forefront (highest 25%- group, red). The values in the legend refer to the next highest 25% group; the maps show the country scores in the each area;
Source: Eurostat, WIFO-calculations.

According to our calculation method, the lowest index value is reached by Hungary – after Spain, Malta, Italy and Romania, the highest for Luxemburg – followed by the Scandinavian countries.

Austria, together with the Netherlands, Sweden, Cyprus, Finland and Slovenia shapes the forefront of European countries with high performing labour markets. Solely Denmark and Luxemburg lie above this group of countries. Austria seems to have similar strengths than the Netherlands, manifesting itself in relatively high employment rates and a low rate of unemployment in comparison to other EU-countries.

4   Area-Index 2: Orientation towards Integration

The second area index measures aspects of integration of a labour market and employment system and comprises 13 indicators in all. In this area the following aspects are considered:

- The employment structure (employment rate of various age groups, gender specific employment gaps, involuntary part-time employment, involuntary fixed- term employment),
- the structure of unemployment, i.e. unemployment of selected groups (unemployment rate of young and old people, rate of long- term unemployment and long term unemployment of older people) and
- the level of commitment to active labour market policies (expenditure in % of GDP as well as in % of GDP per % unemployed, participation in labour market measures).

Figure 3: Area-Index 2: Orientation towards integration (excluding MT, LU, EE and CY)
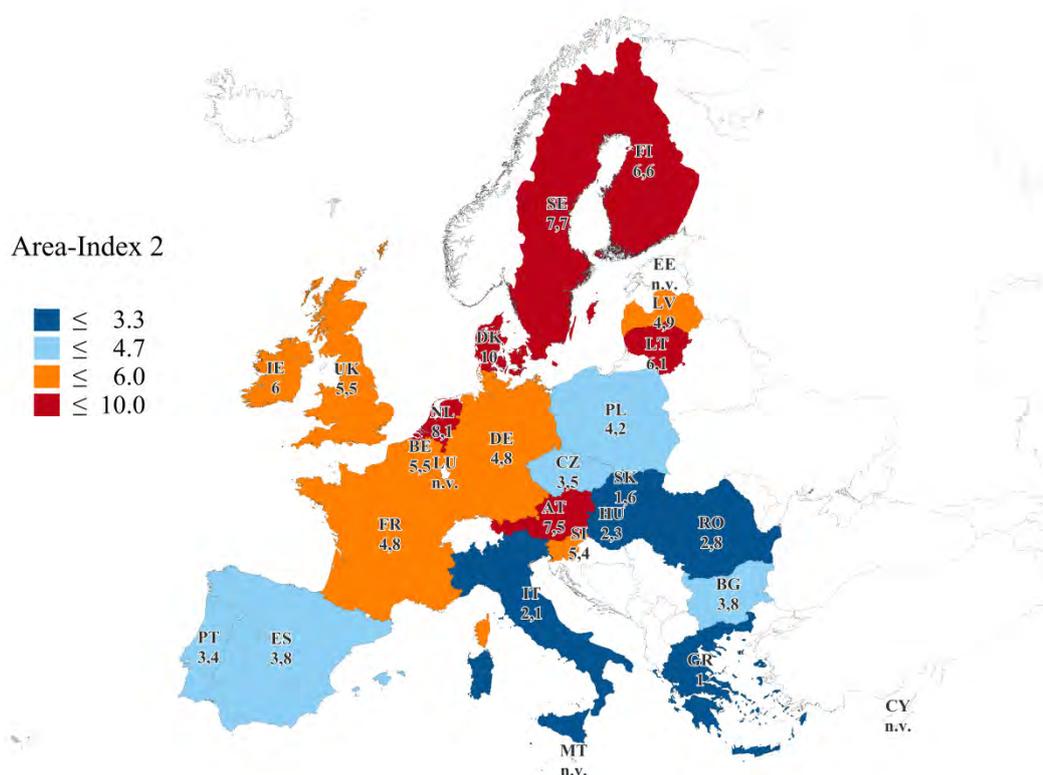
Note: Countries are categorized into four groups according to their index score: the low end (lowest 25%- group, dark blue), the lower midfield (second 25%- group, light blue), the upper midfield (third 25%- group, orange) and the forefront (highest 25%- group, red). The values in the legend refer to the next highest 25% group; the maps show the country scores in the each area;
Source: Eurostat, WIFO-calculations.

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The lowest orientation towards integration was found in Greece, the highest in Denmark. High values were also reached by the Netherlands and Sweden. The Austrian position is weakened by the gender employment gap as well as the low labour market integration of older persons. Austria stands out with a comparatively marginal prevalence of fixed- term employment contracts.

5 Area-Index 3: Equity of Labour Market Entry and Continuity

This area takes a closer look at how employment and earnings opportunities are linked to:
- educational opportunities,
- the health situation and
- individual caring responsibilities

In all 22 indicators covering aspects of participation in education, exclusion, child care and health issues are included in this area. Again, the Nordic countries can position themselves at the forefront of European countries together with the Netherlands and Slovenia. A group of countries comprising Malta, Italy and Portugal can be found at the low end of the spectrum.

Figure 4: Area-Index 3: Equity of labour market entry and continuity (excluding BG, EE and LT)
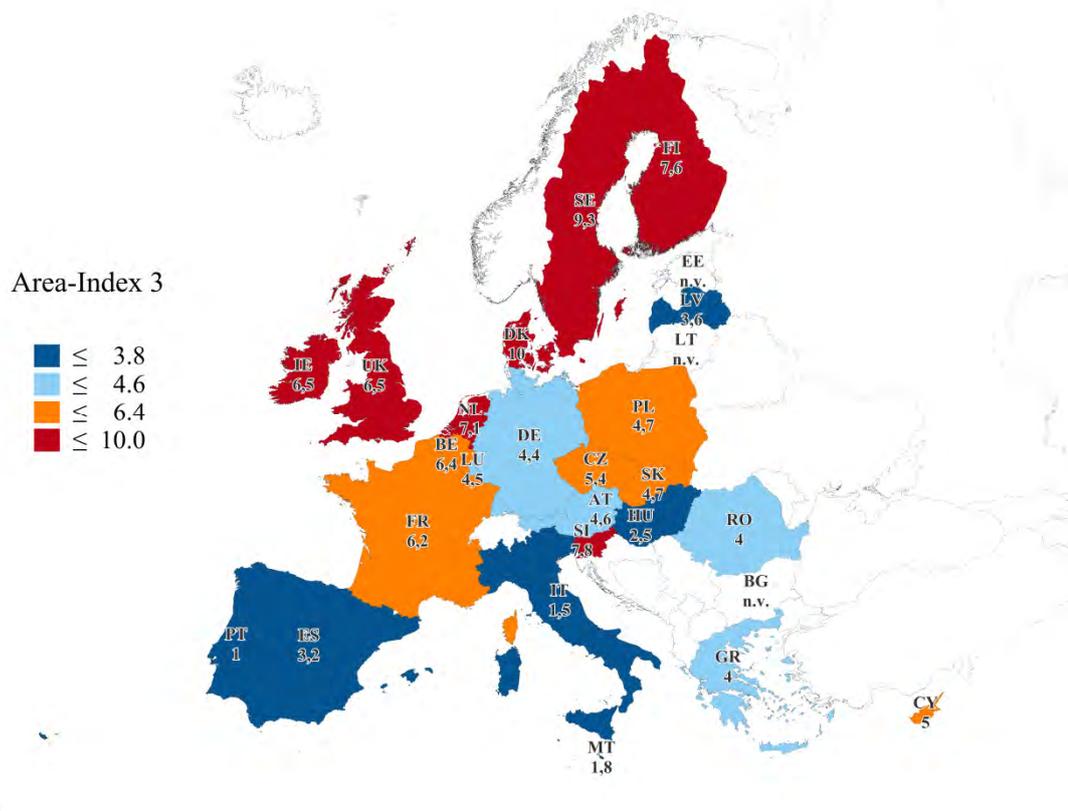
Note: Countries are categorized into four groups according to their index score: the low end (lowest 25%- group, dark blue), the lower midfield (second 25%- group, light blue), the upper midfield (third 25%- group, orange) and the forefront (highest 25%- group, red). The values in the legend refer to the next highest 25% group; the maps show the country scores in the each area;
Source: Eurostat, WIFO-calculations.

The area "equity of labour market entry and continuity" is a domain of below average performance for Austria – more than half of the countries examined show to have a higher score. This result is mainly driven by the aspects exclusion (population out-of- labour force, out-of-labour force because of informal care responsibilities and part-time employment) and child care (formal child care for children under the age of 3 years) as well as health.

6   Area-Index 4: Distribution of Earnings

The fourth area index is concerned with the level and distribution of labour earnings. The following indicators are included:

- The average level of labour income,
- the functional and personal distribution of primary income (labour earnings as % of GDP, income distribution- quintiles),
- the tax- burden on labour,
- the gender specific earnings differential,
- the share of the low- wage sector and

- the extent of "working poor" individuals in a society.

Figure 5: Area-Index 4: Distribution of earnings
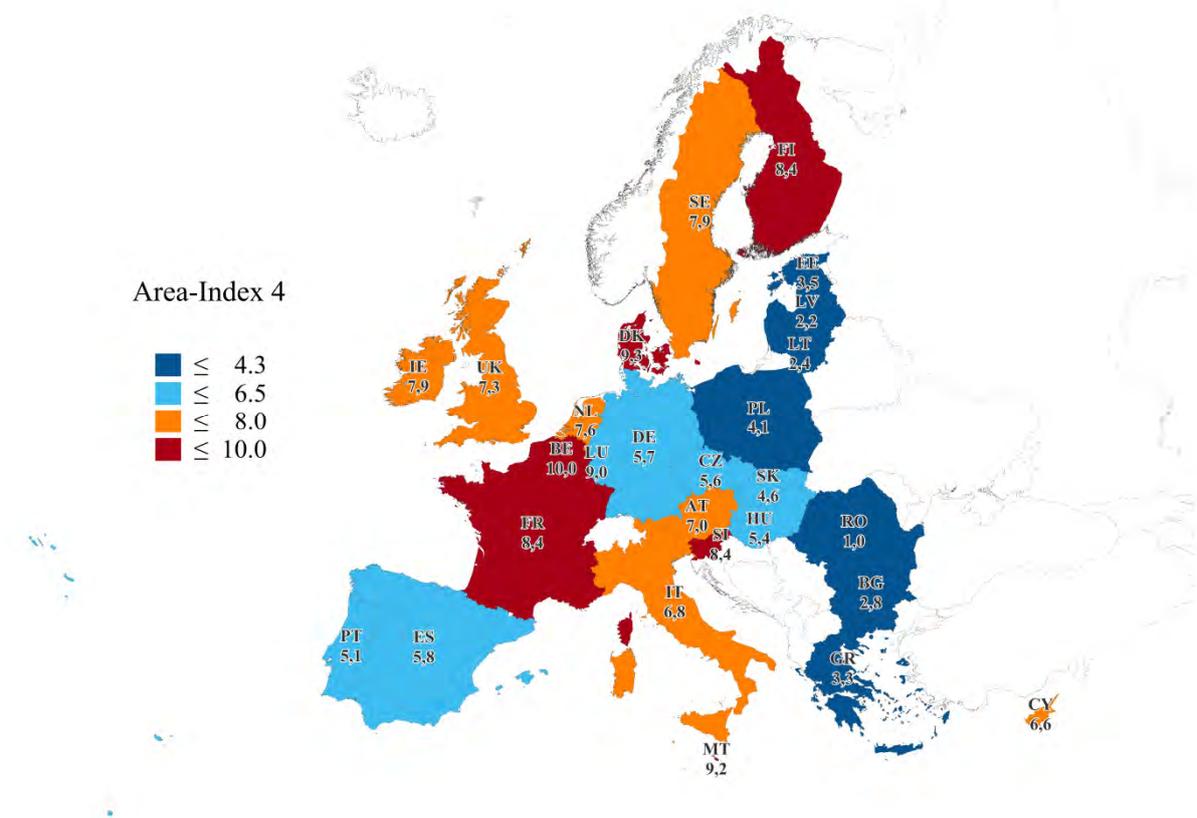
Note: Countries are categorized into four groups according to their index score: the low end (lowest 25%- group, dark blue), the lower midfield (second 25%- group, light blue), the upper midfield (third 25%- group, orange) and the forefront (highest 25%- group, red). The values in the legend refer to the next highest 25% group; the maps show the country scores in the each area; Source: Eurostat, WIFO-calculations.

This area consists of eight indicators. At a first glance, the area results are surprising: Belgium can position itself in front of Denmark, Malta and Luxemburg. Aspects which act in favour of Belgium are related to income/earnings and the extent of working poor individuals. Overall the Nordic countries are in the lead, albeit Sweden does not perform as well as expected. Part- francophone countries as well as smaller states can also be found amongst the forefront countries. The Baltic States, Greece, Bulgaria and finally Rumania can be found at the low end. Although the Austrian position in terms of "income/earnings" is comparatively good, the Austrian score is merely in the upper midfield. The comparably high tax- burden on labour and the pronounced gender specific earnings differential are chiefly responsible for this outcome.

7   Area-Index 5: Distributional Equity of the Welfare State

Finally, the fifth area encompasses issues related to social protection and the level of transfers granted. The index contains ten indicators covering:

- Key figures of the extent and structure of social security benefits (in % of GDP) and
- indicators related to the outcomes of public interventions – depicted by means of measures of the risks of poverty.

Figure 6: Area-Index 5: Distributional equity of the welfare state
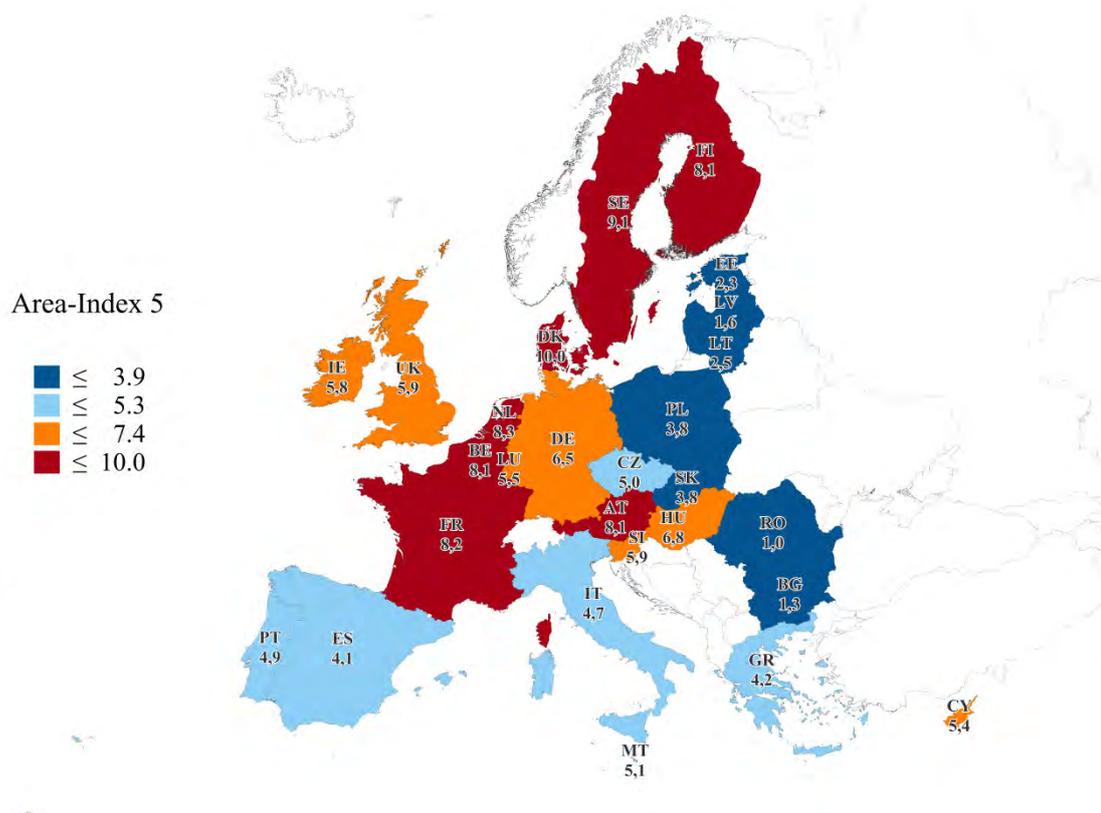
Note: Countries are categorized into four groups according to their index score: the low end (lowest 25%- group, dark blue), the lower midfield (second 25%- group, light blue), the upper midfield (third 25%- group, orange) and the forefront (highest 25%- group, red). The values in the legend refer to the next highest 25% group; the maps show the country scores in the each area;
Source: Eurostat, WIFO-calculations.

Again Denmark reaches the highest score, whereas Rumania is situated at the other end of the scale of EU-27- countries. However, the distance of scores between Rumania, Bulgaria and Latvia in terms of social security benefits and public intervention to prevent poverty is low. Difficulties of alignment are equally visible for Lithuania and Estonia. Apart from Hungary and Slovenia no new Member State reaches the EU-27 median score. The scores of the South European countries Portugal, Spain, Italy and Greece also lie below the median. Frontrunners are, apart from Denmark, Sweden, the Netherlands, France, Belgium, Finland followed by Austria. Scores in this group lie very close together.

8   Conclusion

The aim of this index building exercise was to attempt to bring together complex economic, political and societal relationships through five distinct area indices. These areas are of special interest to the Austrian Chamber of Labour. By making them comparable across EU- Member States (and later on over time), valuable insights can be gained. Member State rankings of scores are diffused by positioning countries according to their distance to the next 25%- group.

Nordic countries led by Denmark take a forefront position relative to other EU states; a similar picture emerges for the Netherlands and Austria whose scores range amongst the highest 25%- group in four, respectively three, areas. The (part)-francophone countries France, Belgium and Luxemburg can position themselves amongst the forefront countries in two areas. In interesting newcomer is Slovenia: Within the area "equity and labour market entry and continuity" and "distribution of earnings" this new Member State reaches top scores.

9   References

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