

The European Participation Index (EPI): A Tool for Cross-National Quantitative Comparison

Background paper

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Introduction

Compared with other aspects of industrial relations, the dimension of worker participation lacks generally-accepted quantitative indicators that can be used for cross-national comparative research. This report discusses the efforts that have been made at the European Trade Union Institute (ETUI) to plug this gap, including a pioneering effort to develop a multi-dimensional index of worker participation, the European Participation Index (EPI). It presents an updated version of this index, the EPI 2.0, which includes a more refined measure of worker participation at the establishment level. Finally, using the main indicators identified to identify progress on the Europe 2020 strategy, it shows that countries with stronger worker participation rights perform better in terms of this strategy than countries with weaker participation rights.

Worker Participation: A Neglected Aspect of Cross-National Comparative Analysis

Since the rise of quantitative approaches to cross-national analysis in the 1970s, differences in the institutions of industrial relations have belonged to the standard toolkit of comparative political economy. The strength of trade unions, measured in terms of the percentage of workforce that are members of trade unions (union density) or the percentage of workforce covered by collective bargaining contracts (collective bargaining coverage), as well as the centralization of trade union decision-making, have been used to help explain a variety of outcomes such as inflation, inequality and levels of welfare spending. Quantitative measures of the strength of employment protection were developed and applied, mainly to explain variations in labor market outcomes such as unemployment. However, the dimension of worker participation has long been lacking an equivalent set of indicators. Only de Silanes et. al. (2004) included simple measures of board level employee representation and mandated works councils in a cross-national index of the regulation of labor, which however has hardly been used in practical applications. In addition to extensive data on trade union organization and structure, a database released in January 2009 by Jelle Visser includes basic data on the rights of works councils.¹

In order to help plug this gap, researchers at the European Trade Union Institute (ETUI) have undertaken a number of efforts to develop a quantitative indicator of the strength of worker participation. A first effort here was the coding of countries according to the strength of rights for employee representation on company boards. Norbert Kluge and Michael Stollt, in an examination of the countries in which the European Company (SE) statute applied, developed a three-category classification of board level employee (BLER) rights. In the first category (“widespread participation rights”) employees have strong rights to representation on the

¹ For the database gathered by Jelle Visser see: <http://www.uva-aias.net/208>

boards of a large number of private and state-owned companies – generally in all companies with more than a specified number of employees. In the second category of countries (“limited participation rights”) employees have weaker rights to representation, in some cases restricted to state-owned and recently privatized companies, in other cases including privately-owned companies but making representation dependent upon the agreement of the employer rather than a statutory right for employees. In the third category of countries (“no or very limited participation rights”) board level employee representation exists as a rule only on a voluntary basis.

When classifying the 30 countries in which the SE legislation applies (EU-27 plus EEA), the following countries fall into the three groups as follows (see Figure 1 below):

- **Countries with a wide-ranging system of board-level representation** (i.e. where it also covers private companies): Austria, Czech Republic, Denmark, Finland, Germany, Hungary, Luxembourg, the Netherlands, Norway, Slovak Republic, Slovenia, Sweden (12 countries)
- **Countries with limited experience of board-level representation** (e.g. in state-owned or privatised companies): France, Greece, Ireland, Poland, Portugal, Spain (6 countries)
- **Countries with no regulations on board-level representation:** Belgium, Bulgaria, Cyprus, Estonia, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Malta, Romania, United Kingdom (12 countries)

One practical result of this effort was that many people were surprised by the extensiveness of BLER. A majority of these countries (18 of 30) have either wide-ranging or limited BLER rights. Another result was surprising for those who believed that the New Member States mainly followed a neo-liberal approach to industrial relations: many of the New Member States also have BLER (Czech Republic, Hungary, Slovak Republic, Slovenia in the first category, Poland in the second). A map of Europe showing this categorization with different colors for the different groups of countries has been used extensively amongst industrial relations experts (see Figure 1 below).

This three-category classification of BLER has also found some application in statistical work. In a report for SEEurope, Vitols (2005) compared the performance of the group of countries with “extensive rights” to countries with “limited” and “little or no” rights. The “extensive rights” group of countries had better performance on almost all indicators used, including unemployment, labor productivity, innovation, and inequality (see Table 1). With some modification Jackson (2005) also used this indicator as a dependent variable in a fuzzy-sets analysis. One chapter of a Ph.D. dissertation (Hörisch 2009) also focused on a critical analysis of the Vitols (2005) report.

First Version of the European Participation Index

Based on the understanding that a variety of mechanisms for worker participation exist and may reinforce each other, researchers at the ETUI (Norbert Kluge, Michael Stollt and Sigurt Vitols) made the first effort known to this author to develop a multi-dimensional index of worker participation rights. This index, labeled the European Participation Index (EPI), included three dimensions: board-level participation, workplace participation and collective bargaining participation.

The EPI was limited to European countries due to the lack of data on the workplace participation and BLER dimensions for non-European countries. Familiarity with the systems is needed to properly code these.

The EPI was operationalized as follows:

1. Plant-level participation – measures the strength of worker participation at the plant level. This includes three sub-indicators, including i) the probability of the presence of an interest representation body (including in smaller companies), ii) the existence of extensive information and consultation rights, including the right to veto or delay decisions with strong impact on employees like restructuring, closure, and mass redundancies, and iii) the competence to negotiate and sign legally binding agreements. Countries with stronger plant-level participation were coded with “1”, those with weaker rights were coded with “0”
2. Board-level participation – measures the strength of legal rights in each country for employee representation in the company's highest decision-making body. This classification was developed by the SEEurope network of ETUI and classifies countries in three groups: ‘widespread participation rights’, ‘limited participation rights’ and ‘no (or very limited) participation rights’. The first group was coded with a “2”, the second group with a “1” and the third group with a “0”
3. Collective bargaining participation – measures union influence on company industrial-relations policies, including an average of i) union density (i.e. percentage of workforce belonging to unions) and ii) collective bargaining coverage (i.e. percentage of the workforce covered by collective agreements). The data for these dimensions were based on country profile data collected for and displayed on www.worker-participation.eu

The three dimensions were equally weighted with a formula which resulted in an EPI score for each country, varying between a maximum possible score of “1” and a minimum possible score of “0.”

The EPI was used in a successful practical application in the ETUI report *Benchmarking Working Europe 2009*. The EPI showed how worker participation helps achieve the political objectives of the Lisbon Agenda. Countries with stronger participation rights performed better along a range of key Lisbon Strategy indicators than countries with weaker participation rights. These key indicators include labour productivity, overall employment rates, expenditure on research and development and sustainable development (see Table 3 and Appendix 1 below).

The European Participation Index 2.0

In an attempt to further refine the EPI and apply it to new data this author developed a new version of the index (2.0). This was then applied to analyzing country performance on the so-called headline indicators for the Europe 2020 strategy. The main change in the EPI was a modification to the operationalization of the “plant-level participation” component of the EPI. Instead of basing this on first-hand knowledge of SEEurope experts, the new version is based on survey data from companies gathered for the European Foundation for the Improvement of Living and Working Conditions (Eurofound).

Two large-scale company surveys were carried out which included questions on whether or not there were worker representatives in the company. In 2004-2005 the Establishment Survey on Working Time (ESWT) was carried out focusing on working time and work–life balance in European companies. This included a question on whether or not there was employee representation in the establishment being surveyed. The 2009 European Company Survey included a number of questions aimed at gaining a more detailed view of the type of employee representation present. This included four types of employee representation:

- Formal employee representation at the establishment level
- Formal employee representation at the company level (since, in multi-level establishments, there might be no representation at the establishment level, but representation at a higher level)
- Ad-hoc representation structures
- Health and safety representatives

Figure 4 displays the percentages of these different types of representation forms at the establishment level, by country.

Drawing on an analysis of the raw data from the latter survey, the “plant-level participation” component of the EPI was recalculated. This allowed for the calculation of a figure estimating how widespread formal worker representation at the establishment level was in that country. This figure can vary between a theoretical maximum of “1” (i.e. 100 percent of establishments have formal employee representation) and a theoretical minimum of “0” (i.e. no establishments have formal employee representation).

The EPI 2.0 was then calculated for the EU-27 keeping the old dimensions of board level and collective bargaining representation, and replacing the old dimension for plant level participation with the new data based on the Eurofound 2009 European Company Survey. The results are shown in Table 4 below.

The EPI 2.0 and the Europe 2020 strategy headline indicators

Similar to the methodology used for the ETUI Benchmarking Working Europe 2009 report, the EU-27 countries were divided up into two groups based on their overall scores on the participation index:

- The ‘stronger participation rights’ group includes twelve countries: Austria, the Czech Republic, Denmark, Finland, France, Germany, Luxembourg, the Netherlands, Slovakia, Slovenia, Spain and Sweden.
- The ‘weaker participation rights’ group includes fifteen countries: Belgium, Bulgaria, Cyprus, Estonia, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania and the United Kingdom.

Each of the two groups accounts for roughly half of EU27 GDP, making their importance in economic terms approximately equal. The two groups were then compared in terms of their performance on eight indicators used by Eurostat to measure progress on the five major Europe 2020 targets, which are:

- 75 % of the population aged 20-64 should be employed

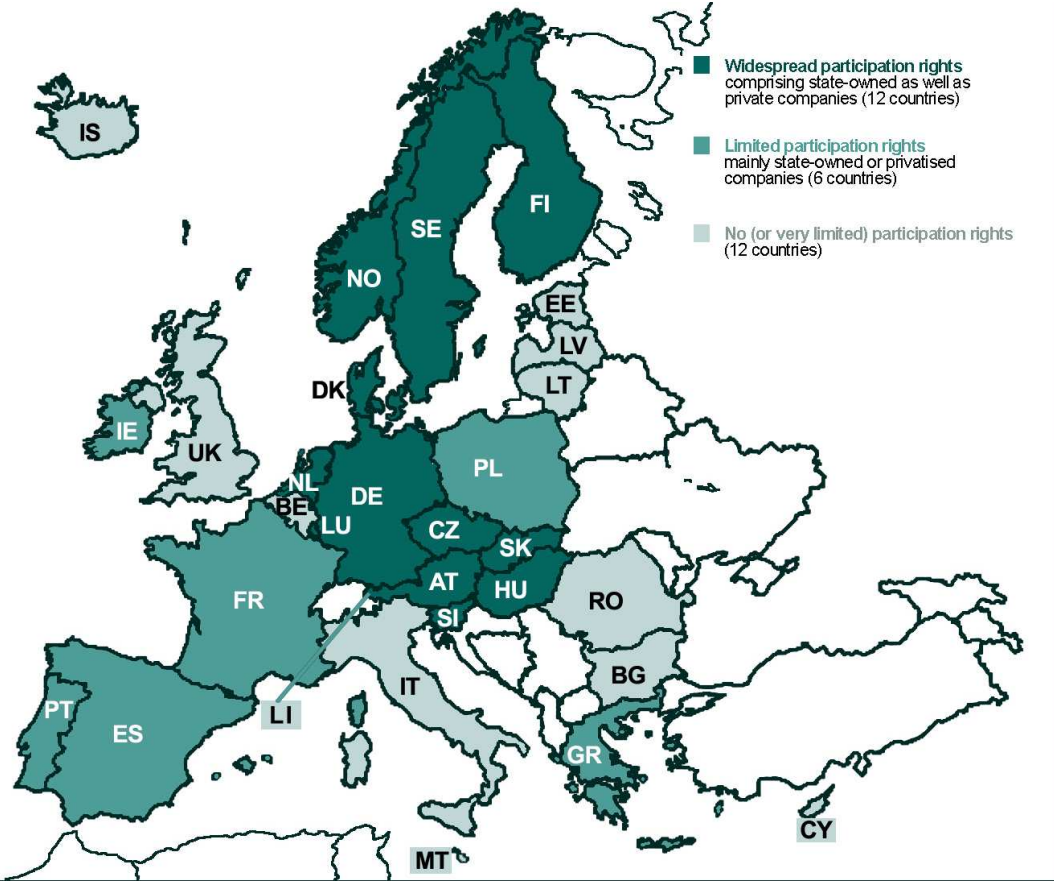
- 3% of the EU's GDP should be invested in R&D
- The "20/20/20" climate/energy targets should be met
- The share of early school leavers should be under 10% and at least 40% of 30-34 years old should have completed a tertiary or equivalent education
- At least 20 million people should be lifted out of the risk of poverty or exclusion

This comparison of the EU27 countries classified by strength of workers' rights regarding information, consultation and participation shows that the group of countries with stronger participation rights performs better on all of the eight Europe 2020 headline indicators than the group of countries with weaker participation rights (see Table 5). This suggests that strong worker participation is a supportive mechanism that could be strengthened in order to help achieve the 2020 targets.

Conclusion

This topical report has analyzed the efforts to develop quantitative cross-national indicators of worker participation. Researchers at the ETUI have been at the forefront of this effort, first by coding the strength of board level employee representation, and thereafter by developing an innovative multi-dimensional participation index, the European Participation Index (EPI). This report has proposed a new variant of the EPI, entitled the EPI 2.0, based on new data from the 2009 European Company Survey commissioned by Eurofound. This data allows for a more objective measure of plant level worker participation. An application of the EPI 2.0 in an analysis of comparative performance of EU27 countries with "stronger" versus "weaker" rights against the Europe 2020 Strategy headline indicators shows that such indexes can usefully be used in cross-national comparison, and that stronger worker participation is associated with more positive economic and social performance.

Figure 1: Board-level representation rights in EU/EEA countries



Source: www.worker-participation.eu

Table 1: Results from the report “Prospects for trade unions in the evolving European system of corporate governance”

Performance variable(weighted averages)	Group I: EU countries with strong codetermination	Group II: EU countries with weak/no codetermination
Unemployment rate (2004), as % of labour force	8.0	8.2
Trade balance (goods), as % of GDP (annual average, for the 5 years 1999-2003)	3.9	-2.0
Current account balance, as % of GDP (annual average, for the 5 years 1999-2003)	1.0	-0.8
Labour productivity per hour (2003)	101.0	95.3
BCI (Business competitiveness index)	6.8	19.9
R&D expenses, as % of GDP, ca. 2000	2.4	1.6
Strike rate (days per 1000 workers), annual av. 2000-2002	9.7	104.8
Gini coefficient	0.259	0.321
GDP real growth (annual average, for the 5 years 1999-2004)	1.6	2.4

Sources: Table 5: Comparison of European national economic performance, from Vitols (2005), based on own analysis of data from EUROSTAT, World Competitiveness Report, OECD, EIRO Online, and the Luxembourg Income Study.

Table 2: Data for the European Participation Index (EPI)

	$(C + (D/2) + ((E+F)/2)/3$	C	D	E	F
Country	EPI	Workplace Participation	Board Representation	Collective Bargaining Coverage	Trade Union Density
Sweden	0.95	1	2	0.90	0.78
Finland	0.94	1	2	0.90	0.74
Denmark	0.93	1	2	0.80	0.80
Austria	0.89	1	2	0.98	0.35
Netherlands	0.85	1	2	0.89	0.22
Luxembourg	0.84	1	2	0.60	0.46
Germany	0.81	1	2	0.64	0.22
Greece	0.69	1	1	0.85	0.30
France	0.67	1	1	0.93	0.08
Spain	0.66	1	1	0.82	0.16
Belgium	0.59	1	0	0.96	0.55
Slovenia	0.57	0	2	0.96	0.44
Italy	0.52	1	0	0.80	0.34
Czech Republic	0.44	0	2	0.44	0.22
Slovakia	0.44	0	2	0.35	0.30
Romania	0.43	1	0	0.30	0.30
Hungary	0.40	0	2	0.25	0.17
Malta	0.36	0	1	0.56	0.59
Portugal	0.35	0	1	0.94	0.15
Ireland	0.28	0	1	0.35	0.35
Poland	0.25	0	1	0.35	0.16
Cyprus	0.24	0	0	0.75	0.70
United Kingdom	0.10	0	0	0.34	0.28
Bulgaria	0.08	0	0	0.25	0.20
Estonia	0.06	0	0	0.25	0.11
Latvia	0.06	0	0	0.20	0.16
Lithuania	0.04	0	0	0.10	0.14

Source: www.worker-participation.eu

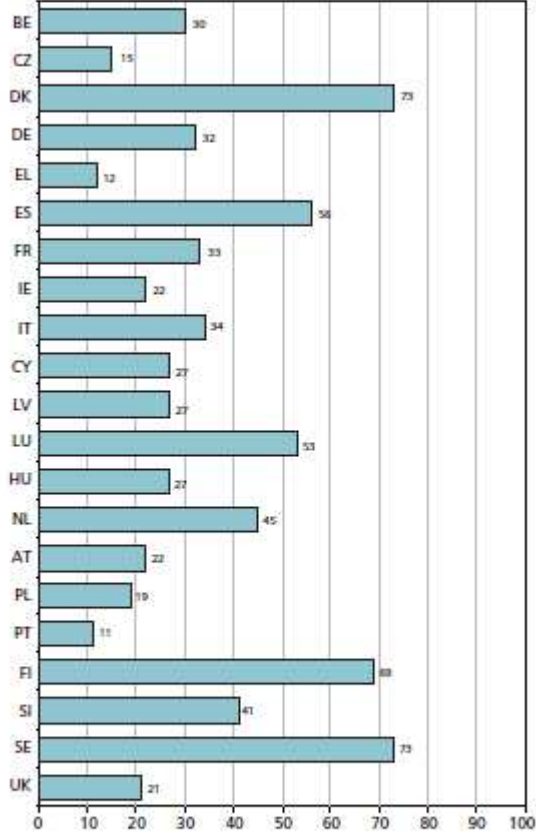
Table 3: The European Participation Index and Lisbon Strategy Indicators

Performance indicator	Countries with stronger participation rights	Countries with weaker participation rights
GDP per capita in Purchasing Power Standards (EU-27 = 100)	116,5	104,5
Labour productivity per person employed (EU-27 = 100)	113,9	103,6
Employment rate (total %)	67,6	64,7
Employment rate of older workers (percent)	46,1	44,3
Youth education attainment level - % of the population aged 20 to 24 having completed at least upper secondary education	77,8	75,8
Gross domestic expenditure on R&D (percent of GDP)	2,3	1,4
Index of greenhouse gas emissions and targets - In CO2 equivalents (Actual base year = 100)	92,7	103,3
Gross inland consumption of energy divided by GDP (kilogram of oil equivalent per 1000 Euro)	170	261,7

Source: [ETUI Benchmarking Working Europe 2009](#) / Data source: Eurostat. Note: all data for 2006. Countries weighted by 2006 GDP.

Figure 3: Eurofound 2004-2005 company survey results on percentage of establishments with employee representation, by country

Figure A2: Establishments with employee representation, by country (%)



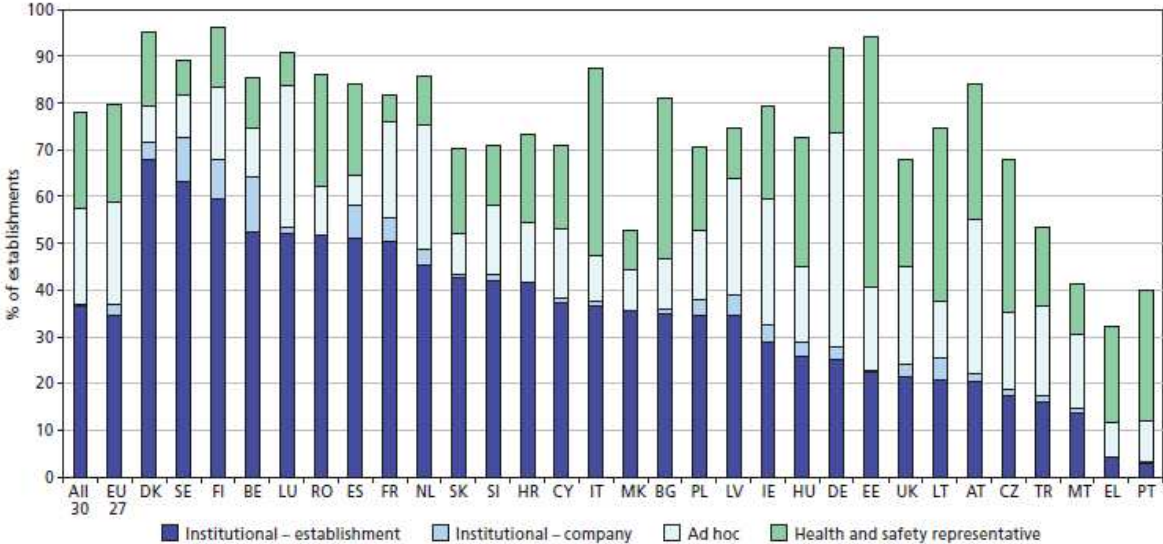
Note: Due to the underrepresentation of the NACE sectors M and/or N mentioned earlier, incidences for Belgium, Greece, Cyprus, Luxembourg, Hungary, Austria and Portugal are likely to be under-estimated by up to about 6 percentage points.

*Base: All establishments
Source: ESWT, 2004-2005*

Source: Eurofound (2006: 62).

Figure 4: Eurofound 2009 company survey results percentage of establishments with employee representation, by country

Figure 42: Incidence of different types of employee representation, by country (%)



Note: Base = all establishments with 10 or more employees.
 Source: ECS 2009, management interviews

Source: Eurofound (2009: 47).

Table 4: Data used in the calculation of the EPI 2.0

A	(C + (D/2) + ((E+F)/2)/3	B	C	D	E
Country	EPI 2.0	Workplace Representation	Board Representation	Collective Bargaining Coverage	Trade Union Density
Austria	0.63	0.21	2	0.98	0.35
Belgium	0.43	0.53	0	0.96	0.55
Bulgaria	0.19	0.35	0	0.25	0.20
Cyprus	0.37	0.37	0	0.75	0.70
Czech Republic	0.50	0.18	2	0.44	0.22
Denmark	0.83	0.68	2	0.80	0.80
Estonia	0.23	0.52	0	0.25	0.11
Finland	0.81	0.6	2	0.90	0.74
France	0.50	0.5	1	0.93	0.08
Germany	0.61	0.41	2	0.64	0.22
Greece	0.37	0.04	1	0.85	0.30
Hungary	0.49	0.26	2	0.25	0.17
Ireland	0.38	0.29	1	0.35	0.35
Italy	0.31	0.37	0	0.80	0.34
Latvia	0.18	0.35	0	0.20	0.16
Lithuania	0.11	0.21	0	0.10	0.14
Luxembourg	0.68	0.52	2	0.60	0.46
Malta	0.41	0.14	1	0.56	0.59
Netherlands	0.67	0.45	2	0.89	0.22
Poland	0.37	0.35	1	0.35	0.16
Portugal	0.37	0.05	1	0.94	0.15
Romania	0.27	0.52	0	0.30	0.30
Slovakia	0.59	0.43	2	0.35	0.30
Slovenia	0.71	0.42	2	0.96	0.44
Spain	0.50	0.52	1	0.82	0.16
Sweden	0.82	0.63	2	0.90	0.78
United Kingdom	0.16	0.17	0	0.34	0.28

Source: “Workplace representation” dimension based on own calculations based on raw data from Eurofound’s 2009 European Company Survey. Other dimensions based on data from www.worker-participation.eu

Table 5: Comparative performance of countries with stronger vs. weaker worker participation rights (based on EPI 2.0) on the eight Europe 2020 headline indicators

Europe 2020 Headline Indicator	Group 1: Countries with stronger participation rights	Group 2: Countries with weaker participation rights
Employment rate by gender, age group 20-64, 2009	72.1	67.4
Gross domestic expenditure on R&D (GERD), 2008	2.2	1.4
Greenhouse gas emissions (reduction in baseline between 2003-2008)	4.7	4.2
Share of renewables in gross final energy consumption, 2008	12.3	6.1
Energy intensity of the economy, 2008	171.2	181.7
Early leavers from education and training, 2009	14.0	16.1
Tertiary educational attainment by gender, age group 30-34, 2009	36.6	31.1
Population at risk of poverty or exclusion, 2008	19.1	25.4

Source: Own calculations based on the EPI 2.0 and data from Eurostat ec.europa.eu/eurostat

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Appendix 1: Description of application of EPI in the ETUI Benchmarking Working Europe 2009 report

Source: www.worker-participation.eu

According to the analysis prepared by Sigurt Vitols, Norbert Kluge and Michael Stollt. Countries were classified based on their overall scores on the participation index. The **‘stronger participation rights’ group includes nine countries:** Austria, Denmark, Finland, France, Germany, Greece, Luxembourg, the Netherlands and Sweden. **The ‘weaker participation rights’ group includes 18 countries:** Belgium, Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and the United Kingdom. Each of the two groups accounts for roughly half of EU27 GDP, making their importance in economic terms approximately equal.

The Index shows that companies located in countries that recognise a greater participatory role for workers operate more in coherence with social and ecological objectives and this has a beneficial effect on European society as a whole. Europe needs skilled, mobile, committed, responsible workers that are able to identify with the objective of increasing competitiveness and quality without fear of losing their job.

The comparison of the EU-27 countries classified by strength of workers’ rights regarding information, consultation and participation shows that, on the whole, countries with stronger participation rights performed better along a range of Lisbon Strategy indicators than did countries with weaker rights. The ‘strong rights’ group of countries surpassed the other in a wide variety of key indicators: GDP per capita, labour productivity, overall employment rate, employment rate of older workers, youth educational attainment, expenditures on R&D, progress on the reduction of greenhouse gas emissions and consumption of energy.