

EUROSTAT (2019.07.04)

Labour cost structural statistics - changes

Data from 15 March 2019
Next article update: December 2022

Highlights

In 2016, the hourly wage costs in the whole economy stood at €20.0 in the EU and €22.2 in the euro area; compared with 2008, they increased in real terms by 5.6 % in the EU and 6.2 % in the euro area.

In 2016 compared with 2008, hours worked in the whole economy increased by 2.7 % in the EU and 4.3 % in the euro area.

In 2016 compared with 2008, hours worked increased most in the mainly non-business economy (14.0 % in the EU, 21.5 % in the euro area) while the largest decreases were in construction (24.2 % in the EU, 26.5 % in the euro area).

Changes in real hourly wage costs in total economy in EU-28, 2016/2008

EU-28EABGROSKPLLVEEBESIHUSEMTCZLTLUFIDKDENLATFRIEESPTUKITHRELCY%-20-100102030405060

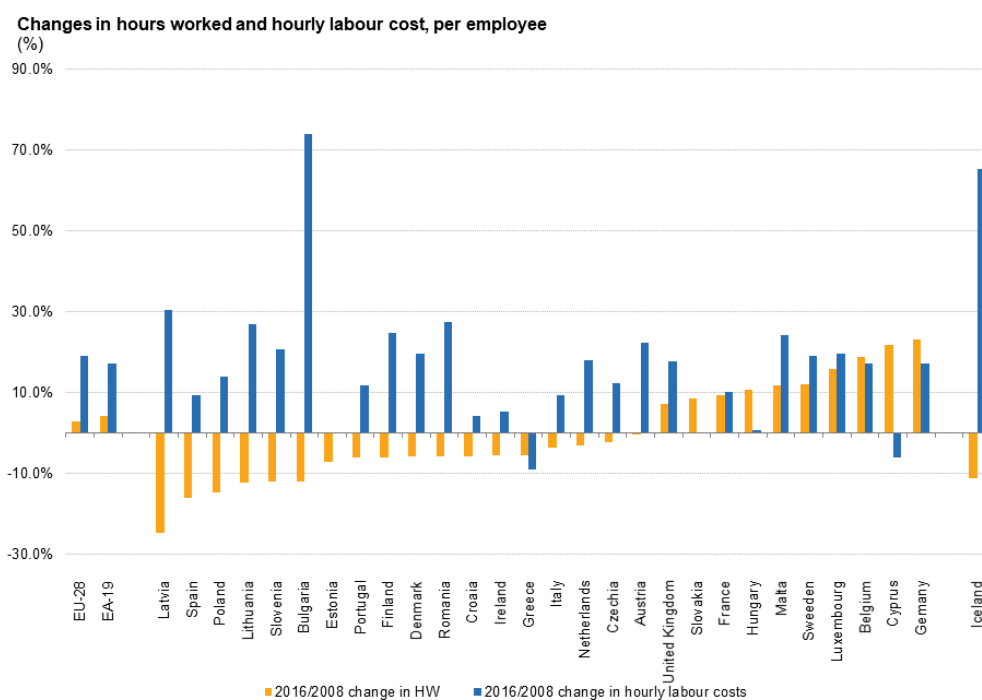
- Source: Eurostat (online data codes: *lc_ncost_r2* and *prc_hicp_aind*)

This article is based on the comparison of two vintages of the 4-yearly [Labour cost survey \(LCS\)](#), with reference years 2008 and 2016, highlighting changes in hours worked, hourly labour costs and hourly wage costs between the two reference years. For 2016 labour cost levels see: [Labour cost structural statistics - levels](#).

Full article

Changes in hourly labour costs and total hours worked

Changes in labour cost can be split into changes in the volume of labour input (total number of hours worked, number of employees) and prices (hourly labour costs) (Figure 1).



Source: Eurostat (online data codes: lc_ncost_r2 and lc_nnum1_r2)
 Note: Data for 2008 for Norway, Switzerland and candidate countries is not available.



Figure 1: Changes in hours worked and hourly labour cost, per employee, 2016/2008 (%)

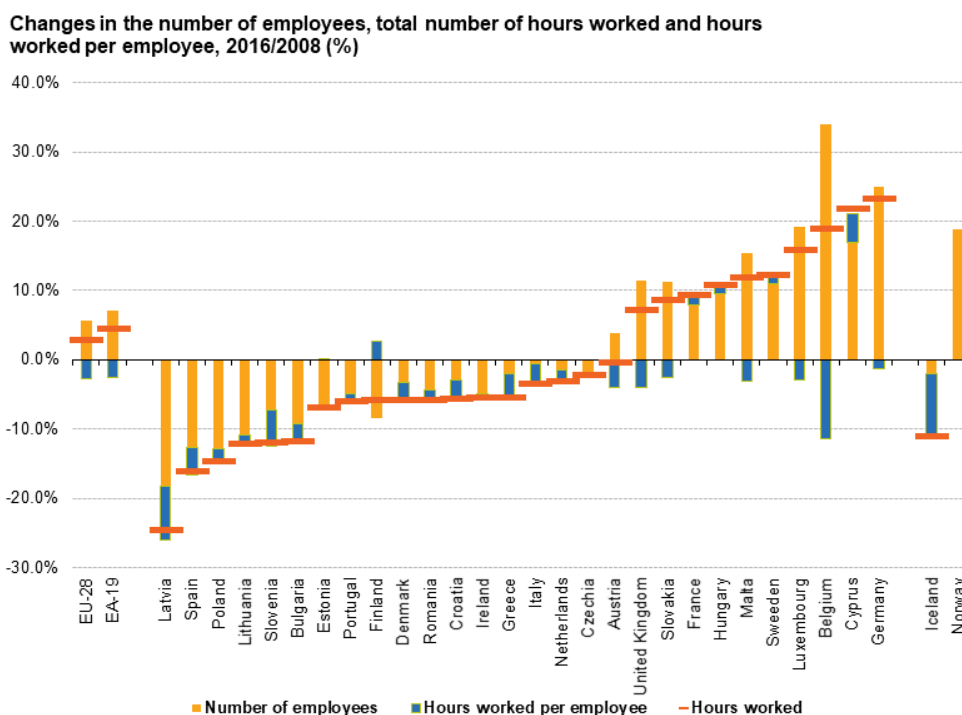
Over the period 2008-2016, the mean hourly [labour cost](#) in the [European Union \(EU\)](#) has increased by 19 % in the EU and 17 % in the euro area. The countries with the highest increases in labour cost between 2008 and 2016 were Bulgaria (+73.8 %) and Latvia (+30.3 %).

In terms of labour input, the total number of hours worked increased by 2.7 % in the EU and 4.3 % in the euro area, with large differences across countries. An increase in the total number of hours worked was recorded in ten EU Member States, ranging between 7.1 % in the United Kingdom and 23.2 % in Germany. At the same time, a decrease was recorded in the remaining 18 EU Member States, ranging between -0.4 % in Austria and -24.6 % in Latvia. While several Member States recorded a decrease of

more than 10 % (Latvia, Spain, Poland, Lithuania, Slovenia and Bulgaria), some recorded an increase of more than 10 % (Germany, Cyprus, Belgium, Luxembourg, Sweden, Malta and Hungary).

Changes in number of employees and hours worked per employee

Changes in total hours worked are the combined effect of changes in the number of employees and in the average number of hours worked per employee (figure 2).



Source: Eurostat (online data code: lc_nnum1_r2)

Note: Data for 2008 for candidate countries as well as data on number hours worked for 2008 for Norway is not available.

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Figure 2: Changes in the number of employees, total number of hours worked and hours worked per employee, 2016/2008 (%)

Between 2008 and 2016, the number of employees increased by 5.6 % in the EU and by 7.1 % in the euro area. Over the same period, the average number of hours worked per employee decreased by -2.8 % in the EU and by -2.6 % in the euro area.

Changes in the number of hours worked and the number of employees may be significantly impacted by methodological differences between LCS 2008 and 2016.

Changes in hours worked by economic sectors

In the EU, the total number of hours worked increased the most (+14.0 %) in the mainly non-business economy (except public administration). A decrease was recorded in the business economy (-0.4 %) and construction (-24.2 %). In the euro area, the highest increase in the total number of hours worked was recorded in the mainly non-business economy (except public administration) (+21.5 %), while industry (-7.5 %) and construction (-26.5 %) showed a decrease (Table 1).

Changes in hours worked by economic sectors
%

| | Whole economy (%) (NACE Rev. 2 sections B to S excluding O) | Industry (%) (NACE Rev. 2 sections B to E) | Business economy (%) (NACE Rev. 2 sections B to N) | Construction (%) (NACE Rev. 2 section F) | Services (%) (NACE Rev. 2 sections G to N) | Mainly non-business economy(*) (%) (NACE Rev. 2 sections P to S) |
|----------------|---|--|--|---|--|---|
| EU-28 | 2.7 | 1.4 | -0.4 | -24.2 | 7.7 | 14.0 |
| EA-19 | 4.3 | -7.5 | 0.0 | -26.5 | 8.3 | 21.5 |
| Belgium | 18.8 | 9.8 | 25.3 | 14.0 | 34.6 | 5.0 |
| Bulgaria | -11.9 | -15.7 | -13.9 | -55.8 | 0.4 | -1.5 |
| Czechia | -2.4 | -7.8 | -4.1 | -27.0 | 4.3 | 5.7 |
| Denmark | -5.9 | -25.1 | -10.9 | -22.5 | -2.0 | 5.2 |
| Germany | 23.2 | 5.6 | 20.1 | 19.6 | 30.8 | 34.8 |
| Estonia | -7.0 | -11.6 | -8.6 | -34.4 | -0.8 | -1.5 |
| Ireland | -5.6 | -5.9 | -8.8 | -44.1 | -4.5 | 5.9 |
| Greece | -5.5 | -26.5 | -4.8 | -43.4 | 10.7 | -8.0 |
| Spain | -16.2 | -23.2 | -21.8 | -68.3 | -9.0 | 11.9 |
| France | 9.2 | -13.6 | -3.2 | -6.2 | 1.9 | 67.4 |
| Croatia | -5.7 | -7.8 | -10.3 | -41.8 | -4.6 | 13.6 |
| Italy | -3.6 | -11.1 | -4.0 | -31.2 | 5.7 | -2.3 |
| Cyprus | 21.7 | -14.6 | 18.1 | -38.3 | 38.9 | 44.7 |
| Latvia | -24.6 | -24.7 | -27.7 | -56.7 | -22.8 | -14.9 |
| Lithuania | -12.2 | -11.8 | -13.5 | -39.3 | -7.9 | -8.3 |
| Luxembourg | 15.7 | -7.0 | 12.7 | 14.1 | 17.2 | 43.5 |
| Hungary | 10.7 | -0.5 | 3.0 | -14.9 | 7.9 | 36.3 |
| Malta | 11.9 | -33.0 | 9.0 | -10.6 | 33.2 | 21.7 |
| Netherlands | -3.2 | -10.7 | -3.4 | -24.3 | 1.3 | -2.7 |
| Austria | -0.4 | -4.1 | -0.3 | -4.2 | 2.2 | -1.2 |
| Poland | -14.8 | -16.3 | -17.5 | -39.4 | -15.2 | -2.6 |
| Portugal | -6.0 | -8.8 | -10.8 | -50.0 | -2.6 | 11.4 |
| Romania | -5.9 | -15.0 | -6.6 | -24.9 | 7.7 | -2.3 |
| Slovenia | -12.1 | -18.4 | -17.5 | -52.9 | -7.7 | 11.3 |
| Slovakia | 6.5 | -5.7 | 8.2 | -5.6 | 24.7 | 10.0 |
| Finland | -6.0 | -23.8 | -10.5 | 3.6 | -4.9 | 5.4 |
| Sweden | 12.1 | -12.1 | 5.7 | 17.1 | 14.0 | 24.1 |
| United Kingdom | 7.1 | . | 9.7 | -1.0 | 14.4 | 0.3 |
| Iceland | -11.1 | -10.8 | . | -49.9 | . | -2.5 |

(*) NACE Rev. 2 section O is excluded

.: data not available

Source: Eurostat (online data code: lc_nnum1_r2)

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Table 1: Changes in hours worked by economic sectors, 2016/2008 (%)

Changes in real hourly wage costs

In 2016, average hourly wage costs in the whole economy stood at EUR 20.0 in the European Union (EU) and EUR 22.2 in the euro area. However, this average masks significant differences between EU Member States, ranging from EUR 3.8 in Bulgaria to EUR 36.5 in Denmark. Over the 2008-2016 period, hourly wage costs for the whole economy have increased in real terms by 5.6 % in the EU and by 6.2 % in the euro area (Figure 3). Between 2008 and 2016 real hourly wage costs increased most in

Bulgaria (+61.3 %), Romania (+28.7 %) and Slovakia (+24.9 %), while they decreased in Croatia (-1.7 %), Greece (-13.8 %) and Cyprus (-14.5 %).

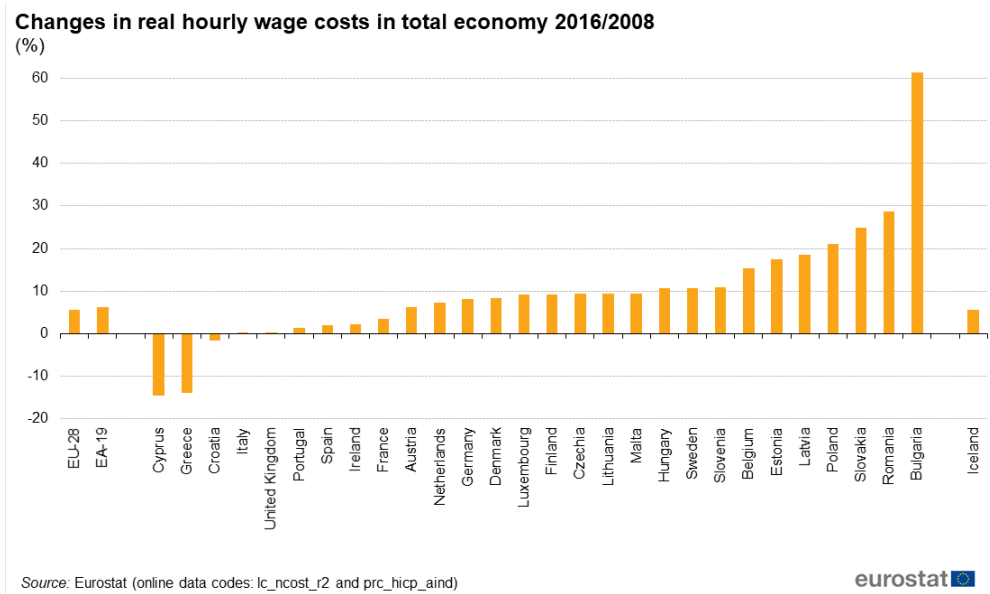


Figure 3: Changes in real hourly wage costs in total economy, 2016/2008 (%)

Wage and salary costs ('wage costs') include direct remunerations, bonuses, and allowances paid by an employer in cash or in kind to an employee in return for work done, payments to employees saving schemes, payments for days not worked and remunerations in kind such as food, drink, fuel, company cars, etc. They include social contributions, income taxes, and other payments payable by the employee, including those withheld by the employer and paid directly to social insurance schemes, tax authorities, etc. on behalf of the employee. They exclude social contributions payable by the employer. Changes in hourly wage costs are calculated as a Laspeyres index - the average of 2016/2008 changes, in national currency, across all NACE sections (except agriculture and public administration) weighted by the number of hours worked recorded in 2008 for the corresponding NACE section. To express changes in real terms, the Laspeyres index in nominal terms is divided by the 2016/2008 changes in the harmonized index of consumer prices published in Eurobase table [prc_hicp_aind].

Country notes: Some NACE Rev2 sections, for which LCS data were not transmitted, have been excluded from the calculations. This concerns: France: section P; Belgium: sections B, D, I, J, L and M; Ireland: sections D and E; Greece: sections B and S; Cyprus and Malta: sections B and D Luxembourg:

sections B, D, L and N; Portugal: sections D, J, L M and R; United Kingdom: sections D, E, M and R; Iceland: sections B, I, J, L, M, N and S

Changes in real hourly wage costs by economic sectors

In the EU, all economic sectors recorded an increase in real hourly wage costs, over the observed period, ranging between 0.8 % in the mainly non-business economy (except public administration) and 13.2 % in construction. In the euro area, they increased most in the construction sector (+15.7 %) while decreasing (-2.5 %) in the mainly non-business economy (except public administration).

Changes in real hourly wage costs by economic sectors, 2016/2008 (%)

| | Whole economy (%) (NACE Rev. 2 sections B to S excluding O) | Industry (%) (NACE Rev. 2 sections B to E) | Business economy (%) (NACE Rev. 2 sections B to N) | Construction (%) (NACE Rev. 2 section F) | Services (%) (NACE Rev. 2 sections G to N) | Mainly non-business economy(*) (%) (NACE Rev. 2 sections P to S) |
|----------------|---|---|---|---|---|--|
| EU-28 | 5.6 | 8.5 | 7.0 | 13.2 | 5.4 | 0.8 |
| EA-19 | 6.2 | 10.0 | 8.6 | 15.7 | 6.7 | -2.5 |
| Belgium | 15.3 | 8.7 | 4.9 | 17.2 | 0.9 | 34.4 |
| Bulgaria | 61.3 | 59.5 | 62.4 | 72.9 | 62.5 | 55.9 |
| Czechia | 9.4 | 13.0 | 8.7 | 6.7 | 4.8 | 13.2 |
| Denmark | 8.4 | 13.9 | 8.6 | 2.8 | 7.0 | 7.9 |
| Germany | 8.1 | 7.7 | 7.9 | 7.1 | 8.2 | 8.8 |
| Estonia | 17.5 | 22.7 | 17.3 | 10.8 | 15.3 | 16.2 |
| Ireland | 2.3 | 9.0 | 5.5 | -4.2 | 5.8 | -5.4 |
| Greece | -13.8 | -13.8 | -10.0 | -24.1 | -6.4 | -23.4 |
| Spain | 2.0 | 5.5 | 3.3 | 6.5 | 1.5 | -3.5 |
| France | 3.5 | 3.6 | 4.2 | 9.8 | 3.9 | -0.6 |
| Croatia | -1.7 | -4.1 | -0.7 | -1.4 | 1.6 | -5.7 |
| Italy | 0.1 | 4.4 | 0.5 | -2.2 | -2.2 | -1.1 |
| Cyprus | -14.5 | -13.1 | -14.0 | -10.1 | -14.8 | -16.2 |
| Latvia | 18.6 | 25.2 | 23.7 | 31.5 | 21.5 | 2.6 |
| Lithuania | 9.4 | 14.9 | 10.3 | -6.8 | 12.6 | 6.6 |
| Luxembourg | 9.3 | -1.2 | 9.8 | 6.5 | 12.6 | 5.6 |
| Hungary | 10.7 | 19.5 | 14.7 | 7.5 | 11.7 | -3.6 |
| Malta | 9.5 | -5.6 | 5.6 | 13.4 | 10.6 | 22.3 |
| Netherlands | 7.3 | 9.3 | 6.0 | 5.3 | 5.1 | 11.2 |
| Austria | 6.3 | 6.4 | 7.1 | 4.0 | 8.0 | 2.5 |
| Poland | 21.1 | 21.3 | 20.4 | 21.2 | 19.5 | 24.0 |
| Portugal | 1.3 | 0.3 | 1.8 | -8.4 | 4.7 | 0.2 |
| Romania | 28.7 | 38.6 | 31.5 | 13.9 | 29.0 | 17.3 |
| Slovenia | 11.0 | 21.0 | 14.5 | 9.6 | 9.7 | -1.9 |
| Slovakia | 24.9 | 28.4 | 23.1 | 15.1 | 18.9 | 33.2 |
| Finland | 9.3 | 10.4 | 9.4 | 4.6 | 9.6 | 8.8 |
| Sweden | 10.7 | 12.3 | 11.3 | 8.2 | 11.3 | 9.2 |
| United Kingdom | -0.4 | -1.9 | -2.3 | -5.9 | -2.0 | 6.5 |
| Iceland | 5.7 | 14.8 | 4.6 | 10.6 | -2.2 | 6.2 |

(*) excluding NACE Rev. 2 section O

Source: Eurostat (online data codes: lc_ncost_r2 and prc_hicp_aind)

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Table 2: Changes in real hourly wage costs by economic sectors, 2016/2008 (%)

Changes in hourly labour cost in euro and national currency

Compared with 2008, the hourly labour cost in euro recorded in 2016 was 19 % higher in the EU and 17 % higher in the euro area. It increased in all EU Countries except Greece (-9 %) and Cyprus (-6 %) with the largest increase recorded in Bulgaria (+74 %), Slovakia (+39 %) and Estonia (+38 %). (figure 4).

For non-euro area countries, exchange rate movements impacted hourly labour cost in euro downwards for Poland (-20 %), Hungary (-19 %), Romania (-18 %), Czechia (-8 %), Croatia (-4 %) and the United Kingdom (-3 %). They impacted them upwards only for Sweden (+2 %).

The largest positive contribution to changes in the hourly labour cost expressed in national currency was observed in Bulgaria (+46 %), Latvia (+39 %) and Romania (+36 %). At the same time, largest negative contribution was recorded in Cyprus (-17 %) and Greece (-15 %).

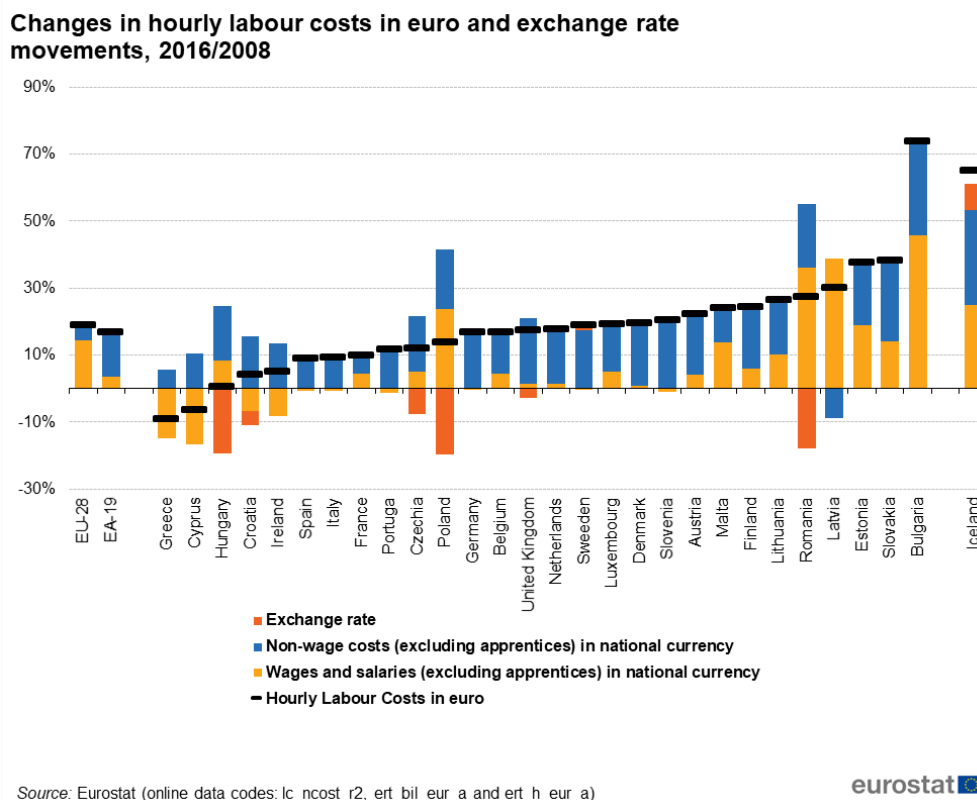


Figure 4: Changes in hourly labour costs in euro and exchange rate movements, 2016_2008

Data sources

The Labour cost survey (LCS) provides details on the level and structure of labour cost data, hours worked and hours paid for employees in the European Union (EU).

Employees include all persons employed at the observation unit and with an employment contract (permanent or not), except family workers; home workers; occasional workers; persons wholly remunerated by way of fees or commission; board of Director Members; directors/managers paid by way of profit share or by fee; self-employed persons. Data do not cover apprentices except in the case where they represent a low share of the total labour force (less than 1 %).

If not otherwise stated, data refer to full-time and part-time employees working in enterprises employing 10 employees or more, in all economic sectors except: agriculture, forestry and fishing ([NACE Rev. 2](#)

Section A) and public administration and defence; compulsory social security (NACE Rev. 2 Section O).

The LCS data for NACE section O are transmitted by countries on voluntary basis.

Hours worked are defined as the periods of time employees spent on direct and ancillary activities to produce goods and services, including normal periods of work, paid and unpaid overtime and time spent on preparation, maintaining, repairing, cleaning and writing reports associated to main work. They exclude periods of vacation and other public holidays, sick leave and other type of absence which employees are paid for.

It should be noted that data for Belgium has a break in the series between 2008 and 2016.

Context

Labour costs refer to the total expenditure borne by employers in order to employ staff. They cover wage and non-wage costs less subsidies. They do include vocational training costs or other expenditures such as recruitment costs, spending on working clothes, etc.