# Quantitative mapping for Smart Specialisation in Kosovo 

D3: Final quantitative report
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#### Abstract

The study designs a quantitative analysis framework to assess the economic and innovation potential of Kosovo compared to a number of benchmark countries, including Bosnia and Herzegovina, Bulgaria, Croatia, Greece and North Macedonia. Based on a statistical analysis, a number of industries has been identified with an economic and innovation potential which have the potential of driving the transformation of the economy into a more competitive and affluent economy.

The economic analysis uses statistical data for individual economic industries provided by the Kosovo Agency of Statistics on number of enterprises, number of employees, turnover, wages and exports of goods. Industries with a current economic potential are established industries in which Kosovo is specialised compared to the benchmark countries. These industries should not be too small and have relatively high levels of average wages contributing to the country's overall economic well-being.

The analysis could overlook industries in which Kosovo is not yet specialised, which are still small or where average wages are relatively low, but where there are clear signs of improvement over time which could turn them into industries with a current economic potential in the few years' time. These industries will be identified as industries with a dynamic or emerging economic potential.

This report first presents the results of the mapping of the economic potential of Kosovo. A comparison - at the NACE 3-digit industry level using data for number of employees, turnover and average wages - with other Balkan and neighbouring countries - including Bosnia and Herzegovina, Bulgaria, Croatia, Greece and North Macedonia - has identified 9 industries with a current and 18 mostly smaller industries with an emerging economic potential.

The report then focuses on the results of identifying the innovation potential of industries in Kosovo using data on innovation activities from different editions of the Balkan Business Barometer and World Bank Enterprise Survey. The report also analyses industries' trade specialisation by comparing export performance with export performance in the selected benchmark countries.

The results of the different analyses are combined in a final integrated assessment of the economic and innovation potential of industries in Kosovo. The following NACE 3-digit industries would have both an economic and innovation potential: NACE 051 Mining of hard coal, NACE 106 Manufacture of grain mill products, starches and starch products, NACE 241 Manufacture of basic iron and steel and of ferro-alloys, NACE 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel, NACE 259 Manufacture of other fabricated metal products, NACE 351 Electric power generation, transmission and distribution, NACE 412 Construction of residential and non-residential buildings, and NACE 581 Publishing of books, periodicals and other publishing activities.


An analysis of two different sources for publication data finally shows that there is empirical evidence that Kosovo is publishing intensely in areas as Economics, Environmental sciences, Mathematics and Medicine.

## 1 Introduction

This report presents the results of the statistical mapping of both the economic and innovation potential of Kosovo. Chapter 2 presents the methodology used for and the results of the mapping of the economic potential. Chapter 3 presents the methodology used for and the results of the mapping of the innovation potential. Chapter 4 combines the results and presents a synthesised view of the economic and innovation potential. Chapter 5 briefly discuss the results of an additional separate mapping of the scientific potential. Chapter 6 discusses data needs for future updates of the economic and innovation mapping analyses.

The report is accompanied by an Excel database including the data and the mapping of the economic potential. The database allows the possibility of changing the selection criteria used in the statistical mapping. By changing selection criteria, the industries identified having an economic potential can be altered.

## 2 Mapping the economic potential of Kosovo

The objective of the mapping of the economic potential is to identify economic priority domains: these are industries with current or emerging ${ }^{1}$ economic strengths having a potential to drive economic transformation.

Section 2.1 discusses data availability. Section 2.2 discusses the methodology for mapping the economic potential including the selection of benchmark countries. Section 2.3 presents the results of the mapping of the economic potential for NACE 3-digit industries in Kosovo.

### 2.1 Data availability for Kosovo

The mapping of the economic potential uses economic data on employment, turnover and average wages. The following annual economic data for 2010-2020 have been made available by the Kosovo Agency of Statistics:

- Number of active enterprises for 580 NACE 4-digit industries
- Turnover for 585 NACE 4-digit industries
- Number of employees for 578 NACE 4-digit industries
- Wages or salaries for 578 NACE 4-digit industries

An analysis using data for NACE 4-digit industries would be too detailed and would also complicate combining the results with those of the mapping of the innovation potential for which, at best, data are available at the NACE 3-digit level. The economic data have therefore been aggregated to the NACE 3-digit level including 264 NACE 3-digit industries. Data for a particular industry and year are only included in the analysis if for that industry and year data are available for all four above-mentioned variables.
The evolution over time of these economic variables is shown in Table 1 and Figure 1. The number of active enterprises has been increasing over time to 43,100 in 2020. Turnover, in nominal prices, has more than doubled between 2010 and 2020 and wages, also in nominal prices, have almost doubled. The number of employees has been increasing, after a decline in both 2011 and 2012, to more than 244,000 in 2020. Average wages are calculated as the ratio between wages and number of employees and average wages have been increasing up until 2019 and then declined strongly in 2020 to Euro 4,100 per employee, close to the level of average wages in 2010.

Table 1 Aggregate economic data for Kosovo

|  | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of <br> active <br> enterprises | 33,693 | 35,791 | 36,698 | 34,137 | 34,900 | 39,772 | 37,592 | 38,177 | 38,825 | 41,395 | 43,100 |
| Turnover <br> (million Euros) | $4,452.5$ | $6,920.5$ | $7,592.4$ | $7,862.2$ | $7,681.5$ | $8,439.6$ | $9,058.4$ | $10,195.5$ | $10,229.0$ | $11,935.6$ | $11,045.7$ |
| Number of <br> employees | 158,955 | 144,240 | 143,655 | 154,540 | 155,369 | 176,339 | 180,291 | 197,096 | 212,517 | 226,890 | 244,018 |
| Wages or <br> salaries <br> (million Euros) | 624.5 | 635.0 | 640.3 | 696.8 | 693.0 | 754.2 | 798.4 | 914.3 | $1,034.9$ | $1,130.4$ | $1,000.3$ |
| Average wages <br> (Euros) | $3,928.6$ | $4,402.2$ | $4,457.4$ | $4,508.9$ | $4,460.5$ | $4,277.2$ | $4,428.7$ | $4,639.1$ | $4,869.9$ | $4,982.1$ | $4,099.4$ |

[^0][^1]Figure 1 Aggregate economic data for Kosovo



Data source: Kosovo Agency of Statistics

### 2.2 Methodology for mapping the economic potential using economic data

The mapping exercise includes both an identification of industries with a static or current economic potential which are already highly specialised with relatively high average wages, and industries with a dynamic or emerging economic potential where employment, turnover and average wages have been growing at above average rates.
Industries with a static or current economic potential are established industries in which Kosovo is specialised compared to a selection of other countries. These industries should not be too small and have relatively high levels of average wages. Increasing the share of industries with high average wages will raise average wages in the country and contribute to the country's overall economic well-being. However, the mapping analysis is based on an analysis of past, although relatively recent, data. The analysis could overlook industries in which Kosovo is not yet specialised, which are still small or where average wages are relatively low, but where there are clear signs of improvement over time which could turn these industries into industries with a current economic potential in the few years' time. These industries are identified as industries with a dynamic or emerging economic potential when there are positive and above average trend improvements in employment, turnover and average wages.

### 2.2.1 Selection of benchmark countries

For determining the degree of specialisation, the economic performance of industries in Kosovo needs to be compared to the performance of the same industries in a set of benchmark countries. For recent studies in Albania, Montenegro, and North Macedonia, the European Union (EU) was used as the benchmark. However, the EU is composed of 27 Member States of different economic size and different economic structures. For the mapping of Kosovo, a benchmark with a selection of neighbouring countries would be more relevant as differences in economic structures and differences in the size of the economies are smaller.

Economic data for NACE 4-digit industries for the business sector for EU Member States and several other European countries are available from Eurostat from the "Annual detailed enterprise statistics". Data for Agriculture, forestry and fishing (NACE A) and public services (NACE O-U) are not available. The business sector includes the following industries:

- $\quad \mathrm{B}$ - Mining and quarrying
- C-Manufacturing
- D - Electricity, gas, steam and air conditioning supply
- E - Water supply; sewerage, waste management and remediation activities
- F-Construction
- G - Wholesale and retail trade; repair of motor vehicles and motorcycles
- H - Transportation and storage
- I - Accommodation and food service activities
- J-Information and communication
- K65 - Insurance, reinsurance and pension funding, except compulsory social security
- L - Real estate activities
- $\quad$ - Professional, scientific and technical activities
- N - Administrative and support service activities
- S95 - Repair of computers and personal and household goods

For the benchmark countries the focus will be on Western Balkan countries and other 'neighbouring' countries. Figure 2 shows for which of these countries data are available from Eurostat. Data are available for the following Western Balkan countries (countries shown in dark blue): Bosnia and Herzegovina, Croatia and North Macedonia. There are no data for Albania and Montenegro available from Eurostat (countries shown in orange). Collecting these data from national sources would complicate the analysis as data might not be comparable. Data for Serbia are only partially available with data available for 3 years only (20162018) and Serbia (also shown in orange) is not included in the analysis. Bulgaria and Greece, two other 'neighbouring' countries (countries shown in light blue), have been included given their geographical proximity and the fact that both countries also face issues in their economic development. For most of these countries
data are available for at least 200 NACE 3-digit industries for the period 2012-2018. For North Macedonia data are available for less than 160 NACE 3-digit industries. There are no data available for the benchmark countries for 2019 and 2020.

Compared to Kosovo, all benchmark countries have a larger population size and higher per capita income in both current US\$ and international PPP dollars (Table 2). Both the Agricultural and Industry sector in Kosovo account for a larger share of Gross Domestic Product (GDP) compared to the average of the benchmark countries, whereas the Services sector accounts for a smaller share of GDP.

Table 2 Descriptive statistics for Kosovo and benchmark countries and non-selected Western Balkan countries

|  | Population <br> size (2020) | GDP per <br> capita <br> (current US\$) <br> (2020) | GDP per <br> capita, PPP <br> (current <br> international <br> \$) (2020) | Agriculture, <br> forestry, and <br> fishing, value <br> added (\% of <br> GDP) (2020) | Industry <br> (including <br> construction), <br> value added <br> (\% of GDP) <br> (2020) | Services, <br> value added <br> (\% of GDP) <br> (2020) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Kosovo | $\mathbf{1 , 7 7 5 , 3 7 8}$ | $\mathbf{4 , 2 8 7}$ | $\mathbf{1 1 , 3 6 8}$ | $\mathbf{7 . 6}$ | $\mathbf{2 5 . 8}$ | $\mathbf{4 4 . 2}$ |
| *Albania | $2,837,743$ | 6,032 | 13,818 | 19.3 | 19.7 | 48.4 |
| Bosnia and Herzegovina | $3,280,815$ | 6,032 | 15,612 | 6.2 | 23.9 | 55.7 |
| Bulgaria | $6,927,288$ | 9,976 | 24,367 | 3.4 | 23.0 | 60.2 |
| Croatia | $4,047,200$ | 13,828 | 24,367 | 3.3 | 21.5 | 58.9 |
| Greece | $10,715,549$ | 17,676 | 28,464 | 4.1 | 13.9 | 69.8 |
| ${ }^{\text {(Montenegro }}$ | 621,718 | 7,686 | 20,567 | 6.4 | 16.1 | 58.7 |
| North Macedonia | $2,083,380$ | 5,888 | 16,927 | 9.1 | 22.6 | 57.0 |
| *Serbia | $6,908,224$ | 7,666 | 19,231 | 6.5 | 24.8 | 51.5 |

Data source: World Bank, World Development Indicators (data extracted 30 June 2021)

* Not including in analysis due to either no or limited data from Eurostat for individual industries.


### 2.2.2 Static analysis to identify industries with current economic strength

The following criteria are used to identify industries with current economic strength:

- Critical mass ('size'): too small industries, with only a small weight in the economy, are less relevant for developing and implementing policies. The absolute size of industries matters and industries' size or 'critical mass' is measured by the share of employment in that industry in the country:

$$
\begin{array}{ll}
\mathrm{cm}_{\mathrm{i}} & =\mathrm{e}_{\mathrm{i}} / \mathrm{e} \\
\text { where } & \\
\mathrm{cm}_{\mathrm{i}} & =\text { critical mass or relative size of industry } \mathrm{i} \text { in Kosovo } \\
\mathrm{e}_{\mathrm{i}} & =\text { number of employees or turnover in industry } \mathrm{i} \text { in Kosovo } \\
\mathrm{e} & =\text { total number of employees or turnover in Kosovo }
\end{array}
$$

- Specialisation: measures if, in relative terms, an industry is more important for Kosovo than it is for the selected benchmark countries. Specialisation is measured using Location Quotients (LQs), which are defined as:
$L_{i} \quad=\left(e_{i} / e\right) /\left(E_{i} / E\right)$
where
$L Q_{i} \quad=$ location quotient for industry i in Kosovo
$\mathrm{e}_{\mathrm{i}} \quad=$ number of employees or turnover in industry i in Kosovo
e $\quad=$ total number of employees or turnover in Kosovo
$\mathrm{E}_{\mathrm{i}} \quad=$ number of employees or turnover in industry i in benchmark countries
E = total number of employees or turnover in benchmark countries

An LQ above 1 shows an above average concentration in the industry, i.e., the share of employment or turnover of that industry in Kosovo is higher than the average share of employment or turnover of that same industry in the selected benchmark countries. An LQ below 1 shows a below average concentration in the industry, i.e., the share of employment or turnover of that industry in Kosovo is lower than the average share of employment or turnover of that same industry in the selected benchmark countries.

- Average wages ('productivity'): average wages per employee (calculated as the ratio of Total wages and Number of employees) is used as an additional criterion for selecting industries with an economic potential. Industries with close to or above average wages are expected to contribute more to the economic development of Kosovo. Average wages should be above a certain threshold compared to both average wages for all industries in Kosovo and average wages in the same industry for the selected benchmark countries:

```
awi = average wages in industry i in Kosovo
aw = average wages in Kosovo
AW i = average wages in industry i in selected benchmark countries
```

The mapping exercise identifies industries as having a static or current economic potential for which:

- Size is sufficiently high, i.e., above a pre-defined threshold value:

$$
\mathrm{cm}_{\mathrm{i}}>\mathrm{X}
$$

Industries should account for at least X\% of total number of employees or turnover in Kosovo.

- Specialisation (LQ) is sufficiently high, i.e., above a pre-defined threshold value:

$$
L Q_{i}>Y
$$

Industries with a degree of specialisation, for both number of employees and turnover, above Y are defined as specialized.

- Average wages are sufficiently high compared to average wages for all industries in Kosovo:

$$
a w_{i}>Z_{1} * a w
$$

Industries with wages higher than $\mathrm{Z}_{1}$ times the level of average wages in Kosovo perform close to or above the country's average.

- Average wages are sufficiently high compared to average wages in the same industry in the selected benchmark countries:

$$
\mathrm{aw}_{\mathrm{i}}>\mathrm{Z}_{2}{ }^{*} \mathrm{AWi}
$$

Industries with wages higher than $Z_{2}$ times the level of average wages in the same industry in the selected benchmark countries perform close to or above the industry average in the selected benchmark countries.

There are no set rules for determining the threshold values $X, Y, Z_{1}$ and $Z_{2}$. The most common practice is to start with threshold values which are also used in other studies and then to either use these if the number of selected industries matches policy needs, or to decrease a threshold if the number of selected industries is too small or to increase a threshold if the number of selected industries is too high.

Table 3 Selection criteria for mapping of current economic potential

| Criteria | Threshold | Value |
| :--- | :---: | :---: |
| Size - employment and turnover | X | $0.10 \%$ |
| Specialisation - employment and turnover | Y | 1.1 |
| Average wages relative to Kosovo | $\mathrm{Z}_{1}$ | 80 |
| Average wages relative to same industry in selected benchmark countries | $\mathrm{Z}_{2}$ | 50 |

For the results presented in section 2.3, the thresholds shown in Table 3 have been used. Industries should account for more than $0.10 \%$ of both total employment and turnover in Kosovo, their degree of specialisation for both employment and turnover should be higher than 1.1. Average wages should be higher than $80 \%$ of the level of average wages in Kosovo and should be higher than $50 \%$ of the level of average wages in the same industry in the selected benchmark countries.

Industries should pass these thresholds for at least 7 out of 9 years (2012 to 2020) for size and average wages relative to Kosovo and for at least 5 out of 7 years ( 2012 to 2018) for specialisation and average wages relative to the same industry in the selected benchmark countries. Data for 2010 and 2011 are not used for size and average wages relative to Kosovo to ensure that the same base year is used in both comparisons, with Kosovo and the selected benchmark countries.

### 2.2.3 Dynamic analysis to identify industries with emerging economic strength

The following criteria are used to identify industries with emerging economic strength:

- Employment share: The trend for 2012-2020 should be positive and at least 1.5 times as high as the trend for total employment for Kosovo. Trends are defined as the ratio between the slope of a linear regression over the period 2012-2020 and the average value for employment for the same years. The trend should be statistically significant, i.e. the adjusted $R^{2}$ should be at least 0.70.
- Specialisation in employment: The trend for 2012-2018 should be positive and statistically significant. Trends are defined as the slope of the linear regression over the period 2012-2018 and the average value for the degree of specialisation for the same years. Trends are significant if the adjusted $R^{2}$ is at least 0.70 .
- Turnover share: The trend for 2012-2020 should be positive and at least 1.5 times as high as the trend for total turnover for Kosovo. Trends are defined as the ratio between the slope of a linear regression over the period 2012-2020 and the average value for turnover for the same years. The trend should be statistically significant, i.e. the adjusted $R^{2}$ should be at least 0.70.
- Specialisation in turnover: The trend for 2012-2018 should be positive and statistically significant. Trends are defined as the slope of the linear regression over the period 2012-2018 and the average value for the degree of specialisation for the same years. Trends are significant if the adjusted $R^{2}$ is at least 0.70 .
- Average wages relative to Kosovo: The trend for 2012-2020 should be positive and statistically significant. Trends are defined as the ratio between the slope of a linear regression over the period 2012-2020 and the average value for average wages relative to Kosovo for the same years. Trends are significant if the adjusted $R^{2}$ is at least 0.70 .
- Average wages relative to the same industry in the selected benchmark countries: The trend for 2012-2018 should be higher than the trend for total average wages relative to total average wages in the selected benchmark countries. Trends are defined as the ratio between the slope of a linear regression over the period 2012-2018 and the average value for average wages relative to the same industry in the selected benchmark countries for the same years. Trends are significant if the adjusted $R^{2}$ is at least 0.70 .

An industry is defined as having a dynamic or emerging economic potential if it passes at least four of these criteria. Assuming that all criteria or at least five criteria should be passed would result in a too small number of industries with a dynamic or emerging economic potential.

### 2.3 Results of the mapping of the economic potential

Results for the mapping of the current economic potential are discussed in section 2.3.1. Results for the mapping of the emerging economic potential are discussed in section 2.3.2. Both results are then combined in section 2.3.3.

### 2.3.1 Current economic potential - results

Results for identifying industries with a current economic potential are shown in Annex A. If industries pass a threshold the value in the respective table cell is 1 , otherwise it is 0 . Industries for which comparable data for the selected benchmark countries are not available are highlighted in orange in the first column. The third column (EMPL SIZE) shows if and how many industries (108) passed the size criterion for employment, the fourth column (EMPL SPEC) shows if and how many industries (47) passed the specialisation criterion for employment, the fifth column (TURN SIZE) shows if and how many industries (84) passed the size criterion for turnover, the sixth column (TURN SPEC) shows if and how many industries (34) passed the specialisation criterion for turnover, the seventh column (WGS KV) shows if and how many industries (80) passed the criterion for average wages relative to those in Kosovo, and the eight column (WGS BEN) shows if and how many industries (66) passed the criterion for average wages relative to those in the same industry in the selected benchmark countries. Finally, the last column (CEP) shows how many criteria each industry passed and how many industries (9) passed all 6 criteria and would have a current economic potential.
These 9 industries with a current economic potential account for $\mathbf{1 8 \%}$ of total employment and $\mathbf{2 6 \%}$ of total turnover. On the following pages, for each of these 9 industries the performance on the selection criteria and the description of the included NACE 4-digit classes will be discussed.

Industry is part of Manufacturing (NACE C)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1.4 \%$ | 4.021 | $1.5 \%$ | 3.577 | 108.0 | 61.4 |

This industry accounts for about 1.5\% of employment and turnover. Compared to the benchmark countries, the industry shows a high degree of specialisation for both employment and turnover. Average wages are higher than those in Kosovo and relatively high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 23.61 Manufacture of concrete products for construction purposes

This class includes manufacture of precast concrete, cement or artificial stone articles for use in construction: tiles, flagstones, bricks, boards, sheets, panels, pipes, posts etc.; manufacture of prefabricated structural components for building or civil engineering of cement, concrete or artificial stone.

- 23.62 Manufacture of plaster products for construction purposes

This class includes manufacture of plaster articles for use in construction: boards, sheets, panels etc

- 23.63 Manufacture of ready-mixed concrete

This class includes manufacture of ready-mix and dry-mix concrete and mortars. This class excludes manufacture of refractory cements (23.20).

- 23.64 Manufacture of mortars

This class includes manufacture of powdered mortars. This class excludes manufacture of refractory mortars (23.20); manufacture of dry-mixed concrete and mortars (23.63).

- 23.65 Manufacture of fibre cement

This class includes manufacture of building materials of vegetable substances (wood wool, straw, reeds, rushes) agglomerated with cement, plaster or other mineral binder; - manufacture of articles of asbestos-cement or cellulose fibre-cement or the like: corrugated sheets, other sheets, panels, tiles, tubes, pipes, reservoirs, troughs, basins, sinks, jars, furniture, window frames etc.

- 23.69 Manufacture of other articles of concrete, plaster and cement

This class includes manufacture of other articles of concrete, plaster, cement or artificial stone: statuary, furniture, bas- and haut-reliefs, vases, flowerpots etc.

## 412 Construction of residential and non-residential buildings

Industry is part of Construction (NACE F)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $6.5 \%$ | 2.034 | $6.3 \%$ | 2.290 | 86.2 | 71.1 |

This industry accounts for more than 6\% of employment and turnover. Compared to the benchmark countries, the industry shows above average degrees of specialisation for both employment and turnover. Average wages are below those in Kosovo but relatively high. Average wages are also high compared to those in the same industry in the benchmark countries

The industry includes the following activities:

This group includes the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis. Outsourcing parts or even the whole construction process is possible. If only specialised parts of the construction process are carried out, the activity is classified in division 43.

- 41.20 Construction of residential and non-residential buildings

This class includes construction of all types of residential buildings: single-family houses, multifamily buildings, including high-rise buildings; construction of all types of non-residential buildings: buildings for industrial production, e.g. factories, workshops, assembly plants etc., hospitals, schools, office buildings, hotels, stores, shopping malls, restaurants, airport buildings, indoor sports facilities, parking garages, including underground parking garages, warehouses, religious buildings; assembly and erection of prefabricated constructions on the site. This class also includes remodelling or renovating existing residential structures. This class excludes construction of industrial facilities, except buildings (42.99); architectural and engineering activities (71.1); project management for construction (71.1).

## 421 Construction of roads and railways

Industry is part of Construction (NACE F)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.1 \%$ | 1.801 | $2.8 \%$ | 1.920 | 170.1 | 76.0 |

This industry accounts for more than $\mathbf{2 \%}$ of employment and almost $\mathbf{3 \%}$ of turnover. Compared to the benchmark countries, the industry shows above average degrees of specialisation for both employment and turnover. Average wages are much higher than those in Kosovo and high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 42.11 Construction of roads and motorways

This class includes construction of motorways, streets, roads, other vehicular and pedestrian ways; surface work on streets, roads, highways, bridges or tunnels: asphalt paving of roads, road painting and other marking, installation of crash barriers, traffic signs and the like; construction of airfield runways. This class excludes installation of street lighting and electrical signals (43.21); architectural and engineering activities (71.1); project management for construction (71.1).

- 42.12 Construction of railways and underground railways

This class includes construction of railways and subways. This class excludes installation of lighting and electrical signals (43.21); architectural and engineering activities (71.1); project management for construction (71.1).

- 42.13 Construction of bridges and tunnels

This class includes construction of bridges, including those for elevated highways; construction of tunnels. This class excludes installation of lighting and electrical signals (43.21); architectural and engineering activities (71.1); project management for construction (see 71.1).

## 461 Wholesale on a fee or contract basis

Industry is part of Wholesale and retail trade, repair of motor vehicles and motorcycles (NACE G)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.8 \%$ | 1.266 | $3.2 \%$ | 2.714 | 129.3 | 70.7 |

This industry accounts for almost $\mathbf{1 \%}$ of employment and $\mathbf{3 \%}$ of turnover. Compared to the benchmark countries, the industry shows above average degrees of specialisation for both employment and turnover. Average wages are higher than those in Kosovo and high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:
This group includes activities of commission agents, commodity brokers and all other wholesalers who trade on behalf and on the account of others; activities of those involved in bringing sellers and buyers together or undertaking commercial transactions on behalf of a principal, including on the Internet.
This group also includes activities of wholesale auctioneering houses, including Internet wholesale auctions.

- 46.11 Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods

This class excludes wholesale trade in own name ( 46.2 to 46.9); retail sale by non-store commission agents (47.99).

- 46.12 Agents involved in the sale of fuels, ores, metals and industrial chemicals

This class includes agents involved in the sale of fuels, ores, metals and industrial chemicals, including fertilisers. This class excludes wholesale trade in own name ( 46.2 to 46.9); retail sale by non-store commission agents (47.99).

- 46.13 Agents involved in the sale of timber and building materials

This class excludes wholesale trade in own name ( 46.2 to 46.9); retail sale by non-store commission agents (47.99).

- 46.14 Agents involved in the sale of machinery, industrial equipment, ships and aircraft

This class includes agents involved in the sale of machinery, including office machinery and computers, industrial equipment, ships and aircraft. This class excludes activities of commission agents for motor vehicles (45.1); auctions of motor vehicles (45.1); wholesale trade in own name (46.2 to 46.9); retail sale by non-store commission agents (47.99).

- 46.15 Agents involved in the sale of furniture, household goods, hardware and ironmongery

This class excludes wholesale trade in own name ( 46.2 to 46.9 ); retail sale by non-store commission agents (47.99).

- 46.16 Agents involved in the sale of textiles, clothing, fur, footwear and leather goods

This class excludes wholesale trade in own name ( 46.2 to 46.9 ); retail sale by non-store commission agents (47.99).

- 46.17 Agents involved in the sale of food, beverages and tobacco

This class excludes wholesale trade in own name ( 46.2 to 46.9); retail sale by non-store commission agents (47.99).

- 46.18 Agents specialised in the sale of other particular products

This class excludes wholesale trade in own name ( 46.2 to 46.9); retail sale by non-store commission agents (47.99); activities of insurance agents (66.22); activities of real estate agents (68.31).

- 46.19 Agents involved in the sale of a variety of goods

This class excludes wholesale trade in own name ( 46.2 to 46.9 ); retail sale by non-store commission agents (47.99).

## 463 Wholesale of food, beverages and tobacco

Industry is part of Wholesale and retail trade, repair of motor vehicles and motorcycles (NACE G)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3.1 \%$ | 1.802 | $9.4 \%$ | 1.284 | 104.1 | 53.2 |

This industry accounts for more than $\mathbf{3 \%}$ of employment and $\mathbf{9 \%}$ of turnover. Compared to the benchmark countries, the industry shows above average degrees of specialisation for both employment and turnover. Average wages are higher than those in Kosovo and relatively high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 46.31 Wholesale of fruit and vegetables

This class includes wholesale of fresh fruits and vegetables; wholesale of preserved fruits and vegetables.

- 46.32 Wholesale of meat and meat products
- 46.33 Wholesale of dairy products, eggs and edible oils and fats

This class includes wholesale of dairy products; wholesale of eggs and egg products; wholesale of edible oils and fats of animal or vegetable origin.

- 46.34 Wholesale of beverages

This class includes wholesale of alcoholic beverages; wholesale of non-alcoholic beverages. This class also includes buying of wine in bulk and bottling without transformation. This class excludes blending of wine or distilled spirits (11.01, 11.02).

- 46.35 Wholesale of tobacco products
- 46.36 Wholesale of sugar and chocolate and sugar confectionery

This class includes wholesale of sugar, chocolate and sugar confectionery; wholesale of bakery products.

- 46.37 Wholesale of coffee, tea, cocoa and spices
- 46.38 Wholesale of other food, including fish, crustaceans and molluscs

This class also includes wholesale of feed for pet animals.

- 46.39 Non-specialised wholesale of food, beverages and tobacco

581 Publishing of books, periodicals and other publishing activities
Industry is part of Information and communication (NACE J)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.7 \%$ | 1.828 | $0.4 \%$ | 1.581 | 122.4 | 50.8 |

This industry accounts for relatively small shares in employment and turnover. Compared to the benchmark countries, the industry shows above average degrees of specialisation for both employment and turnover. Average wages are higher than those in Kosovo and relatively high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:
This group includes activities of publishing books, newspapers, magazines and other periodicals, directories and mailing lists, and other works such as photos, engravings, postcards, timetables, forms, posters and reproductions of works of art. These works are characterised by the intellectual creativity required in their development and are usually protected by copyright.

- 58.11 Book publishing

This class includes the activities of publishing of books in print, electronic (CD, electronic displays etc.) or audio form or on the Internet. Included are publishing of books, brochures, leaflets and similar publications, including publishing of dictionaries and encyclopaedias; publishing of atlases, maps and charts; publishing of audio books; publishing of encyclopaedias etc. on CD-ROM. This class excludes production of globes (32.99); publishing of advertising material (58.19); publishing of music and sheet books (59.20); activities of independent authors (90.03).

- 58.12 Publishing of directories and mailing lists

This class includes the publishing of lists of facts/information (databases), that are protected in their form, but not in their content. These lists can be published in printed or electronic form. This class includes publishing of mailing lists; publishing of telephone books; publishing of other directories and compilations, such as case law, pharmaceutical compendia etc.

- 58.13 Publishing of newspapers

This class includes the publishing of newspapers, including advertising newspapers, appearing at least four times a week. Publishing can be done in print or electronic form, including on the Internet. This class excludes news agency activities (63.91).

- 58.14 Publishing of journals and periodicals

This class includes the publishing of periodicals and other journals, appearing less than four times a week. Publishing can be done in print or electronic form, including on the Internet. Publishing of radio and television schedules is included here.

- 58.19 Other publishing activities

This class includes publishing (including on-line) of catalogues, photos, engravings and postcards, greeting cards, forms, posters, reproduction of works of art, advertising material, other printed matter; on-line publishing of statistics and other information. This class excludes publishing of advertising newspapers (58.13); on-line provision of software (application hosting and application service provisioning) (63.11).

Software publishing
Industry is part of Information and communication (NACE J)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.3 \%$ | 5.144 | $0.2 \%$ | 3.466 | 200.2 | 59.8 |

This industry accounts for relatively small shares in employment and turnover. Compared to the benchmark countries, the industry shows a high degree of specialisation for both employment and turnover. Average wages are much higher than those in Kosovo and relatively high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 58.21 Publishing of computer games

This class includes publishing of computer games for all platforms.

- 58.29 Other software publishing

This class includes publishing of ready-made (non-customised) software, including translation or adaptation of non-customised software for a particular market on own account: operating systems, business and other applications. This class excludes reproduction of software (18.20); retail sale of non-customised software (47.41); production of software not associated with publishing, including translation or adaptation of non-customised software for a particular market on a fee or contract basis (62.01); on-line provision of software (application hosting and application service provisioning) (63.11).

## 611 Wired telecommunications activities

Industry is part of Information and communication (NACE J)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2.6 \%$ | 4.653 | $1.7 \%$ | 2.019 | 190.8 | 55.5 |

This industry accounts for $\mathbf{2 . 6 \%}$ of employment and $\mathbf{1 . 7 \%}$ of turnover. Compared to the benchmark countries, the industry shows a high degree of specialisation for employment and an above average degree of specialisation for turnover. Average wages are much higher than those in Kosovo and relatively high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 61.10 Wired telecommunications activities

This class includes operating, maintaining or providing access to facilities for the transmission of voice, data, text, sound and video using a wired telecommunications infrastructure, including: operating and maintaining switching and transmission facilities to provide point-to-point communications via landlines, microwave or a combination of landlines and satellite linkups, operating of cable distribution systems (e.g. for distribution of data and television signals), furnishing telegraph and other non-vocal communications using own facilities. The transmission facilities that carry out these activities, may be based on a single technology or a combination of technologies. This class also includes purchasing access and network capacity from owners and operators of networks and providing telecommunications services using this capacity to businesses and households; provision of Internet access by the operator of the wired infrastructure. This class excludes telecommunications resellers (61.90).

## 619 Other telecommunications activities

Industry is part of Information and communication (NACE J)

| Employment share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to Kosovo | Average wages <br> relative to same <br> industry in bench- <br> mark countries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0.5 \%$ | 4.409 | $0.9 \%$ | 5.678 | 203.8 | 92.9 |

This industry accounts for relatively small shares in employment and turnover. Compared to the benchmark countries, the industry shows a high degree of specialisation for both employment and turnover. Average wages are much higher than those in Kosovo and high compared to those in the same industry in the benchmark countries.

The industry includes the following activities:

- 61.90 Other telecommunications activities

This class includes provision of specialised telecommunications applications, such as satellite tracking, communications telemetry, and radar station operations; operation of satellite terminal stations and associated facilities operationally connected with one or more terrestrial communications systems and capable of transmitting telecommunications to or receiving telecommunications from satellite systems; provision of Internet access over networks between the client and the ISP not owned or controlled by the ISP, such as dial-up Internet access etc.; provision of telephone and Internet access in facilities open to the public; provision of telecommunications services over existing telecom connections: VOIP (Voice Over Internet Protocol) provision; telecommunications resellers (i.e. purchasing and reselling network capacity without providing additional services). This class excludes provision of Internet access by operators of telecommunications infrastructure (61.10, 61.20, 61.30).

### 2.3.2 Emerging economic potential - results

Results for identifying industries with an emerging economic potential are shown in Annex B. If industries pass a threshold the value in the respective table cell is 1 , otherwise it is 0 . Industries for which comparable data for the selected benchmark countries are not available are highlighted in orange in the first column. The third column (EMPL SIZE) shows if and how many industries (84) passed the change in size criterion for employment, the fourth column (EMPL SPEC) shows if and how many industries (44) passed the change in specialisation criterion for employment, the fifth column (TURN SIZE) shows if and how many industries (65) passed the change in size criterion for turnover, the sixth column (TURN SPEC) shows if and how many
industries (29) passed the change in specialisation criterion for turnover, the seventh column (WGS KV) shows if and how many industries (48) passed the change criterion for average wages relative to those in Kosovo, and the eight column (WGS BEN) shows if and how many industries (22) passed the change criterion for average wages relative to those in the same industry in the selected benchmark countries. Finally, the last column (EEP) shows how many criteria each industry passed and how many industries (18) passed at least four criteria and would have an emerging economic potential ${ }^{2}$.

These 18 industries with an emerging economic potential account for $5 \%$ of total employment and $6 \%$ of total turnover. On the following pages, for each industry the performance on both the current and the emerging selection criteria and the description of the included NACE 4-digit classes will be discussed.

102 Processing and preserving of fish, crustaceans and molluscs
Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.00 \%$ | 0.029 | $0.00 \%$ | 0.004 | 43.2 | 16.9 |
| Emerging | 0.253 | 0.655 | 0.494 | 0.911 | 0.221 | 0.558 |

This industry shows high trend performance on all criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:

- 10.20 Processing and preserving of fish, crustaceans and molluscs

This class includes preparation and preservation of fish, crustaceans and molluscs: freezing, deepfreezing, drying, cooking, smoking, salting, immersing in brine, canning etc.; production of fish, crustacean and mollusc products: fish fillets, roes, caviar, caviar substitutes etc.; production of fishmeal for human consumption or animal feed; production of meals and solubles from fish and other aquatic animals unfit for human consumption. This class also includes activities of vessels engaged only in the processing and preserving of fish; processing of seaweed. This class excludes processing and preserving of fish on vessels engaged in fishing (03.11); processing of whales on land or specialised vessels (10.11); production of oils and fats from marine material (10.41); manufacture of prepared frozen fish dishes (10.85); manufacture of fish soups (10.89).

## 203 Manufacture of articles of paper and paperboard

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.11 \%$ | 1.688 | $0.11 \%$ | 1.263 | 83.9 | 35.8 |
| Emerging | 0.099 | 0.067 | 0.132 | 0.098 | 0.041 | 0.062 |

This industry shows above average but not very high trend performance on all criteria. The current economic significance is already relatively high with employment and turnover shares above $0.1 \%$, high degrees of specialisation for both employment and turnover, and relatively high average wages compared to Kosovo.

The industry includes the following activities:

[^2]- 20.30 Manufacture of paints, varnishes and similar coatings, printing ink and mastics

This class includes manufacture of paints and varnishes, enamels or lacquers; manufacture of prepared pigments and dyes, opacifiers and colours; manufacture of vitrifiable enamels and glazes and engobes and similar preparations; manufacture of mastics; manufacture of caulking compounds and similar non-refractory filling or surfacing preparations; manufacture of organic composite solvents and thinners; manufacture of prepared paint or varnish removers; manufacture of printing ink. This class excludes manufacture of dyestuffs and pigments (20.12); manufacture of writing and drawing ink (20.59).

## 232

Manufacture of refractory products
Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| countries |  |  |  |  |  |  |

This industry shows high trend performance on 5 criteria. The current economic significance is limited given very small shares for employment and turnover. However, Kosovo shows clear signs of specialisation in the industry with degrees of specialisation for both employment and turnover above 1. Average wages are above those in Kosovo.

The industry includes the following activities:

- 23.20 Manufacture of refractory products

This class includes the manufacture of intermediate products from mined or quarried non-metallic minerals, such as sand, gravel, stone or clay. This class includes manufacture of refractory mortars, concretes etc.; manufacture of refractory ceramic goods: heat-insulating ceramic goods of siliceous fossil meals, refractory bricks, blocks and tiles etc., retorts, crucibles, muffles, nozzles, tubes, pipes etc. This class also includes manufacture of refractory articles containing magnesite, dolomite or chromite.

## 235 Manufacture of cement, lime and plaster

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.01 \%$ | 0.096 | $0.01 \%$ | 0.025 | 57.4 | 11.9 |
| Emerging | 0.177 | 0.200 | 0.220 | 0.273 | 0.020 | 0.026 |

This industry shows high trend performance on 2 criteria and above average but not very high trend performance on 4 criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:

- 23.51 Manufacture of cement

This class includes manufacture of clinkers and hydraulic cements, including Portland, aluminous cement, slag cement and superphosphate cements. This class excludes manufacture of refractory mortars, concrete etc. (23.20); manufacture of ready-mixed and dry-mix concrete and mortars (23.63, 23.64); manufacture of articles of cement (23.69); manufacture of cements used in dentistry (32.50).

- 23.52 Manufacture of lime and plaster

This class includes manufacture of quicklime, slaked lime and hydraulic lime; manufacture of plasters of calcined gypsum or calcined sulphate. This class also includes manufacture of calcined dolomite. This class excludes manufacture of articles of plaster (23.62, 23.69).

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.02 \%$ | 0.274 | $0.05 \%$ | 0.193 | 67.6 | 19.0 |
| Emerging | 0.414 | 0.916 | 0.544 | 1.400 | 0.148 | -0.189 |

This industry shows high trend performance on 5 criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:

- 24.20 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel

This class includes manufacture of seamless tubes and pipes of circular or non-circular cross section and of blanks of circular cross section, for further processing, by hot rolling, hot extrusion or by other hot processes of an intermediate product which can be a bar or a billet obtained by hot rolling or continuous casting; manufacture of precision and non-precision seamless tubes and pipes from hot rolled or hot extruded blanks by further processing, by cold-drawing or cold-rolling of tubes and pipes of circular cross section and by cold drawing only for tubes and pipes of non-circular cross section and hollow profiles; manufacture of welded tubes and pipes of an external diameter exceeding $406,4 \mathrm{~mm}$, cold formed from hot rolled flat products and longitudinally or spirally welded; manufacture of welded tubes and pipes of an external diameter of $406,4 \mathrm{~mm}$ or less of circular cross section by continuous cold or hot forming of hot or cold rolled flat products and longitudinally or spirally welded and of non-circular cross section by hot or cold forming into shape from hot or cold rolled strip longitudinally welded; manufacture of welded precision tubes and pipes of an external diameter of $406,4 \mathrm{~mm}$ or less by hot or cold forming of hot or cold rolled strip and longitudinally welded delivered as welded or further processed, by cold drawing or cold rolling or cold formed into shape for tube and pipe of non-circular cross section; manufacture of flat flanges and flanges with forged collars by processing of hot rolled flat products of steel; manufacture of butt-welding fittings, such as elbows and reductions, by forging of hot rolled seamless tubes of steel; threaded and other tube or pipe fittings of steel. This class excludes manufacture of seamless tubes and pipes of steel by centrifugally casting (24.52).

## 259 Manufacture of other fabricated metal products

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.16 \%$ | 0.366 | $0.08 \%$ | 0.139 | 71.8 | 34.3 |
| Emerging | 0.109 | 0.041 | 0.128 | 0.081 | 0.020 | 0.014 |

This industry shows above average but not very high trend performance on all criteria. The current economic significance is limited, even if the employment share is above $0.1 \%$, with low degrees of specialisation and relatively low average wages.

The industry includes the following activities:

This group includes the manufacture of a variety of metal products, such as cans and buckets; nails, bolts and nuts; metal household articles; metal fixtures; ships propellers and anchors; assembled railway track fixtures etc. for a variety of household and industrial uses.

- 25.91 Manufacture of steel drums and similar containers

This class includes manufacture of pails, cans, drums, buckets, boxes. This class excludes manufacture of tanks and reservoirs (25.2).

- 25.92 Manufacture of light metal packaging

This class includes manufacture of tins and cans for food products, collapsible tubes and boxes; manufacture of metallic closures.

- 25.93 Manufacture of wire products, chain and springs

This class includes manufacture of metal cable, plaited bands and similar articles; manufacture of uninsulated metal cable or insulated cable not capable of being used as a conductor of electricity; manufacture of coated or cored wire; manufacture of articles made of wire: barbed wire, wire fencing, grill, netting, cloth etc.; coated electrodes for electric arc-welding; manufacture of nails and pins; manufacture of springs (except watch springs): leaf springs, helical springs, torsion bar springs, leaves for springs; manufacture of chain, except power transmission chain. This class excludes manufacture of clock or watch springs (26.52); manufacture of wire and cable for electricity transmission (27.32); manufacture of power transmission chain (28.15).

- 25.94 Manufacture of fasteners and screw machine products

This class includes manufacture of rivets, washers and similar non-threaded products; manufacture of screw machine products; manufacture of bolts, screws, nuts and similar threaded products.

- 25.99 Manufacture of other fabricated metal products n.e.c.

This class includes manufacture of metal household articles: flatware: plates, saucers etc., hollowware: pots, kettles etc., dinnerware: bowls, platters etc., saucepans, frying pans and other nonelectrical utensils for use at the table or in the kitchen, small hand-operated kitchen appliances and accessories, metal scouring pads; manufacture of building components of zinc: gutters, roof capping, baths, sinks, washbasins and similar articles; manufacture of metal goods for office use, except furniture; manufacture of safes, strongboxes, armoured doors etc.; manufacture of various metal articles: ship propellers and blades thereof, anchors, bells, assembled railway track fixtures, clasps, buckles, hooks, metal ladder, metal sings, including road signs; manufacture of foil bags; manufacture of permanent metallic magnets; manufacture of metal vacuum jugs and bottles; manufacture of metal badges and metal military insignia; manufacture of metal hair curlers, metal umbrella handles and frames, combs. This class excludes manufacture of swords, bayonets (25.71); manufacture of shopping carts (30.99); manufacture of metal furniture (31.01, 31.02, 31.09); manufacture of sports goods (32.30); manufacture of games and toys (32.40).

## 264 <br> Manufacture of consumer electronics

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.01 \%$ | 0.342 | $0.00 \%$ | 0.123 | 100.3 | 37.4 |
| Emerging | 0.432 | 0.238 | 0.457 | 1.041 | 0.270 | 0.526 |

This industry shows high trend performance on all criteria. The current economic significance is limited given very small shares for employment and turnover. Average wages are just above those in Kosovo.

The industry includes the following activities:

- 26.40 Manufacture of consumer electronics

This class includes the manufacture of electronic audio and video equipment for home entertainment, motor vehicle, public address systems and musical instrument amplification. This
class includes manufacture of video cassette recorders and duplicating equipment; manufacture of televisions; manufacture of television monitors and displays; manufacture of audio recording and duplicating systems; manufacture of stereo equipment; manufacture of radio receivers; manufacture of speaker systems; manufacture of household-type video cameras; manufacture of jukeboxes; manufacture of amplifiers for musical instruments and public address systems; manufacture of microphones; manufacture of CD and DVD players; manufacture of karaoke machines; manufacture of headphones (e.g. radio, stereo, computer); manufacture of video game consoles. This class excludes reproduction of recorded media (computer media, sound, video, etc.) (18.2); manufacture of computer peripheral devices and computer monitors (26.20); manufacture of telephone answering machines (26.30); manufacture of paging equipment (26.30); manufacture of remote control devices (radio and infrared) (26.30); manufacture of broadcast studio equipment such as reproduction equipment, transmitting and receiving antennas, commercial video cameras (26.30); manufacture of antennas (26.30); manufacture of digital cameras (26.70); manufacture of electronic games with fixed (non-replaceable) software (32.40).

## 325 Manufacture of medical and dental instruments and supplies

Industry is part of Manufacturing (NACE C)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.01 \%$ | 0.043 | $0.00 \%$ | 0.005 | 44.2 | 25.8 |
| Emerging | 0.313 | 0.666 | 0.277 | -0.125 | 0.198 | 0.242 |

This industry shows high trend performance on 5 criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:

- 32.50 Manufacture of medical and dental instruments and supplies

This class includes the manufacture of laboratory apparatus, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies, orthodontic goods, dentures and orthodontic appliances. Included is the manufacture of medical, dental and similar furniture, where the additional specific functions determine the purpose of the product, such as dentist's chairs with built-in hydraulic functions. This class includes manufacture of surgical drapes and sterile string and tissue; manufacture of dental fillings and cements (except denture adhesives), dental wax and other dental plaster preparations; manufacture of bone reconstruction cements; manufacture of dental laboratory furnaces; manufacture of laboratory ultrasonic cleaning machinery; manufacture of laboratory sterilisers; manufacture of laboratory type distilling apparatus, laboratory centrifuges; manufacture of medical, surgical, dental or veterinary furniture, such as operating tables, examination tables, hospital beds with mechanical fittings, dentists' chairs; manufacture of bone plates and screws, syringes, needles, catheters, cannulae, etc.; manufacture of dental instruments (including dentists' chairs incorporating dental equipment); manufacture of artificial teeth, bridges, etc., made in dental labs; manufacture of orthopaedic and prosthetic devices; manufacture of glass eyes; manufacture of medical thermometers; manufacture of ophthalmic goods, eyeglasses, sunglasses, lenses ground to prescription, contact lenses, safety goggles.

- This class excludes manufacture of denture adhesives (20.42); manufacture of medical impregnated wadding, dressings etc. (21.20); manufacture of electromedical and electrotherapeutic equipment (26.60); manufacture of wheelchairs (30.92); activities of opticians (47.78).


## 422 Construction of utility projects

Industry is part of Construction (NACE F)

|  | Employment <br> share | Employment: <br> degree of | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to | Average wages <br> relative to |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |


|  |  | specialisation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kosovo | same industry <br> in benchmark <br> countries |  |  |  |  |  |
| Current | $0.04 \%$ | 0.095 | $0.05 \%$ | 0.088 | 83.5 | 37.6 |
| Emerging | 0.302 | 0.303 | 0.416 | 0.461 | 0.128 | 0.041 |

This industry shows high trend performance on 5 criteria. The current economic significance is limited given very small shares for employment and turnover. Average wages are relatively high compared to Kosovo.

The industry includes the following activities:

- 42.21 Construction of utility projects for fluids

This class includes the construction of distribution lines for transportation of fluids and related buildings and structures that are integral part of these systems. This class includes construction of civil engineering constructions for long-distance and urban pipelines, water main and line construction, irrigation systems (canals), reservoirs; construction of sewer systems, including repair, sewage disposal plants, pumping stations. This class also includes water well drilling. This class excludes project management activities related to civil engineering works (71.12).

- 42.22 Construction of utility projects for electricity and telecommunications

This class includes the construction of distribution lines for electricity and telecommunications and related buildings and structures that are integral part of these systems. This class includes construction of civil engineering constructions for: long-distance and urban communication and power lines, power plants. This class excludes project management activities related to civil engineering works (71.12).

## 429 Construction of other civil engineering projects

Industry is part of Construction (NACE F)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.04 \%$ | 0.043 | $0.07 \%$ | 0.129 | 86.0 | 46.4 |
| Emerging | 0.341 | 0.419 | 0.238 | 0.509 | 0.198 | 0.410 |

This industry shows high trend performance on all criteria. The current economic significance is limited given very small shares for employment and turnover. Average wages are relatively high, both compared to Kosovo and compared to the same industry in the benchmark countries.

The industry includes the following activities:

- 42.91 Construction of water projects

This class includes construction of waterways, harbour and river works, pleasure ports (marinas), locks, etc., dams and dykes; dredging of waterways. This class excludes project management activities related to civil engineering works (71.12).

- 42.99 Construction of other civil engineering projects n.e.c.

This class includes construction of industrial facilities, except buildings, such as: refineries, chemical plants; construction work, other than buildings, such as: outdoor sports facilities. This class also includes land subdivision with land improvement (e.g. adding of roads, utility infrastructure etc.). This class excludes installation of industrial machinery and equipment (33.20); land subdivision without land improvement (68.10); project management activities related to civil engineering works (71.12).

## 464 Wholesale of household goods

Industry is part of Wholesale and retail trade, repair of motor vehicles and motorcycles (NACE G)

| Employment | Employment: <br> degree of | Turnover share | Turnover: degree | Average wages <br> relative to | Average wages <br> relative to |
| :---: | :---: | :---: | :---: | :---: | :---: |


|  | share | specialisation |  | of specialisation | Kosovo | same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $2.82 \%$ | 1.450 | $4.56 \%$ | 0.884 | 98.8 | 39.9 |
| Emerging | 0.115 | 0.080 | 0.108 | 0.062 | 0.019 | -0.010 |

This industry shows above average but not very high trend performance on all criteria. The current economic significance is already relatively high with an employment share of almost 3\%, a turnover share of about $4.5 \%$, a degree of specialisation above 1 for employment, and average wages only just below those for Kosovo.

The industry includes the following activities:
This group includes the wholesale of household goods, including textiles.

- 46.41 Wholesale of textiles

This class includes wholesale of yarn; wholesale of fabrics; wholesale of household linen etc.; wholesale of haberdashery: needles, sewing thread etc.
This class excludes: wholesale of textile fibres (46.76)

- 46.42 Wholesale of clothing and footwear

This class includes wholesale of clothing, including sports clothes; wholesale of clothing accessories such as gloves, ties and braces; wholesale of footwear; wholesale of fur articles; wholesale of umbrellas. This class excludes wholesale of jewellery (46.48); wholesale of leather goods (46.49); wholesale of special sports equipment footwear such as ski boots (46.49).

- 46.43 Wholesale of electrical household appliances

This class includes wholesale of electrical household appliances; wholesale of radio and television equipment; wholesale of photographic and optical goods; wholesale of electrical heating appliances; wholesale of recorded audio and video tapes, CDs, DVDs. This class excludes wholesale of blank audio and video tapes, CDs, DVDs (46.52); wholesale of sewing machines (46.64).

- 46.44 Wholesale of china and glassware and cleaning materials

This class includes wholesale of china and glassware; wholesale of cleaning materials.

- 46.45 Wholesale of perfume and cosmetics

This class includes wholesale of perfumeries, cosmetics and soaps.

- 46.46 Wholesale of pharmaceutical goods

This class includes wholesale of pharmaceutical and medical goods.

- 46.47 Wholesale of furniture, carpets and lighting equipment

This class includes wholesale of household furniture; wholesale of carpets; wholesale of lighting equipment. This class excludes wholesale of office furniture (46.65).

- 46.48 Wholesale of watches and jewellery
- 46.49 Wholesale of other household goods

This class includes wholesale of woodenware, wickerwork and corkware etc.; wholesale of bicycles and their parts and accessories; wholesale of stationery, books, magazines and newspapers; wholesale of leather goods and travel accessories; wholesale of musical instruments; wholesale of games and toys; wholesale of sports goods, including special sports footwear such as ski boot.

469 Non-specialised wholesale trade
Industry is part of Wholesale and retail trade, repair of motor vehicles and motorcycles (NACE G)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.29 \%$ | 0.175 | $0.34 \%$ | 0.092 | 72.4 | 38.7 |


| Emerging | 0.150 | 0.121 | 0.154 | 0.140 | 0.064 | 0.050 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

This industry shows above average but not very high trend performance on all criteria. The current economic significance is moderate with an employment and turnover share of around $0.3 \%$.

The industry includes the following activities:

- 46.90 Non-specialised wholesale trade

This class includes wholesale of a variety of goods without any particular specialisation.

## 504 Inland freight water transport

Industry is part of Transportation and Storage (NACE H)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.00 \%$ | 0.082 | $0.00 \%$ | 0.060 | 30.4 | 9.1 |
| Emerging | 0.206 | 0.184 | 0.270 | 0.333 | 0.226 | 0.324 |

This industry shows high trend performance on 5 criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:
This group includes the transport of freight on inland waters, involving vessels that are not suitable for sea transport.

- 50.40 Inland freight water transport

This class include transport of freight via rivers, canals, lakes and other inland waterways, including inside harbours and ports. This class also includes renting of vessels with crew for inland freight water transport. This class excludes cargo handling (52.24); renting of commercial ships or boats without crew (77.34).

## 582 Software publishing

Industry is part of Information and communication (NACE J)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share |  | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.30 \%$ | 3.774 | $0.16 \%$ | 3.466 | 200.2 | 58.5 |  |
| Emerging | 0.176 | 0.242 | 0.184 | 0.171 | -0.004 | -0.052 |  |

This industry shows above average but not very high trend performance on 5 criteria. The current economic significance is already relatively high with an employment share of $0.3 \%$ and a turnover share above $0.1 \%$, high degrees of specialisation and average wages being twice as high as those in Kosovo.

The industry includes the following activities:

- 58.21 Publishing of computer games

This class includes publishing of computer games for all platforms.

- 58.29 Other software publishing

This class includes publishing of ready-made (non-customised) software, including translation or adaptation of non-customised software for a particular market on own account: operating systems, business and other applications. This class excludes reproduction of software (18.20), retail sale of non-customised software (47.41); production of software not associated with publishing, including translation or adaptation of non-customised software for a particular market on a fee or contract
basis (62.01); on-line provision of software (application hosting and application service provisioning) (63.11).

Industry is part of Information and communication (NACE J)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.06 \%$ | 0.080 | $0.02 \%$ | 0.012 |  |  |
| Emerging | 0.393 | 0.511 | 0.347 | 0.462 | 0.260 | 0.374 |

This industry shows high trend performance on all criteria. The current economic significance is limited given very small shares for employment and turnover.

The industry includes the following activities:

- 61.20 Wireless telecommunications activities

This class includes operating, maintaining or providing access to facilities for the transmission of voice, data, text, sound, and video using a wireless telecommunications infrastructure; maintaining and operating paging as well as cellular and other wireless telecommunications networks. The transmission facilities provide omni-directional transmission via airwaves and may be based on a single technology or a combination of technologies. This class also includes purchasing access and network capacity from owners and operators of networks and providing wireless telecommunications services (except satellite) using this capacity to businesses and households; provision of Internet access by the operator of the wireless infrastructure. This class excludes telecommunications resellers (61.90).

## 691 Legal activities

Industry is part of Professional, scientific and technical activities (NACE M)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.39 \%$ | 0.182 | $0.21 \%$ | 0.509 | 125.3 | 122.3 |
| Emerging | 0.152 | 0.360 | 0.155 | 0.098 | -0.018 | 0.009 |

This industry shows above average but not very high trend performance on 5 criteria. The current economic significance is already relatively high with an employment share of $0.4 \%$, a turnover share of $0.2 \%$, and average wages well above those in Kosovo and in the same industry in the benchmark countries.

The industry includes the following activities:

- 69.10 Legal activities

This class includes legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar: advice and representation in civil cases, advice and representation in criminal cases, advice and representation in connection with labour disputes; general counselling and advising, preparation of legal documents: articles of incorporation, partnership agreements or similar documents in connection with company formation, patents and copyrights, preparation of deeds, wills, trusts etc.; other activities of notaries public, civil law notaries, bailiffs, arbitrators, examiners and referees. This class excludes law court activities (84.23).

## 743 Translation and interpretation activities

Industry is part of Professional, scientific and technical activities (NACE M)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.07 \%$ | 0.792 | $0.03 \%$ | 1.105 | 83.8 | 97.0 |
| Emerging | 0.143 | 0.100 | 0.149 | 0.140 | 0.041 | 0.059 |

This industry shows above average but not very high trend performance on all criteria. The current economic significance is limited given very small shares for employment and turnover. For turnover the degree of specialisation is high and average wages are relatively high compared to those in Kosovo and to the same industry in the benchmark countries.
The industry includes the following activities:

- 74.30 Translation and interpretation activities


## 822 Activities of call centres

Industry is part of Administrative and support service activities (NACE N)

|  | Employment <br> share | Employment: <br> degree of <br> specialisation | Turnover share | Turnover: degree <br> of specialisation | Average wages <br> relative to <br> Kosovo | Average wages <br> relative to <br> same industry <br> in benchmark <br> countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Current | $0.65 \%$ | 2.110 | $0.15 \%$ | 1.505 | 127.1 | 56.7 |
| Emerging | 0.333 | 0.321 | 0.360 | 0.344 | 0.140 | 0.089 |

This industry shows high trend performance on 5 criteria and above average but not very high trend performance on 1 criterion. The current economic significance is already relatively high with an employment share of $0.65 \%$, a turnover share above $0.1 \%$, high degrees of specialisation for both employment and turnover, and average wages above those of Kosovo.
The industry includes the following activities:

- 82.20 Activities of call centres

This class includes the activities of: inbound call centres, answering calls from clients by using human operators, automatic call distribution, computer telephone integration, interactive voice response systems or similar methods to receive orders, provide product information, deal with customer requests for assistance or address customer complaints outbound call centres using similar methods to sell or market goods or services to potential customers, undertake market research or public opinion polling and similar activities for clients.

### 2.3.3 Summarizing the results for current and emerging economic potential

Table 4 summarizes the results for the selected industries with a current economic potential. Additional criteria are included to identify the most relevant industries, with highest shares (above $1 \%$ ), degrees of specialisation (above 3) and average wages (above 150 respectively 70 compared to average wages in Kosovo and the same industry in the benchmark countries). In particular industries Manufacture of articles of concrete, cement and plaster (NACE 236), Construction of residential and non-residential buildings (NACE 412), Construction of roads and railways (NACE 421), Software publishing (NACE 582), Wired telecommunications activities (NACE 611) and Other telecommunications activities (NACE 619) stand out showing relatively high performance on at least 3 selection criteria.

Several of these industries, including Construction of residential and non-residential buildings (NACE 412), Construction of roads and railways (NACE 421), Wholesale on a fee or contract basis (NACE 461) and Wholesale of food, beverages and tobacco (NACE 463), are more focused on the domestic market and further growth in these industries depends on the growth of the domestic market limiting the growth possibilities resulting from government support. More promising are those industries that could benefit from export-driven growth, in particular those industries involving skilled employees: Publishing of books, periodicals and other publishing activities (NACE 581), Software publishing (NACE 582), Wired telecommunications activities (NACE 611) and Other telecommunications activities (NACE 619).

Table 5 summarizes the results for the selected industries with an emerging economic potential. Table 5 also includes the performance on the criteria used for identifying industries with a current economic potential, but none of the industries in Table 5 passed these criteria (otherwise they would be included in Table 4). Additional criteria are included to identify the most relevant industries, with highest trends for shares (above 0.2 ), degrees of specialisation (above 0.2 ) and average wages (above 0.1). In particular industries Processing and preserving of fish, crustaceans and molluscs (NACE 102), Manufacture of refractory products (NACE 232), Manufacture of tubes, pipes, hollow profiles and related fittings, of steel (NACE 242), Manufacture of consumer electronics (NACE 264), Manufacture of medical and dental instruments and supplies (NACE 325), Construction of utility projects (NACE 422), Construction of other civil engineering projects (NACE 429), Inland freight water transport (NACE 504), Wireless telecommunications activities (NACE 612) and Activities of call centres (NACE 822) stand out showing relatively high performance on at least 3 selection criteria.

Results show that there are growth pockets in both manufacturing and services but that most of these are still very small. More promising would be to focus on those industries which show high growth performance, and which have already an economic base, i.e. industries Manufacture of refractory products (NACE 232), Construction of other civil engineering projects (NACE 429) and Activities of call centres (NACE 822).

Emerging activities in Manufacture of consumer electronics (NACE 264) and Wireless telecommunications activities (NACE 612) underline the importance of the ICT sector with Software publishing (NACE 582), Wired telecommunications activities (NACE 611) and Other telecommunications activities (NACE 619) having a current economic potential.

Table 4 Summary results for selected industries with a current economic potential

| NACE |  | Employment share | Employment: degree of specialisation | Turnover share | Turnover: degree of specialisation | Average wages relative to Kosovo | Average wages relative to same industry in benchmark countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | >1\% | >3 | >1\% | >3 | >150 | >70 |
| 236 | Manufacture of articles of concrete, cement and plaster | 1.4\% | 4.021 | 1.5\% | 3.577 | 108.0 | 61.4 |
| 412 | Construction of residential and non-residential buildings | 6.5\% | 2.034 | 6.3\% | 2.290 | 86.2 | 71.1 |
| 421 | Construction of roads and railways | 2.1\% | 1.801 | 2.8\% | 1.920 | 170.1 | 76.0 |
| 461 | Wholesale on a fee or contract basis | 0.8\% | 1.266 | 3.2\% | 2.714 | 129.3 | 70.7 |
| 463 | Wholesale of food, beverages and tobacco | 3.1\% | 1.802 | 9.4\% | 1.284 | 104.1 | 53.2 |
| 581 | Publishing of books, periodicals and other publishing activities | 0.7\% | 1.828 | 0.4\% | 1.581 | 122.4 | 50.8 |
| 582 | Software publishing | 0.3\% | 5.144 | 0.2\% | 3.466 | 200.2 | 59.8 |
| 611 | Wired telecommunications activities | 2.6\% | 4.653 | 1.7\% | 2.019 | 190.8 | 55.5 |
| 619 | Other telecommunications activities | 0.5\% | 4.409 | 0.9\% | 5.678 | 203.8 | 92.9 |

Table 5 Summary results for selected industries with an emerging economic potential

| NACE | Current economic potential |  |  |  |  |  | Emerging economic potential |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employ ment share | Employ ment: degree of specialis ation | Turnover share | Turnover: degree of specialis ation | Average wages relative to Kosovo | Average wages relative to same industry in benchmark countries | Employ ment share | Employ ment: degree of specialis ation | Turnover share |  | Average wages relative to Kosovo | Average wages relative to same industry in benchmark countries |
|  | >0.1\% | >1 | >0.1\% | >1 | >80 | >40 | >0.2 | >0.2 | >0.2 | >0.2 | >0.1 | >0.1 |
| 102 | 0.00\% | 0.029 | 0.00\% | 0.004 | 43.2 | 16.9 | 0.253 | 0.655 | 0.494 | 0.911 | 0.221 | 0.558 |
| 203 | 0.11\% | 1.688 | 0.11\% | 1.263 | 83.9 | 35.8 | 0.099 | 0.067 | 0.132 | 0.098 | 0.041 | 0.062 |
| 232 | 0.02\% | 1.520 | 0.02\% | 3.336 | 101.1 | 46.2 | 0.220 | 0.221 | 0.211 | 0.377 | 0.107 | 0.088 |
| 235 | 0.01\% | 0.096 | 0.01\% | 0.025 | 57.4 | 11.9 | 0.177 | 0.200 | 0.220 | 0.273 | 0.020 | 0.026 |
| 242 | 0.02\% | 0.274 | 0.05\% | 0.193 | 67.6 | 19.0 | 0.414 | 0.916 | 0.544 | 1.400 | 0.148 | -0.189 |
| 259 | 0.16\% | 0.366 | 0.08\% | 0.139 | 71.8 | 34.3 | 0.109 | 0.041 | 0.128 | 0.081 | 0.020 | 0.014 |
| 264 | 0.01\% | 0.342 | 0.00\% | 0.123 | 100.3 | 37.4 | 0.432 | 0.238 | 0.457 | 1.041 | 0.270 | 0.526 |
| 325 | 0.01\% | 0.043 | 0.00\% | 0.005 | 44.2 | 25.8 | 0.313 | 0.666 | 0.277 | -0.125 | 0.198 | 0.242 |
| 422 | 0.04\% | 0.095 | 0.05\% | 0.088 | 83.5 | 37.6 | 0.302 | 0.303 | 0.416 | 0.461 | 0.128 | 0.041 |
| 429 | 0.04\% | 0.043 | 0.07\% | 0.129 | 86.0 | 46.4 | 0.341 | 0.419 | 0.238 | 0.509 | 0.198 | 0.410 |
| 464 | 2.82\% | 1.450 | 4.56\% | 0.884 | 98.8 | 39.9 | 0.115 | 0.080 | 0.108 | 0.062 | 0.019 | -0.010 |
| 469 | 0.29\% | 0.175 | 0.34\% | 0.092 | 72.4 | 38.7 | 0.150 | 0.121 | 0.154 | 0.140 | 0.064 | 0.050 |
| 504 | 0.00\% | 0.082 | 0.00\% | 0.060 | 30.4 | 9.1 | 0.206 | 0.184 | 0.270 | 0.333 | 0.226 | 0.324 |
| 582 | 0.30\% | 5.144 | 0.16\% | 3.466 | 200.2 | 59.8 | 0.176 | 0.223 | 0.184 | 0.171 | -0.004 | -0.082 |
| 612 | 0.06\% | 0.080 | 0.02\% | 0.012 | 77.7 | 13.5 | 0.393 | 0.511 | 0.347 | 0.462 | 0.260 | 0.374 |
| 691 | 0.39\% | 0.182 | 0.21\% | 0.509 | 125.3 | 122.3 | 0.152 | 0.360 | 0.155 | 0.098 | -0.018 | 0.009 |
| 743 | 0.07\% | 0.792 | 0.03\% | 1.105 | 83.8 | 97.0 | 0.143 | 0.100 | 0.149 | 0.140 | 0.041 | 0.059 |
| 822 | 0.65\% | 2.110 | 0.15\% | 1.505 | 127.1 | 56.7 | 0.333 | 0.321 | 0.360 | 0.344 | 0.140 | 0.089 |

102 Processing and preserving of fish, crustaceans and molluscs; 203 Manufacture of articles of paper and paperboard; 232 Manufacture of refractory products; 235 Manufacture of cement, lime and plaster; 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel; 259 Manufacture of other fabricated metal products; 264 Manufacture of consumer electronics; 325 Manufacture of medical and dental instruments and supplies; 422 Construction of utility projects; 429 Construction of other civil engineering projects; 464 Wholesale of household goods; 469 Non-specialised wholesale trade; 504 Inland freight water transport; 582 Software publishing; 612 Wireless telecommunications activities; 691 Legal activities; 743 Translation and interpretation activities; 822 Activities of call centres

## 3 Mapping the innovation potential of Kosovo

For mapping the innovation potential, ideally national innovation survey data should be used, as these provide data on number of enterprises that innovate for different types of innovations. Unfortunately, such data are not available for Kosovo as there is neither a recent innovation survey nor a R\&D survey. Instead, this chapter combines results from different data sources including both national and international data sources, including data on intellectual property rights, aggregate innovation activities, and export performance.

### 3.1 Data availability

Data on intellectual property rights are only available at the highest level of aggregation for the whole country. The Agency for Industrial Property (API) has informed by email that it is not possible to extract patent application statistics according to 4-digit IPC. According to API, the total number of patent applications for 2008-2021 would be 2,390 and the total number of patent registrations would be 1,127 . The full list of registered patents are published in the online register http://213.163.122.85/wopublish-search/public/home. The online register also includes data on trademarks for the period 2008-2021 and designs for the period 2010-2021. The number of designs is very small (33), the number of trademarks is more than 34,000 . Most trademarks are applied for in Health (20.3\%) and Agriculture (17.1\%) (Figure 3).

Figure 3 Trademarks filing by Industry sector


Source: image copied from online register. Layout revised by author.

For measuring innovation activities, aggregate data are available from two sources, the Balkan Business Barometer and the World Bank Enterprise Survey.

The Balkan Barometer is an annual survey of public opinion and business sentiments in 7 Balkan economies, commissioned by the Regional Cooperation Council. It is examining aspirations and expectations on life and work, prevalent socio-economic and political trends, and regional and European integration and covers two surveys, the Balkan Public Barometer and the Balkan Business Barometer. The Balkan Business Barometer includes several questions on innovation activities. Aggregate and firm-level data are available for Kosovo from the 2016 to 2021 editions of the Balkan Business Barometer and also include identifiers for different NACE 1-digit industries. All data are available at https://www.rcc.int/balkanbarometer/.

The World Bank Enterprise Survey includes several questions on innovation activities. Aggregate and firmlevel data are available for Kosovo from the 2013 and 2019 edition of the Enterprise Survey and include identifiers for different NACE 2-digit industries. All data are available at https://www.enterprisesurveys.org/en/data.

Data on goods exports will be used to identify in which products and industries Kosovo has a trade specialisation compared to the same benchmark countries used for mapping the economic potential. Data on
goods exports for 2010-2020 have been made available by the Kosovo Agency of Statistics for 3-digit product groups following the Standard International Trade Classification (SITC) Rev. $4^{3}$. Comparable data have been extracted for 2012-2020 for the benchmark countries from UN Comtrade (https://comtrade.un.org/). Data on goods exports by product groups for Kosovo and the benchmark countries are also recalculated into exports by NACE 3-digit industries based on an ad-hoc interpretation of an official concordance between 4digit product groups and 4-digit industries.

Table 6 Available data for mapping the innovation potential

| Type of data | Data source |
| :--- | :---: |
| Intellectual property rights | Not available |
| Innovation activities | Balkan Business Barometer; World Bank Enterprise Survey |
| Export performance | Kosovo Agency of Statistics; UN Comtrade |

### 3.2 Balkan Business Barometer innovation data

The Balkan Business Barometer is an annual survey since 2016 among enterprises in at most 7 Balkan countries. The Barometer includes several questions on innovation activities which can be used to calculate shares of innovative enterprises at the country level and for some NACE 1-digit industries. Sample sizes are different over time and so is the coverage of individual industries. Results can therefore not be compared over time, but the data can be used to identify the presence of innovation activities at the country level compared to other Balkan countries and at the industry level for Kosovo. A comparison at industry level with the same industries in other Balkan countries is not possible due to the sometimes large differences in sample composition between countries.

### 3.2.1 Results from the 2016 Balkan Business Barometer

The 2016 Balkan Business Barometer collected responses from 1,407 enterprises of which 64 enterprises from Kosovo. Overall, $56.3 \%$ of enterprises introduced new or significantly improved products and/or services in the past twelve months, and in Kosovo $53.1 \%$ of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is close to that of the Western Balkan region (Table 7). Overall, 48.6\% of enterprises introduced new or significantly improved production and/or service delivery processes in the last twelve months, and in Kosovo 46.9\% of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is close to that of the Western Balkan region (Table 8).

Table 72016 Balkan Business Barometer: overall share of product innovators

|  |  | Have you in | new or signific in the past | roved onths? | and/or services |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/ Refuse to answer | Total |
| Country | Albania | 69 | 59.0\% | 48 | 0 | 117 |
|  | Bosnia i Hercegovina | 111 | 68.5\% | 50 | 1 | 162 |
|  | Croatia | 271 | 51.9\% | 248 | 3 | 522 |
|  | Kosovo | 34 | 53.1\% | 28 | 2 | 64 |
|  | North Macedonia | 45 | 48.9\% | 46 | 1 | 92 |
|  | Montenegro | 23 | 57.5\% | 16 | 1 | 40 |
|  | Serbia | 239 | 58.3\% | 169 | 2 | 410 |
| Total |  | 792 | 56.3\% | 605 | 10 | 1,407 |

[^3]Table 82016 Balkan Business Barometer: overall share of process innovators

|  |  | Have you in | new or signific ry processes | roved twelv | on and/or service ? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/ Refuse to answer | Total |
| Country | Albania | 59 | 50.4\% | 57 | 1 | 117 |
|  | Bosnia i Hercegovina | 94 | 58.0\% | 62 | 6 | 162 |
|  | Croatia | 248 | 47.5\% | 274 | 0 | 522 |
|  | Kosovo | 30 | 46.9\% | 31 | 3 | 64 |
|  | North Macedonia | 34 | 37.0\% | 56 | 2 | 92 |
|  | Montenegro | 19 | 48.7\% | 18 | 2 | 39 |
|  | Serbia | 200 | 48.8\% | 200 | 10 | 410 |
| Total |  | 684 | 48.6\% | 698 | 24 | 1,406 |

A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 9). Results are only calculated for industries with at least 5 enterprises included in the sample. Highest shares of product innovators are for Information and communication (80\%) and Financial and insurance activities (80\%). Highest shares of process innovators are for Accommodation and food services (60\%), Information and communication (60\%) and Financial and insurance activities (60\%).

Table 92016 Balkan Business Barometer: share of product and process innovators by industry

|  |  | Have you introduced new or significantly improved products and/or services in the past twelve months? |  |  |  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last twelve months? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%share | No | DK/ Refuse to answer | Total | Yes | Yes -\%share | No | DK/ Refuse to answer | Total |
| What is the main activity of your company? | NACE A Agriculture, forestry and fishing | 0 | -- | 0 | 0 | 0 | 0 | -- | 1 | 0 | 1 |
|  | NACE B Mining | 0 | -- | 1 | 0 | 1 | 1 | -- | 1 | 0 | 2 |
|  | NACE C Manufacturing | 1 | -- | 2 | 0 | 3 | 2 | -- | 1 | 0 | 3 |
|  | NACE E Water supply; sewerage, waste management and remediation activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE F Construction | 2 | 40.0\% | 3 | 0 | 5 | 3 | 50.0\% | 3 | 0 | 6 |
|  | NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles | 8 | 47.1\% | 8 | 1 | 17 | 7 | 38.9\% | 9 | 2 | 18 |
|  | NACE H Transportation and storage | 4 | 36.4\% | 7 | 0 | 11 | 4 | 33.3\% | 7 | 1 | 12 |
|  | NACE I Accommodation and food service activities | 7 | 63.6\% | 4 | 0 | 11 | 6 | 60.0\% | 4 | 0 | 10 |
|  | NACE J Information and communication | 4 | 80.0\% | 1 | 0 | 5 | 3 | 60.0\% | 2 | 0 | 5 |
|  | NACE K Financial and insurance activities | 4 | 80.0\% | 1 | 0 | 5 | 3 | 60.0\% | 2 | 0 | 5 |
|  | NACE T Activities of households as employers; undifferentiated goods | 1 | -- | 0 | 0 | 1 | 1 | -- | 0 | 0 | 1 |
| Total |  | 31 | 51.7\% | 28 | 1 | 60 | 30 | 46.9\% | 31 | 3 | 64 |

### 3.2.2 Results from the 2017 Balkan Business Barometer

The 2017 Balkan Business Barometer collected responses from 1,438 enterprises of which 69 enterprises from Kosovo. Overall, $53.4 \%$ of enterprises introduced new or significantly improved products and/or services in the past twelve months, and in Kosovo 58.0\% of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is above that of the Western Balkan region (Table 10). Overall, $51.0 \%$ of enterprises introduced new or significantly improved production and/or service delivery processes in the last twelve months, and in Kosovo 37.1\% of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is below that of the Western Balkan region (Table 11).

Table $\mathbf{1 0} 2017$ Balkan Business Barometer: overall share of product innovators

|  |  | Have you introduced new or significantly improved products and/or services in the past twelve months? |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse |  |
| Country | Albania | 60 | 48.0\% | 65 | 0 | 125 |
|  | Bosnia i Hercegovina | 112 | 65.1\% | 57 | 3 | 172 |
|  | Croatia | 260 | 49.5\% | 260 | 5 | 525 |
|  | Kosovo | 40 | 58.0\% | 28 | 1 | 69 |
|  | North Macedonia | 62 | 56.9\% | 46 | 1 | 109 |
|  | Montenegro | 25 | 58.1\% | 17 | 1 | 43 |
|  | Serbia | 209 | 52.9\% | 177 | 9 | 395 |
| Total |  | 768 | 53.4\% | 650 | 20 | 1,438 |

Table 112017 Balkan Business Barometer: overall share of process innovators


A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 12). Results are only calculated for industries with at least 5 enterprises included in the sample. Highest shares of product and process innovators are for Manufacturing and Wholesale and retail trade, repair of motor vehicles and motorcycles.

Table 122017 Balkan Business Barometer: share of product and process innovators by industry

|  |  | Have you introduced new or significantly improved products and/or services in the past twelve months? |  |  |  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last twelve months? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%- <br> share | No | $\begin{aligned} & \mathrm{DK} / \\ & \text { refuse } \end{aligned}$ | Total | Yes | Yes -\%share | No | DK/ refuse | Total |
| What is the | NACE C Manufacturing | 3 | 60.0\% | 2 | 0 | 5 | 3 | 60.0\% | 2 | 0 | 5 |
| activity of your | NACE D Electricity, gas, steam and air conditioning supply | 1 | -- | 0 | 0 | 1 | 1 | -- | 0 | 0 | 1 |
|  | NACE E Water supply; wastewater management, controlling the process | 1 | -- | 1 | 0 | 2 | 1 | -- | 1 | 0 | 2 |
|  | NACE F Construction | 2 | -- | 2 | 0 | 4 | 0 | -- | 4 | 0 | 4 |
|  | NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles | 20 | 66.7\% | 10 | 0 | 30 | 13 | 43.3\% | 17 | 0 | 30 |
|  | NACE H Transportation and storage | 3 | -- | 1 | 0 | 4 | 1 | -- | 3 | 0 | 4 |
|  | NACE I Accommodation and food service activities | 4 | 50.0\% | 4 | 0 | 8 | 2 | 25.0\% | 6 | 0 | 8 |
|  | NACE J Information and communication | 3 | 50.0\% | 3 | 0 | 6 | 2 | 33.3\% | 4 | 0 | 6 |
|  | NACE K Financial and insurance activities | 1 | -- | 1 | 0 | 2 | 1 | -- | 2 | 0 | 3 |
|  | NACE L Real estate activities | 0 | -- | 2 | 0 | 2 | 0 | -- | 2 | 0 | 2 |
|  | NACE Q Human health and social work activities | 2 | -- | 0 | 0 | 2 | 1 | -- | 0 | 0 | 1 |
|  | NACE S Other service activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
| Total |  | 40 | 59.7\% | 27 | 0 | 67 | 25 | 37.3\% | 42 | 0 | 67 |

### 3.2.3 Results from the 2018 Balkan Business Barometer

The 2018 Balkan Business Barometer collected responses from about 1,200 enterprises of which 89 enterprises from Kosovo. The 2018 Barometer also does not cover Croatia. Compared to the two previous editions of the Barometer, the time period to capture innovation activities has increased from the last twelve months to the last three years. With a larger time period, the share of enterprises with innovation activities should be higher. Despite the longer survey period compared to previous editions of the Balkan Business Barometer, the shares of product and process innovation innovators are significantly lower than in the 2016 and 2017 editions.
Overall, $37.7 \%$ of enterprises introduced new or significantly improved products and/or services in the past three years, and in Kosovo 31.5\% of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is below that of the Balkan region (Table 13). Overall, 31.5\% of enterprises introduced new or significantly improved production and/or service delivery processes in the last three years, and in Kosovo 30.3\% of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is below that of the Balkan region (Table 14).

Table 132018 Balkan Business Barometer: overall share of product innovators

|  |  | Have you in | new or signific in the last thre | $\begin{aligned} & \text { oroved } \\ & 2015- \end{aligned}$ | and/or services |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse | Total |
| Country | Albania | 42 | 26.3\% | 116 | 2 | 160 |
|  | Bosnia and Herzegovina | 127 | 55.7\% | 96 | 5 | 228 |
|  | Kosovo* | 28 | 31.5\% | 56 | 5 | 89 |
|  | North Macedonia | 34 | 23.1\% | 109 | 4 | 147 |
|  | Montenegro | 28 | 48.3\% | 29 | 1 | 58 |
|  | Serbia | 193 | 37.4\% | 303 | 20 | 516 |
| Total |  | 452 | 37.7\% | 709 | 37 | 1,198 |

Table 142018 Balkan Business Barometer: overall share of process innovators

|  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last three years (2015-17)? |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes-\%-share | No | DK/refuse |  |
| Country | Albania | 40 | 25.0\% | 118 | 2 | 160 |
|  | Bosnia and Herzegovina | 91 | 39.9\% | 127 | 10 | 228 |
|  | Kosovo* | 27 | 30.3\% | 55 | 7 | 89 |
|  | North Macedonia | 39 | 26.5\% | 104 | 4 | 147 |
|  | Montenegro | 23 | 38.3\% | 35 | 2 | 60 |
|  | Serbia | 158 | 30.6\% | 336 | 23 | 517 |
| Total |  | 378 | 31.5\% | 775 | 48 | 1,201 |

A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 15). Results are only calculated for industries with at least 5 enterprises included in the sample. For only 3 industries results can be calculated as Wholesale and retail trade; repair of motor vehicles and motorcycles (NACE G) accounts for more than half of the sample. The overrepresentation of this industry also implies that results cannot be compared with those of other editions of the Barometer.

Table 152018 Balkan Business Barometer: share of product and process innovators by industry

|  |  | Have you introduced new or significantly improved products and/or services in the last three years (2015-17)? |  |  |  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last three years (2015-17)? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%- <br> share | No | $\begin{aligned} & \mathrm{DK/} \\ & \text { refuse } \end{aligned}$ | Total | Yes | Yes -\%- <br> share | No | $\begin{aligned} & \mathrm{DK/} \\ & \text { refuse } \end{aligned}$ | Total |
| What is the main activity of your company? | NACE A Agriculture, forestry and fishing | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE B Mining | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE C Manufacturing | 1 | -- | 1 | 0 | 2 | 1 | -- | 1 | 0 | 2 |
|  | NACE D Electricity, gas, steam and air conditioning supply | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE F Construction | 3 | 30.0\% | 6 | 1 | 10 | 3 | 30.0\% | 5 | 2 | 10 |
|  | NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles | 17 | 34.0\% | 30 | 3 | 50 | 14 | 28.6\% | 32 | 3 | 49 |
|  | NACE H Transportation and storage | 1 | -- | 3 | 0 | 4 | 1 | -- | 3 | 0 | 4 |


|  | NACE I Accommodation and food service activities | 3 | 27.3\% | 7 | 1 | 11 | 4 | 36.4\% | 5 | 2 | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NACE J Information and communication | 1 | -- | 2 | 0 | 3 | 1 | -- | 2 | 0 | 3 |
|  | NACE K Financial and insurance activities | 1 | -- | 0 | 0 | 1 | 1 | -- | 0 | 0 | 1 |
|  | NACE S Other service activities | 0 | -- | 2 | 0 | 2 | 0 | -- | 2 | 0 | 2 |
| Total |  | 27 | 31.4\% | 54 | 5 | 86 | 25 | 29.4\% | 53 | 7 | 85 |

### 3.2.4 Results from the 2019 Balkan Business Barometer

The 2019 Balkan Business Barometer collected responses from about 1,270 enterprises of which 208 enterprises from Kosovo. Compared to previous editions of the Barometer, the sample size for Kosovo has significantly increased.

Overall, $38.7 \%$ of enterprises introduced new or significantly improved products and/or services in the past three years, and in Kosovo 41.8\% of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is above that of the Balkan region (Table 16). Overall, 29.3\% of enterprises introduced new or significantly improved production and/or service delivery processes in the last three years, and in Kosovo $31.7 \%$ of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is below that of the Balkan region (Table 17).

Table 162019 Balkan Business Barometer: overall share of product innovators

|  |  | Have you introduced new or significantly improved products and/or services in the last three years (2016-18)? |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse |  |
| Economy | Albania | 100 | 45.5\% | 114 | 6 | 220 |
|  | Bosnia and Herzegovina | 85 | 40.9\% | 119 | 4 | 208 |
|  | Kosovo* | 87 | 41.8\% | 108 | 13 | 208 |
|  | North Macedonia | 69 | 33.5\% | 134 | 3 | 206 |
|  | Montenegro | 79 | 34.8\% | 141 | 7 | 227 |
|  | Serbia | 72 | 35.5\% | 122 | 9 | 203 |
| Total |  | 492 | 38.7\% | 738 | 42 | 1,272 |

Table 172019 Balkan Business Barometer: overall share of process innovators

|  |  | Have you | new or signific processes in the | roved yea | and/or service 8)? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse | Total |
| Economy | Albania | 84 | 38.2\% | 125 | 11 | 220 |
|  | Bosnia and Herzegovina | 58 | 27.8\% | 146 | 5 | 209 |
|  | Kosovo* | 66 | 31.7\% | 127 | 15 | 208 |
|  | North Macedonia | 54 | 26.3\% | 146 | 5 | 205 |
|  | Montenegro | 50 | 22.0\% | 169 | 8 | 227 |
|  | Serbia | 61 | 30.2\% | 136 | 5 | 202 |
| Total |  | 373 | 29.3\% | 849 | 49 | 1,271 |

A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 18). Results are only calculated for industries with at least 5 enterprises included in the sample. Highest shares of product innovators are for Real estate (66.7\%), Manufacturing ( $47.8 \%$ ), Wholesale and retail trade; repair of motor vehicles and motorcycles ( $45.1 \%$ ), and Construction ( $44.4 \%$ ). Highest shares of process innovators are for Manufacturing ( $47.8 \%$ ), Wholesale and retail trade; repair of motor vehicles and motorcycles (36.1\%), Construction (33.3\%), and Real estate (33.3\%).

Table 182019 Balkan Business Barometer: share of product and process innovators by industry


### 3.2.5 Results from the 2020 Balkan Business Barometer

The 2020 Balkan Business Barometer collected responses from about 1,215 enterprises of which 87 enterprises from Kosovo. Compared to the 2019 edition of the Barometer, the sample size for Kosovo has significantly decreased and is comparable to that used in the Barometers before 2019. Remarkable and adding to the difficulties of comparing results is that the first question on product innovation covers the past 12 months whereas the second question on process innovation covers the last three years.

Overall, $28.9 \%$ of enterprises introduced new or significantly improved products and/or services in the past 12 months, and in Kosovo $21.8 \%$ of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is below that of the Balkan region (Table 19). Overall, 28.1\% of enterprises introduced new or significantly improved production and/or service delivery processes in the last three years, and in Kosovo $16.3 \%$ of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is below that of the Balkan region (Table 20).

A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 21). Results are only calculated for industries with at least 5 enterprises included in the sample. Highest shares of product innovators are for Manufacturing (40\%) and Wholesale and retail trade; repair of motor vehicles and motorcycles (31.8\%). Highest shares of process innovators are for Wholesale and retail trade; repair of motor vehicles and motorcycles (31.8\%), Manufacturing (20\%), and Construction (20\%).

Table 192020 Balkan Business Barometer: overall share of product innovators

|  |  | Have you | new or signific the pa | $\begin{aligned} & \text { oved } \\ & \text { hs? } \end{aligned}$ | /or services in |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse | Total |
| Economy | Albania | 30 | 18.3\% | 130 | 4 | 164 |
|  | Bosnia and Herzegovina | 91 | 41.7\% | 124 | 3 | 218 |
|  | Kosovo* | 19 | 21.8\% | 65 | 3 | 87 |
|  | North Macedonia | 30 | 21.7\% | 107 | 1 | 138 |
|  | Montenegro | 26 | 43.3\% | 31 | 3 | 60 |
|  | Serbia | 156 | 28.4\% | 388 | 5 | 549 |
| Total |  | 352 | 28.9\% | 845 | 19 | 1,216 |

Table 202020 Balkan Business Barometer: overall share of process innovators

|  |  | Have you | new or signific processes in th | oved e yea | and/or service ? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse | Total |
| Economy | Albania | 40 | 24.2\% | 124 | 1 | 165 |
|  | Bosnia and Herzegovina | 84 | 38.4\% | 130 | 5 | 219 |
|  | Kosovo* | 14 | 16.3\% | 67 | 5 | 86 |
|  | North Macedonia | 25 | 18.2\% | 111 | 1 | 137 |
|  | Montenegro | 22 | 37.3\% | 34 | 3 | 59 |
|  | Serbia | 156 | 28.4\% | 382 | 11 | 549 |
| Total |  | 341 | 28.1\% | 848 | 26 | 1,215 |

Table 212020 Balkan Business Barometer: share of product and process innovators by industry

|  |  | Have you introduced new or significantly improved products and/or services in the past 12 months? |  |  |  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last three years (2017-19)? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%share | No | DK/ refuse | Total | Yes | Yes -\%- <br> share | No | DK/ refuse | Total |
| What is the main activity of your company? | NACE A Agriculture, forestry and fishing | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE C Manufacturing | 2 | 40.0\% | 3 | 0 | 5 | 1 | 20.0\% | 4 | 0 | 5 |
|  | NACE E Water supply; wastewater management, controlling the process of removing waste and similar activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE F Construction | 1 | 16.7\% | 5 | 0 | 6 | 1 | 20.0\% | 4 | 0 | 5 |
|  | NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles | 7 | 31.8\% | 14 | 1 | 22 | 7 | 31.8\% | 14 | 1 | 22 |
|  | NACE H Transportation and storage | 2 | 13.3\% | 13 | 0 | 15 | 1 | 6.7\% | 14 | 0 | 15 |
|  | NACE I Accommodation and food service activities | 4 | 17.4\% | 19 | 0 | 23 | 3 | 12.5\% | 20 | 1 | 24 |
|  | NACE J Information and communication | 1 | 20.0\% | 3 | 1 | 5 | 0 | -- | 3 | 1 | 4 |
|  | NACE K Financial and insurance activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE P Education | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE S Other service activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
| Total |  | 17 | 21.0\% | 62 | 2 | 81 | 13 | 16.3\% | 64 | 3 | 80 |

### 3.2.6 Results from the 2021 Balkan Business Barometer

The 2021 Balkan Business Barometer collected responses from 1,200 enterprises of which 200 enterprises from Kosovo. Compared to the 2020 edition of the Barometer, the sample size for Kosovo has significantly increased and is comparable to that used in the Barometer 2020. This survey repeats the combination of different time periods introduced in the Barometer 2020 with the first question on product innovation covering the past 12 months and the second question on process innovation covering the last three years.

Overall, 29.3\% of enterprises introduced new or significantly improved products and/or services in the past 12 months, and in Kosovo 28.5\% of enterprises introduced such innovations. The overall rate of product innovation in Kosovo is close to that of the Balkan region (Table 22). Overall, $22.8 \%$ of enterprises introduced new or significantly improved production and/or service delivery processes in the last three years, and in Kosovo $15.0 \%$ of enterprises introduced such innovations. The overall rate of process innovation in Kosovo is below that of the Balkan region (Table 23).

Table 222021 Balkan Business Barometer: overall share of product innovators

\left.|  |  | Introduced new or significantly improved products and/or services in the |  |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |$\right]$

Table 232021 Balkan Business Barometer: overall share of process innovators

|  |  | Introduced new or significantly improved production and/or service delivery processes in the last three years (2018-2020 |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%-share | No | DK/refuse |  |
| Economy | Albania | 35 | 17.5\% | 159 | 6 | 200 |
|  | Bosnia and Herzegovina | 82 | 41.0\% | 98 | 20 | 200 |
|  | Kosovo* | 30 | 15.0\% | 132 | 38 | 200 |
|  | North Macedonia | 55 | 27.5\% | 134 | 11 | 200 |
|  | Montenegro | 45 | 22.5\% | 131 | 24 | 200 |
|  | Serbia | 26 | 13.0\% | 157 | 17 | 200 |
| Total |  | 273 | 22.8\% | 811 | 116 | 1,200 |

A further breakdown by industry shows that for most industries the sample size is too small to calculate representative results (Table 24). Results are only calculated for industries with at least 5 enterprises included in the sample. Highest shares of product and process innovators are for Manufacturing and Accommodation and food service activities.

Table 242021 Balkan Business Barometer: share of product and process innovators by industry

|  |  | Introduced new or significantly improved products and/or services in the past 12 months |  |  |  | Total | Introduced new or significantly improved production and/or service delivery processes in the last three years (2018-2020) |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | Yes -\%share | No | $\begin{aligned} & \text { DK/ } \\ & \text { refuse } \end{aligned}$ |  | Yes | Yes -\%share | No | DK/ refuse |  |
| What is the main activity that your company carries out? | NACE C Manufacturing | 22 | 50.0\% | 18 | 4 | 44 | 9 | 20.5\% | 31 | 4 | 44 |
|  | NACE D Supplier of electricity, gas, steam and air conditioner. | 0 | -- | 2 | 0 | 2 | 1 | -- | 1 | 0 | 2 |
|  | NACE E Water supplier: wastewater management, controller of waste disposal processes and other related activities. | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE F Construction | 8 | 17.0\% | 31 | 8 | 47 | 4 | 8.5\% | 35 | 8 | 47 |
|  | NACE G Wholesale and retail trade | 9 | 29.0\% | 14 | 8 | 31 | 3 | 9.7\% | 20 | 8 | 31 |
|  | NACE H <br> Transportation and storage | 0 | -- | 1 | 0 | 1 | 1 | -- | 0 | 0 | 1 |
|  | NACE I <br> Accommodation and food service activities | 2 | 40.0\% | 3 | 0 | 5 | 1 | 20.0\% | 4 | 0 | 5 |
|  | NACE J Information and communication | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE K Financial and insurance activities | 1 | -- | 0 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE M Professional, scientific and technical activities | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE P Education | 1 | -- | 0 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE Q Public health and social work activities | 0 | -- | 2 | 0 | 2 | 0 | -- | 2 | 0 | 2 |
|  | NACE R Arts, entertainment and recreation | 0 | -- | 1 | 0 | 1 | 0 | -- | 1 | 0 | 1 |
|  | NACE S Other service activities | 9 | 24.3\% | 17 | 11 | 37 | 6 | 16.2\% | 20 | 11 | 37 |
|  | Other / Don't know | 5 | -- | 13 | 7 | 25 | 5 | -- | 13 | 7 | 25 |
| Total |  | 57 | 28.5\% | 105 | 38 | 200 | 30 | 15.0\% | 132 | 38 | 200 |

### 3.2.7 Summary of results from the Balkan Business Barometer

Table 25 summarizes the results from the different Balkan Business Barometers. For several NACE 1-digit industries there are no results as these industries were either not included or sample sizes were too small. Overall, there are significant innovation activities at industry level if results are available for at least 3 surveys and if average shares are at least $80 \%$ of the average share of all industries combined (respective cells are highlighted in green in Table 25).

Significant innovation activities for product innovators are observed in:

- Manufacturing (NACE C) (4 out of 6 years)
- Wholesale and retail trade; repair of motor vehicles and motorcycles (NACE G) (all 6 years)
- Accommodation and food service activities (NACE I) (all 6 years)
- Information and communication (NACE J) (3 out of 6 years)

Significant innovation activities for process innovators are observed in:

- Manufacturing (NACE C) (4 out of 6 years)
- Construction (NACE F) (4 out of 6 years)
- Wholesale and retail trade; repair of motor vehicles and motorcycles (NACE G) (5 out of 6 years)
- Accommodation and food service activities (NACE I) (4 out of 6 years)

Table 25 Balkan Business Barometer: 2016-2021 results by industry

|  | Have you introduced new or significantly improved products and/or services in the last |  |  |  |  |  | Have you introduced new or significantly improved production and/or service delivery processes in the last |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|  | 12 months | 12 months | 3 years | 3 years | 12 months | 12 months | 12 months | 12 months | 3 years | 3 years | 3 years | 3 years |
| NACE C Manufacturing | -- | 60.0\% | -- | 47.8\% | 40.0\% | 50.0\% | ---- | 60.0\% |  | 47.8\% | 20.0\% | 20.5\% |
| NACE F Construction | 40.0\% | -- | 30.0\% | 44.4\% | 16.7\% | 17.0\% | 50.0\% | -- | 30.0\% | 33.3\% | 20.0\% | 8.5\% |
| NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles | 47.1\% | 66.7\% | 34.0\% | 45.1\% | 31.8\% | 29.0\% | 38.9\% | 43.3\% | 28.6\% | 36.1\% | 31.8\% | 9.7\% |
| NACE H Transportation and storage | 36.4\% | -- | -- | 32.1\% | 13.3\% | -- | 33.3\% | -- | -- | 21.4\% | 6.7\% | -- |
| NACE I <br> Accommodation and food service activities | 63.6\% | 50.0\% | 27.3\% | 38.2\% | 17.4\% | 40.0\% | 60.0\% | 25.0\% | 36.4\% | 27.3\% | 12.5\% | 20.0\% |
| NACE J Information and communication | 80.0\% | 50.0\% | -- | -- | 20.0\% | -- | 60.0\% | 33.3\% | -- | -- | -- | -- |
| NACE K Financial and insurance activities | 80.0\% | -- | -- | -- | -- | -- | 60.0\% | -- | -- | -- | -- | -- |
| NACE L Real estate activities | -- | -- | -- | 66.7\% | -- | -- | -- | -- | -- | 33.3\% | -- | -- |
| NACE S Other service activities | -- | -- | -- | 23.1\% | -- | 24.3\% | -- | -- | -- | 23.1\% | -- | 16.2\% |
| Total | 51.7\% | 59.7\% | 31.4\% | 41.3\% | 21.0\% | 28.5\% | 46.9\% | 37.3\% | 29.4\% | 31.9\% | 16.3\% | 15.0\% |

Cells highlighted in green where the percentage share is above 0.8 times that of all industries combined.

### 3.3 Enterprise Survey innovation data

Aggregate and firm-level data on innovation are available from the World Bank Enterprise Survey. Firm-level data are available for Kosovo from the 2013 and 2019 edition of the Enterprise Survey and include identifiers for different industries. These data are analysed in this section.

### 3.3.1 Results from the 2013 Enterprise Survey

The 2013 Enterprise Survey ${ }^{4}$ includes data for 381 enterprises for several NACE 2-digit industries. The 2013 Enterprise Survey includes four questions on innovation:

- H. 1 During the last three years, has this establishment introduced new or significantly improved products or services?
- H. 3 During the last three years, has this establishment introduced any new or significantly improved methods for the production or supply of products or services?
- H. 4 During the last three years, has this establishment introduced any new or significantly improved organizational or management practices or structures?
- H. 5 During the last three years, has this establishment introduced new or significantly improved marketing methods?

A fifth variable has been constructed by combining all questions to identify enterprises having introduced at least one type of innovation. For some industries, the number of enterprises is too small to derive robust results. To ensure representative results, a lower threshold of at least 5 enterprises has been used. Industries which do not meet this criterion are highlighted in red in Table 26.

Overall, $71 \%$ of enterprises introduced at least one type of innovation. The highest shares of enterprises with any type of innovation are, in descending order: Plastics \& rubber (NACE 25) 100\%, Furniture (NACE 36) $100 \%$, Transport (NACE 60) 92\%, Fabricated metal products (NACE 28) 83\%, Supporting transport activities (NACE 63) $83 \%$, Textiles (NACE 17) 78\%, Services of motor vehicles (NACE 50) 78\%, Hotel and restaurants (NACE 55) 75\%, Publishing, printing and recorded media (NACE 22) 73\%, IT (NACE 72) 71\%, Wholesale (NACE 51) $70 \%$, Food (NACE 15) 68\%, Retail (NACE 52) 66\%, Non-metallic mineral products (NACE 26) 65\%, Construction (NACE 45) 57\%, Chemicals (NACE 24) 43\%, and Basic metals (NACE 27) 31\%.

Table 26 Share of innovative enterprises by industry using 2013 World Bank Enterprise Survey data

| NACE | Industry | Product innovations | Process innovations | Organi- <br> sational innovations | Marketing innovations | Any type of innovation | Total number of firms | Product innovations | Process innovations | Organi- <br> sational innovations | Marketing innovations | Any type of innovation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Number | Number | Number | Number | Number | \%-share | \%-share | \%-share | \%-share | \%-share |
| 15 | Food | 15 | 11 | 10 | 7 | 15 | 22 | 68\% | 50\% | 45\% | 32\% | 68\% |
| 17 | Textiles | 6 | 6 | 7 | 7 | 7 | 9 | 67\% | 67\% | 78\% | 78\% | 78\% |
| 18 | Garments | 2 | 0 | 0 | 2 | 2 | 2 | 100\% | 0\% | 0\% | 100\% | 100\% |
| 20 | Wood | 1 | 1 | 1 | 1 | 1 | 3 | 33\% | 33\% | 33\% | 33\% | 33\% |
| 21 | Paper \& paper products | 2 | 2 | 2 | 2 | 2 | 2 | 100\% | 100\% | 100\% | 100\% | 100\% |
| 22 | Publishing, printing and recorded media | 4 | 4 | 5 | 8 | 8 | 11 | 36\% | 36\% | 45\% | 73\% | 73\% |
| 24 | Chemicals | 3 | 0 | 2 | 3 | 3 | 7 | 43\% | 0\% | 29\% | 43\% | 43\% |
| 25 | Plastics \& rubber | 8 | 6 | 3 | 6 | 8 | 8 | 100\% | 75\% | 38\% | 75\% | 100\% |
| 26 | Non-metallic mineral products | 8 | 9 | 12 | 15 | 15 | 23 | 35\% | 39\% | 52\% | 65\% | 65\% |

[^4]| NACE | Industry | Product innovations | Process innovations | Organi- <br> sational innovations | Marketing innovations | Any type of innovation | Total number of firms | Product innovations | Process innovations | Organi- <br> sational innovations | Marketing innovations | Any type of innovation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Number | Number | Number | Number | Number | \%-share | \%-share | \%-share | \%-share | \%-share |
| 27 | Basic metals | 4 | 2 | 2 | 0 | 4 | 13 | 31\% | 15\% | 15\% | 0\% | 31\% |
| 28 | Fabricated metal products | 7 | 3 | 5 | 5 | 10 | 12 | 58\% | 25\% | 42\% | 42\% | 83\% |
| 29 | Machinery and equipment | 3 | 3 | 3 | 1 | 3 | 3 | 100\% | 100\% | 100\% | 33\% | 100\% |
| 31 | Electronics | 3 | 3 | 3 | 0 | 3 | 3 | 100\% | 100\% | 100\% | 0\% | 100\% |
| 36 | Furniture | 5 | 4 | 6 | 3 | 7 | 7 | 71\% | 57\% | 86\% | 43\% | 100\% |
| 37 | Recycling | 1 | 0 | 0 | 1 | 1 | 1 | 100\% | 0\% | 0\% | 100\% | 100\% |
| 45 | Construction | 6 | 12 | 16 | 13 | 16 | 28 | 21\% | 43\% | 57\% | 46\% | 57\% |
| 50 | Services of motor vehicles | 5 | 3 | 7 | 4 | 7 | 9 | 56\% | 33\% | 78\% | 44\% | 78\% |
| 51 | Wholesale | 37 | 27 | 34 | 40 | 48 | 69 | 54\% | 39\% | 49\% | 58\% | 70\% |
| 52 | Retail | 35 | 19 | 31 | 32 | 40 | 61 | 57\% | 31\% | 51\% | 52\% | 66\% |
| 55 | Hotel and restaurants | 13 | 9 | 16 | 15 | 24 | 32 | 41\% | 28\% | 50\% | 47\% | 75\% |
| 60 | Transport | 11 | 12 | 13 | 17 | 23 | 25 | 44\% | 48\% | 52\% | 68\% | 92\% |
| 63 | Supporting transport activities | 14 | 6 | 13 | 20 | 20 | 24 | 58\% | 25\% | 54\% | 83\% | 83\% |
| 72 | IT | 5 | 5 | 5 | 4 | 5 | 7 | 71\% | 71\% | 71\% | 57\% | 71\% |
|  | Total | 198 | 147 | 196 | 206 | 272 | 381 | 52\% | 39\% | 51\% | 54\% | 71\% |

Data source: 2013 World Bank Enterprise Survey

### 3.3.2 Results from the 2019 Enterprise Survey

The 2019 Enterprise Survey ${ }^{5}$ includes data for 1,087 enterprises for several NACE 2-digit industries. The 2019 Enterprise Survey includes two questions on innovation:

- H. 1 During the last three years, has this establishment introduced new or improved products or services?
- H. 5 During the last three years, has this establishment introduced any new or improved process? (These include methods of manufacturing products or offering services; logistics, delivery, or distribution methods for inputs, products, or services; or supporting activities for processes)

A third variable has been constructed by combining all questions to identify enterprises having introduced at least one type of innovation. For some industries, the number of enterprises is too small to derive robust results. To ensure representative results, a lower threshold of at least 5 enterprises has been used. Industries which do not meet this criterion are highlighted in red in Table 27.

Overall, 29\% of enterprises introduced at least one type of innovation. The highest shares of enterprises with any type of innovation are, in descending order: Machinery and equipment (NACE 29-30) 94\%, Chemicals (NACE 24) 80\%, Plastics \& rubber (NACE 25) 72\%, IT (NACE 72) 54\%, Transport (NACE 60-64) 40\%, Food (NACE 15) 36\%, Wholesale (NACE 51) 36\%, Fabricated metal products (NACE 28) 35\%, Wood (NACE 20) $26 \%$, Retail (NACE 52) 21\%, Non-metallic mineral products (NACE 26) 18\%, Refined petroleum products (NACE 23) 17\%, Textiles (NACE 17) 13\%, Paper (NACE 21) 13\%, Furniture (NACE 36) 13\%, Construction (NACE 45) 8\%, and Hotel and restaurants (NACE 55) 5\%.

[^5]Table 27 Share of innovative enterprises by industry using 2019 World Bank Enterprise Survey data

| NACE | Industry | Product innovations | Process innova- <br> tions | $\begin{array}{\|r\|} \hline \text { Any type } \\ \text { of } \\ \text { innovation } \\ \hline \end{array}$ | Total number of firms | Product innova- <br> tions | Process innovations |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Number | Number | Number | \%-share | \%-share | \%-share |
| 15 | Food | 32 | 12 | 32 | 89 | 36\% | 13\% | 36\% |
| 17 | Textiles | 3 | 1 | 3 | 23 | 13\% | 4\% | 13\% |
| 18 | Garments | 0 | 0 | 0 | 9 | 0\% | 0\% | 0\% |
| 20 | Wood | 11 | 8 | 11 | 43 | 26\% | 19\% | 26\% |
| 21 | Paper | 1 | 1 | 1 | 8 | 13\% | 13\% | 13\% |
| 23 | Refined petroleum products | 0 | 1 | 1 | 6 | 0\% | 17\% | 17\% |
| 24 | Chemicals | 4 | 0 | 4 | 5 | 80\% | 0\% | 80\% |
| 25 | Plastics \& rubber | 48 | 24 | 50 | 69 | 70\% | 35\% | 72\% |
| 26 | Non-metallic mineral products | 14 | 9 | 18 | 98 | 14\% | 9\% | 18\% |
| 28 | Fabricated metal products | 14 | 5 | 17 | 49 | 29\% | 10\% | 35\% |
| 29-30 | Machinery and equipment | 17 | 0 | 17 | 18 | 94\% | 0\% | 94\% |
| 36 | Furniture | 2 | 0 | 2 | 16 | 13\% | 0\% | 13\% |
| 45 | Construction | 3 | 1 | 3 | 37 | 8\% | 3\% | 8\% |
| 50 | Services of motor vehicles | 1 | 1 | 1 | 1 | 100\% | 100\% | 100\% |
| 51 | Wholesale | 71 | 13 | 73 | 204 | 35\% | 6\% | 36\% |
| 52 | Retail | 11 | 14 | 21 | 100 | 11\% | 14\% | 21\% |
| 55 | Hotel and restaurants | 10 | 0 | 10 | 189 | 5\% | 0\% | 5\% |
| I: 60-64 | Transport | 33 | 7 | 39 | 97 | 34\% | 7\% | 40\% |
| 72 | IT | 14 | 2 | 14 | 26 | 54\% | 8\% | 54\% |
|  | Total | 289 | 99 | 317 | 1,087 | 27\% | 9\% | 29\% |

Data source: 2019 World Bank Enterprise Survey

### 3.3.3 Summary of results from the Enterprise Survey

The results of the two Enterprise Surveys show that there are high shares ${ }^{6}$ of innovators in the following industries:

- Food (NACE 15) (ES 2019)
- Textiles (NACE 17) (ES 2013)
- Chemicals (NACE 24) (ES 2019)
- Plastics \& rubber (NACE 25) (ES 2013 \& ES 2019)
- Fabricated metal products (NACE28) (ES 2013 \& ES 2019)
- Furniture (NACE 36) (ES 2013)
- Services of motor vehicles (NACE 50) (ES 2013)
- Wholesale (NACE 51) (ES 2019)
- Hotels and restaurants (NACE 55) (ES 2013)
- Transport (NACE 60-64) (ES 2013 \& ES 2019)
- IT (NACE 72) (ES 2013 \& ES 2019)

[^6]
### 3.4 Goods exports

Export data for goods can be used to assess the competitiveness of Kosovo. Data have been made available by the Kosovo Agency of Statistics following the Standard International Trade Classification (SITC) Rev. $4^{7}$. Table 28 provides an example of the structure of the SITC classification.
Data on goods exports are used to identify in which products and industries Kosovo has a trade specialisation compared to the same benchmark countries used for mapping the economic potential. Data on goods exports for 2010-2020 have been made available by the Kosovo Agency of Statistics for 3-digit SITC product groups. Comparable data have been extracted for 2012-2020 for the benchmark countries from UN Comtrade. Data on goods exports by product groups for Kosovo and the benchmark countries are also recalculated into exports by NACE 3-digit industries based on an ad-hoc interpretation of an official concordance between 4digit product groups and 4-digit NACE industries.

Table 28 Example of SITC Rev. 4 goods classification

| Level |  | Code | Description |
| :--- | ---: | ---: | :--- |
| Section level | 1-digit | 5 | Chemicals and related products, n.e.s. |
| Division level | 2-digit | 51 | Organic chemicals |
| Group level | 3-digit | 511 | Hydrocarbons, n.e.s., and their halogenated, sulphonated, nitrated or nitrosated derivatives |
| Subgroup level | 4-digit | 511.1 | Acyclic hydrocarbons |
| Basic heading | 5-digit | 511.11 | Ethylene |

### 3.4.1 Export performance by product groups

Export data can be analysed by SITC product groups. Export shares are at least $1 \%$ in at least 7 years in the 2012-2020 period for the 12 product groups shown in Table 29 (cf. Annex D for export shares for all product groups). Export shares are high in Beverages (SITC $111+112$ ), Metalliferous ores and metal scrap (SITC 282 $+287+288$ ), Electric current (SITC 351), and Iron and steel (SITC $671+691$ ). Exports of Pig-iron etc. (SITC 671) account for more than $20 \%$ of total goods exports for the $2012-2020$ period, but this share has declined strongly from more than 31\% in 2012-2014 to almost 13.5\% in 2018-2020.

Table 29 Largest product groups by export share

| Product group | Export share <br> $\mathbf{2 0 1 2 - 2 0 2 0}$ | Export share <br> $\mathbf{2 0 1 2 - 2 0 1 4}$ | Export share <br> $\mathbf{2 0 1 5 - 2 0 1 7}$ | Export share <br> $\mathbf{2 0 1 8 - 2 0 2 0}$ |
| :--- | :---: | :---: | :---: | :---: |
| 111 Non-alcoholic beverages, n.e.s. | $3.0 \%$ | $2.3 \%$ | $3.1 \%$ | $3.7 \%$ |
| 112 Alcoholic beverages | $2.6 \%$ | $1.7 \%$ | $2.5 \%$ | $3.4 \%$ |
| 211 Hides and skins (except furskins), raw | $2.8 \%$ | $3.6 \%$ | $3.1 \%$ | $1.7 \%$ |
| 282 Ferrous waste and scrap; remelting scrap ingots of iron or steel | $5.6 \%$ | $7.4 \%$ | $4.1 \%$ | $5.3 \%$ |
| 287 Ores and concentrates of base metals, n.e.s. | $6.7 \%$ | $7.3 \%$ | $7.4 \%$ | $5.4 \%$ |
| 288 Non-ferrous base metal waste and scrap, n.e.s. | $4.6 \%$ | $5.8 \%$ | $4.3 \%$ | $3.7 \%$ |
| 351 Electric current | $5.9 \%$ | $5.7 \%$ | $8.2 \%$ | $3.7 \%$ |
| 582 Plates, sheets, film, foil and strip, of plastics | $2.1 \%$ | $1.2 \%$ | $2.3 \%$ | $2.7 \%$ |
| 671 Pig-iron, spiegeleisen, sponge iron, iron or steel granules and <br> powders and ferro-alloys | $21.0 \%$ | $31.3 \%$ | $18.4 \%$ | $13.4 \%$ |
| 679 Tubes, pipes and hollow profiles, and tube or pipe fittings, of <br> iron or steel | $4.4 \%$ | $3.2 \%$ | $4.6 \%$ | $5.5 \%$ |
| 691 Structures and parts of structures, n.e.s., of iron, steel or <br> aluminium | $3.2 \%$ | $0.9 \%$ | $6.0 \%$ | $2.8 \%$ |
| 893 Articles, n.e.s., of plastics | $4.6 \%$ | $1.4 \%$ | $4.3 \%$ | $8.0 \%$ |

[^7]
### 3.4.2 Export specialisation by industries

Exports by product groups can be recalculated to exports by industries using concordance or correspondence tables. Correspondence tables are available from RAMON, Eurostat's Metadata Server ${ }^{8}$. The correspondence between SITC Rev. 3 and ISIC Rev. 3 links 5-digit SITC data to 4-digit ISIC data. ISIC is the International Standard Industrial Classification of All Economic Activities which is very similar but not identical to the NACE classification. As export data are available at the 3-digit level, an ad-hoc approach has been used to link these data to 3-digit industries.

### 3.4.2.1 Methodology

The following methodology has been used to link 3-digit SITC product groups to 3-digit ISIC industries:

- First, each SITC 5-digit product group to ISIC 4-digit industry correspondence pair has been transformed into a corresponding SITC 3-digit product group to ISIC 3-digit industry correspondence pair by shortening the 5 -digit SITC codes to their first 3 digits and the 4-digit ISIC codes to their first 3 digits.
E.g., the correspondence pair SITC 27231 - ISIC 1421 is transformed into SITC 272 - ISIC 142.
- Second, the SITC-ISIC 3-digit correspondence pair is reversed into an ISIC-SITC 3-digit correspondence pair.
- Third, for each unique SITC-ISIC 3-digit correspondence pair the number of times such a pair occurs in the reversed correspondence table is counted.
E.g., the table below shows the number of occurrences for all ISIC-SITC correspondence pairs including ISIC 011 (Meat of bovine animals, fresh, chilled or frozen).

| ISIC | SITC | ISIC-SITC | \# Occurrences | ISIC | SITC | ISIC-SITC | \# Occurrences |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 | 41 | $11-41$ | 2 | 11 | 75 | $11-75$ | 12 |
| 11 | 42 | $11-42$ | 1 | 11 | 81 | $11-81$ | 3 |
| 11 | 43 | $11-43$ | 1 | 11 | 121 | $11-121$ | 2 |
| 11 | 44 | $11-44$ | 2 | 11 | 222 | $11-222$ | 9 |
| 11 | 45 | $11-45$ | 7 | 11 | 223 | $11-223$ | 5 |
| 11 | 54 | $11-54$ | 23 | 11 | 231 | $11-231$ | 4 |
| 11 | 57 | $11-57$ | 29 | 11 | 263 | $11-263$ | 1 |
| 11 | 71 | $11-71$ | 1 | 11 | 264 | $11-264$ | 1 |
| 11 | 72 | $11-72$ | 1 | 11 | 265 | $11-265$ | 6 |
| 11 | 74 | $11-74$ | 3 | 11 | 292 | $11-292$ | 11 |

- Fourth, the contribution of each 3-digit SITC product group to an ISIC 3-digit industry is $100 \%$ if there is only one unique combination, otherwise the contribution of SITC $x x x$ to ISIC yyy is equal to the percentage share calculated as the number of times the correspondence pair SITC xxx to ISIC yyy occurs of all correspondence pairs including SITC xxx.
E.g., there are 4 occurrences of SITC-ISIC 231-11 and 1 occurrence of SITC-ISIC 231-20. SITC 231 is thus included in 5 occurrences in total. $80 \%$ of exports in SITC 231 are then allocated to ISIC 11 and $20 \%$ of exports in SITC 231 to ISIC 20.

The allocation of goods exports of SITC 3-digit product groups to ISIC 3-digit industries is shown in Annex E.

[^8]For Kosovo and the benchmark countries goods exports are then calculated for each year from 2012 to 2020 for each ISIC 3-digit industry, and goods export specialisation for each industry is calculated using Location Quotients. An industry has a current goods export specialisation if the degree of specialisation (LQ) is above 1.5 for at least 7 out of 9 years from 2012 to 2020. An industry has an emerging goods export specialisation if there is a positive and significant trend in the degree of specialisation. Trends are defined as the ratio between the slope of a linear regression over the period 2012-2020 and the average value for the degree of specialisation for the same years. The trend should be statistically significant, i.e. the adjusted $R^{2}$ should be at least 0.70.

### 3.4.2.2 Results

Results for industries with a current and an emerging goods export specialisation are shown in Table 30. In total 10 industries have a current goods export specialisation and in addition 12 more industries have an emerging goods export specialisation. For many of the industries the average goods export share is small. Of the industries with a current goods export specialisation - 271 Manufacture of basic iron and steel - accounts for more than $25 \%$ of total goods exports and 3 more industries each account for more than $5 \%$ of total goods exports. In all 12 industries with a current goods export specialisation, average degrees of specialisation are high. These 12 industries together account for 48\% of average 2012-2020 goods exports, showing that Kosovo's goods exports are concentrated in a relatively small number of industries. For 2 of these industries there is also a positive and significant trend development in the degree of specialisation, for 8 industries the trend is positive but not significant, and for 2 industries the trend is negative, including 271 Manufacture of basic iron and steel.
Of the 12 additional industries with an emerging goods export specialisation, export shares are above $1 \%$ for only 3 industries, 011 Growing of crops; market gardening; horticulture, 252 Manufacture of plastics products, and 361 Manufacture of furniture. Of these industries, only 252 Manufacture of plastics products shows a high degree of specialisation. Trends are high for 020 Forestry, logging and related service activities, 201 Sawmilling and planing of wood, 222 Printing and service activities related to printing, 252 Manufacture of plastics products and 361 Manufacture of furniture.

For all industries shown in Table 30, we assume that these industries have an innovation potential as these industries are competitive on the international market. All industries combined account for almost two-thirds of average 2012-2020 goods exports. The lasts two columns in Table 30 show the corresponding NACE Rev. $1.1^{9}$ and NACE Rev. 22 codes $^{10}$.

Table $\mathbf{3 0}$ Industries with a current or emerging goods export specialisation

| ISIC Rev 3.1 industries | Average <br> 2012-2020 <br> export share | Average <br> 2012-2020 <br> degree of <br> specialisation | Trend in <br> degree of <br> specialisation <br> $\mathbf{*}^{*}=$ <br> significant <br> increase) | Corresponding <br> NACE Rev. 1.1 <br> industries | Corresponding <br> full or partial <br> NACE Rev. 2 <br> industries |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Current specialisation |  |  |  |  |  |
| 101 Mining and agglomeration of hard coal | $0.06 \%$ | 2.593 | 0.107 | 101 | $051,099,192$ |
| 102 Mining and agglomeration of lignite | $0.11 \%$ | 4.413 | 0.125 | 102 | $052,099,192$ |
| 103 Extraction and agglomeration of peat | $0.06 \%$ | 4.413 | 0.125 | 103 | $089,099,192$ |
| 132 Mining of non-ferrous metal ores, except | $6.75 \%$ | 8.631 | 0.031 | 132 | 072,099 |
| uranium and thorium ores | $0.37 \%$ | 3.312 | 0.105 | $143+144+145$ | $089,099,106$, |
| 142 Mining and quarrying n.e.c. | $5.60 \%$ | 6.610 | $0.160^{*}$ | 159 | 110,201 |
| 155 Manufacture of beverages | $1.76 \%$ | 2.256 | $0.117^{*}$ | 175 | $139,172,331$ |
| 172 Manufacture of other textiles | $1.28 \%$ | 5.649 | -0.168 | 251 | $221,325,329$, |
| 251 Manufacture of rubber products |  |  |  | 331 |  |

[^9]| ISIC Rev 3.1 industries | Average 2012-2020 export share | Average 2012-2020 degree of specialisation | Trend in degree of specialisation (* $=$ significant increase) | Corresponding NACE Rev. 1.1 industries | Corresponding full or partial NACE Rev. 2 industries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 271 Manufacture of basic iron and steel | 26.13\% | 9.345 | -0.056 | $271+272+273$ | 241 |
| 401 Production, collection and distribution of electricity | 5.87\% | 4.704 | 0.085 | 401 | 351, 381 |
| Emerging specialisation |  |  |  |  |  |
| 011 Growing of crops; market gardening; horticulture | 2.64\% | 0.247 | 0.071* | 011 | $\begin{gathered} 011,012,013, \\ 016,021,023, \\ 104,110 \end{gathered}$ |
| 020 Forestry, logging and related service activities | 0.37\% | 1.105 | 0.242* | 020 | $\begin{gathered} \hline 012,021,022, \\ 023,161 \end{gathered}$ |
| 050 Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing | 0.03\% | 0.070 | 0.187* | 050 | 031, 032, 702 |
| 201 Sawmilling and planing of wood | 0.14\% | 0.090 | 0.210* | 201 | 161 |
| 202 Manufacture of products of wood, cork, straw and plaiting materials | 0.85\% | 1.212 | 0.091* | 202 | 162 |
| 210 Manufacture of paper and paper products | 0.90\% | 0.796 | 0.172* | 211+212 | 171, 172, 181 |
| 222 Printing and service activities related to printing | 0.08\% | 0.535 | 0.238* | 222 | 172, 181, 581 |
| 241 Manufacture of basic chemicals | 0.54\% | 0.118 | 0.161* | 241 | 191, 201, 382 |
| 252 Manufacture of plastics products | 7.28\% | 2.244 | 0.226* | 252 | $\begin{gathered} 222,273,329 \\ 331,332,412, \\ 433 \end{gathered}$ |
| 272 Manufacture of basic precious and nonferrous metals | 0.77\% | 0.156 | 0.121* | 274 | 244, 259 |
| 293 Manufacture of domestic appliances n.e.c. | 0.50\% | 0.581 | 0.107* | 297 | 275, 282, 331 |
| 361 Manufacture of furniture | 2.35\% | 0.476 | 0.248* | 361 | $\begin{gathered} 282,293,301, \\ 302,303,310, \\ 952 \end{gathered}$ |

## 4 Industries with an economic and innovation potential for Kosovo

This chapter combines the results for the mapping of the economic potential for Kosovo in Chapter 2 with those for the mapping of the innovation potential in Chapter 3. The list of industries with an economic and innovation potential is biased towards industry as export data are only available for goods and not for services.

The combined analysis suffers from a lack of detailed data for mapping the innovation potential. Results for the innovation potential are at best available for a limited number of mostly NACE 3-digit industries in Manufacturing using data on goods exports and for a limited number of NACE 2-digit industries using innovation data from the World Bank Enterprise Survey. Results from the Balkan Business Barometer are too general as they are only available for NACE 1-digit industries.

The combined results in Table 31 show that for only a few NACE 3-digit industries there is statistical evidence of both an economic and innovation potential:

- NACE 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel,
- NACE 259 Manufacture of other fabricated metal products,
- NACE 412 Construction of residential and non-residential buildings,
- NACE 581 Publishing of books, periodicals and other publishing activities.

This list of industries can be increased by adding an alternative approach where industries with an export potential (as identified in Table 30) are also included if they qualify for 5 selection criteria used for the mapping of the static or current economic potential (cf. Annex A for detailed results for these selection criteria). In addition, the following industries would then have both an economic and innovation potential (these industries are shown in italics in Table 31 and with a different colour of green for the current economic potential):

- NACE 051 Mining of hard coal,
- NACE 106 Manufacture of grain mill products, starches and starch products,
- NACE 241 Manufacture of basic iron and steel and of ferro-alloys,
- NACE 351 Electric power generation, transmission and distribution.

Table 31 Industries with an economic and innovation potential

|  | Current economic potential | Emerging economic potential | Innovation potential |
| :---: | :---: | :---: | :---: |
| C MANUFACTURING |  |  | Balkan Barometer |
| 051 Mining of hard coal |  |  | Goods exports |
| 102 Processing and preserving of fish, crustaceans and molluscs |  |  |  |
| 106 Manufacture of grain mill products, starches and starch products |  |  | Goods exports |
| 203 Manufacture of articles of paper and paperboard |  |  |  |
| 232 Manufacture of refractory products |  |  |  |
| 235 Manufacture of cement, lime and plaster |  |  |  |
| 236 Manufacture of articles of concrete, cement and plaster |  |  |  |
| 241 Manufacture of basic iron and steel and of ferro-alloys |  |  | Exports |
| 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel |  |  | Enterprise Survey |
| 259 Manufacture of other fabricated metal products |  |  | Enterprise Survey |
| 264 Manufacture of consumer electronics |  |  |  |
| 325 Manufacture of medical and dental instruments and supplies |  |  |  |
| D ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY |  |  |  |
| 351 Electric power generation, transmission and distribution |  |  | Goods exports |
| F CONSTRUCTION |  |  | Balkan Barometer |
| 412 Construction of residential and non-residential buildings |  |  | Goods exports |
| 421 Construction of roads and railways |  |  |  |
| 422 Construction of utility projects |  |  |  |
| 429 Construction of other civil engineering projects |  |  |  |
| G WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES |  |  | Balkan Barometer |
| 461 Wholesale on a fee or contract basis |  |  |  |
| 463 Wholesale of food, beverages and tobacco |  |  |  |
| 464 Wholesale of household goods |  |  |  |
| 469 Non-specialised wholesale trade |  |  |  |
| H TRANSPORTATION AND STORAGE |  |  |  |
| 504 Inland freight water transport |  |  |  |
| J INFORMATION AND COMMUNICATION |  |  | Balkan Barometer |
| 581 Publishing of books, periodicals and other publishing activities |  |  | Goods exports |
| 582 Software publishing |  |  |  |
| 611 Wired telecommunications activities |  |  |  |
| 612 Wireless telecommunications activities |  |  |  |
| 619 Other telecommunications activities |  |  |  |
| M PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES |  |  |  |
| 691 Legal activities |  |  |  |
| 743 Translation and interpretation activities |  |  |  |
| N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES |  |  |  |
| 822 Activities of call centres |  |  |  |

## 5 Scientific potential for Kosovo

For mapping the scientific potential of Kosovo different data sources are available including data from Scopus and Web of Science. The results will be discussed in different sections.

### 5.1 Scopus

The results in this section are derived from the report "Mapping economic, innovation and scientific potential in Kosovo" by Besnik Krasniqi. Scopus is a database from Elsevier and "combines a comprehensive, expertly curated abstract and citation database with enriched data and linked scholarly literature across a wide variety of disciplines"11. Scopus includes data for most countries but not for Kosovo. Krasniqi collected data from 2010 to 2019 for Kosovo by manually searching for the number of publications for each university, research institute and private college registered in Kosovo. Krasniqi collected data for 27 subject fields (cf. Table 33) for the following types of scientific documents: articles, book chapters, books, conference papers, data papers, editorials, errata, letters, notes, reviews, and short surveys.

For 2010-2019 the total number of Scopus publications for Kosovo is 3,320 or 1,850 publications per million population. Compared to the benchmark countries, Kosovo has the lowest number of publications and almost the lowest number of publications per million population (Table 32). Most publications are in Medicine, Engineering, Social Sciences, Agricultural and Biological Sciences, Mathematics, and Environmental Science (Table 33).

Table 32 Scopus publications (2010-2019)

|  | Number of scientific publications | Number of scientific publications per <br> million population |
| :--- | :---: | :---: |
| Kosovo | $\mathbf{3 , 3 2 0}$ | $\mathbf{1 , 8 5 0}$ |
| *Albania | 4,299 | 1,506 |
| Bosnia and Herzegovina | 10,566 | 3,201 |
| Bulgaria | 46,220 | 6,626 |
| Croatia | 67,545 | 16,606 |
| Greece | 193,772 | 18,082 |
| *Montenegro | 3,884 | 6,243 |
| North Macedonia | 8,798 | 4,423 |
| *Serbia | 75,645 | 10,892 |

Data source: B. Krasniqi, Mapping economic, innovation and scientific potential in Kosovo, 2021
Table 33 Scopus publications by subject field (2010-2019)

|  | \%- <br> share |  | \%- <br> share |  | \%- <br> share |
| :--- | :---: | :--- | :---: | :--- | :---: |
| Medicine | 14.9 | Physics and Astronomy | 4.2 | Health Professionals | 1.1 |
| Engineering | 13.5 | Materials Science | 4.1 | Dentistry | 1.1 |
| Social Sciences | 6.6 | Earth and Planetary Sciences | 3.2 | Veterinary | 1.0 |
| Computer Science | 6.5 | Energy | 2.7 | Immunology and Microbiology | 1.0 |
| Agricultural and Biological <br> Sciences | 6.4 | Pharmacology, Toxicology and <br> Pharmaceutics | 2.4 | Psychology | 0.8 |
| Mathematics | 5.7 | Arts and Humanities | 2.1 | Neuroscience | 0.5 |
| Environmental Science | 5.7 | Economics, Econometrics and <br> Finance | 2.0 | Multidisciplinary | 0.5 |
| Chemistry | 5.0 | Chemical Engineering | 2.0 | Decision Sciences | 0.4 |
| Biochemistry, Genetics and <br> Molecular Biology | 4.6 | Business, Management and <br> Accounting | 2.0 | Nursing | 0.3 |

Data source: B. Krasniqi, Mapping economic, innovation and scientific potential in Kosovo, 2021

[^10]
### 5.2 Web of Science

Web of Science offers bibliographical access to a curated collection of over 21,000 peer-reviewed, highquality scholarly journals published worldwide (including Open Access journals) in over 250 science, social sciences, and humanities disciplines. Web of Science is currently maintained by Clarivate Analytics ${ }^{12}$. The Web of Science schema comprises approximately 250 subject areas in science, social sciences, and arts \& humanities. Data have been extracted for 2012-2020 for the following document types: articles, notes or reviews. Detailed results for 200 subject areas for which there has been at least one publication are included in Annex G.

The total number of publications has been increasing over time (Figure 4) from 2 in 2012 to 341 in 2020. Given the low number of total publications in 2012-2014, these data will not be included in the analysis.

Figure 4 Web of Science publications


The largest subject areas (all having 2014-2020 shares above $2.5 \%$ ) include Environmental Sciences, Mathematics, Economics, Medicine General Internal, Chemistry Multidisciplinary, Public Environmental Occupational Health, and Pharmacology Pharmacy (Table 34) These results are different from those using Scopus data due to different time periods, a different coverage of document types, and a much more detailed breakdown for Web of Science publications.

Comparing the results in Tables 33 and 34 does show that for both data sources there is empirical evidence that Kosovo is publishing intensely in areas as Economics, Environmental sciences, Mathematics and Medicine.

Table 34 Web of Science publications by subject area (2014-2020)
(All subject areas with a publication share of at least 1\% for 2014-2020)

|  | $\mathbf{2 0 1 5}-$ <br> $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7 -}$ <br> $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 8 -}$ <br> $\mathbf{2 0 2 0}$ | $\mathbf{2 0 1 4 -}$ <br> $\mathbf{2 0 2 0}$ | $\mathbf{2 0 1 5 -}$ <br> $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}-$ <br> $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 8}$ <br> $\mathbf{2 0 2 0}$ | $\mathbf{2 0 1 4 -}$ <br> $\mathbf{2 0 2 0}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | $\mathbf{2 3 4}$ | $\mathbf{5 4 9}$ | $\mathbf{6 5 7}$ | $\mathbf{1 4 9 3}$ |  |  |  |  |
| Environmental Sciences | 30 | 54 | 69 | 153 | $12.8 \%$ | $9.8 \%$ | $10.5 \%$ | $10.2 \%$ |
| Mathematics | 13 | 32 | 39 | 84 | $5.6 \%$ | $5.8 \%$ | $5.9 \%$ | $5.6 \%$ |
| Economics | 5 | 22 | 31 | 58 | $2.1 \%$ | $4.0 \%$ | $4.7 \%$ | $3.9 \%$ |
| Medicine General Internal | 3 | 20 | 25 | 48 | $1.3 \%$ | $3.6 \%$ | $3.8 \%$ | $3.2 \%$ |
| Chemistry Multidisciplinary | 11 | 14 | 21 | 46 | $4.7 \%$ | $2.6 \%$ | $3.2 \%$ | $3.1 \%$ |
| Public Environmental Occupational <br> Health | 9 | 11 | 21 | 41 | $3.8 \%$ | $2.0 \%$ | $3.2 \%$ | $2.7 \%$ |
| Pharmacology Pharmacy | 6 | 19 | 15 | 40 | $2.6 \%$ | $3.5 \%$ | $2.3 \%$ | $2.7 \%$ |
| Mathematics Applied | 5 | 12 | 18 | 35 | $2.1 \%$ | $2.2 \%$ | $2.7 \%$ | $2.3 \%$ |

[^11]|  | $\begin{gathered} \text { 2015- } \\ 2016 \end{gathered}$ | $\begin{gathered} \hline 2017- \\ 2018 \end{gathered}$ | $\begin{gathered} 2018- \\ 2020 \end{gathered}$ | $\begin{gathered} 2014- \\ 2020 \end{gathered}$ | $\begin{gathered} 2015- \\ 2016 \end{gathered}$ | $\begin{gathered} 2017- \\ 2018 \end{gathered}$ | $\begin{gathered} 2018- \\ 2020 \end{gathered}$ | $\begin{gathered} 2014- \\ 2020 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 234 | 549 | 657 | 1493 |  |  |  |  |
| Dentistry Oral Surgery Medicine | 6 | 18 | 10 | 34 | 2.6\% | 3.3\% | 1.5\% | 2.3\% |
| Law | 4 | 13 | 17 | 34 | 1.7\% | 2.4\% | 2.6\% | 2.3\% |
| Multidisciplinary Sciences | 8 | 14 | 12 | 34 | 3.4\% | 2.6\% | 1.8\% | 2.3\% |
| Infectious Diseases | 5 | 12 | 12 | 29 | 2.1\% | 2.2\% | 1.8\% | 1.9\% |
| Humanities Multidisciplinary | 5 | 13 | 11 | 29 | 2.1\% | 2.4\% | 1.7\% | 1.9\% |
| Surgery | 9 | 5 | 13 | 27 | 3.8\% | 0.9\% | 2.0\% | 1.8\% |
| Medicine Research Experimental | 6 | 11 | 10 | 27 | 2.6\% | 2.0\% | 1.5\% | 1.8\% |
| Physics Multidisciplinary | 9 | 8 | 10 | 27 | 3.8\% | 1.5\% | 1.5\% | 1.8\% |
| Chemistry Physical | 3 | 6 | 16 | 25 | 1.3\% | 1.1\% | 2.4\% | 1.7\% |
| Engineering Electrical Electronic | 5 | 13 | 7 | 25 | 2.1\% | 2.4\% | 1.1\% | 1.7\% |
| Psychiatry | 2 | 5 | 18 | 25 | 0.9\% | 0.9\% | 2.7\% | 1.7\% |
| Biochemistry Molecular Biology | 5 | 9 | 10 | 24 | 2.1\% | 1.6\% | 1.5\% | 1.6\% |
| Engineering Environmental | 3 | 7 | 14 | 24 | 1.3\% | 1.3\% | 2.1\% | 1.6\% |
| Education Educational Research | 2 | 7 | 14 | 23 | 0.9\% | 1.3\% | 2.1\% | 1.5\% |
| Area Studies | 5 | 9 | 8 | 22 | 2.1\% | 1.6\% | 1.2\% | 1.5\% |
| Chemistry Analytical | 3 | 9 | 10 | 22 | 1.3\% | 1.6\% | 1.5\% | 1.5\% |
| Sport Sciences | 6 | 10 | 6 | 22 | 2.6\% | 1.8\% | 0.9\% | 1.5\% |
| Cardiac Cardiovascular Systems | 6 | 10 | 5 | 21 | 2.6\% | 1.8\% | 0.8\% | 1.4\% |
| Chemistry Medicinal | 5 | 5 | 11 | 21 | 2.1\% | 0.9\% | 1.7\% | 1.4\% |
| Management | 2 | 5 | 14 | 21 | 0.9\% | 0.9\% | 2.1\% | 1.4\% |
| Food Science Technology | 1 | 12 | 7 | 20 | 0.4\% | 2.2\% | 1.1\% | 1.3\% |
| Business | 2 | 9 | 9 | 20 | 0.9\% | 1.6\% | 1.4\% | 1.3\% |
| Veterinary Sciences | 5 | 5 | 10 | 20 | 2.1\% | 0.9\% | 1.5\% | 1.3\% |
| Materials Science Multidisciplinary | 2 | 4 | 11 | 17 | 0.9\% | 0.7\% | 1.7\% | 1.1\% |
| History | 2 | 6 | 8 | 16 | 0.9\% | 1.1\% | 1.2\% | 1.1\% |
| Computer Science Information Systems | 0 | 9 | 6 | 15 | 0.0\% | 1.6\% | 0.9\% | 1.0\% |

## 6 Conclusions and recommendations for future data analyses

### 6.1 Summary of the methodology and main findings

The study has designed a quantitative analysis framework to assess the economic and innovation potential of Kosovo compared to a number of benchmark countries, including Bosnia and Herzegovina, Bulgaria, Croatia, Greece and North Macedonia. The economic analysis uses statistical data for individual economic industries provided by the Kosovo Agency of Statistics on a number of enterprises, number of employees, turnover, wages and exports of goods. Industries with a current economic potential are established industries in which Kosovo is specialised - by having a relatively high degree of specialisation - compared to the average of the benchmark countries. These industries should not be too small and have relatively high levels of average wages, both compared to the average of Kosovo and to the average of the benchmark countries, contributing to the country's overall economic well-being. The analysis has identified 9 industries with a current economic potential: NACE 236 Manufacture of articles of concrete, cement and plaster, NACE 412 Construction of residential and non-residential buildings, NACE 421 Construction of roads and railways, NACE 461 Wholesale on a fee or contract basis, NACE 463 Wholesale of food, beverages and tobacco, NACE 581 Publishing of books, periodicals and other publishing activities, NACE 582 Software publishing, NACE 611 Wired telecommunications activities, and NACE 619 Other telecommunications activities.

The analysis could overlook industries in which Kosovo is not yet specialised, which are still small or where average wages are relatively low, but where there are clear signs of improvement over time - by having a significant upward trend over time in the different economic variables - which could turn these industries into industries with a current economic potential in the few years' time. The analysis has identified 18 industries with an emerging economic potential: NACE 102 Processing and preserving of fish, crustaceans and molluscs; NACE 203 Manufacture of articles of paper and paperboard; NACE 232 Manufacture of refractory products; NACE 235 Manufacture of cement, lime and plaster; NACE 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel; NACE 259 Manufacture of other fabricated metal products; NACE 264 Manufacture of consumer electronics; NACE 325 Manufacture of medical and dental instruments and supplies; NACE 422 Construction of utility projects; NACE 429 Construction of other civil engineering projects; NACE 464 Wholesale of household goods; NACE 469 Non-specialised wholesale trade; NACE 504 Inland freight water transport; NACE 582 Software publishing; NACE 612 Wireless telecommunications activities; NACE 691 Legal activities; NACE 743 Translation and interpretation activities; and NACE 822 Activities of call centres.

The report has used data on innovation activities from different editions of the Balkan Business Barometer and World Bank Enterprise Survey and on goods export performance to identify industries with an innovation potential. Based on the Balkan Business Barometer, 5 NACE 1-digit industries show high shares of innovation activities in product and/or process innovation: NACE C Manufacturing, NACE F Construction, NACE G Wholesale and retail trade; repair of motor vehicles and motorcycles, NACE I Accommodation and food service activities, and NACE J Information and communication. Based on firm-level data from two editions of the World Bank Enterprise Survey, high shares of innovation activities have been identified for NACE 15 Food, NACE 17 Textiles, NACE 24 Chemicals, NACE 25 Plastics and rubber, NACE28 Fabricated metal products, NACE 36 Furniture, NACE 50 Services of motor vehicles, NACE 51 Wholesale, NACE 55 Hotels and restaurants, NACE 60-64 Transport, and NACE 72 IT.

Based on an analysis of degrees of specialisation of goods' exports, for a number of ISIC Rev 3.1 industries either a current specialisation ${ }^{13}$ or an emerging specialisation ${ }^{14}$ has been identified.

[^12]The results of the different analyses are combined in a final integrated assessment of the economic and innovation potential of industries in Kosovo. The following NACE 3-digit industries would have both an economic and innovation potential:

- NACE 051 Mining of hard coal
- NACE 106 Manufacture of grain mill products, starches and starch products
- NACE 241 Manufacture of basic iron and steel and of ferro-alloys
- NACE 242 Manufacture of tubes, pipes, hollow profiles and related fittings, of steel
- NACE 259 Manufacture of other fabricated metal products
- NACE 351 Electric power generation, transmission and distribution
- NACE 412 Construction of residential and non-residential buildings
- NACE 581 Publishing of books, periodicals and other publishing activities.


### 6.2 Recommendations for collecting data on innovation activities

For a proper analysis of the innovation potential at national and regional level, a survey comparable to the Community Innovation Survey (CIS) is recommended. The Community Innovation Survey (CIS) ${ }^{15}$ is a survey of innovation activity in enterprises used by most European countries following the recommendations for measuring innovation in the 2018 edition of the Oslo Manual ${ }^{16}$. The survey sample should be large enough to allow for reliable and representative results for industries at the NACE 3-digit level for Kosovo.

As running a full survey as the CIS would require a significant number of resources and as most of the questions included in the CIS would not be needed for mapping industries' innovation potential, it is recommended to use a short survey as the one presented in Annex C which closely follows the CIS Nonresponse survey. The Non-response survey is used by some European countries where response rates for the postal or online CIS survey are low and non-respondents are approached over the phone with a short list of questions to raise the overall response rate. The same approach using phone interviews could also be used to collect information on innovation from Tunisian enterprises.

Responses to Question 1 in Annex C can be used to identify and calculate shares of enterprises that introduced an innovation, where question la corresponds to product innovators and questions 1 b to 1 h to business process innovators. Shares of product innovators, business process innovators, or product and/or business process innovators are commonly used indicators and have also been used in Chapter 3 in this study using data from the World Bank Enterprise Survey.

Questions 2a and 2b can be used to identify and calculate shares of enterprises that were involved in R\&D activities. Question 2a asks if the enterprise conducted any R\&D by itself, question 2b asks if the enterprise paid others to perform R\&D on its behalf. Both questions can be combined to identify enterprises with R\&D activities as any enterprise that replied positively to either question 2 a or question 2 b .

Questions 1 and 2 should ask enterprises about their activities in a limited time period usually covering 3 years (e.g., the CIS 2020 asks enterprises about their activities during the three years 2018 to 2020). Enterprises could also have innovation activities that are incomplete. Question 3 asks enterprises about such activities, where question 3 a asks about innovation activities that were not yet completed, question 3 b about innovation activities that have been abandoned or postponed (suspended), and question 3c asks about completed innovation activities that have not yet resulted in the introduction of a product or business process innovation. The combination of questions $1,2 \mathrm{a}, 2 \mathrm{~b}$ and 3 define innovation active enterprises and are very useful to obtain a full overview of the innovation potential of industries.

If results using the questions in Annex C would be available, the following indicators could be calculated at industry level:

- Share of enterprises that introduced a product and/or business process innovation

[^13]- Share of enterprises that introduced a product innovation
- Share of enterprises that introduced a business process innovation
- Share of enterprises that introduced more than $X$ types of business process innovations
- Share of enterprises that performed R\&D
- Share of enterprises that performed their own R\&D
- Share of enterprises that contracted-out R\&D to others
- Share of enterprises with ongoing innovation activities
- Share of enterprises with abandoned or suspended activities
- Share of enterprises with completed innovation activities
- Share of innovation active enterprises


### 6.3 Recommendations for collecting data on services exports

The use of export data for mapping the innovation potential of industries is limited to those industries (mainly) exporting goods as only data on goods exports are available. It is recommended to also collect data on services exports as these can be used for mapping the innovation potential of industries (mainly) exporting services.
The United Nations "Manual on Statistics of International Trade in Services 2020" ${ }^{17}$ provides guidelines on how to compile and collect statistics of international trade in services. It is recommended to collect data for the following EBOPS 2010 (Extended Balance of Payments Services Classification 2010) classes or at least those not shown in italics:

S - Services; SA - Services: Manufacturing services on physical inputs owned by others; SB - Services: Maintenance and repair services n.i.e.; SC - Services: Transport; SC1 - Services: Sea transport; SC2 - Services: Air transport; SC3-Services: Other modes of transport; SC4 - Services: Postal and courier services; SCA Services: All modes of transport; Passenger; SCB - Services: All modes of transport; Freight; SCC - Services: All modes of transport; Other than passenger and freight; SD - Services: Travel; SD1 - Services: Travel; Goods (Travel); SD2 - Services: Travel; Local transport services; SD3 - Services: Travel; Accommodation services; SD4 - Services: Travel; Food-serving services; SD5 - Services: Travel; Other services than goods (Travel), local transport services, accommodation services, and food-serving services; SDA - Services: Travel; Business; SDB - Services: Travel; Personal; SDZ - Services: Tourism-related services in travel and passenger transport; SE - Services: Construction; SE1 - Services: Construction abroad; SE2 - Services: Construction in the reporting economy; SF - Services: Insurance and pension services; SF1 - Services: Direct insurance; SF2 Services: Reinsurance; SF3-Services: Auxiliary insurance services; SF4 - Services: Pension and standardized guarantee services; SG - Services: Financial services; SG1 - Services: Financial services explicitly charged and other financial services; SG2 - Services: Financial intermediation services indirectly measured (FISIM); SH Services: Charges for the use of intellectual property n.i.e.; SH1 - Services: Franchises and trademarks licensing fees; SH2 - Services: Licences for the use of outcomes of research and development; SH3 Services: Licences to reproduce and/or distribute computer software; SH4 - Services: Licences to reproduce and/or distribute audio-visual and related products; SI - Services: Telecommunications, computer, and information services; SI1 - Services: Telecommunications services; SI2 - Services: Computer services; SI3 Services: Information services; SJ - Services: Other business services; SJ1 - Services: Research and development services; SJ2 - Services: Professional and management consulting services; SJ3 - Services: Technical, trade-related, and other business services; SK - Services: Personal, cultural, and recreational services; SK1 - Services: Audiovisual and related services; SK2 - Services: Personal, cultural, and recreational services other than audiovisual and related services; SL - Services: Government goods and services n.i.e.; SL1 - Services: Embassies and consulates; SL2 - Services: Military units and agencies; SL3 - Services: Government goods and services ni.i.e. other than embassies and consulates and military units and agencies; SOX - Services: Commercial services; SN - Services: Services not allocated.

[^14]Annexes

## Annex A: Detailed results for the mapping of industries with a static or current economic potential

Results for identifying industries with a current economic potential are shown in the table below. If industries pass a threshold the value in the respective table cell is 1 , otherwise it is 0 . Industries for which comparable data for the selected benchmark countries are not available are highlighted in orange in the first column. The third column (EMPL SIZE) shows if and how many industries (108) passed the size criterion for employment, the fourth column (EMPL SPEC) shows if and how many industries (47) passed the specialisation criterion for employment, the fifth column (TURN SIZE) shows if and how many industries (84) passed the size criterion for turnover, the sixth column (TURN SPEC) shows if and how many industries (34) passed the specialisation criterion for turnover, the seventh column (WGS KV) shows if and how many industries (80) passed the criterion for average wages relative to those in Kosovo, and the eight column (WGS BENCH) shows if and how many industries (66) passed the criterion for average wages relative to those in the same industry in the selected benchmark countries. Finally, the last column (CEP) shows how many criteria each industry passed and how many industries (9) passed all 6 criteria and would have a current economic potential (CEP).

|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | $\begin{aligned} & \hline \text { EMPL } \\ & \text { SPEC } \end{aligned}$ | $\begin{aligned} & \hline \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \hline \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \hline \text { WGS } \\ & \text { BEN } \end{aligned}$ | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 011 | Growing of non-perennial crops | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 012 | Growing of perennial crops | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 013 | Plant propagation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 014 | Animal production | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 015 | Mixed farming | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 016 | Support activities to agriculture and post-harvest crop activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 017 | Hunting, trapping and related service activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 021 | Silviculture and other forestry activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 022 | Logging | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 023 | Gathering of wild growing non-wood products | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 024 | Support services to forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 031 | Fishing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 032 | Aquaculture | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 051 | Mining of hard coal | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| 052 | Mining of lignite | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 061 | Extraction of crude petroleum | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 071 | Mining of iron ores | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 072 | Mining of non-ferrous metal ores | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 081 | Quarrying of stone, sand and clay | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 089 | Mining and quarrying n.e.c. | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 091 | Support activities for petroleum and natural gas extraction | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 099 | Support activities for other mining and quarrying | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 101 | Processing and preserving of meat and production of meat products | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 102 | Processing and preserving of fish, crustaceans and molluscs | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 103 | Processing and preserving of fruit and vegetables | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 104 | Manufacture of vegetable and animal oils and fats | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | Manufacture of dairy products | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 106 | Manufacture of grain mill products, starches and starch products | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 107 | Manufacture of bakery and farinaceous products | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 108 | Manufacture of other food products | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 109 | Manufacture of prepared animal feeds | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 110 | Manufacture of beverages | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 120 | Manufacture of tobacco products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 131 | Preparation and spinning of textile fibres | 0 | 0 | 0 | 0 | 0 | 0 | 0 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 132 | Weaving of textiles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 133 | Finishing of textiles | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| 139 | Manufacture of other textiles | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 141 | Manufacture of wearing apparel, except fur apparel | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 142 | Manufacture of articles of fur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 143 | Manufacture of knitted and crocheted apparel | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 151 | Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 152 | Manufacture of footwear | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 161 | Sawmilling and planing of wood | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 162 | Manufacture of products of wood, cork, straw and plaiting materials | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 171 | Manufacture of pulp, paper and paperboard | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 172 | Manufacture of articles of paper and paperboard | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 181 | Printing and service activities related to printing | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 182 | Reproduction of recorded media | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 191 | Manufacture of coke oven products | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 192 | Manufacture of refined petroleum products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 201 | Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 202 | Manufacture of pesticides and other agrochemical products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 203 | Manufacture of paints, varnishes and similar coatings, printing ink and mastics | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 204 | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 205 | Manufacture of other chemical products | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 206 | Manufacture of man-made fibres | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 211 | Manufacture of basic pharmaceutical products | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| 212 | Manufacture of pharmaceutical preparations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 221 | Manufacture of rubber products | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 222 | Manufacture of plastic products | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 231 | Manufacture of glass and glass products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 232 | Manufacture of refractory products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 233 | Manufacture of clay building materials | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| 234 | Manufacture of other porcelain and ceramic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 235 | Manufacture of cement, lime and plaster | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 236 | Manufacture of articles of concrete, cement and plaster | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 237 | Cutting, shaping and finishing of stone | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 239 | Manufacture of abrasive products and non-metallic mineral products n.e.c. | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 241 | Manufacture of basic iron and steel and of ferro-alloys | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 242 | Manufacture of tubes, pipes, hollow profiles and related fittings, of steel | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 243 | Manufacture of other products of first processing of steel | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 244 | Manufacture of basic precious and other non-ferrous metals | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 245 | Casting of metals | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 251 | Manufacture of structural metal products | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| 252 | Manufacture of tanks, reservoirs and containers of metal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 255 | Forging, pressing, stamping and roll-forming of metal; powder metallurgy | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 256 | Treatment and coating of metals; machining | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 257 | Manufacture of cutlery, tools and general hardware | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 259 | Manufacture of other fabricated metal products | 1 | 0 | 0 | 0 | 0 | 0 | 0 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 261 | Manufacture of electronic components and boards | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 262 | Manufacture of computers and peripheral equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 263 | Manufacture of communication equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 264 | Manufacture of consumer electronics | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 265 | Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 266 | Manufacture of irradiation, electromedical and electrotherapeutic equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 267 | Manufacture of optical instruments and photographic equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 271 | Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 272 | Manufacture of batteries and accumulators | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 273 | Manufacture of wiring and wiring devices | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 274 | Manufacture of electric lighting equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 275 | Manufacture of domestic appliances | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 279 | Manufacture of other electrical equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 281 | Manufacture of general-purpose machinery | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 282 | Manufacture of other general-purpose machinery | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 283 | Manufacture of agricultural and forestry machinery | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 284 | Manufacture of metal forming machinery and machine tools | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 289 | Manufacture of other special-purpose machinery | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 291 | Manufacture of motor vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 293 | Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 301 | Building of ships and boats | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 302 | Manufacture of railway locomotives and rolling stock | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 309 | Manufacture of transport equipment n.e.c. | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 310 | Manufacture of furniture | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 321 | Manufacture of jewellery, bijouterie and related articles | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 323 | Manufacture of sports goods | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324 | Manufacture of games and toys | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | Manufacture of medical and dental instruments and supplies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 329 | Manufacturing n.e.c. | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 331 | Repair of fabricated metal products, machinery and equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 332 | Installation of industrial machinery and equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 351 | Electric power generation, transmission and distribution | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 352 | Manufacture of gas; distribution of gaseous fuels through mains | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 353 | Steam and air conditioning supply | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| 360 | Water collection, treatment and supply | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 370 | Sewerage | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 381 | Waste collection | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 382 | Waste treatment and disposal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 383 | Materials recovery | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 390 | Remediation activities and other waste management services | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 411 | Development of building projects | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| 412 | Construction of residential and non-residential buildings | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 421 | Construction of roads and railways | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 422 | Construction of utility projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 429 | Construction of other civil engineering projects | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 431 | Demolition and site preparation | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 432 | Electrical, plumbing and other construction installation activities | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 433 | Building completion and finishing | 1 | 0 | 1 | 0 | 0 | 1 | 0 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 439 | Other specialised construction activities | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 451 | Sale of motor vehicles | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 452 | Maintenance and repair of motor vehicles | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 453 | Sale of motor vehicle parts and accessories | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 454 | Sale, maintenance and repair of motorcycles and related parts and accessories | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 461 | Wholesale on a fee or contract basis | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 462 | Wholesale of agricultural raw materials and live animals | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 463 | Wholesale of food, beverages and tobacco | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 464 | Wholesale of household goods | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 465 | Wholesale of information and communication equipment | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 466 | Wholesale of other machinery, equipment and supplies | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 467 | Other specialised wholesale | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 469 | Non-specialised wholesale trade | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 471 | Retail sale in non-specialised stores | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| 472 | Retail sale of food, beverages and tobacco in specialised stores | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 473 | Retail sale of automotive fuel in specialised stores | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 474 | Retail sale of information and communication equipment in specialised stores | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 475 | Retail sale of other household equipment in specialised stores | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 476 | Retail sale of cultural and recreation goods in specialised stores | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 477 | Retail sale of other goods in specialised stores | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 478 | Retail sale via stalls and markets | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 479 | Retail trade not in stores, stalls or markets | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| 491 | Passenger rail transport, interurban | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 492 | Freight rail transport | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 493 | Other passenger land transport | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 494 | Freight transport by road and removal services | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 495 | Transport via pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 501 | Sea and coastal passenger water transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 502 | Sea and coastal freight water transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 503 | Inland passenger water transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 504 | Inland freight water transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 511 | Passenger air transport | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 512 | Freight air transport and space transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 521 | Warehousing and storage | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 522 | Support activities for transportation | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 531 | Postal activities under universal service obligation | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| 532 | Other postal and courier activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 551 | Hotels and similar accommodation | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 年52 | Holiday and other short-stay accommodation | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 553 | Camping grounds, recreational vehicle parks and trailer parks | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 559 | Other accommodation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 561 | Restaurants and mobile food service activities | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 562 | Event catering and other food service activities | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 563 | Beverage serving activities | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 581 | Publishing of books, periodicals and other publishing activities | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 582 | Software publishing | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 591 | Motion picture, video and television programme activities | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 592 | Sound recording and music publishing activities | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 601 | Radio broadcasting | 0 | 0 | 0 | 0 | 0 | 0 | 0 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 602 | Television programming and broadcasting activities | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 611 | Wired telecommunications activities | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 612 | Wireless telecommunications activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 613 | Satellite telecommunications activities | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 619 | Other telecommunications activities | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 620 | Computer programming, consultancy and related activities | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 631 | Data processing, hosting and related activities; web portals | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 639 | Other information service activities | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 641 | Monetary intermediation | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 642 | Activities of holding companies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 643 | Trusts, funds and similar financial entities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 649 | Other financial service activities, except insurance and pension funding | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 651 | Insurance | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 652 | Reinsurance | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 653 | Pension funding | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 661 | Activities auxiliary to financial services, except insurance and pension funding | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 662 | Activities auxiliary to insurance and pension funding | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 663 | Fund management activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 681 | Buying and selling of own real estate | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 682 | Rental and operating of own or leased real estate | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 683 | Real estate activities on a fee or contract basis | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 691 | Legal activities | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 692 | Accounting, bookkeeping and auditing activities; tax consultancy | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 701 | Activities of head offices | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 702 | Management consultancy activities | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 711 | Architectural and engineering activities and related technical consultancy | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| 712 | Technical testing and analysis | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 721 | Research and experimental development on natural sciences and engineering | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 722 | Research and experimental development on social sciences and humanities | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 731 | Advertising | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 732 | Market research and public opinion polling | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 741 | Specialised design activities | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 742 | Photographic activities | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 743 | Translation and interpretation activities | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 749 | Other professional, scientific and technical activities n.e.c. | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 750 | Veterinary activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 771 | Rental and leasing of motor vehicles | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| 772 | Rental and leasing of personal and household goods | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 773 | Rental and leasing of other machinery, equipment and tangible goods | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 774 | Leasing of intellectual property and similar products, except copyrighted works | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 781 | Activities of employment placement agencies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 782 | Temporary employment agency activities | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 783 | Other human resources provision | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 791 | Travel agency and tour operator activities | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| 799 | Other reservation service and related activities | 0 | 0 | 0 | 0 | 1 | 1 | 0 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL <br> SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | WGS CTR | WGS BEN | CEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 108 | 47 | 84 | 34 | 80 | 66 | 9 |
| 801 | Private security activities | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 802 | Security systems service activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 811 | Combined facilities support activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 812 | Cleaning activities | 1 | 1 | 1 | 1 | 0 | 1 | 0 |
| 813 | Landscape service activities | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 821 | Office administrative and support activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 822 | Activities of call centres | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| 823 | Organisation of conventions and trade shows | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 829 | Business support service activities n.e.c. | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| 841 | Administration of the State and the economic and social policy of the community | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 842 | Provision of services to the community as a whole | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 843 | Compulsory social security activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 851 | Pre-primary education | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 852 | Primary education | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 853 | Secondary education | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 854 | Higher education | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 855 | Other education | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 856 | Educational support activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 861 | Hospital activities | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| 862 | Medical and dental practice activities | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 869 | Other human health activities | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 872 | Residential care activities for mental retardation, mental health and substance abuse | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 873 | Residential care activities for the elderly and disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 881 | Social work activities without accommodation for the elderly and disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 889 | Other social work activities without accommodation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 900 | Creative, arts and entertainment activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 910 | Libraries, archives, museums and other cultural activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 920 | Gambling and betting activities | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| 931 | Sports activities | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 932 | Amusement and recreation activities | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 941 | Activities of business, employers and professional membership organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 949 | Activities of other membership organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 951 | Repair of computers and communication equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 952 | Repair of personal and household goods | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| 960 | Other personal service activities | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 970 | Activities of households as employers of domestic personnel | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 990 | Activities of extraterritorial organisations and bodies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

n.e.c. $=$ not elsewhere classified

## Annex B: Detailed results for the mapping of industries with a dynamic or emerging economic potential

Results for identifying industries with an emerging economic potential are shown in the table below. If industries pass a threshold the value in the respective table cell is 1 , otherwise it is 0 . Industries for which comparable data for the selected benchmark countries are not available are highlighted in orange in the first columns. The third column (EMPL SIZE) shows if and how many industries (84) passed the change in size criterion for employment, the fourth column (EMPL SPEC) shows if and how many industries (44) passed the change in specialisation criterion for employment, the fifth column (TURN SIZE) shows if and how many industries (65) passed the change in size criterion for turnover, the sixth column (TURN SPEC) shows if and how many industries (29) passed the change in specialisation criterion for turnover, the seventh column (WGS KV ) shows if and how many industries (48) passed the change in the criterion for average wages relative to those in Kosovo, and the eight column (WGS BENCH) shows if and how many industries (22) passed the change in the criterion for average wages relative to those in the same industry in the selected benchmark countries. Finally, the last column (EEP) shows how many criteria each industry passed and how many industries (18) passed at least four criteria and would have an emerging economic potential (EEP).

|  |  | EMPL <br> SIZE | EMPL SPEC | TURN SIZE | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | WGS <br> BEN | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 011 | Growing of non-perennial crops | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 012 | Growing of perennial crops | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 013 | Plant propagation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 014 | Animal production | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 015 | Mixed farming | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 016 | Support activities to agriculture and post-harvest crop activities | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 017 | Hunting, trapping and related service activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 021 | Silviculture and other forestry activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 022 | Logging | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 023 | Gathering of wild growing non-wood products | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 024 | Support services to forestry | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 031 | Fishing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 032 | Aquaculture | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 051 | Mining of hard coal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 052 | Mining of lignite | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 061 | Extraction of crude petroleum | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 071 | Mining of iron ores | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 072 | Mining of non-ferrous metal ores | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 081 | Quarrying of stone, sand and clay | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 089 | Mining and quarrying n.e.c. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 091 | Support activities for petroleum and natural gas extraction | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 099 | Support activities for other mining and quarrying | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 101 | Processing and preserving of meat and production of meat products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 102 | Processing and preserving of fish, crustaceans and molluscs | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 103 | Processing and preserving of fruit and vegetables | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 104 | Manufacture of vegetable and animal oils and fats | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | Manufacture of dairy products | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| 106 | Manufacture of grain mill products, starches and starch products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 107 | Manufacture of bakery and farinaceous products | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 108 | Manufacture of other food products | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| 109 | Manufacture of prepared animal feeds | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | Manufacture of beverages | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 120 | Manufacture of tobacco products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |


|  |  | EMPL SIZE | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \hline \text { WGS } \\ & \text { BEN } \end{aligned}$ | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 131 | Preparation and spinning of textile fibres | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 132 | Weaving of textiles | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 133 | Finishing of textiles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 139 | Manufacture of other textiles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 141 | Manufacture of wearing apparel, except fur apparel | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 142 | Manufacture of articles of fur | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 143 | Manufacture of knitted and crocheted apparel | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 151 | Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 152 | Manufacture of footwear | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 161 | Sawmilling and planing of wood | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| 162 | Manufacture of products of wood, cork, straw and plaiting materials | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 171 | Manufacture of pulp, paper and paperboard | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 172 | Manufacture of articles of paper and paperboard | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 181 | Printing and service activities related to printing | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 182 | Reproduction of recorded media | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 191 | Manufacture of coke oven products | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 192 | Manufacture of refined petroleum products | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 201 | Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 202 | Manufacture of pesticides and other agrochemical products | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 203 | Manufacture of paints, varnishes and similar coatings, printing ink and mastics | 0 | 0 | 1 | 1 | 1 | 1 | 4 |
| 204 | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 205 | Manufacture of other chemical products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 206 | Manufacture of man-made fibres | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 211 | Manufacture of basic pharmaceutical products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 212 | Manufacture of pharmaceutical preparations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 221 | Manufacture of rubber products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 222 | Manufacture of plastic products | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 231 | Manufacture of glass and glass products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 232 | Manufacture of refractory products | 1 | 0 | 0 | 1 | 1 | 1 | 4 |
| 233 | Manufacture of clay building materials | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 234 | Manufacture of other porcelain and ceramic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 235 | Manufacture of cement, lime and plaster | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 236 | Manufacture of articles of concrete, cement and plaster | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 237 | Cutting, shaping and finishing of stone | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 239 | Manufacture of abrasive products and non-metallic mineral products n.e.c. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 241 | Manufacture of basic iron and steel and of ferro-alloys | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 242 | Manufacture of tubes, pipes, hollow profiles and related fittings, of steel | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 243 | Manufacture of other products of first processing of steel | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 244 | Manufacture of basic precious and other non-ferrous metals | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 245 | Casting of metals | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 251 | Manufacture of structural metal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 252 | Manufacture of tanks, reservoirs and containers of metal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 255 | Forging, pressing, stamping and roll-forming of metal; powder metallurgy | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 256 | Treatment and coating of metals; machining | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 257 | Manufacture of cutlery, tools and general hardware | 0 | 0 | 0 | 0 | 0 | 0 | 0 |


|  |  | $\begin{gathered} \text { EMPL } \\ \text { SIZE } \end{gathered}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 259 | Manufacture of other fabricated metal products | 1 | 1 | 1 | 0 | 1 | 0 | 4 |
| 261 | Manufacture of electronic components and boards | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 262 | Manufacture of computers and peripheral equipment | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 263 | Manufacture of communication equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 264 | Manufacture of consumer electronics | 1 | 0 | 1 | 1 | 1 | 1 | 5 |
| 265 | Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 266 | Manufacture of irradiation, electromedical and electrotherapeutic equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 267 | Manufacture of optical instruments and photographic equipment | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 271 | Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 272 | Manufacture of batteries and accumulators | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 273 | Manufacture of wiring and wiring devices | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 274 | Manufacture of electric lighting equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 275 | Manufacture of domestic appliances | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| 279 | Manufacture of other electrical equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 281 | Manufacture of general-purpose machinery | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 282 | Manufacture of other general-purpose machinery | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 283 | Manufacture of agricultural and forestry machinery | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 284 | Manufacture of metal forming machinery and machine tools | 1 | 1 | 0 | 1 | 0 | 0 | 3 |
| 289 | Manufacture of other special-purpose machinery | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 291 | Manufacture of motor vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 293 | Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers | 1 | 0 | 1 | 1 | 0 | 0 | 3 |
| 301 | Building of ships and boats | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 302 | Manufacture of railway locomotives and rolling stock | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 309 | Manufacture of transport equipment n.e.c. | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 310 | Manufacture of furniture | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 321 | Manufacture of jewellery, bijouterie and related articles | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 323 | Manufacture of sports goods | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 324 | Manufacture of games and toys | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 325 | Manufacture of medical and dental instruments and supplies | 1 | 1 | 0 | 0 | 1 | 1 | 4 |
| 329 | Manufacturing n.e.c. | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 331 | Repair of fabricated metal products, machinery and equipment | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 332 | Installation of industrial machinery and equipment | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 351 | Electric power generation, transmission and distribution | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 352 | Manufacture of gas; distribution of gaseous fuels through mains | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 353 | Steam and air conditioning supply | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 360 | Water collection, treatment and supply | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 370 | Sewerage | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 381 | Waste collection | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 382 | Waste treatment and disposal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 383 | Materials recovery | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 390 | Remediation activities and other waste management services | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 411 | Development of building projects | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| 412 | Construction of residential and non-residential buildings | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 421 | Construction of roads and railways | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 422 | Construction of utility projects | 1 | 1 | 0 | 1 | 1 | 0 | 4 |
| 429 | Construction of other civil engineering projects | 1 | 1 | 1 | 1 | 0 | 1 | 5 |
| 431 | Demolition and site preparation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 432 | Electrical, plumbing and other construction installation activities | 1 | 1 | 1 | 0 | 0 | 0 | 3 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \hline \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | WGS CTR | WGS BEN | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 433 | Building completion and finishing | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 439 | Other specialised construction activities | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 451 | Sale of motor vehicles | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 452 | Maintenance and repair of motor vehicles | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 453 | Sale of motor vehicle parts and accessories | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 454 | Sale, maintenance and repair of motorcycles and related parts and accessories | 1 | 0 | 1 | 1 | 0 | 0 | 3 |
| 461 | Wholesale on a fee or contract basis | 1 | 1 | 0 | 1 | 0 | 0 | 3 |
| 462 | Wholesale of agricultural raw materials and live animals | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 463 | Wholesale of food, beverages and tobacco | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| 464 | Wholesale of household goods | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 465 | Wholesale of information and communication equipment | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 466 | Wholesale of other machinery, equipment and supplies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 467 | Other specialised wholesale | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 469 | Non-specialised wholesale trade | 1 | 1 | 1 | 1 | 1 | 0 | 5 |
| 471 | Retail sale in non-specialised stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 472 | Retail sale of food, beverages and tobacco in specialised stores | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| 473 | Retail sale of automotive fuel in specialised stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 474 | Retail sale of information and communication equipment in specialised stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 475 | Retail sale of other household equipment in specialised stores | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 476 | Retail sale of cultural and recreation goods in specialised stores | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 477 | Retail sale of other goods in specialised stores | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 478 | Retail sale via stalls and markets | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 479 | Retail trade not in stores, stalls or markets | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 491 | Passenger rail transport, interurban | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 492 | Freight rail transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 493 | Other passenger land transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 494 | Freight transport by road and removal services | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 495 | Transport via pipeline | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 501 | Sea and coastal passenger water transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 502 | Sea and coastal freight water transport | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| 503 | Inland passenger water transport | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 504 | Inland freight water transport | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| 511 | Passenger air transport | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 512 | Freight air transport and space transport | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 521 | Warehousing and storage | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 522 | Support activities for transportation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 531 | Postal activities under universal service obligation | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 532 | Other postal and courier activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 551 | Hotels and similar accommodation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 552 | Holiday and other short-stay accommodation | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 553 | Camping grounds, recreational vehicle parks and trailer parks | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 559 | Other accommodation | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 561 | Restaurants and mobile food service activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 562 | Event catering and other food service activities | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 563 | Beverage serving activities | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 581 | Publishing of books, periodicals and other publishing activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 582 | Software publishing | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 591 | Motion picture, video and television programme activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 592 | Sound recording and music publishing activities | 1 | 1 | 0 | 0 | 0 | 0 | 2 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | $\begin{aligned} & \text { WGS } \\ & \text { CTR } \end{aligned}$ | $\begin{aligned} & \text { WGS } \\ & \text { BEN } \end{aligned}$ | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 601 | Radio broadcasting | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 602 | Television programming and broadcasting activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 611 | Wired telecommunications activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 612 | Wireless telecommunications activities | 1 | 0 | 1 | 1 | 1 | 1 | 5 |
| 613 | Satellite telecommunications activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 619 | Other telecommunications activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 620 | Computer programming, consultancy and related activities | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| 631 | Data processing, hosting and related activities; web portals | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 639 | Other information service activities | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 641 | Monetary intermediation | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 642 | Activities of holding companies | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 643 | Trusts, funds and similar financial entities | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 649 | Other financial service activities, except insurance and pension funding | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 651 | Insurance | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 652 | Reinsurance | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 653 | Pension funding | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 661 | Activities auxiliary to financial services, except insurance and pension funding | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 662 | Activities auxiliary to insurance and pension funding | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| 663 | Fund management activities | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 681 | Buying and selling of own real estate | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 682 | Rental and operating of own or leased real estate | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 683 | Real estate activities on a fee or contract basis | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 691 | Legal activities | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 692 | Accounting, bookkeeping and auditing activities; tax consultancy | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 701 | Activities of head offices | 1 | 1 | 0 | 0 | 1 | 0 | 3 |
| 702 | Management consultancy activities | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 711 | Architectural and engineering activities and related technical consultancy | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 712 | Technical testing and analysis | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 721 | Research and experimental development on natural sciences and engineering | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 722 | Research and experimental development on social sciences and humanities | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 731 | Advertising | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 732 | Market research and public opinion polling | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 741 | Specialised design activities | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| 742 | Photographic activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 743 | Translation and interpretation activities | 1 | 1 | 1 | 1 | 0 | 0 | 4 |
| 749 | Other professional, scientific and technical activities n.e.c. | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 750 | Veterinary activities | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 771 | Rental and leasing of motor vehicles | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 772 | Rental and leasing of personal and household goods | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 773 | Rental and leasing of other machinery, equipment and tangible goods | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 774 | Leasing of intellectual property and similar products, except copyrighted works | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 781 | Activities of employment placement agencies | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| 782 | Temporary employment agency activities | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| 783 | Other human resources provision | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 791 | Travel agency and tour operator activities | 0 | 0 | 0 | 1 | 0 | 0 | 1 |


|  |  | $\begin{aligned} & \text { EMPL } \\ & \text { SIZE } \end{aligned}$ | EMPL SPEC | $\begin{aligned} & \hline \text { TURN } \\ & \text { SIZE } \end{aligned}$ | TURN SPEC | WGS <br> CTR | WGS BEN | EEP |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of industries that pass selection criteria | 84 | 44 | 65 | 29 | 48 | 22 | 18 |
| 799 | Other reservation service and related activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 801 | Private security activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 802 | Security systems service activities | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 811 | Combined facilities support activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 812 | Cleaning activities | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 813 | Landscape service activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 821 | Office administrative and support activities | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 822 | Activities of call centres | 1 | 1 | 1 | 1 | 1 | 0 | 5 |
| 823 | Organisation of conventions and trade shows | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 829 | Business support service activities n.e.c. | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 841 | Administration of the State and the economic and social policy of the community | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 842 | Provision of services to the community as a whole | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 843 | Compulsory social security activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 851 | Pre-primary education | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 852 | Primary education | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 853 | Secondary education | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 854 | Higher education | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 855 | Other education | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 856 | Educational support activities | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 861 | Hospital activities | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 862 | Medical and dental practice activities | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| 869 | Other human health activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 872 | Residential care activities for mental retardation, mental health and substance abuse | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 873 | Residential care activities for the elderly and disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 881 | Social work activities without accommodation for the elderly and disabled | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 889 | Other social work activities without accommodation | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 900 | Creative, arts and entertainment activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 910 | Libraries, archives, museums and other cultural activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 920 | Gambling and betting activities | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 931 | Sports activities | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 932 | Amusement and recreation activities | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| 941 | Activities of business, employers and professional membership organisations | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 949 | Activities of other membership organisations | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 951 | Repair of computers and communication equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 952 | Repair of personal and household goods | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 960 | Other personal service activities | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 970 | Activities of households as employers of domestic personnel | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 990 | Activities of extraterritorial organisations and bodies | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

n.e.c. $=$ not elsewhere classified

## Annex C: A short survey to collect data on innovation activities

The short survey could include the following questions on technical and non-technical innovation, plus the spoken preamble. The questionnaire is designed to be completed within approximately 10 minutes.

Read out: An innovation is the introduction of a new or improved product or business process, or combination thereof, that differs significantly from your enterprises' previous products or business processes, and which has been introduced on the market or brought into use by your enterprise.

A product is introduced when it is made available for use by its intended users. A business process is introduced when it is brought into actual use in your enterprises' operations.

The minimum requirement for an innovation is that the product or business process must have one or more characteristics that are significantly different from those contained in the products or business processes previously offered by or used by your enterprise. These characteristics must be relevant to your enterprise or to external users.

An innovation needs only be new or significantly improved for your enterprise. It could have been originally developed or used by other enterprises or organisations.

Question 1. During the three years 20XX to 20XX, did your enterprise introduce any of the following types of innovations? Please answer yes or no.

|  |  Nes <br> a. New or improved goods or services$\square$ | $\square$ |  |
| :--- | :--- | :---: | :---: |
| b. | New or improved methods for producing goods or providing services | $\square$ | $\square$ |
| c. | New or improved logistics, delivery or distribution methods for your inputs, goods, <br> or services | $\square$ | $\square$ |
| d. | New or improved methods for information processing or communication | $\square$ |  |
| e. | New or improved methods for accounting or other administrative procedures | $\square$ | $\square$ |
| f. | New or improved business practices for organising procedures or external <br> relations | $\square$ | $\square$ |
| g. | New or improved methods of organising work responsibility, decision making or <br> human resource management | $\square$ | $\square$ |
| h. | New or improved marketing methods for promotion, packaging, pricing, product <br> placement or after sales services | $\square$ | $\square$ |

Read out: Research and Development (R\&D) comprises creative and systematic work undertaken to increase the stock of knowledge - including knowledge of humankind, culture and society - and to devise new applications of available knowledge.

Question 2a. At some time during the three years 20XX to 20XX, did your enterprise perform its own R\&D to develop or improve goods, services, or business processes?

| Yes | $\square$ |
| :---: | :---: |
| No | $\square$ |

Question 2b. Did your enterprise also contract out R\&D to other enterprises or to public or private research organisations?

| Yes | $\square$ |
| :---: | :---: |
| No | $\square$ |

Question 3. Did your enterprise have any innovation activities that did not lead to any innovation introduced during the years 20XX to 20XX:

|  |  | Yes | No |
| :--- | :--- | :---: | :---: |
| a. | Ongoing innovation activities at the end of 20XX, i.e. the innovation activity was not <br> completed at the end of 20XX and will be continued in the following year | $\square$ | $\square$ |
| b. | Abandoned or suspended innovation activities, i.e. the innovation activity was <br> discontinued during 20XX and 20XX either with plans to resume the activity later <br> ('suspended activity') or without such plans ('abandoned activity') | $\square$ | $\square$ |
| c. | Completed innovation activities, i.e. the innovation activity was completed at the <br> end of 20XX but has not resulted in the introduction of an innovation by the end of <br> 20XX, e.g. because it concerned only a part of a new or improved product or business <br> process, or because the introduction is foreseen to happen later | $\square$ | $\square$ |

## Annex D: Export performance by product groups

|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001: Live animals other than animals of division 03 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 011: Meat of bovine animals, fresh, chilled or frozen | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 012: Other meat and edible meat offal, fresh, chilled or frozen (except meat and meat offal unfit or unsuitable for human consumption) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 016: Meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% |
| 017: Meat and edible meat offal, prepared or preserved, n.e.s. | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.4\% |
| 022: Milk and cream and milk products other than butter or cheese | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% |
| 023: Butter and other fats and oils derived from milk | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 024: Cheese and curd | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 025: Eggs, birds', and egg yolks, fresh, dried or otherwise preserved, sweetened or not; egg albumin | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 034: Fish, fresh (live or dead), chilled or frozen | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 035: Fish, dried, salted or in brine; smoked fish (whether or not cooked before or during the smoking process); flours, meals and pellets of fish, fit for human consumption | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 036: Crustaceans, molluscs and aquatic invertebrates, whether in shell or not, fresh (live or dead), chilled, frozen, dried, salted or in brine | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 037: Fish, crustaceans, molluscs and other aquatic invertebrates, prepared or preserved, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 041: Wheat (including spelt) and meslin, unmilled | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 042: Rice | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 043: Barley, unmilled | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 044: Maize (not including sweet corn), unmilled | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% |
| 045: Cereals, unmilled (other than wheat, rice, barley and maize) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 046: Meal and flour of wheat and flour of meslin | 3.0\% | 2.9\% | 2.0\% | 1.3\% | 1.3\% | 1.1\% | 0.7\% | 0.2\% | 0.2\% |
| 047: Other cereal meals and flours | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 048: Cereal preparations and preparations of flour or starch of fruits or vegetables | 0.2\% | 0.2\% | 0.4\% | 0.5\% | 0.6\% | 0.5\% | 0.5\% | 0.5\% | 0.4\% |
| 054: Vegetables, fresh, chilled, frozen or simply preserved (including dried leguminous vegetables); roots, tubers and other edible vegetable products, n.e.s., fresh or dried | 1.1\% | 0.8\% | 1.3\% | 0.9\% | 1.2\% | 0.9\% | 1.0\% | 1.1\% | 1.6\% |
| 056: Vegetables, roots and tubers, prepared or preserved, n.e.s. | 0.3\% | 0.4\% | 0.5\% | 0.5\% | 1.1\% | 1.6\% | 1.3\% | 1.0\% | 1.2\% |
| 057: Fruit and nuts (not including oil nuts), fresh or dried | 0.6\% | 0.6\% | 0.6\% | 0.7\% | 1.0\% | 1.4\% | 1.5\% | 1.4\% | 1.1\% |
| 058: Fruit, preserved, and fruit preparations (excluding fruit juices) | 0.2\% | 0.3\% | 0.3\% | 0.3\% | 0.5\% | 1.2\% | 1.1\% | 1.0\% | 1.3\% |
| 059: Fruit juices (including grape must) and vegetable juices, unfermented and not containing added spirit, whether or not containing added sugar or other sweetening matter | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 061: Sugars, molasses and honey | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 062: Sugar confectionery | 0.0\% | 0.1\% | 0.0\% | 0.2\% | 0.3\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% |
| 071: Coffee and coffee substitutes | 0.2\% | 0.3\% | 0.6\% | 0.8\% | 0.6\% | 0.8\% | 0.9\% | 0.9\% | 0.8\% |
| 072: Cocoa | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 073: Chocolate and other food preparations containing cocoa, n.e.s. | 0.5\% | 0.6\% | 0.8\% | 0.9\% | 0.8\% | 0.5\% | 0.5\% | 0.5\% | 0.3\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 074: Tea and maté | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 075: Spices | 0.1\% | 0.2\% | 0.2\% | 0.2\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.3\% |
| 081: Feeding stuff for animals (not including unmilled cereals) | 0.3\% | 0.4\% | 0.4\% | 0.2\% | 0.3\% | 0.3\% | 0.3\% | 0.2\% | 0.2\% |
| 091: Margarine and shortening | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 098: Edible products and preparations, n.e.s. | 0.2\% | 0.3\% | 0.3\% | 0.4\% | 0.3\% | 0.2\% | 0.2\% | 0.1\% | 0.1\% |
| 111: Non-alcoholic beverages, n.e.s. | 2.1\% | 2.4\% | 2.4\% | 2.7\% | 3.2\% | 3.3\% | 3.7\% | 3.8\% | 3.4\% |
| 112: Alcoholic beverages | 1.6\% | 2.1\% | 1.5\% | 2.2\% | 2.3\% | 3.1\% | 3.8\% | 3.6\% | 2.8\% |
| 121: Tobacco, unmanufactured; tobacco refuse | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 122: Tobacco, manufactured (whether or not containing tobacco substitutes) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 211: Hides and skins (except furskins), raw | 3.6\% | 3.9\% | 3.3\% | 3.2\% | 3.2\% | 2.9\% | 2.7\% | 1.5\% | 0.8\% |
| 212: Furskins, raw (including heads, tails, paws and other pieces or cuttings, suitable for furriers' use), other than hides and skins of group 211 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 222: Oil-seeds and oleaginous fruits of a kind used for the extraction of "soft" fixed vegetable oils (excluding flours and meals) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 223: Oil-seeds and oleaginous fruits, whole or broken, of a kind used for the extraction of other fixed vegetable oils (including flours and meals of oil-seeds or oleaginous fruit, n.e.s.) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 231: Natural rubber, balata, gutta-percha, guayule, chicle and similar natural gums, in primary forms (including latex) or in plates, sheets or strip | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 232: Synthetic rubber; reclaimed rubber; waste, parings and scrap of unhardened rubber | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 244: Cork, natural, raw and waste (including natural cork in blocks or sheets) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 245: Fuel wood (excluding wood waste) and wood charcoal | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% |
| 246: Wood in chips or particles and wood waste | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 247: Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% | 0.0\% |
| 248: Wood, simply worked, and railway sleepers of wood | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% |
| 251: Pulp and waste paper | 0.3\% | 0.3\% | 0.5\% | 0.5\% | 0.7\% | 0.7\% | 0.7\% | 0.5\% | 0.3\% |
| 261: Silk | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 263: Cotton | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 264: Jute and other textile bast fibres, n.e.s., raw or processed but not spun; tow and waste of these fibres (including yarn waste and garnetted stock) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 265: Vegetable textile fibres (other than cotton and jute), raw or processed but not spun; waste of these fibres | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 266: Synthetic fibres suitable for spinning | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 267: Other man-made fibres suitable for spinning; waste of man-made fibres | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 268: Wool and other animal hair (including wool tops) | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 269: Worn clothing and other worn textile articles; rags | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 272: Fertilizers, crude, other than those of division 56 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 273: Stone, sand and gravel | 0.3\% | 0.1\% | 0.0\% | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% |
| 274: Sulphur and unroasted iron pyrites | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 277: Natural abrasives, n.e.s. (including industrial diamonds) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
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| 278: Other crude minerals | 0.6\% | 0.5\% | 0.4\% | 0.6\% | 1.1\% | 0.7\% | 0.2\% | 0.1\% | 0.1\% |
| 281: Iron ore and concentrates | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 282: Ferrous waste and scrap; remelting scrap ingots of iron or steel | 8.2\% | 7.0\% | 6.9\% | 3.5\% | 3.7\% | 5.0\% | 6.6\% | 5.5\% | 3.7\% |
| 283: Copper ores and concentrates; copper mattes; cement copper | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 284: Nickel ores and concentrates; nickel mattes, nickel oxide sinters and other intermediate products of nickel metallurgy | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% |
| 285: Aluminium ores and concentrates (including alumina) | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 286: Uranium or thorium ores and concentrates | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 287: Ores and concentrates of base metals, n.e.s. | 7.4\% | 7.3\% | 7.3\% | 4.8\% | 8.3\% | 9.0\% | 6.8\% | 5.5\% | 3.8\% |
| 288: Non-ferrous base metal waste and scrap, n.e.s. | 7.1\% | 5.6\% | 4.8\% | 3.8\% | 3.8\% | 5.2\% | 4.6\% | 3.7\% | 2.8\% |
| 289: Ores and concentrates of precious metals; waste, scrap and sweepings of precious metals (other than of gold) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% |
| 291: Crude animal materials, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 292: Crude vegetable materials, n.e.s. | 0.2\% | 0.3\% | 0.4\% | 0.4\% | 0.4\% | 0.5\% | 0.7\% | 1.2\% | 1.2\% |
| 321: Coal, whether or not pulverized, but not agglomerated | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 322: Briquettes, lignite and peat | 0.0\% | 0.2\% | 0.3\% | 0.6\% | 0.2\% | 0.1\% | 0.1\% | 0.3\% | 0.1\% |
| 325: Coke and semi-coke (including char) of coal, of lignite or of peat, whether or not agglomerated; retort carbon | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 333: Petroleum oils and oils obtained from bituminous minerals, crude | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 334: Petroleum oils and oils obtained from bituminous minerals (other than crude); preparations, n.e.s., containing by weight $70 \%$ or more of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparation | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 335: Residual petroleum products, n.e.s., and related materials | 0.1\% | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.2\% | 0.3\% | 0.6\% | 0.2\% |
| 342: Liquefied propane and butane | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 343: Natural gas, whether or not liquefied | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 344: Petroleum gases and other gaseous hydrocarbons, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 345: Coal gas, water gas, producer gas and similar gases, other than petroleum gases and other gaseous hydrocarbons | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 351: Electric current | 4.8\% | 7.4\% | 4.9\% | 5.6\% | 10.1\% | 9.0\% | 6.4\% | 3.7\% | 0.9\% |
| 411: Animal oils and fats | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 421: Fixed vegetable fats and oils, 'soft', crude, refined or fractionated | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.2\% |
| 422: Fixed vegetable fats and oils, crude, refined or fractionated, other than "soft" | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 431: Animal or vegetable fats and oils, processed; waxes; inedible mixtures or preparations of animal or vegetable fats or oils, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 511: Hydrocarbons, n.e.s., and their halogenated, sulphonated, nitrated or nitrosated derivatives | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 512: Alcohols, phenols, phenol-alcohols, and their halogenated, sulphonated, nitrated or nitrosated derivatives | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 513: Carboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 514: Nitrogen-function compounds | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 515: Organo-inorganic compounds, heterocyclic compounds, nucleic acids and their salts, and sulphonamides | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 516: Other organic chemicals | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
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| 522: Inorganic chemical elements, oxides and halogen salts | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.3\% | 0.2\% | 0.0\% | 0.0\% | 0.2\% |
| 523: Salts and peroxysalts, of inorganic acids and metals | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 524: Other inorganic chemicals; organic and inorganic compounds of precious metals | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 525: Radioactive and associated materials | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 531: Synthetic organic colouring matter and colour lakes, and preparations based thereon | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 532: Dyeing and tanning extracts, and synthetic tanning materials | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 533: Pigments, paints, varnishes and related materials | 0.2\% | 0.3\% | 0.3\% | 0.3\% | 0.4\% | 0.4\% | 0.5\% | 0.6\% | 0.8\% |
| 541: Medicinal and pharmaceutical products, other than medicaments of group 542 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 542: Medicaments (including veterinary medicaments) | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.2\% | 0.5\% | 0.2\% | 0.0\% |
| 551: Essential oils, perfume and flavour materials | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% |
| 553: Perfumery, cosmetic or toilet preparations (excluding soaps) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 554: Soap, cleansing and polishing preparations | 0.1\% | 0.2\% | 0.3\% | 0.4\% | 0.6\% | 0.5\% | 0.7\% | 0.9\% | 2.5\% |
| 562: Fertilizers (other than those of group 272) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% |
| 571: Polymers of ethylene, in primary forms | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% |
| 572: Polymers of styrene, in primary forms | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% |
| 573: Polymers of vinyl chloride or of other halogenated olefins, in primary forms | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 574: Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polyallyl esters and other polyesters, in primary forms | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 575: Other plastics, in primary forms | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 579: Waste, parings and scrap, of plastics | 0.2\% | 0.2\% | 0.3\% | 0.2\% | 0.3\% | 0.2\% | 0.2\% | 0.2\% | 0.1\% |
| 581: Tubes, pipes and hoses, and fittings therefor, of plastics | 0.4\% | 0.5\% | 0.5\% | 0.5\% | 0.7\% | 0.7\% | 0.8\% | 0.5\% | 0.5\% |
| 582: Plates, sheets, film, foil and strip, of plastics | 0.8\% | 1.4\% | 1.4\% | 2.2\% | 2.4\% | 2.3\% | 3.0\% | 3.0\% | 2.2\% |
| 583: Monofilament of which any cross-sectional dimension exceeds 1 mm , rods, sticks and profile shapes, whether or not surface-worked but not otherwise worked, of plastics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 591: Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up in forms or packings for retail sale or as preparations or articles | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% |
| 592: Starches, inulin and wheat gluten; albuminoidal substances; glues | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 593: Explosives and pyrotechnic products | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 597: Prepared additives for mineral oils and the like; prepared liquids for hydraulic transmission; anti-freezing preparations and prepared de-icing fluids; lubricating preparations | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 598: Miscellaneous chemical products, n.e.s. | 0.2\% | 0.0\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% |
| 599: Residual products of the chemical or allied industries, n.e.s.; municipal waste; sewage sludge; other wastes | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 611: Leather | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 612: Manufactures of leather or of composition leather, n.e.s.; saddlery and harness | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 613: Furskins, tanned or dressed (including heads, tails, paws and other pieces or cuttings), unassembled, or assembled (without the addition of other materials), other than those of heading 848.31 | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 621: Materials of rubber (e.g., pastes, plates, sheets, rods, thread, tubes, of rubber) | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
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| 625: Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 629: Articles of rubber, n.e.s. | 2.3\% | 2.1\% | 1.5\% | 1.3\% | 1.0\% | 0.7\% | 0.7\% | 0.6\% | 0.7\% |
| 633: Cork manufactures | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 634: Veneers, plywood, particle board, and other wood, worked, n.e.s. | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% |
| 635: Wood manufactures, n.e.s. | 0.5\% | 0.5\% | 0.6\% | 0.5\% | 0.8\% | 0.8\% | 1.1\% | 1.2\% | 0.9\% |
| 641: Paper and paperboard | 0.2\% | 0.2\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% |
| 642: Paper and paperboard, cut to size or shape, and articles of paper or paperboard | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.5\% | 0.6\% | 0.5\% | 0.5\% |
| 651: Textile yarn | 2.5\% | 2.6\% | 2.5\% | 1.4\% | 0.2\% | 0.3\% | 0.2\% | 0.0\% | 0.1\% |
| 652: Cotton fabrics, woven (not including narrow or special fabrics) | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 653: Fabrics, woven, of man-made textile materials (not including narrow or special fabrics) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 654: Other textile fabrics, woven | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.4\% | 0.4\% |
| 655: Knitted or crocheted fabrics (including tubular knit fabrics, n.e.s., pile fabrics and openwork fabrics), n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 656: Tulles, lace, embroidery, ribbons, trimmings and other smallwares | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 657: Special yarns, special textile fabrics and related products | 0.8\% | 0.7\% | 0.7\% | 1.0\% | 1.0\% | 0.7\% | 0.8\% | 0.6\% | 0.6\% |
| 658: Made-up articles, wholly or chiefly of textile materials, n.e.s. | 0.1\% | 0.1\% | 0.4\% | 0.5\% | 1.1\% | 1.1\% | 1.1\% | 1.2\% | 1.2\% |
| 659: Floor coverings, etc. | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% |
| 661: Lime, cement, and fabricated construction materials (except glass and clay materials) | 0.1\% | 0.9\% | 0.8\% | 0.7\% | 0.1\% | 0.3\% | 0.4\% | 0.3\% | 0.2\% |
| 662: Clay construction materials and refractory construction materials | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.3\% | 0.3\% |
| 663: Mineral manufactures, n.e.s. | 0.2\% | 0.2\% | 0.1\% | 0.2\% | 0.7\% | 0.7\% | 0.7\% | 0.6\% | 0.6\% |
| 664: Glass | 0.0\% | 0.1\% | 0.5\% | 0.3\% | 0.1\% | 0.3\% | 0.5\% | 0.5\% | 0.6\% |
| 665: Glassware | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 666: Pottery | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 667: Pearls and precious or semiprecious stones, unworked or worked | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 671: Pig-iron, spiegeleisen, sponge iron, iron or steel granules and powders and ferro-alloys | 30.7\% | 30.1\% | 33.1\% | 32.0\% | 7.3\% | 15.9\% | 9.8\% | 13.4\% | 17.0\% |
| 672: Ingots and other primary forms, of iron or steel; semi-finished products of iron or steel | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 673: Flat-rolled products of iron or non-alloy steel, not clad, plated or coated | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% |
| 674: Flat-rolled products of iron or non-alloy steel, clad, plated or coated | 1.4\% | 1.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% |
| 675: Flat-rolled products of alloy steel | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 676: Iron and steel bars, rods, angles, shapes and sections (including sheet piling) | 0.2\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.3\% | 0.1\% |
| 677: Rails or railway track construction material, of iron or steel | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 678: Wire of iron or steel | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% |
| 679: Tubes, pipes and hollow profiles, and tube or pipe fittings, of iron or steel | 2.6\% | 3.2\% | 3.9\% | 3.8\% | 4.8\% | 5.1\% | 6.2\% | 5.0\% | 5.2\% |
| 681: Silver, platinum and other metals of the platinum group | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 682: Copper | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 683: Nickel | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 684: Aluminium | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
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| 685: Lead | 0.2\% | 0.3\% | 0.2\% | 0.7\% | 0.2\% | 0.5\% | 0.5\% | 0.4\% | 0.6\% |
| 686: Zinc | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 687: Tin | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 689: Miscellaneous non-ferrous base metals employed in metallurgy, and cermets | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 691: Structures and parts of structures, n.e.s., of iron, steel or aluminium | 0.8\% | 0.5\% | 1.3\% | 3.0\% | 13.5\% | 1.5\% | 2.7\% | 2.6\% | 3.0\% |
| 692: Metal containers for storage or transport | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 693: Wire products (excluding insulated electrical wiring) and fencing grills | 0.3\% | 0.2\% | 0.3\% | 0.1\% | 0.3\% | 0.2\% | 0.6\% | 1.0\% | 0.9\% |
| 694: Nails, screws, nuts, bolts, rivets and the like, of iron, steel, copper or aluminium | 0.2\% | 0.2\% | 0.2\% | 0.3\% | 0.3\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| 695: Tools for use in the hand or in machines | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.4\% |
| 696: Cutlery | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 697: Household equipment of base metal, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 699: Manufactures of base metal, n.e.s. | 0.3\% | 0.3\% | 0.3\% | 0.4\% | 0.7\% | 0.7\% | 1.2\% | 1.1\% | 1.5\% |
| 711: Steam or other vapour-generating boilers, superheated water boilers, and auxiliary plant for use therewith; parts thereof | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 712: Steam turbines and other vapour turbines and parts thereof, n.e.s. | 1.8\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 713: Internal combustion piston engines and parts thereof, n.e.s. | 0.9\% | 1.2\% | 1.2\% | 0.7\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% |
| 714: Engines and motors, non-electric (other than those of groups 712, 713 and 718); parts, n.e.s., of these engines and motors | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 716: Rotating electric plant and parts thereof, n.e.s. | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 718: Power-generating machinery and parts thereof, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 721: Agricultural machinery (excluding tractors) and parts thereof | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% |
| 722: Tractors (other than those of headings 744.14 and 744.15) | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.2\% |
| 723: Civil engineering and contractors' plant and equipment; parts thereof | 0.4\% | 0.3\% | 0.3\% | 0.3\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.2\% |
| 724: Textile and leather machinery and parts thereof, n.e.s. | 0.2\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 725: Paper mill and pulp mill machinery, paper-cutting machines and other machinery for the manufacture of paper articles; parts thereof | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 726: Printing and bookbinding machinery and parts thereof | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 727: Food-processing machines (excluding domestic); parts thereof | 0.2\% | 0.1\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 728: Other machinery and equipment specialized for particular industries; parts thereof, n.e.s. | 0.5\% | 0.0\% | 0.2\% | 0.2\% | 0.3\% | 0.2\% | 0.2\% | 0.2\% | 0.1\% |
| 731: Machine tools working by removing metal or other material | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% |
| 733: Machine tools for working metal, sintered metal carbides or cermets, without removing material | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.0\% |
| 735: Parts, n.e.s., and accessories suitable for use solely or principally with the machines falling within groups 731 and 733 (including work or tool holders, self-opening die-heads, dividing heads and other special attachments for machine tools); tool holder | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 737: Metalworking machinery (other than machine tools) and parts thereof, n.e.s. | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 741: Heating and cooling equipment and parts thereof, n.e.s. | 0.2\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 742: Pumps for liquids, whether or not fitted with a measuring device; liquid elevators; parts for such pumps and liquid elevators | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


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| 743: Pumps (other than pumps for liquids), air or other gas compressors and fans; ventilating or recycling hoods incorporating a fan, whether or not fitted with filters; centrifuges; filtering or purifying apparatus; parts thereof | 0.1\% | 0.2\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.4\% |
| 744: Mechanical handling equipment and parts thereof, n.e.s. | 0.2\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.3\% | 0.2\% | 0.2\% |
| 745: Non-electrical machinery, tools and mechanical apparatus and parts thereof, n.e.s. | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% |
| 746: Ball- or roller bearings | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 747: Taps, cocks, valves and similar appliances for pipes, boiler shells, tanks, vats or the like, including pressure-reducing valves and thermostatically controlled valves | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 748: Transmission shafts (including camshafts and crankshafts) and cranks; bearing housings and plain shaft bearings; gears and gearing; ball or roller screws; gearboxes and other speed changers (including torque converters); flywheels and pulleys | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 749: Non-electric parts and accessories of machinery, n.e.s. | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 751: Office machines | 0.1\% | 0.0\% | 0.1\% | 0.8\% | 0.3\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% |
| 752: Automatic data-processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, n.e.s. | 0.0\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% |
| 759: Parts and accessories (other than covers, carrying cases and the like) suitable for use solely or principally with machines falling withing groups 751 and 752 | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 761: Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 762: Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 763: Sound recording or reproducing apparatus; video recording or reproducing apparatus; whether or not incorporating a video tuner | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 764: Telecommunications equipment, n.e.s., and parts, n.e.s., and accessories of apparatus falling within division 76 | 0.0\% | 0.3\% | 0.1\% | 0.2\% | 0.2\% | 0.1\% | 0.3\% | 0.8\% | 1.3\% |
| 771: Electric power machinery (other than rotating electric plant of group 716) and parts thereof | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.0\% |
| 772: Electrical apparatus for switching or protecting electrical circuits or for making connections to or in electrical circuits (e.g., switches, relays, fuses, lightning arresters, voltage limiters, surge suppressors, plugs and sockets, lamp-holders and j | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 0.1\% |
| 773: Equipment for distributing electricity, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 774: Electrodiagnostic apparatus for medical, surgical, dental or veterinary purposes, and radiological apparatus | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 775: Household-type electrical and non-electrical equipment, n.e.s. | 0.1\% | 0.0\% | 0.1\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.2\% | 0.3\% |
| 776: Thermionic, cold cathode or photo-cathode valves and tubes (e.g., vacuum or vapour or gas-filled valves and tubes, mercury arc rectifying valves and tubes, cathode-ray tubes, television camera tubes); diodes, transistors and similar semiconductor devices | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.0\% |
| 778: Electrical machinery and apparatus, n.e.s. | 0.7\% | 1.1\% | 0.8\% | 0.4\% | 0.5\% | 0.6\% | 0.4\% | 0.7\% | 0.3\% |
| 781: Motor cars and other motor vehicles principally designed for the transport of persons (other than motor vehicles for the transport of ten or more persons, including the driver), including station-wagons and racing cars | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.2\% | 0.3\% |
| 782: Motor vehicles for the transport of goods and special-purpose motor vehicles | 0.0\% | 0.1\% | 0.2\% | 0.2\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% |
| 783: Road motor vehicles, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 784: Parts and accessories of the motor vehicles of groups 722, 781, 782 and 783 | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.3\% | 0.4\% | 0.4\% |
| 785: Motor cycles (including mopeds) and cycles, motorized and non-motorized; invalid carriages | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


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| 786: Trailers and semi-trailers; other vehicles, not mechanically-propelled; specially designed and equipped transport containers | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 791: Railway vehicles (including hovertrains) and associated equipment | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 792: Aircraft and associated equipment; spacecraft (including satellites) and spacecraft launch vehicles; parts thereof | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 793: Ships, boats (including hovercraft) and floating structures | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 811: Prefabricated buildings | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.9\% | 0.5\% | 0.3\% | 0.6\% | 1.2\% |
| 812: Sanitary, plumbing and heating fixtures and fittings, n.e.s. | 0.4\% | 0.7\% | 0.4\% | 0.5\% | 0.7\% | 0.8\% | 0.8\% | 0.7\% | 0.5\% |
| 813: Lighting fixtures and fittings, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 821: Furniture and parts thereof; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings | 0.7\% | 0.6\% | 0.8\% | 1.1\% | 2.0\% | 2.0\% | 2.9\% | 4.2\% | 8.9\% |
| 831: Trunks, suitcases, vanity cases, executive cases, briefcases, school satches, spectacle cases, binocular cases, camera cases, musical instrument cases, gun cases, holsters and similar containers; travelling bags, insulated food or beverages bags, toilet bags, rucksacks, handbags | 0.0\% | 0.0\% | 0.2\% | 0.1\% | 0.4\% | 0.3\% | 0.3\% | 0.2\% | 0.0\% |
| 841: Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2) | 0.3\% | 0.5\% | 0.5\% | 0.5\% | 0.3\% | 0.1\% | 0.2\% | 0.1\% | 0.1\% |
| 842: Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted (other than those of subgroup 845.2) | 0.1\% | 0.0\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.3\% | 0.6\% |
| 843: Men's or boys' coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% |
| 844: Women's or girls' coats, capes, jackets, suits, trousers, shorts, shirts, dresses and skirts, underwear, nightwear and similar articles of textile fabrics, knitted or crocheted (other than those of subgroup 845.2) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 845: Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s. | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.2\% | 0.1\% |
| 846: Clothing accessories, of textile fabrics, whether or not knitted or crocheted (other than those for babies) | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 848: Articles of apparel and clothing accessories of other than textile fabrics; headgear of all materials | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% |
| 851: Footwear | 0.1\% | 0.2\% | 0.5\% | 0.9\% | 1.1\% | 0.7\% | 0.5\% | 0.6\% | 0.5\% |
| 871: Optical instruments and apparatus, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 872: Instruments and appliances, n.e.s., for medical, surgical, dental or veterinary purposes | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 873: Meters and counters, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 874: Measuring, checking, analysing and controlling instruments and apparatus, n.e.s. | 0.1\% | 0.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% |
| 881: Photographic apparatus and equipment, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 882: Photographic and cinematographic supplies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 883: Cinematographic film, exposed and developed, whether or not incorporating soundtrack or consisting only of soundtrack | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 884: Optical goods, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 885: Watches and clocks | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.1\% | 0.2\% | 0.1\% |
| 891: Arms and ammunition | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| 892: Printed matter | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 893: Articles, n.e.s., of plastics | 1.1\% | 1.9\% | 1.1\% | 2.9\% | 4.8\% | 5.3\% | 7.3\% | 8.7\% | 8.0\% |
| 894: Baby carriages, toys, games and sporting goods | 0.1\% | 0.1\% | 0.1\% | 0.0\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% | 0.1\% |
| 895: Office and stationery supplies, n.e.s. | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 1 7}$ | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 896: Works of art, collectors' pieces and antiques | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| 897: Jewellery, goldsmiths' and silversmiths' wares, and other articles of precious or semiprecious materials, n.e.s. | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| 898: Musical instruments and parts and accessories thereof; records, tapes and other sound or similar recordings (excluding <br> goods of groups 763 and 883) | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ |
| 899: Miscellaneous manufactured articles, n.e.s. | $0.1 \%$ | $0.2 \%$ | $0.1 \%$ | $0.2 \%$ | $0.2 \%$ | $0.2 \%$ | $0.3 \%$ | $0.2 \%$ | $0.2 \%$ |
| 911: Postal packages not classified according to kind | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| 931: Special transactions and commodities not classified according to kind | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| 961: Coin (other than gold coin), not being legal tender | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |
| 971: Gold, non-monetary (excluding gold ores and concentrates) | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | 0.00 | $0.0 \%$ | $0.0 \%$ |
| 972: | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $1.6 \%$ | $0.0 \%$ | $1.0 \%$ | $0.8 \%$ | $0.8 \%$ | $0.4 \%$ |
| 999: unknown | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.1 \%$ | $0.1 \%$ | $0.1 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

Annex E: Allocation of exports in SITC 3-digit product groups to ISIC 3-digit industries

| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 1 | 12 | 78.6\% |
| 1 | 151 | 21.4\% |
| 11 | 151 | 100.0\% |
| 12 | 12 | 9.1\% |
| 12 | 151 | 90.9\% |
| 16 | 151 | 100.0\% |
| 17 | 151 | 100.0\% |
| 22 | 152 | 100.0\% |
| 23 | 152 | 100.0\% |
| 24 | 152 | 100.0\% |
| 25 | 12 | 25.0\% |
| 25 | 154 | 75.0\% |
| 34 | 50 | 38.1\% |
| 34 | 151 | 61.9\% |
| 35 | 151 | 100.0\% |
| 36 | 50 | 50.0\% |
| 36 | 151 | 50.0\% |
| 37 | 151 | 100.0\% |
| 41 | 11 | 100.0\% |
| 42 | 11 | 25.0\% |
| 42 | 153 | 75.0\% |
| 43 | 11 | 100.0\% |
| 44 | 11 | 100.0\% |
| 45 | 11 | 100.0\% |
| 46 | 153 | 100.0\% |
| 47 | 153 | 100.0\% |
| 48 | 153 | 54.5\% |
| 48 | 154 | 36.4\% |
| 48 | 155 | 9.1\% |
| 54 | 11 | 85.2\% |
| 54 | 151 | 14.8\% |
| 56 | 151 | 80.0\% |
| 56 | 153 | 20.0\% |
| 57 | 11 | 100.0\% |
| 58 | 151 | 100.0\% |
| 59 | 151 | 100.0\% |
| 61 | 12 | 7.1\% |
| 61 | 152 | 7.1\% |
| 61 | 153 | 35.7\% |
| 61 | 154 | 50.0\% |
| 62 | 154 | 100.0\% |
| 71 | 11 | 16.7\% |
| 71 | 154 | 83.3\% |
| 72 | 11 | 20.0\% |
| 72 | 154 | 80.0\% |
| 73 | 154 | 100.0\% |
| 74 | 11 | 50.0\% |
| 74 | 154 | 50.0\% |
| 75 | 11 | 100.0\% |
| 81 | 11 | 18.8\% |
| 81 | 151 | 68.8\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 81 | 153 | 12.5\% |
| 91 | 151 | 100.0\% |
| 98 | 12 | 6.3\% |
| 98 | 154 | 93.8\% |
| 111 | 155 | 100.0\% |
| 112 | 155 | 100.0\% |
| 121 | 11 | 100.0\% |
| 122 | 160 | 100.0\% |
| 211 | 12 | 12.5\% |
| 211 | 151 | 87.5\% |
| 212 | 12 | 100.0\% |
| 222 | 11 | 100.0\% |
| 223 | 11 | 83.3\% |
| 223 | 151 | 16.7\% |
| 231 | 11 | 80.0\% |
| 231 | 20 | 20.0\% |
| 232 | 241 | 90.0\% |
| 232 | 251 | 10.0\% |
| 244 | 20 | 33.3\% |
| 244 | 202 | 66.7\% |
| 245 | 20 | 50.0\% |
| 245 | 241 | 50.0\% |
| 246 | 201 | 100.0\% |
| 247 | 20 | 75.0\% |
| 247 | 201 | 25.0\% |
| 248 | 201 | 100.0\% |
| 251 | 210 | 100.0\% |
| 261 | 12 | 33.3\% |
| 261 | 171 | 66.7\% |
| 263 | 11 | 33.3\% |
| 263 | 151 | 33.3\% |
| 263 | 171 | 33.3\% |
| 264 | 11 | 50.0\% |
| 264 | 171 | 50.0\% |
| 265 | 11 | 46.2\% |
| 265 | 171 | 53.8\% |
| 266 | 171 | 33.3\% |
| 266 | 243 | 66.7\% |
| 267 | 171 | 33.3\% |
| 267 | 243 | 66.7\% |
| 268 | 12 | 36.4\% |
| 268 | 151 | 9.1\% |
| 268 | 171 | 54.5\% |
| 269 | 369 | 100.0\% |
| 272 | 142 | 60.0\% |
| 272 | 241 | 40.0\% |
| 273 | 141 | 88.9\% |
| 273 | 269 | 11.1\% |
| 274 | 142 | 75.0\% |
| 274 | 241 | 25.0\% |
| 277 | 142 | 60.0\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 277 | 369 | 40.0\% |
| 278 | 111 | 4.2\% |
| 278 | 141 | 20.8\% |
| 278 | 142 | 75.0\% |
| 281 | 131 | 66.7\% |
| 281 | 241 | 33.3\% |
| 283 | 132 | 33.3\% |
| 283 | 272 | 66.7\% |
| 284 | 132 | 33.3\% |
| 284 | 272 | 66.7\% |
| 285 | 132 | 50.0\% |
| 285 | 272 | 50.0\% |
| 286 | 120 | 100.0\% |
| 287 | 132 | 100.0\% |
| 289 | 132 | 100.0\% |
| 291 | 12 | 20.0\% |
| 291 | 50 | 40.0\% |
| 291 | 151 | 20.0\% |
| 291 | 930 | 20.0\% |
| 292 | 11 | 44.0\% |
| 292 | 20 | 52.0\% |
| 292 | 50 | 4.0\% |
| 321 | 101 | 100.0\% |
| 322 | 101 | 25.0\% |
| 322 | 102 | 50.0\% |
| 322 | 103 | 25.0\% |
| 325 | 231 | 100.0\% |
| 333 | 111 | 100.0\% |
| 334 | 232 | 100.0\% |
| 335 | 231 | 8.3\% |
| 335 | 232 | 33.3\% |
| 335 | 241 | 50.0\% |
| 335 | 269 | 8.3\% |
| 342 | 232 | 100.0\% |
| 343 | 111 | 100.0\% |
| 344 | 232 | 100.0\% |
| 345 | 402 | 100.0\% |
| 351 | 401 | 100.0\% |
| 411 | 151 | 80.0\% |
| 411 | 171 | 20.0\% |
| 421 | 151 | 87.5\% |
| 421 | 153 | 12.5\% |
| 422 | 151 | 100.0\% |
| 431 | 12 | 14.3\% |
| 431 | 151 | 57.1\% |
| 431 | 241 | 14.3\% |
| 431 | 242 | 14.3\% |
| 511 | 241 | 100.0\% |
| 512 | 155 | 10.0\% |
| 512 | 241 | 85.0\% |
| 512 | 242 | 5.0\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 513 | 241 | 95.2\% |
| 513 | 242 | 4.8\% |
| 514 | 241 | 77.3\% |
| 514 | 242 | 22.7\% |
| 515 | 241 | 66.7\% |
| 515 | 242 | 33.3\% |
| 516 | 241 | 95.0\% |
| 516 | 242 | 5.0\% |
| 522 | 241 | 97.3\% |
| 522 | 269 | 2.7\% |
| 523 | 241 | 100.0\% |
| 524 | 241 | 100.0\% |
| 525 | 233 | 57.1\% |
| 525 | 241 | 28.6\% |
| 525 | 401 | 14.3\% |
| 531 | 241 | 100.0\% |
| 532 | 241 | 100.0\% |
| 533 | 241 | 42.1\% |
| 533 | 242 | 57.9\% |
| 541 | 242 | 100.0\% |
| 542 | 242 | 100.0\% |
| 551 | 242 | 100.0\% |
| 553 | 242 | 100.0\% |
| 554 | 242 | 100.0\% |
| 562 | 241 | 100.0\% |
| 571 | 241 | 100.0\% |
| 572 | 241 | 100.0\% |
| 573 | 241 | 100.0\% |
| 574 | 241 | 100.0\% |
| 575 | 241 | 100.0\% |
| 581 | 252 | 100.0\% |
| 582 | 252 | 100.0\% |
| 583 | 252 | 100.0\% |
| 591 | 242 | 100.0\% |
| 592 | 152 | 6.7\% |
| 592 | 153 | 53.3\% |
| 592 | 242 | 40.0\% |
| 593 | 242 | 100.0\% |
| 597 | 242 | 100.0\% |
| 598 | 241 | 17.9\% |
| 598 | 242 | 75.0\% |
| 598 | 269 | 7.1\% |
| 611 | 191 | 100.0\% |
| 612 | 191 | 100.0\% |
| 613 | 182 | 100.0\% |
| 621 | 251 | 100.0\% |
| 625 | 251 | 100.0\% |
| 629 | 251 | 100.0\% |
| 633 | 202 | 100.0\% |
| 634 | 20 | 6.7\% |
| 634 | 201 | 6.7\% |
| 634 | 202 | 86.7\% |
| 635 | 202 | 100.0\% |
| 641 | 210 | 100.0\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 642 | 210 | 77.8\% |
| 642 | 222 | 22.2\% |
| 651 | 171 | 71.4\% |
| 651 | 172 | 2.0\% |
| 651 | 243 | 24.5\% |
| 651 | 261 | 2.0\% |
| 652 | 171 | 100.0\% |
| 653 | 171 | 100.0\% |
| 654 | 171 | 95.2\% |
| 654 | 261 | 4.8\% |
| 655 | 173 | 100.0\% |
| 656 | 172 | 100.0\% |
| 657 | 172 | 84.0\% |
| 657 | 181 | 8.0\% |
| 657 | 210 | 4.0\% |
| 657 | 251 | 4.0\% |
| 658 | 172 | 100.0\% |
| 659 | 172 | 85.7\% |
| 659 | 210 | 7.1\% |
| 659 | 369 | 7.1\% |
| 661 | 269 | 100.0\% |
| 662 | 269 | 100.0\% |
| 663 | 269 | 100.0\% |
| 664 | 261 | 100.0\% |
| 665 | 261 | 100.0\% |
| 666 | 269 | 100.0\% |
| 667 | 50 | 18.2\% |
| 667 | 142 | 27.3\% |
| 667 | 241 | 18.2\% |
| 667 | 369 | 36.4\% |
| 671 | 271 | 100.0\% |
| 672 | 271 | 100.0\% |
| 673 | 271 | 100.0\% |
| 674 | 271 | 100.0\% |
| 675 | 271 | 100.0\% |
| 676 | 271 | 100.0\% |
| 677 | 271 | 100.0\% |
| 678 | 271 | 100.0\% |
| 679 | 271 | 100.0\% |
| 681 | 272 | 100.0\% |
| 682 | 272 | 100.0\% |
| 683 | 272 | 100.0\% |
| 684 | 272 | 100.0\% |
| 685 | 272 | 100.0\% |
| 686 | 272 | 100.0\% |
| 687 | 272 | 100.0\% |
| 689 | 272 | 100.0\% |
| 691 | 281 | 100.0\% |
| 692 | 281 | 66.7\% |
| 692 | 289 | 33.3\% |
| 693 | 289 | 100.0\% |
| 694 | 289 | 100.0\% |
| 695 | 289 | 100.0\% |
| 696 | 289 | 100.0\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 697 | 289 | 69.2\% |
| 697 | 293 | 30.8\% |
| 699 | 272 | 23.3\% |
| 699 | 289 | 76.7\% |
| 711 | 281 | 100.0\% |
| 712 | 291 | 100.0\% |
| 713 | 291 | 41.7\% |
| 713 | 341 | 25.0\% |
| 713 | 343 | 16.7\% |
| 713 | 353 | 16.7\% |
| 714 | 291 | 33.3\% |
| 714 | 353 | 66.7\% |
| 716 | 311 | 100.0\% |
| 718 | 233 | 11.1\% |
| 718 | 281 | 22.2\% |
| 718 | 291 | 66.7\% |
| 721 | 292 | 100.0\% |
| 722 | 292 | 100.0\% |
| 723 | 291 | 4.5\% |
| 723 | 292 | 95.5\% |
| 724 | 292 | 100.0\% |
| 725 | 292 | 100.0\% |
| 726 | 222 | 7.1\% |
| 726 | 292 | 85.7\% |
| 726 | 300 | 7.1\% |
| 727 | 292 | 100.0\% |
| 728 | 292 | 100.0\% |
| 731 | 292 | 100.0\% |
| 733 | 292 | 100.0\% |
| 735 | 292 | 100.0\% |
| 737 | 292 | 100.0\% |
| 741 | 291 | 75.8\% |
| 741 | 292 | 15.2\% |
| 741 | 293 | 6.1\% |
| 741 | 331 | 3.0\% |
| 742 | 291 | 100.0\% |
| 743 | 291 | 80.0\% |
| 743 | 292 | 10.0\% |
| 743 | 293 | 10.0\% |
| 744 | 291 | 96.8\% |
| 744 | 292 | 3.2\% |
| 745 | 291 | 66.7\% |
| 745 | 292 | 28.6\% |
| 745 | 319 | 4.8\% |
| 746 | 291 | 100.0\% |
| 747 | 291 | 100.0\% |
| 748 | 291 | 100.0\% |
| 749 | 289 | 8.3\% |
| 749 | 291 | 16.7\% |
| 749 | 292 | 75.0\% |
| 751 | 300 | 100.0\% |
| 752 | 300 | 100.0\% |
| 759 | 300 | 100.0\% |
| 761 | 323 | 100.0\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 762 | 323 | 100.0\% |
| 763 | 322 | 12.5\% |
| 763 | 323 | 87.5\% |
| 764 | 32 | 4.8\% |
| 764 | 322 | 47.6\% |
| 764 | 323 | 42.9\% |
| 764 | 331 | 4.8\% |
| 771 | 311 | 100.0\% |
| 772 | 312 | 75.0\% |
| 772 | 321 | 25.0\% |
| 773 | 252 | 7.7\% |
| 773 | 261 | 7.7\% |
| 773 | 269 | 15.4\% |
| 773 | 313 | 46.2\% |
| 773 | 319 | 23.1\% |
| 774 | 331 | 100.0\% |
| 775 | 293 | 100.0\% |
| 776 | 321 | 100.0\% |
| 778 | 292 | 10.8\% |
| 778 | 314 | 10.8\% |
| 778 | 315 | 13.5\% |
| 778 | 319 | 40.5\% |
| 778 | 321 | 24.3\% |
| 781 | 341 | 100.0\% |
| 782 | 341 | 100.0\% |
| 783 | 341 | 100.0\% |
| 784 | 341 | 12.5\% |
| 784 | 343 | 87.5\% |
| 785 | 359 | 100.0\% |
| 786 | 292 | 12.5\% |
| 786 | 342 | 75.0\% |
| 786 | 359 | 12.5\% |

Source: author's calculations.

| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 791 | 352 | 100.0\% |
| 792 | 353 | 100.0\% |
| 793 | 351 | 100.0\% |
| 811 | 281 | 100.0\% |
| 812 | 269 | 33.3\% |
| 812 | 281 | 16.7\% |
| 812 | 293 | 50.0\% |
| 813 | 252 | 10.0\% |
| 813 | 261 | 10.0\% |
| 813 | 315 | 80.0\% |
| 821 | 172 | 8.7\% |
| 821 | 361 | 91.3\% |
| 831 | 191 | 100.0\% |
| 841 | 181 | 100.0\% |
| 842 | 181 | 100.0\% |
| 843 | 181 | 100.0\% |
| 844 | 181 | 100.0\% |
| 845 | 173 | 10.0\% |
| 845 | 181 | 90.0\% |
| 846 | 173 | 18.8\% |
| 846 | 173 | 18.8\% |
| 846 | 181 | 62.5\% |
| 848 | 181 | 56.3\% |
| 848 | 182 | 12.5\% |
| 848 | 251 | 12.5\% |
| 848 | 252 | 18.8\% |
| 851 | 192 | 100.0\% |
| 871 | 331 | 15.4\% |
| 871 | 332 | 84.6\% |
| 872 | 331 | 100.0\% |
| 873 | 331 | 100.0\% |
| 874 | 331 | 97.3\% |


| SITC | ISIC | \%-share of exports |
| :---: | :---: | :---: |
| 874 | 369 | 2.7\% |
| 881 | 315 | 6.7\% |
| 881 | 332 | 93.3\% |
| 882 | 242 | 66.7\% |
| 882 | 749 | 33.3\% |
| 883 | 921 | 100.0\% |
| 884 | 332 | 100.0\% |
| 885 | 191 | 3.8\% |
| 885 | 333 | 96.2\% |
| 891 | 289 | 6.7\% |
| 891 | 292 | 93.3\% |
| 892 | 210 | 5.6\% |
| 892 | 221 | 83.3\% |
| 892 | 222 | 5.6\% |
| 892 | 742 | 5.6\% |
| 893 | 252 | 100.0\% |
| 894 | 369 | 100.0\% |
| 895 | 242 | 11.1\% |
| 895 | 289 | 22.2\% |
| 895 | 369 | 66.7\% |
| 896 | 921 | 100.0\% |
| 897 | 369 | 100.0\% |
| 898 | 221 | 27.3\% |
| 898 | 242 | 22.7\% |
| 898 | 315 | 4.5\% |
| 898 | 369 | 45.5\% |
| 899 | 172 | 2.4\% |
| 899 | 202 | 9.8\% |
| 899 | 331 | 14.6\% |
| 899 | 369 | 73.2\% |
| 961 | 369 | 100.0\% |
| 971 | 272 | 100.0\% |

## Annex F: Export specialisation by industries

| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{gathered} \text { \# LQ } \\ >1.5 \end{gathered}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A Agriculture, hunting and forestry |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 011 Growing of crops; market gardening; horticulture | 0.209 | 0.169 | 0.210 | 0.203 | 0.264 | 0.247 | 0.295 | 0.299 | 0.322 | 0 | 0.071 | 0.833 | 1 |
| 012 Farming of animals | 0.226 | 0.199 | 0.241 | 0.249 | 0.210 | 0.222 | 0.214 | 0.210 | 0.196 | 0 | -0.013 | 0.064 | 0 |
| 013 Growing of crops combined with farming of animals (mixed farming) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 014 Agricultural and animal husbandry service activities, except veterinary activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 015 Hunting, trapping and game propagation including related service activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| O20 Forestry, logging and related service activities | 0.405 | 0.336 | 0.496 | 0.740 | 1.004 | 1.054 | 1.244 | 1.821 | 2.845 | 2 | 0.242 | 0.805 | 1 |
| B Fishing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 050 Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing | 0.027 | 0.026 | 0.078 | 0.036 | 0.056 | 0.066 | 0.077 | 0.131 | 0.138 | 0 | 0.187 | 0.728 | 1 |
| C Mining and quarrying |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 101 Mining and agglomeration of hard coal | 1.439 | 1.690 | 0.000 | 1.804 | 3.471 | 7.989 | 1.879 | 2.718 | 2.345 | 7 | 0.107 | -0.011 | 0 |
| 102 Mining and agglomeration of lignite | 1.563 | 2.803 | 0.000 | 2.988 | 5.549 | 14.400 | 4.306 | 4.729 | 3.376 | 8 | 0.125 | 0.012 | 0 |
| 103 Extraction and agglomeration of peat | 1.563 | 2.803 | 0.000 | 2.988 | 5.549 | 14.400 | 4.306 | 4.729 | 3.376 | 8 | 0.125 | 0.012 | 0 |
| 111 Extraction of crude petroleum and natural gas | 0.007 | 0.077 | 0.134 | 0.181 | 0.206 | 0.372 | 0.859 | 0.176 | 0.013 | 0 | 0.146 | -0.010 | 0 |
| 112 Service activities incidental to oil and gas extraction excluding surveying |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 120 Mining of uranium and thorium ores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 131 Mining of iron ores | 0.004 | 0.000 | 0.020 | 0.069 | 0.000 | 0.000 | 12.722 | 0.217 | 0.965 | 1 | 0.320 | -0.023 | 0 |
| 132 Mining of non-ferrous metal ores, except uranium and thorium ores | 7.359 | 5.591 | 9.609 | 9.385 | 10.811 | 5.933 | 10.240 | 10.609 | 8.147 | 9 | 0.031 | 0.014 | 0 |
| 141 Quarrying of stone, sand and clay | 0.306 | 1.931 | 1.618 | 0.993 | 0.410 | 0.947 | 0.993 | 0.500 | 0.281 | 2 | -0.107 | 0.083 | 0 |
| 142 Mining and quarrying n.e.c. | 0.135 | 2.972 | 2.978 | 2.970 | 2.732 | 4.293 | 7.610 | 4.778 | 1.338 | 7 | 0.105 | 0.085 | 0 |
| D Manufacturing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 151 Production, processing and preservation of meat, fish, fruit, vegetables, oils and fats | 0.391 | 0.328 | 0.388 | 0.371 | 0.342 | 0.346 | 0.423 | 0.494 | 0.458 | 0 | 0.034 | 0.360 | 0 |
| 152 Manufacture of dairy products | 0.062 | 0.032 | 0.020 | 0.016 | 0.022 | 0.053 | 0.058 | 0.051 | 0.050 | 0 | 0.048 | -0.040 | 0 |
| 153 Manufacture of grain mill products, starches and starch products, and prepared animal feeds | 1.428 | 1.548 | 2.258 | 1.754 | 1.308 | 0.996 | 1.158 | 1.243 | 0.832 | 3 | -0.075 | 0.367 | 0 |
| 154 Manufacture of other food products | 0.200 | 0.082 | 0.195 | 0.226 | 0.323 | 0.430 | 0.392 | 0.309 | 0.329 | 0 | 0.109 | 0.498 | 0 |
| 155 Manufacture of beverages | 2.130 | 3.247 | 5.069 | 5.493 | 4.847 | 6.713 | 7.410 | 9.213 | 10.868 | 9 | 0.160 | 0.928 | 1 |
| 160 Manufacture of tobacco products | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0 |  |  | 0 |
| 171 Spinning, weaving and finishing of textiles | 2.271 | 2.969 | 3.603 | 3.747 | 3.287 | 1.944 | 0.324 | 0.615 | 0.569 | 6 | -0.173 | 0.490 | 0 |
| 172 Manufacture of other textiles | 1.626 | 1.656 | 1.526 | 1.412 | 1.769 | 2.369 | 3.498 | 3.305 | 3.138 | 8 | 0.117 | 0.706 | 1 |
| 173 Manufacture of knitted and crocheted fabrics and articles | 0.011 | 0.019 | 0.032 | 0.023 | 0.032 | 0.033 | 0.036 | 0.057 | 0.190 | 0 | 0.293 | 0.428 | 0 |


| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{gathered} \text { \# LQ } \\ >1.5 \end{gathered}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 181 Manufacture of wearing apparel, except fur apparel | 0.049 | 0.093 | 0.114 | 0.170 | 0.183 | 0.211 | 0.143 | 0.126 | 0.195 | 0 | 0.092 | 0.382 | 0 |
| 182 Dressing and dyeing of fur; manufacture of articles of fur | 0.014 | 0.008 | 0.006 | 0.013 | 0.010 | 0.018 | 0.017 | 0.019 | 0.005 | 0 | 0.036 | -0.088 | 0 |
| 191 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness | 0.015 | 0.003 | 0.349 | 0.169 | 0.338 | 0.128 | 0.768 | 0.492 | 0.550 | 0 | 0.235 | 0.544 | 0 |
| 192 Manufacture of footwear | 0.008 | 0.015 | 0.027 | 0.126 | 0.316 | 0.587 | 0.625 | 0.432 | 0.319 | 0 | 0.254 | 0.555 | 0 |
| 201 Sawmilling and planing of wood | 0.030 | 0.021 | 0.052 | 0.063 | 0.075 | 0.104 | 0.157 | 0.159 | 0.147 | 0 | 0.210 | 0.901 | 1 |
| 202 Manufacture of products of wood, cork, straw and plaiting materials | 0.744 | 0.915 | 1.053 | 1.121 | 1.225 | 1.113 | 1.547 | 1.403 | 1.785 | 2 | 0.091 | 0.862 | 1 |
| 210 Manufacture of paper and paper products | 0.265 | 0.425 | 0.587 | 0.551 | 0.754 | 0.775 | 1.204 | 1.309 | 1.291 | 0 | 0.172 | 0.928 | 1 |
| 221 Publishing | 1.874 | 0.366 | 0.420 | 0.541 | 0.361 | 0.738 | 0.610 | 0.441 | 0.762 | 1 | -0.089 | -0.001 | 0 |
| 222 Printing and service activities related to printing | 0.326 | 0.245 | 0.165 | 0.179 | 0.251 | 0.598 | 0.733 | 1.141 | 1.179 | 0 | 0.238 | 0.717 | 1 |
| 223 Reproduction of recorded media |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 231 Manufacture of coke oven products | 0.008 | 0.004 | 0.016 | 0.008 | 0.003 | 0.057 | 0.027 | 0.045 | 0.062 | 0 | 0.269 | 0.594 | 0 |
| 232 Manufacture of refined petroleum products | 0.002 | 0.001 | 0.002 | 0.003 | 0.001 | 0.011 | 0.007 | 0.013 | 0.029 | 0 | 0.355 | 0.585 | 0 |
| 233 Processing of nuclear fuel | 0.017 | 0.002 | 0.021 | 0.003 | 0.000 | 0.006 | 0.006 | 0.000 | 0.002 | 0 | -0.249 | 0.229 | 0 |
| 241 Manufacture of basic chemicals | 0.058 | 0.081 | 0.064 | 0.074 | 0.088 | 0.118 | 0.207 | 0.201 | 0.171 | 0 | 0.161 | 0.733 | 1 |
| 242 Manufacture of other chemical products | 0.117 | 0.073 | 0.095 | 0.090 | 0.101 | 0.115 | 0.168 | 0.182 | 0.249 | 0 | 0.129 | 0.641 | 0 |
| 243 Manufacture of man-made fibres | 4.462 | 5.572 | 6.334 | 6.980 | 6.536 | 4.200 | 0.619 | 1.084 | 0.774 | 6 | -0.174 | 0.494 | 0 |
| 251 Manufacture of rubber products | 6.957 | 9.628 | 9.534 | 7.832 | 4.893 | 4.200 | 3.327 | 2.222 | 2.249 | 9 | -0.168 | 0.760 | 0 |
| 252 Manufacture of plastics products | 0.609 | 0.698 | 1.199 | 1.761 | 1.432 | 2.631 | 3.709 | 3.557 | 4.599 | 5 | 0.226 | 0.919 | 1 |
| 261 Manufacture of glass and glass products | 0.101 | 0.140 | 0.139 | 0.269 | 0.933 | 0.559 | 0.245 | 0.592 | 0.843 | 0 | 0.189 | 0.409 | 0 |
| 269 Manufacture of non-metallic mineral products n.e.c. | 0.469 | 0.614 | 0.342 | 0.860 | 0.746 | 0.798 | 0.802 | 0.911 | 1.047 | 0 | 0.092 | 0.658 | 0 |
| 271 Manufacture of basic iron and steel | 9.726 | 10.199 | 9.179 | 10.280 | 14.167 | 13.157 | 4.139 | 7.565 | 5.691 | 9 | -0.056 | 0.081 | 0 |
| 272 Manufacture of basic precious and non-ferrous metals | 0.129 | 0.074 | 0.117 | 0.130 | 0.099 | 0.193 | 0.187 | 0.223 | 0.249 | 0 | 0.121 | 0.713 | 1 |
| 273 Casting of metals |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 281 Manufacture of structural metal products, tanks, reservoirs and steam generators | 0.358 | 0.585 | 0.954 | 0.600 | 1.173 | 2.602 | 11.977 | 1.404 | 2.079 | 3 | 0.230 | 0.055 | 0 |
| 289 Manufacture of other fabricated metal products; metal working service activities | 0.422 | 0.398 | 0.622 | 0.494 | 0.578 | 0.543 | 0.913 | 0.840 | 1.428 | 0 | 0.144 | 0.658 | 0 |
| 291 Manufacture of general purpose machinery | 0.181 | 1.035 | 0.914 | 0.275 | 0.255 | 0.213 | 0.174 | 0.147 | 0.142 | 0 | -0.196 | 0.234 | 0 |
| 292 Manufacture of special purpose machinery | 0.855 | 0.637 | 0.742 | 0.340 | 0.539 | 0.423 | 0.428 | 0.330 | 0.514 | 0 | -0.088 | 0.443 | 0 |
| 293 Manufacture of domestic appliances n.e.c. | 0.420 | 0.276 | 0.418 | 0.637 | 0.482 | 0.644 | 0.809 | 0.722 | 0.819 | 0 | 0.107 | 0.765 | 1 |
| 300 Manufacture of office, accounting and computing machinery | 0.683 | 0.511 | 0.217 | 0.131 | 0.333 | 1.434 | 0.461 | 0.237 | 0.241 | 0 | -0.028 | -0.133 | 0 |
| 311 Manufacture of electric motors, generators and transformers | 0.184 | 0.180 | 0.098 | 0.066 | 0.151 | 0.098 | 0.243 | 0.101 | 0.093 | 0 | -0.035 | -0.087 | 0 |
| 312 Manufacture of electricity distribution and control apparatus | 0.018 | 0.005 | 0.117 | 0.020 | 0.021 | 0.024 | 0.015 | 0.015 | 0.046 | 0 | -0.031 | -0.136 | 0 |
| 313 Manufacture of insulated wire and cable | 0.017 | 0.020 | 0.010 | 0.012 | 0.008 | 0.006 | 0.020 | 0.009 | 0.014 | 0 | -0.035 | -0.080 | 0 |
| 314 Manufacture of accumulators, primary cells and primary batteries | 0.589 | 0.708 | 1.420 | 1.891 | 1.285 | 0.704 | 0.860 | 0.843 | 0.600 | 1 | -0.031 | -0.102 | 0 |
| 315 Manufacture of electric lamps and lighting equipment | 0.366 | 0.605 | 0.423 | 0.558 | 0.437 | 0.335 | 0.355 | 0.467 | 0.390 | 0 | -0.026 | -0.016 | 0 |


| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{gathered} \text { \# LQ } \\ >1.5 \end{gathered}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 319 Manufacture of other electrical equipment n.e.c. | 0.258 | 0.344 | 0.528 | 0.691 | 0.442 | 0.240 | 0.305 | 0.294 | 0.224 | 0 | -0.054 | -0.005 | 0 |
| 321 Manufacture of electronic valves and tubes and other electronic components | 0.134 | 0.111 | 0.341 | 0.416 | 0.295 | 0.142 | 0.170 | 0.180 | 0.314 | 0 | 0.022 | -0.123 | 0 |
| 322 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy | 0.303 | 0.268 | 0.120 | 0.809 | 0.165 | 0.515 | 0.607 | 0.355 | 0.753 | 0 | 0.106 | 0.143 | 0 |
| 323 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods | 0.219 | 0.170 | 0.085 | 0.403 | 0.129 | 0.244 | 0.289 | 0.213 | 0.429 | 0 | 0.084 | 0.120 | 0 |
| 331 Manufacture of medical appliances and instruments and appliances for measuring, checking, testing, navigating and other purposes, except optical instruments | 0.383 | 0.412 | 0.267 | 0.290 | 0.189 | 0.209 | 0.209 | 0.153 | 0.264 | 0 | -0.092 | 0.519 | 0 |
| 332 Manufacture of optical instruments and photographic equipment | 0.049 | 0.090 | 0.031 | 0.012 | 0.073 | 0.032 | 0.269 | 0.037 | 0.490 | 0 | 0.291 | 0.275 | 0 |
| 333 Manufacture of watches and clocks | 0.000 | 0.022 | 0.000 | 0.007 | 0.029 | 0.026 | 0.703 | 1.144 | 1.725 | 1 | 0.480 | 0.647 | 0 |
| 341 Manufacture of motor vehicles | 0.478 | 0.354 | 0.360 | 0.375 | 0.414 | 0.425 | 0.228 | 0.120 | 0.302 | 0 | -0.080 | 0.379 | 0 |
| 342 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers | 0.088 | 0.270 | 0.113 | 0.043 | 0.144 | 0.070 | 0.131 | 0.039 | 0.059 | 0 | -0.117 | 0.114 | 0 |
| 343 Manufacture of parts and accessories for motor vehicles and their engines | 0.298 | 0.064 | 0.279 | 0.362 | 0.343 | 0.290 | 0.123 | 0.192 | 0.268 | 0 | -0.008 | -0.139 | 0 |
| 351 Building and repairing of ships and boats | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.004 | 0.001 | 0.002 | 0 | 0.397 | 0.223 | 0 |
| 352 Manufacture of railway and tramway locomotives and rolling stock | 0.109 | 0.691 | 0.275 | 0.000 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0 | -0.423 | 0.267 | 0 |
| 353 Manufacture of aircraft and spacecraft | 0.002 | 0.116 | 0.724 | 0.705 | 0.945 | 0.594 | 0.113 | 0.056 | 0.013 | 0 | -0.067 | -0.106 | 0 |
| 359 Manufacture of transport equipment n.e.c. | 0.011 | 0.047 | 0.165 | 0.006 | 0.111 | 0.132 | 0.083 | 0.009 | 0.041 | 0 | -0.009 | -0.142 | 0 |
| 361 Manufacture of furniture | 0.209 | 0.174 | 0.251 | 0.223 | 0.281 | 0.399 | 0.705 | 0.828 | 1.216 | 0 | 0.248 | 0.770 | 1 |
| 369 Manufacturing n.e.c. | 1.279 | 0.349 | 0.468 | 0.631 | 0.421 | 0.376 | 0.430 | 0.420 | 0.516 | 0 | -0.097 | 0.145 | 0 |
| 371 Recycling of metal waste and scrap |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 372 Recycling of non-metal waste and scrap |  |  |  |  |  |  |  |  |  |  |  |  |  |
| E Electricity, gas and water supply |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 401 Production, collection and distribution of electricity | 3.325 | 3.198 | 3.474 | 5.267 | 3.684 | 3.781 | 8.403 | 6.444 | 4.763 | 9 | 0.085 | 0.298 | 0 |
| 402 Manufacture of gas; distribution of gaseous fuels through mains | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0 |  |  | 0 |
| 403 Steam and hot water supply |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 410 Collection, purification and distribution of water |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F Construction |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 451 Site preparation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 452 Building of complete constructions or parts thereof; civil engineering |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 453 Building installation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 454 Building completion |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 455 Renting of construction or demolition equipment with operator |  |  |  |  |  |  |  |  |  |  |  |  |  |
| G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{array}{r} \text { \# LQ } \\ >1.5 \end{array}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 501 Sale of motor vehicles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 502 Maintenance and repair of motor vehicles |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 503 Sale of motor vehicle parts and accessories |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 504 Sale, maintenance and repair of motorcycles and related parts and accessories |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 505 Retail sale of automotive fuel |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 511 Wholesale on a fee or contract basis |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 512 Wholesale of agricultural raw materials, live animals, food, beverages and tobacco |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 513 Wholesale of household goods |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 514 Wholesale of non-agricultural intermediate products, waste and scrap |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 515 Wholesale of machinery, equipment and supplies |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 519 Other wholesale |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 521 Non-specialized retail trade in stores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 522 Retail sale of food, beverages and tobacco in specialized stores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 523 Other retail trade of new goods in specialized stores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 524 Retail sale of second-hand goods in stores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 525 Retail trade not in stores |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 526 Repair of personal and household goods |  |  |  |  |  |  |  |  |  |  |  |  |  |
| H Hotels and restaurants |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 551 Hotels; camping sites and other provision of short-stay accommodation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 552 Restaurants, bars and canteens |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 Transport, storage and communications |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 601 Transport via railways |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 602 Other land transport |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 603 Transport via pipelines |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 611 Sea and coastal water transport |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 612 Inland water transport |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 621 Scheduled air transport |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 622 Non-scheduled air transport |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 630 Supporting and auxiliary transport activities; activities of travel agencies |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 641 Post and courier activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 642 Telecommunications |  |  |  |  |  |  |  |  |  |  |  |  |  |
| J Financial intermediation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 651 Monetary intermediation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 659 Other financial intermediation |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{array}{r} \text { \# LQ } \\ \gg 1.5 \end{array}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 660 Insurance and pension funding, except compulsory social security |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 671 Activities auxiliary to financial intermediation, except insurance and pension funding |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 672 Activities auxiliary to insurance and pension funding |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K Real estate, renting and business activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 701 Real estate activities with own or leased property |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 702 Real estate activities on a fee or contract basis |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 711 Renting of transport equipment |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 712 Renting of other machinery and equipment |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 713 Renting of personal and household goods n.e.c. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 721 Hardware consultancy |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 722 Software consultancy and supply |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 723 Data processing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 724 Data base activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 725 Maintenance and repair of office, accounting and computing machinery |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 729 Other computer related activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 731 Research and experimental development on natural sciences and engineering (NSE) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 732 Research and experimental development on social sciences and humanities (SSH) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 741 Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 742 Architectural, engineering and other technical activities | 0.457 | 0.266 | 0.259 | 0.400 | 0.216 | 0.606 | 0.468 | 0.271 | 0.603 | 0 | 0.052 | 0.015 | 0 |
| 743 Advertising |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 749 Business activities n.e.c. | 0.055 | 0.148 | 0.215 | 0.387 | 0.066 | 0.639 | 0.881 | 0.165 | 0.000 | 0 | 0.083 | -0.089 | 0 |
| L Public administration and defence; compulsory social security |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 751 Administration of the State and the economic and social policy of the community |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 752 Provision of services to the community as a whole |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 753 Compulsory social security activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M Education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 801 Primary education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 802 Secondary education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 803 Higher education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 809 Adult and other education |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N Health and social work |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 851 Human health activities |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Code Description | $\begin{array}{r} \text { LQ } \\ 2012 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2013 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2014 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2015 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2016 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2017 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2018 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2019 \end{array}$ | $\begin{array}{r} \text { LQ } \\ 2020 \end{array}$ | $\begin{gathered} \text { \# LQ } \\ >1.5 \end{gathered}$ | Trend (slope I average) | Adjusted R2 | Trend positive and significant |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 852 Veterinary activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 853 Social work activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 Other community, social and personal service activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 900 Sewage and refuse disposal, sanitation and similar activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 911 Activities of business, employers and professional organizations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 912 Activities of trade unions |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 919 Activities of other membership organizations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 921 Motion picture, radio, television and other entertainment activities | 0.026 | 0.036 | 0.000 | 0.000 | 0.044 | 0.204 | 0.257 | 0.240 | 0.629 | 0 | 0.391 | 0.652 | 0 |
| 922 News agency activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 923 Library, archives, museums and other cultural activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 924 Sporting and other recreational activities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 930 Other service activities | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0 |  |  | 0 |
| P Private households with employed persons |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 950 Private households with employed persons |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Q Extra-territorial organizations and bodies |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 990 Extra-territorial organizations and bodies |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Annex G: Web of Science publications: \%-shares by category

|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Economics Policy | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 1.2\% | 0.7\% | 1.6\% | 0.9\% |
| Agricultural Engineering | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Agriculture Dairy Animal Science | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 2.1\% | 1.2\% | 0.7\% | 0.6\% | 0.3\% |
| Agriculture Multidisciplinary | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.8\% | 0.0\% | 1.6\% | 0.0\% |
| Agronomy | 0.0\% | 25.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 1.4\% | 0.0\% | 0.3\% |
| Allergy | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Anatomy Morphology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 1.4\% | 1.3\% | 0.6\% |
| Anaesthesiology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% |
| Anthropology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.8\% | 0.3\% | 0.3\% | 0.0\% |
| Architecture | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 2.1\% | 2.0\% | 0.3\% | 0.0\% | 0.0\% |
| Area Studies | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.7\% | 1.6\% | 1.7\% | 0.9\% | 1.5\% |
| Art | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.0\% | 0.0\% |
| Automation Control Systems | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Behavioural Sciences | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Biochemical Research Methods | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Biochemistry Molecular Biology | 0.0\% | 0.0\% | 8.5\% | 2.2\% | 2.1\% | 1.2\% | 2.0\% | 2.5\% | 0.6\% |
| Biodiversity Conservation | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| Biology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% |
| Biophysics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Biotechnology Applied Microbiology | 50.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 1.2\% | 1.7\% | 0.3\% | 0.3\% |
| Business | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.8\% | 2.4\% | 0.9\% | 1.8\% |
| Business Finance | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.0\% | 0.6\% |
| Cardiac Cardiovascular Systems | 0.0\% | 0.0\% | 2.1\% | 4.3\% | 1.4\% | 2.0\% | 1.7\% | 0.9\% | 0.6\% |
| Cell Biology | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.4\% | 1.4\% | 0.0\% | 0.6\% |
| Cell Tissue Engineering | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Chemistry Analytical | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 1.2\% | 2.0\% | 0.9\% | 2.1\% |
| Chemistry Applied | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.6\% | 0.6\% |
| Chemistry Inorganic Nuclear | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.0\% | 0.3\% |
| Chemistry Medicinal | 0.0\% | 0.0\% | 2.1\% | 4.3\% | 0.7\% | 1.6\% | 0.3\% | 2.2\% | 1.2\% |
| Chemistry Multidisciplinary | 0.0\% | 0.0\% | 4.3\% | 5.4\% | 4.2\% | 2.7\% | 2.4\% | 2.8\% | 3.5\% |
| Chemistry Organic | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% |
| Chemistry Physical | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 2.1\% | 1.2\% | 1.0\% | 1.3\% | 3.5\% |
| Clinical Neurology | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.4\% | 1.0\% | 0.0\% | 0.0\% |
| Communication | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Computer Science Artificial Intelligence | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 2.0\% | 0.7\% | 0.0\% | 0.3\% |
| Computer Science Cybernetics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Computer Science Information Systems | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.3\% | 1.0\% | 0.9\% | 0.9\% |
| Computer Science Interdisciplinary Applications | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Computer Science Theory Methods | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 0.7\% | 0.0\% | 0.7\% | 0.6\% | 0.0\% |
| Construction Building Technology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| Criminology Penology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 0.0\% | 0.3\% | 0.9\% |
| Crystallography | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Cultural Studies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Dentistry Oral Surgery Medicine | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 3.5\% | 2.7\% | 3.8\% | 2.2\% | 0.9\% |
| Dermatology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.6\% | 0.0\% |
| Development Studies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% |
| Developmental Biology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Ecology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 1.2\% |
| Economics | 0.0\% | 0.0\% | 2.1\% | 2.2\% | 2.1\% | 4.3\% | 3.8\% | 5.1\% | 4.4\% |
| Education Educational Research | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.8\% | 1.7\% | 0.6\% | 3.5\% |
| Education Scientific Disciplines | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% |
| Electrochemistry | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 1.7\% | 0.3\% | 0.9\% |
| Emergency Medicine | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Endocrinology Metabolism | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 1.4\% | 0.8\% | 1.0\% | 1.3\% | 0.3\% |
| Energy Fuels | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.0\% | 0.7\% | 0.6\% | 0.9\% |
| Engineering Biomedical | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 0.0\% |
| Engineering Chemical | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 0.7\% | 0.6\% | 0.3\% |
| Engineering Civil | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 1.4\% | 0.8\% | 1.0\% | 0.9\% | 1.2\% |
| Engineering Electrical Electronic | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 2.8\% | 1.6\% | 3.1\% | 1.6\% | 0.6\% |
| Engineering Environmental | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.1\% | 0.8\% | 1.7\% | 3.5\% | 0.9\% |
| Engineering Geological | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Engineering Industrial | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% |
| Engineering Manufacturing | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Engineering Mechanical | 0.0\% | 25.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.7\% | 0.0\% | 0.0\% |
| Engineering Multidisciplinary | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.3\% | 0.9\% | 1.8\% |
| Entomology | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.7\% | 0.8\% | 0.3\% | 0.6\% | 0.9\% |
| Environmental Sciences | 0.0\% | 0.0\% | 14.9\% | 9.8\% | 14.8\% | 12.5\% | 7.5\% | 9.8\% | 11.1\% |
| Environmental Studies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.7\% | 0.0\% | 0.0\% |
| Ergonomics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Ethics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% |
| Ethnic Studies | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.6\% |
| Evolutionary Biology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Family Studies | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.6\% |
| Fisheries | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.3\% | 0.3\% |
| Folklore | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Food Science Technology | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 2.7\% | 1.7\% | 0.9\% | 1.2\% |
| Forestry | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| Gastroenterology Hepatology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.6\% | 0.0\% |
| Genetics Heredity | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 0.7\% | 0.4\% | 1.0\% | 0.0\% | 0.9\% |
| Geochemistry Geophysics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Geography | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.7\% | 0.8\% | 1.4\% | 0.3\% | 0.6\% |
| Geosciences Multidisciplinary | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 2.1\% | 0.8\% | 0.0\% | 0.6\% | 0.3\% |
| Geriatrics Gerontology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.3\% | 0.3\% | 0.3\% |
| Green Sustainable Science Technology | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 1.2\% | 1.4\% | 0.3\% | 0.6\% |
| Health Care Sciences Services | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 2.1\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| Health Policy Services | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.7\% | 0.3\% | 0.3\% |
| History | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.8\% | 1.4\% | 1.9\% | 0.6\% |
| Horticulture | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Hospitality Leisure Sport Tourism | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Humanities Multidisciplinary | 0.0\% | 0.0\% | 0.0\% | 4.3\% | 0.7\% | 1.2\% | 3.4\% | 2.2\% | 1.2\% |
| Immunology | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 1.7\% | 0.3\% | 0.3\% |
| Industrial Relations Labour | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Infectious Diseases | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 3.5\% | 2.3\% | 2.0\% | 2.2\% | 1.5\% |
| Information Science Library Science | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Instruments Instrumentation | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.8\% | 0.0\% | 0.0\% | 0.6\% |
| Integrative Complementary Medicine | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% |
| International Relations | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.7\% | 1.2\% | 0.7\% | 0.9\% | 0.9\% |
| Language Linguistics | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 0.3\% |
| Law | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 2.1\% | 0.4\% | 4.1\% | 2.5\% | 2.6\% |
| Limnology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Linguistics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.2\% | 0.0\% | 0.3\% | 0.6\% |
| Literary Reviews | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Literature | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.6\% | 0.0\% |
| Management | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.8\% | 1.0\% | 2.5\% | 1.8\% |
| Marine Freshwater Biology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.3\% | 0.3\% |
| Materials Science Biomaterials | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Materials Science Characterization Testing | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |


|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materials Science Coatings Films | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Materials Science Composites | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% |
| Materials Science Multidisciplinary | 0.0\% | 25.0\% | 2.1\% | 1.1\% | 0.7\% | 0.8\% | 0.7\% | 0.3\% | 2.9\% |
| Materials Science Paper Wood | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% |
| Mathematical Computational Biology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Mathematics | 0.0\% | 0.0\% | 8.5\% | 6.5\% | 4.9\% | 6.6\% | 5.1\% | 6.0\% | 5.9\% |
| Mathematics Applied | 0.0\% | 0.0\% | 10.6\% | 2.2\% | 2.1\% | 3.1\% | 1.4\% | 2.5\% | 2.9\% |
| Mathematics Interdisciplinary Applications | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% |
| Mechanics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% |
| Medical Informatics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Medical Laboratory Technology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% |
| Medicine General Internal | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 1.4\% | 3.5\% | 3.8\% | 3.5\% | 4.1\% |
| Medicine Legal | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% |
| Medicine Research Experimental | 0.0\% | 0.0\% | 2.1\% | 3.3\% | 2.1\% | 0.0\% | 3.8\% | 1.6\% | 1.5\% |
| Medieval Renaissance Studies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.3\% | 0.0\% |
| Metallurgy Metallurgical Engineering | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.9\% |
| Meteorology Atmospheric Sciences | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Microbiology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.8\% | 0.3\% | 1.3\% | 0.3\% |
| Mineralogy | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Mining Mineral Processing | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.6\% | 1.2\% |
| Multidisciplinary Sciences | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 3.5\% | 3.1\% | 2.0\% | 0.6\% | 2.9\% |
| Mycology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Nanoscience Nanotechnology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% |
| Neurosciences | 0.0\% | 0.0\% | 0.0\% | 2.2\% | 0.0\% | 0.8\% | 1.7\% | 0.9\% | 0.6\% |
| Nuclear Science Technology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.0\% | 0.0\% |
| Nursing | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Nutrition Dietetics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.6\% | 0.0\% | 0.9\% | 0.3\% |
| Obstetrics Gynaecology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.8\% | 1.4\% | 0.3\% | 0.6\% |
| Oncology | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 0.0\% | 0.4\% | 0.3\% | 0.6\% | 0.3\% |
| Ophthalmology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Optics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.6\% |
| Orthopaedics | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 0.0\% | 0.8\% | 0.0\% | 0.3\% | 0.3\% |
| Otorhinolaryngology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Parasitology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.8\% | 0.7\% | 0.3\% | 0.6\% |
| Pathology | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.3\% | 0.6\% | 0.0\% |
| Paediatrics | 50.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.7\% | 0.6\% | 1.2\% |
| Peripheral Vascular Disease | 0.0\% | 0.0\% | 4.3\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.0\% |
| Pharmacology Pharmacy | 0.0\% | 0.0\% | 2.1\% | 4.3\% | 1.4\% | 5.1\% | 2.0\% | 2.5\% | 2.1\% |
| Philosophy | 0.0\% | 25.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 1.7\% | 0.3\% | 0.9\% |
| Physics Applied | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.7\% | 0.0\% | 2.1\% |
| Physics Atomic Molecular Chemical | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 1.2\% |
| Physics Condensed Matter | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 0.0\% | 0.6\% |
| Physics Mathematical | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Physics Multidisciplinary | 0.0\% | 0.0\% | 0.0\% | 3.3\% | 4.2\% | 2.0\% | 1.0\% | 1.6\% | 1.5\% |
| Physiology | 0.0\% | 0.0\% | 6.4\% | 1.1\% | 0.0\% | 0.4\% | 0.7\% | 0.6\% | 0.6\% |
| Plant Sciences | 0.0\% | 0.0\% | 2.1\% | 2.2\% | 0.0\% | 0.8\% | 1.0\% | 0.0\% | 0.9\% |
| Political Science | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.7\% | 0.4\% | 1.0\% | 1.3\% | 1.2\% |
| Primary Health Care | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Psychiatry | 0.0\% | 25.0\% | 0.0\% | 1.1\% | 0.7\% | 0.8\% | 1.0\% | 3.5\% | 2.1\% |
| Psychology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Psychology Applied | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.6\% |
| Psychology Biological | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Psychology Clinical | 0.0\% | 25.0\% | 0.0\% | 1.1\% | 0.0\% | 0.4\% | 0.3\% | 1.3\% | 0.6\% |
| Psychology Developmental | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.0\% | 0.7\% | 1.6\% | 0.6\% |


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| Psychology Educational | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Psychology Experimental | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Psychology Multidisciplinary | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.4\% | 0.0\% | 0.9\% | 1.2\% |
| Psychology Psychoanalysis | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Psychology Social | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.9\% |
| Public Administration | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.3\% | 0.3\% | 1.2\% |
| Public Environmental Occupational Health | 0.0\% | 0.0\% | 4.3\% | 2.2\% | 4.9\% | 3.1\% | 1.0\% | 2.2\% | 4.1\% |
| Quantum Science Technology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.3\% |
| Radiology Nuclear Medicine Medical Imaging | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.3\% |
| Rehabilitation | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.0\% |
| Religion | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Remote Sensing | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% |
| Reproductive Biology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.4\% | 0.3\% | 0.0\% | 0.3\% |
| Respiratory System | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Rheumatology | 0.0\% | 0.0\% | 2.1\% | 1.1\% | 0.0\% | 0.4\% | 0.0\% | 0.6\% | 0.0\% |
| Social Issues | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% |
| Social Sciences Biomedical | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.3\% |
| Social Sciences Interdisciplinary | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 0.8\% | 0.3\% | 0.3\% | 0.3\% |
| Social Work | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.6\% | 0.6\% |
| Sociology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 1.2\% |
| Soil Science | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.4\% | 0.0\% | 0.0\% | 0.0\% |
| Spectroscopy | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% |
| Sport Sciences | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 3.5\% | 2.7\% | 1.0\% | 0.9\% | 0.9\% |
| Statistics Probability | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 1.4\% | 1.2\% | 0.3\% | 0.0\% | 0.3\% |
| Substance Abuse | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.6\% |
| Surgery | 0.0\% | 0.0\% | 4.3\% | 6.5\% | 2.1\% | 1.2\% | 0.7\% | 3.2\% | 0.9\% |
| Telecommunications | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.8\% | 1.4\% | 0.6\% | 0.0\% |
| Thermodynamics | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.7\% | 0.0\% | 0.0\% | 0.3\% | 0.9\% |
| Toxicology | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 1.4\% | 1.2\% | 1.0\% | 0.6\% | 0.3\% |
| Transplantation | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Transportation | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.8\% | 0.0\% | 0.6\% | 0.6\% |
| Transportation Science Technology | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Tropical Medicine | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.0\% | 0.4\% | 0.7\% | 0.3\% | 0.3\% |
| Urology Nephrology | 0.0\% | 0.0\% | 4.3\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.3\% | 0.6\% |
| Veterinary Sciences | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 2.8\% | 0.8\% | 1.0\% | 0.3\% | 2.6\% |
| Virology | 0.0\% | 0.0\% | 2.1\% | 0.0\% | 0.7\% | 0.0\% | 0.3\% | 0.0\% | 0.0\% |
| Water Resources | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 2.8\% | 0.8\% | 0.7\% | 0.0\% | 0.0\% |
| Women S Studies | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.0\% | 0.3\% | 0.0\% |
| Zoology | 0.0\% | 0.0\% | 0.0\% | 1.1\% | 0.7\% | 0.4\% | 0.7\% | 0.3\% | 0.3\% |

## List of abbreviations and definitions

EBOPS Extended Balance of Payments Services Classification
EU European Union
GDP Gross Domestic Product
IPC International Patent Classification
ISIC International Standard Industrial Classification of All Economic Activities
JRC Joint Research Centre
LQ Location Quotient
NACE Nomenclature générale des Activités économiques dans les Communautés Européennes
PPP Purchasing Power Parity
SITC Standard International Trade Classification

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## JRC Mission

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[^0]:    Data source: Kosovo Agency of Statistics

[^1]:    ${ }^{1}$ Emerging in this case only refers to the fact that these industries have been growing at above average rates. Emerging is not meant to reflect any kind of value statement as e.g. in the commonly used concept of "emerging economies".

[^2]:    2 Increasing the selection threshold to all least 5 out of the 6 criteria would reduce the number of industries with an emerging economic potential to 7 accounting for $1.1 \%$ of total employment and $0.6 \%$ of total turnover. Increasing the selection threshold to all 6 criteria would reduce the number of industries with an emerging economic potential to only 2 accounting for just above $0.0 \% \%$ of total employment and total turnover.

[^3]:    ${ }^{3}$ https://unstats.un.org/unsd/trade/sitcrev4.htm

[^4]:    ${ }^{4}$ https://www.enterprisesurveys.org/../documents/country-profiles/Kosovo-2013.pdf

[^5]:    ${ }^{5}$ https://www.enterprisesurveys.org/content/dam/enterprisesurvevs/documents/country/Kosovo-2019.pdf

[^6]:    $6 \quad$ Industries have a high share of enterprises with innovation activities if results are available for both Enterprise Surveys and if the average share of enterprises with innovation activities is higher than the average share for all industries for at least one Enterprise Survey.

[^7]:    7 https://unstats.un.org/unsd/trade/sitcrev4.htm

[^8]:    8 https://ec.europa.eu/eurostat/ramon

[^9]:    9 https://unstats.un.org/unsd/classifications/Econ/tables/|SIC/ISIC31 NACE11/ISIC31-NACE11.txt
    10 Using the NACE Rev 1.1. to NACE Rev. 2 correspondence table from Eurostat:
    https://ec.europa.eu/eurostat/documents/1965800/1978760/CORRESPONDENCETABLENACEREV.1.1-NACEREV.2.pdf/e8200936-c2f0-4202-8bda-99fbbfc422b4

[^10]:    11 https://www.elsevier.com/solutions/scopus

[^11]:    12 https://clarivate.com/webofsciencegroup/solutions/web-of-science/

[^12]:    ${ }^{13}$ ISIC 101 Mining and agglomeration of hard coal, ISIC 102 Mining and agglomeration of lignite, ISIC 103 Extraction and agglomeration of peat, ISIC 132 Mining of non-ferrous metal ores, except uranium and thorium ores, ISIC 142 Mining and quarrying n.e.c., ISIC 155 Manufacture of beverages, ISIC 172 Manufacture of other textiles, ISIC 251 Manufacture of rubber products, ISIC 271 Manufacture of basic iron and steel, ISIC 401 Production, collection and distribution of electricity
    ${ }^{14}$ ISIC 011 Growing of crops; market gardening; horticulture, ISIC 020 Forestry, logging and related service activities, ISIC 050 Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing, ISIC 201 Sawmilling and planning of wood, ISIC 202 Manufacture of products of wood, cork, straw and plaiting materials, ISIC 210 Manufacture of paper and paper products, ISIC 222 Printing and service activities related to printing, ISIC 241 Manufacture of basic chemicals, ISIC 252 Manufacture of plastics products, ISIC 272 Manufacture of basic precious and non-ferrous metals, ISIC 293 Manufacture of domestic appliances n.e.c., ISIC 361 Manufacture of furniture

[^13]:    15 https://ec.europa.eu/eurostat/cache/metadata/en/inn cis2 esms.htm
    16 https://www.oecd.org/science/oslo-manual-2018-9789264304604-en.htm

[^14]:    ${ }^{17}$ http://unstats.un.org/unsd/publication/Seriesm/seriesM 86Revle.pdf

