UNIVERSITY OF BELGRADE
Faculty of Economics

Report:

Assessment of the Economic Impact of the Creative Industries Sector on the economy of the Republic of Serbia

Report commissioned by:
National platform
Srbija stvara / Serbia Creates

November 01, 2022, Belgrade, Serbia

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Dear colleagues,

We would like to take this opportunity to thank you for your trust and perseverance in the process of implementing the Project and preparing the relevant Assessment, which concerns the assessment of the economic impact of the creative industries sector in the Republic of Serbia, in particular for the 2019 – 2021 period, and, as such, builds on the relevant report prepared for the 2014 – 2018 period.

Considering the sector's dynamics, the impact of COVID-19 on all parts of the economy including creative industries, and our institution's expertise, we believe that we have produced a serious document that will be useful to the Serbia Creates platform as an authoritative and methodologically grounded instrument, in further activities aimed at promoting the importance of the creative industries sector and the results it achieves.

The Science and Research Centre of the School of Economics (NICEF) was founded in 1974. To date, NICEF has implemented over 1,000 projects. With its long track record of carrying out basic and applied research, NICEF is fully capacitated to provide a quality and, in terms of fundamental characteristics (quality, deadlines and price), competitive implementation of consultancy projects in all segments of economics and business, innovation courses, company courses, consultancy services, advisory, etc.

In view of the above, we would like to take this opportunity to present to you the Final Report.

It was a pleasure working with you and we look forward to working with you on future projects.

Sincerely,

Igor Kovačević, PhD

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1 Executive Summary

The contribution of the creative industries to the Serbian economy in the 2019 – 2021 period was reviewed based on globally accepted economic indicators: gross value added (GVA), exports, number of business entities, employment characteristics and wages.

Real growth rates of Creative Industries GVA are extremely high in the observed period. While real GVA and real GDP of the Republic of Serbia dropped in 2021 relative to 2019 as a consequence of the pandemic, creative industries recorded real growth of as much as 30% according to the narrow definition and 1.1% according to the broad definition.

Total GVA generated according to the narrow definition for years 2019-2020-2021 is over RSD 437 billion, while, according to the broad definition, total GVA was over RSD 933 billion for these three years. There was marked Creative Industries GVA growth of 80% according to the narrow definition in 2020 relative to 2019, and 30% in 2021 relative to 2020. According to the broad definition, there was also marked GVA growth of 54.5% in 2020 relative to 2019, while in 2021 GVA increased by 1%. This points to the exceptional flexibility of this industry and to the ability to compensate for the effects of market rigidity caused by COVID-19 within a short amount of time.

In 2021, the relative share of the Creative Industries sector according to the broad definition was at the level of 5.8% of GDP, which was higher than the share of the financial sector and at almost the same level as the construction sector, but somewhat lower than the GDP contribution of the agriculture and real estate sectors (lower by 0.5-0.7 pp on average).

In 2021, the Creative Industries sector, according to the broad definition, generated 155,138 jobs, corresponding to 7% of the total employment in Serbia. In 2021, compared to 2016, employment in the observed sector increased by 37%, and by 14% relative to 2019. The average annual employment growth rate in the creative industries sector was 6.5% in the 2016–2021 period.

Computer programming activities have about 35 thousand employees in 2021, which accounts for 22.3% of Creative Industries employment according to the broad definition. Ranking second in terms of the number of employees are Engineering activities and related technical consultancy with about 18 thousand employees. Wired telecommunications activities account for 8.8% of employees, i.e. about 14 thousand. **Of the total number, according to the broad definition, 59% of employees are men, while 41% of employees are women.**

Viewed by education level, **the share of highly educated** employees (education levels 6, 7 and 8) increased in 2021 relative to 2019, i.e. **from 34.5% to 40.5% according to the narrow definition,** and from 31.3% to 37.4% according to the broad definition.

Viewed by age bracket, as many as **60% of employees according to the broad definition and 64% according to the narrow definition are in the 25-45 age group**, which is significantly higher than the overall employment average (50% of employees fall under that age bracket).

According to the broad definition, the total number of business entities was 55,755 in 2021, an increase of 11% relative to 2019. This figure represents 13-15% of the total number of entrepreneurs and companies in Serbia, i.e. it implies that, on average, one in seven entrepreneurs and one in six companies in Serbia belong to the Creative Industries sector.

Viewed by the structure of the creative industries sector, entrepreneurs make up 72% according to the broad definition and 75% according to the narrow definition, while the rest are companies, 90% of which fall under the category of micro companies.

The concentration of companies and entrepreneurs, viewed according to both the narrow and broad definition, is highest in the Belgrade region, followed by the region of Vojvodina, and then by the Šumadija and West Serbia region. Unlike companies, the number of which increased year after year, entrepreneurs recorded an evident drop in number in some regions during 2020, possibly as a consequence of the pandemic, which entrepreneurs could not cope as well with as companies, leading to the dissolution of some of them. However, the fact that the number of entrepreneurs in 2021 exceeded the 2019 figure speaks to the rapid recovery of entrepreneurs in this sector.

The total value of exports for 2019, 2020 and 2021, i.e. for all three years combined is over USD 1.7 billion. The share of the Creative Industries in total Serbian exports was between 2% and 3% in the observed period (over USD 648 million, i.e. 2.5% in 2021). Total exports of the Creative Industries realized significant nominal growth of 14% in 2021 relative to 2019.

2 Introduction

The aim of this research is to examine the impact of the Creative Industries on the economy of the Republic of Serbia. The observed period is 2019–2021, encompassing both the period prior to and during the first two years of the COVID-19 pandemic. The impact of the Creative Industries is assessed based on standard economic indicators relevant to the economy, such as value added, exports, employment and wages. The research structure is as follows: the introductory section contains a brief review of defining the scope of the Creative Industries, after which a methodology for calculating the gross value added at the activity level is presented, as well as methodological notes relating to employment characteristics, followed by the presentation of research findings.

In analysing the creative industries sector, the challenge lies in the existence of differing approaches and definitions regarding which industries make up this sector. In the relevant literature, four basic models stand out, which classify in different ways the industries belonging to this sector: the UK DCMS model, the WIPO copyright model, the Symbolic texts model, and the Concentric circles model.[1] Considering that no model is superior to the others, the choice of model depends on analysis needs. In this research, the same method also used in previously conducted analyses of creative industries in the Republic of Serbia (2017; 2019) will be applied, in order to ensure comparability and consistency. The applied method differentiates between the narrow and broad approach to defining the creative industries sector.

The narrow approach is based on the UK DCMS model that includes 30 activities in the creative industries, which are grouped into 9 groups and presented in the table below.

[1] For more details about the stated models: Analiza ekonomskih efekata sektora kreativnih industrija na ekonomiju Srbije (Assessment of the economic impact of the creative industries sector on the economy of the Republic of Serbia) (2019), pp. 8–10.

Table 1. Creative industries according to the narrow definition

Group of creative industries	Activity	Activity code
Advertising and marketing	Public relations and communication activities	70.21
	Advertising agencies	73.11
	Media representation	73.12
Architecture	Architectural activities	71.11
Crafts	Manufacturing of jewellery and related articles	32.12
Design	Specialised design activities	74.10
Film, television, video, radio and photography	Motion picture, video and television programme production activities	59.11
	Motion picture, video and television programme post-production activities	59.12
	Motion picture, video and television programme distribution activities	59.13
	Motion picture projection activities	59.14
	Radio broadcasting	60.10
	Television programming and broadcasting activities	60.20
	Photographic activities	74.20
IT, software and computer services	Publishing of computer games	58.21
	Other software publishing	58.29
	Computer programming activities	62.01
	Computer consultancy activities	62.02
Publishing	Book publishing	58.11
	Publishing of directories and mailing lists	58.12
	Publishing of newspapers	58.13
	Publishing of journals and periodicals	58.14
	Other publishing activities	58.19
	Translation and interpretation activities	74.30
Museums, galleries and libraries	Library and archive activities	91.01
	Museum activities	91.02
Music and performing and visual arts	Sound recording and music publishing activities	59.20
	Performing arts	90.01
	Support activities to performing arts	90.02
	Artistic creation	90.03
	Operation of arts facilities	90.04

Source: DCMS (2016), Table 3, p. 11; World Bank (2017)

The broad approach is based on the definition of creative industries applied in the report on the economic contribution of creative industries to GDP and employment in the European Union, which was published in 2014 (TERA Consultants, 2014). This approach encompasses 52 activities, which are presented in Table 2.

Table 2. Creative industries according to the broad definition

Activity	Activity code
Printing of newspapers	18.11
Other printing	18.12
Pre-press and pre-media services	18.13
Binding and related services	18.14
Reproduction of recorded media	18.20
Retail sale of computers, peripheral units and software in specialised stores	47.41
Retail sale of telecommunications equipment in specialised stores	47.42
Retail sale of books in specialised stores	47.61
Retail sale of newspapers and stationery in specialised stores	47.62
Book publishing	58.11
Publishing of directories and mailing lists	58.12
Publishing of newspapers	58.13
Publishing of journals and periodicals	58.14
Other publishing activities	58.19
Publishing of computer games	58.21
Other software publishing	58.29
Motion picture, video and television programme production activities	59.11
Motion picture, video and television programme post-production activities	59.12
Motion picture, video and television programme distribution activities	59.13
Motion picture projection activities	59.14
Sound recording and music publishing activities	59.20
Radio broadcasting	60.10
Television programming and broadcasting activities	60.20
Wired telecommunications activities	61.10
Wireless telecommunications activities	61.20
Satellite telecommunications activities	61.30
Other telecommunications activities	61.90
Computer programming activities	62.01
Computer consultancy activities	62.02
Computer facilities management activities	62.03
Other information technology and computer service activities	62.09
Data processing, hosting and related activities	63.11
Web portals	63.12
News agency activities	63.91
Other information service activities n.e.c.	63.99
Architectural activities	71.11
Engineering activities and related technical consultancy	71.12
Technical testing and analysis	71.20
Advertising agencies activities	73.11
Media representation	73.12
Market research and public opinion polling	73.20
Specialised design activities	74.10
Photographic activities	74.20
Translation and interpretation activities	74.30
Performing arts	90.01
Support activities to performing arts	90.02
Artistic creation	90.03
Operation of arts facilities	90.04
Library and archive activities	91.01
Museum activities	91.02
Operation of historical sites and buildings and similar visitor attractions	91.03
Repair of computers and peripheral equipment	95.11

Source: World Bank (2017)

3 Research methodology

The value of the Creative Industries can be viewed through various economic parameters, among which gross value added is most commonly used. Gross value added (GVA) is a macroeconomic aggregate that represents the difference between the total value of production (output) and intermediate consumption. Intermediate consumption includes costs of inputs, productive and non-productive services, but excludes employee wages and depreciation. Gross domestic product (GDP) according to the production approach is calculated by adding taxes on products to GVA, and deducting subsidies on products.

The GVA of the Creative Industries as a share of GDP and total GVA shows the relative importance of the Creative Industries, i.e. the extent of its contribution to the economy of the Republic of Serbia. In addition, we can also compare those shares with shares of other activities. Thus, we can look at the importance of the Creative Industries compared to the relative importance of, for example, construction, agriculture, trade, etc.

The translation of financial accounting principles to national account concepts will be explained below, according to the European System of Accounts (ESA) methodology. The main data sources are balance sheet, income statement, cash flow statement, statement of changes in equity and statistical report. The statistical report is the most important data source. Table 3 presents ADP (automated data processing) categories used to calculate production and intermediate consumption.

Table 3. ADP categories required for calculating gross value added at company level in 2019 and 2020

ADP code	Item	Sign
1002	Revenues from the sale of goods	+
1009	Revenues from the sale of products and services	+
1020	Revenues from own use of outputs and goods	+
1021	Increase in the value of stocks of finished products, work in progress and services in progress	+
1022	Decrease in the value of stocks of finished products, work in progress and services in progress	-
1017	Other operating income	+
1019	Costs of goods sold	-
9078	Land rental income	-
	Value of production = 1002+1009+1020+1021-1022+1017-1019-9078	
1023	Cost of materials	+
1024	Costs of fuel and energy	+
1026	Costs of production services	+
1029	Non-production costs	+
9056	Costs of remuneration to individuals (gross) according to contracts	+
9057	Costs of remuneration to the manager	+
9065	Tax costs	-
9066	Contribution costs	-
9060	Land rental costs	-
	Intermediate consumption =1023+1024+1026+1029+9056+9057-9065-9066-9060	

Since changes were introduced in balance sheets and accompanying ADP categories in 2021, the formula for calculating GVA differs from the previously the previously stated and is presented in Table 4.

Table 4. ADP categories required for calculating gross value added at company level in 2021

ADP code	Item	Sign
1002	Revenues from the sale of goods	+
1005	Revenues from the sale of products and services	+
1011	Other operating income	+
1014	Costs of goods sold	-
9109	Land rental income	-
1008	Revenues from own use of outputs and goods	+
1009	Increase in the value of finished products and work in progress	+
1010	Decrease in the value of finished goods and work in progress	-
9106	Income from premiums, subsidies, grants, reimbursements, compensations and tax refunds	-
9107	Income from conditional grants	-
	Value of production = 1002+1005+1011-1014-9109+1008+1009-1010-9106-9107	
1015	Cost of materials, fuel and energy	+
1022	Costs of production services	+
1024	Non-production costs	+
9090	Land rental costs	-
9095	Costs of taxes and fees	-
9096	Contribution costs	-
9082	Costs of remuneration to individuals (gross) according to contracts	+
9084	Costs of remuneration to the manager and members of Management Board and Supervisory Board	+
9085	Costs of recruiting employees through agencies and youth employment agencies	+
	Intermediate consumption =1015+1022+1024-9090-9095-9096+9082+9084+9085	

A methodological explanation can be found in the SORS (The Statistical Office of the Republic of Serbia) publication titled Methodology of Calculating Gross Domestic Product, Sources and Methods (*Metodologija obračuna bruto domaćeg proizvoda, izvori i metodi*, 2018); however, the methodology contains only the main categories that are factored into the calculation. During consultations with the SORS, more precise explanations were given as to which ADP categories are required for the calculation.[2] The above calculation is for non-financial corporations, i.e. companies. It is not possible to calculate company-level GVA for state-owned enterprises, nor combined GVA for all state-owned enterprises at the level of a particular activity. It is only possible to calculate GVA for the entire institutional government sector. It is the opinion of the Report's author that any deviation from the official SORS methodology, which is aligned with ESA 2010 (the EU methodology), would provide a distorted picture.

When calculating macroeconomic aggregates for entrepreneurs and the self-employed, researchers and statisticians encounter numerous problems that make it impossible to accurately calculate basic aggregates. The reasons include the high frequency of closure and foundation of entrepreneurial stores, frequent changes in terms of core business and employment, as well as the high level of the shadow economy. Also, entrepreneurs and the self-employed usually have a low response rate in surveys and the quality of data on entrepreneurs and the self-employed is very low. An additional problem is the fact that the personal property of the entrepreneur and the business assets of the entrepreneur are not separated. In addition to the aforementioned problems, perhaps the biggest limitation is the lack of double-entry bookkeeping and detailed financial reporting obligations. The SORS estimates GVA for entrepreneurs by applying a combination of different methods, with

[2] Authors are grateful to the SORS for its technical assistance.

numerous adjustments. The calculation of these values, however, is only available at two-digit activity level.[3]

Based on consultations with the SORS, the only way to calculate GVA for entrepreneurs at four-digit activity level, which is necessary in this case, is by applying the following approximation:

- GVA for entrepreneurs at two-digit activity level is divided by the sum of the number of entrepreneurs and the number of persons employed by entrepreneurs in the specified activity. This gives us GVA per employee for entrepreneurs at two-digit level for each activity. We calculate the value of GVA for entrepreneurs at four-digit activity level when we multiply this ratio by the sum of the number of entrepreneurs and the number of employees of entrepreneurs in each activity at four-digit level. Although this approximation is quite general, this is the only method that can be applied based on the available data.

Another indicator of the importance of the creative industries sector is employment. In order to analyse employment in the Creative Industries, we need data on the number of employees at four-digit activity level. In order to obtain more detailed insight into the characteristics of employees, we need data about the number of employees by gender, age and education level at four-digit activity level. A survey of registered employment is based on a combination of data from the Central Register of Compulsory Social Insurance (CRCSI) and the Statistical Business Register. The term ’employee’ comprises persons who have a formal legal employment contract, i.e. who entered into employment with an employer for a definite or indefinite period of time, and persons working without a labour contract, on the basis of a service contract or on the basis of a contract on performing temporary or occasional jobs, self-employed persons or persons who are founders of companies or entrepreneurial stores. Data are presented by the core activity of the business entity instead of by activity of business units, which is in line with the registered employment research methodology. Therefore, the data are not comparable with official statistical data published as part of the research mentioned. It is not possible to provide data by activity of local units which entail matching activities and personal characteristics of employees, because the activities of local units are obtained from research on local units, that is, the number of employees from CRCSI is distributed according to the so-called pure activity according to the structures obtained from the data from the mentioned research. Annual average number of employees is average for all 12 months. Due to rounding and calculating the average number of employees using the arithmetic mean it is possible to have slight difference in totals at different levels of aggregation. There is also a similar limitation that applies to wages. The data are presented by the core activity of the business entity instead of by activity of local units, which is in line with the wage research methodology. Therefore, the data are not comparable with official data published as part of the mentioned research. In accordance with the Labour Law and Personal Income Tax Law, wages include all payments on which taxes and contributions are paid.

[3] See SORS, (2018), Methodology of Calculating Gross Domestic Product, Sources and Methods“ (*RZS, (2018), Metodologija obračuna bruto domaćeg proizvoda, izvori i metodi*) for methodology. See SORS, Entreprenuers in the Republic of Serbia (*RSZ, Preduzetnici u Republici Srbiji*), workng document, for data on GVA and employee numbers for entreprenuers by year for the analysed period.

4 Research findings

4.1 Creative Industries GVA and GDP share

Table 5 shows the trend of the gross value added of private sector of the creative industry in the 2019–2021 period. Table 5 presents the development of private sector Creative Industries GVA in the 2019–2021 period.

Table 5. GVA of Private sector of the Creative Industry, 2019–2021

	2019	2020	2021	Real growth rate 2020/2019	Real growth rate 2021/2020
Nominal GVA of Creative Industries, **narrow** definition in mil. RSD	79,345	151,961	205,893	88.5	30.2
Nominal GVA of Creative Industries, **broad** definition in mil. RSD	221,184	347,051	365,049	54.5	1.1
GVA share, narrow def.	1.8%	3.3%	3.9%	/	/
GVA share, broad def.	4.9%	7.6%	7.0%	/	/
Nominal GVA total for Serbia in mil. RSD	4,484,953	4,572,056	5,223,205	-0.6	7.4
GDP share, narrow def.	1.5%	2.8%	3.3%	/	/
GDP share, broad def.	4.1%	6.3%	5.8%	/	/
Nominal GDP of Serbia in mil. RSD	5,421,851	5,502,216	6,268,714	-0.9	7.5
Year-on-year consumer price index	*101.8*	*101.6*	*104.1*	/	/

Notes: GVA and GDP in 2021 are totals by quarter for the entire economy. GVA and GDP data have been revised for 2019, while figures for 2020 and 2021 are preliminary data. Based on the Business Registers Agency (BRA) data, we are unable to calculate the real GVA of the Creative Industries sector. Therefore, we present nominal values, and we calculate real growth by dividing the nominal growth index by the consumer price index. Source: Data for the entire economy and the Consumer Price Index (for calculating real rates) are taken from the SORS website. Creative Industries data are based on the authors' calculations using SORS and BRA data.

Real growth rates of Creative Industries GVA are extremely high in the observed period. While real GVA and real GDP of the Republic of Serbia dropped in 2020 relative to 2019 as a consequence of the pandemic, creative industries recorded real growth of as many as 88.5% according to the narrow and 54.5% according to the broad definition. Serbia's real GVA increased by 7.4% in 2021 relative to 2020, while the real GVA of the Creative Industries rose significantly according to the narrow definition (30.2%), and slight growth was recorded according to the broad definition. Nominal growth according to the broad definition was somewhat higher than the inflation rate (5.2% compared to 4.1%), resulting in lower real growth of 1% in 2021 relative to 2020.

The share of Creative Industries according to the narrow definition in GVA was 1.8% in 2019, this share was increased in the observed period to 3.9% in 2021. The share of Creative Industries in GVA according to the broad definition also increased in 2020 relative to 2019, but decreased somewhat in 2021 relative to 2020. **Creative Industries GVA accounted for 7.6% of total gross value added in 2020 and 7% in 2021.**

It should be noted that, viewed according to both the narrow and broad definition, Creative Industries GVA as a share of GDP grew continuously (with the exception of 2021), and that a positive growth trend is also expected in the coming period. In 2021 relative to 2016, the share of creative industries according to the narrow definition in GDP increased from 1.6% to 3.3%, and from 4.6% to 5.8% according to the broad definition. We see that, in 2020, the relative share of the Creative Industries sector was higher than the share of the financial sector, at virtually the same level as the share of the construction and agriculture sector, and just 1 percentage point (pp) lower than the contribution of the real estate sector. Furthermore, in 2021, the relative share of the Creative Industries according to the broad definition dropped by only 0.5 pp, landing at 5.8% of GDP, which is still higher than the share of the financial sector, at virtually the same level as the construction sector, but somewhat lower than the GDP contribution of the agriculture and real estate sectors.

Table 6. GVA as a share of GDP by activity, 2019–2021

	2019	2020	2021
B-E	19.9%	19.4%	19.3%
G-I	16.5%	15.8%	17.2%
O-Q	11.1%	12.1%	11.6%
A	6.0%	6.3%	6.5%
L	6.9%	7.0%	6.4%
M-N	6.1%	6.0%	6.0%
F	5.7%	5.4%	6.0%
KI broad	**4.1%**	**6.3%nec**	**5.8%**
J	4.9%	5.4%	5.1%
KI narrow	**1.5%**	**2.8%**	**3.3%**
K	3.1%	3.3%	3.0%
R-T	2.5%	2.2%	2.3%

Legend: A – agriculture, forestry and fishing, 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 – transporting and storage, I – accommodation and food service activities, J – information and communication, K – financial and insurance activities, L – real estate activities, M – professional, scientificand technical activities, N – administrative and support service activities, O – public administration and defence, compulsory social security, P – education, Q – human health and social work activities, R – arts, entertainment and recreation, S – other service activities, T – activities of households as employers, undifferentiated goods- and services-producing activities of households for own use, CI – creative industries. Notes: Annual data were obtained by adding up quarterly activity data, because data for 2021 are available only at the quarterly level. Quarterly GVA is not available for 21 activities individually, as certain activities are aggregated. The data for 2021 are preliminary data. Data are sorted by value in 2021.

The construction sector, which is very important for economic growth, has a similar share as the Creative Industries according to the broad definition (in 2020, the share of the Creative Industries was higher by almost 1 pp, while the shares were almost equal in 2021, with construction leading by 0.2). The difference between the share of the Creative Industries and information and communication activities is slight, below 1 pp. That means that most of the gross value added of the Creative Industries was created in the information and communication sector and that groups of activities falling under information and communication drive the growth of the Creative Industries. Government sector, public administration, education and health care activities have a combined GDP share of about 12% and, individually, a share of about 4% on average. That means that, according to the broad definition, creative industries have a higher share than, for example, health care (4.5% in 2020), education (3.5% in 2020) and public administration (4% in 2020), whereas, according to the narrow definition, the share of the Creative Industries is somewhat lower than the share of predominantly public sector activities. Viewed according to the narrow definition, the Creative Industries has a higher share than financial activities, arts, leisure and recreation and other service activities.

4.2 Employment in the Creative Industries

According to the narrow definition, there were almost 80 thousand employees in 2019, increasing to 90 thousand in 2021. Viewed according to the broad definition, there were 155 thousand employees in 2021 (Table 7). According to the broad definition, the Creative Industries' share in total employment is 7%.

Table 7. Employment in the Creative Industries

	2019	2020	2021
Number of employees, narrow definition	77,212	82,296	90,218
Number of employees, broad definition	135,986	144,010	155,138
Total number of employees	2,101,267	2,149,099	2,212,631
Share in employment according to narrow definition	3.7%	3.8%	4.1%
Share in employment according to broad definition	6.5%	6.7%	7.0%

Note: Total number of employees is based on CRCSI data without registered individual farmer.
Source: Authors' calculation based on SORS data.

Table 8. Employment per Creative Industries activity, broad definition

	Absolute number of employees			Share in employment in %		
Name of activity	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
Printing of newspapers	445	379	367	0.3%	0.3%	0.2%
Other printing	7,855	7,611	7,650	5.8%	5.3%	4.9%
Pre-press and pre-media services	899	833	817	0.7%	0.6%	0.5%
Binding and related services	266	272	253	0.2%	0.2%	0.2%
Reproduction of recorded media	56	54	49	0.0%	0.0%	0.0%
Retail sale of computers, peripheral units and software in specialised stores	1,432	394	288	1.1%	0.3%	0.2%
Retail sale of telecommunications equipment in specialised stores	715	872	863	0.5%	0.6%	0.6%
Retail sale of books in specialised stores	532	980	1,114	0.4%	0.7%	0.7%
Retail sale of newspapers and stationery in specialised stores	2,703	2,731	2,329	2.0%	1.9%	1.5%
Book publishing	2,172	2,198	2,009	1.6%	1.5%	1.3%
Publishing of directories and mailing lists	2	2	1	0.0%	0.0%	0.0%
Publishing of newspapers	2,826	2,740	2,704	2.1%	1.9%	1.7%
Publishing of journals and periodicals	1,087	1,076	1,067	0.8%	0.7%	0.7%
Other publishing activities	342	292	317	0.3%	0.2%	0.2%
Publishing of computer games	152	148	161	0.1%	0.1%	0.1%
Other software publishing	245	246	273	0.2%	0,2%	0.2%
Motion picture, video and television programme production activities	1,940	2,240	2,660	1.4%	1.6%	1.7%

Motion picture, video and television programme post-production activities	164	186	234	0.1%	0.1%	0.2%
Motion picture, video and television programme distribution activities	124	145	145	0.1%	0.1%	0.1%
Motion picture projection activities	323	345	353	0.2%	0.2%	0.2%
Sound recording and music publishing activities	231	237	259	0.2%	0.2%	0.2%
Radio broadcasting	636	645	590	0.5%	0.4%	0.4%
Television programming and broadcasting activities	7,521	7,768	7,996	5.5%	5.4%	5.2%
Wired telecommunications activities	10,882	12,773	13,598	8.0%	8.9%	8.8%
Wireless telecommunications activities	1,560	1,793	1,902	1.1%	1.2%	1.2%
Satellite telecommunications activities	583	87	29	0.4%	0.1%	0.0%
Other telecommunications activities	2,348	1,331	889	1.7%	0.9%	0.6%
Computer programming activities	25,942	29,355	34,655	19.1%	20.4%	22.3 %
Computer consultancy activities	3,602	4,122	4,819	2.6%	2.9%	3.1%
Computer facilities management activities	408	383	548	0.3%	0.3%	0.4%
Other information technology and computer service activities	1,542	1,968	2,558	1.1%	1.4%	1.6%
Data processing, hosting and related activities	2,122	2,600	2,971	1.6%	1.8%	1.9%
Web portals	743	929	1,153	0.5%	0.6%	0.7%
News agency activities	338	327	246	0.2%	0.2%	0.2%
Other information service activities n.e.c.	405	552	810	0.3%	0.4%	0.5%
Architectural activities	2,833	2,966	3,501	2.1%	2.1%	2.3%
Engineering activities and related technical consultancy	15,044	16,352	17,554	11.1%	11.4%	11.3 %
Technical testing and analysis	7,508	8,060	8,461	5.5%	5.6%	5.5%
Advertising agencies	5,492	5,790	6,084	4.0%	4.0%	3.9%
Media representation	62	67	79	0.0%	0.0%	0.1%
Market research and public opinion polling	908	915	979	0.7%	0.6%	0.6%
Specialised design activities	1,645	1,799	2,267	1.2%	1.2%	1.5%
Photographic activities	1,570	1,571	1,534	1.2%	1.1%	1.0%
Translation and interpretation activities	755	753	760	0.6%	0.5%	0.5%
Performing arts	4,453	4,647	4,696	3.3%	3.2%	3.0%
Support activities to performing arts	551	589	614	0.4%	0.4%	0.4%
Artistic creation	1,581	1,517	1,545	1.2%	1.1%	1.0%
Operation of arts facilities	2,962	2,963	2,980	2.2%	2.1%	1.9%
Library and archive activities	3,638	3,671	3,674	2.7%	2.5%	2.4%
Museum activities	1,877	1,899	1,901	1.4%	1.3%	1.2%
Operation of historical sites and buildings and similar visitor attractions	588	516	515	0.4%	0.4%	0.3%
Repair of computers and peripheral equipment	1,376	1,321	1,317	1.0%	0.9%	0.8%
TOTAL	**135,986**	**144,010**	**155,138**	**100%**	**100%**	**100%**

Source: Authors' calculation based on SORS data.

Viewed by activity under the broad definition (when the share in employment in Creative Industries of over 5% is set as a filter), most employees are in computer programming activities, engineering activities and related technical consultancy, wired telecommunications activities, technical testing and analysis, and television programming and broadcasting activities. Computer programming activities also record the biggest growth, in absolute terms, in the observed period, during which the number of employees increased from 26,000 in 2019 to 35,000 in 2021, an increase of 34%. Although it accounts for slightly under 2% of employment in the Creative Industries, motion picture, video and television programme production activities recorded a significant relative employment growth of 37% in 2021 relative to 2019. Retail sale of books in specialised stores follows a similar pattern, with 109% more employees in 2021 relative to 2019. Wired communications had 25% more employees in 2021 relative to 2019, while specialised design activities had 37% more employees in 2021 relative to 2019.

Table 9. Employment per Creative Industries activity, narrow definition

Group of creative industries	Creative industries' activities	2019	2020	2021	2019	2020	2021
Advertising and marketing	Communication and public relations activities	423	385	443	0.5%	0.5%	0.5%
	Advertising agencies activities	5,492	5,790	6,084	7.1%	7.0%	6.7%
	Media representation	62	67	79	0.1%	0.1%	0.1%
Architecture	Architectural activities	2,833	2,966	3,501	3.7%	3.6%	3.9%
Crafts	Manufacturing of jewellery and related articles	2,061	1,934	1,897	2.7%	2.4%	2.1%
Design	Specialised design activities	1,645	1,799	2,267	2.1%	2.2%	2.5%
Film, television, video, radio and photography	Motion picture, video and television programme production activities	1,940	2,240	2,660	2.5%	2.7%	2.9%
	Motion picture, video and television programme post-production activities	164	186	234	0.2%	0.2%	0.3%
	Motion picture, video and television programme distribution activities	124	145	145	0.2%	0.2%	0.2%
	Motion picture projection activities	323	345	353	0.4%	0.4%	0.4%
	Radio broadcasting	636	645	590	0.8%	0.8%	0.7%
	Television programming and broadcasting activities	7,521	7,768	7,996	9.7%	9.4%	8.9%
	Photographic activities	1,570	1,571	1,534	2.0%	1.9%	1.7%
IT, software and computer services	Publishing of computer games	152	148	161	0.2%	0.2%	0.2%
	Other software publishing	245	246	273	0.3%	0.3%	0.3%
	Computer programming activities	25,942	29,355	34,655	33.6%	35.7%	38.4%
	Computer consultancy activities	3,602	4,122	4,819	4.7%	5.0%	5.3%
Publishing	Book publishing	2,172	2,198	2,009	2.8%	2.7%	2.2%
	Publishing of directories and mailing lists	2	2	1	0.0%	0.0%	0.0%
	Publishing of newspapers	2,826	2,740	2,704	3.7%	3.3%	3.0%
	Publishing of journals and periodicals	1,087	1,076	1,067	1.4%	1.3%	1.2%
	Other publishing activities	342	292	317	0.4%	0.4%	0.4%

	Translation and interpretation activities	755	753	760	1.0%	0.9%	0.8%
Museums, galleries and libraries	Library and archive activities	3,638	3,671	3,674	4.7%	4.5%	4.1%
	Museum activities	1,877	1,899	1,901	2.4%	2.3%	2.1%
Music and performing and visual arts	Sound recording and music publishing activities	231	237	259	0.3%	0.3%	0.3%
	Performing arts	4,453	4,647	4,696	5.8%	5.6%	5.2%
	Support activities to performing arts	551	589	614	0.7%	0.7%	0.7%
	Artistic creation	1,581	1,517	1,545	2.0%	1.8%	1.7%
	Operation of arts facilities	2,962	2,963	2,980	3.8%	3.6%	3.3%
	TOTAL	**77,212**	**82,296**	**90,218**	**100%**	**100%**	**100%**

Source: Authors' calculation based on SORS data.

Table 10. Employment per group of activities of Creative Industries, narrow definition

	2019	**2020**	**2021**	**Absolute change in employment 2021/2019**	**Relative change in employment 2021/2019**
Advertising and marketing	5977	6242	6606	629	10.5%
Architecture	2,833	2,966	3,501	668	23.6%
Crafts	2,061	1,934	1,897	-164	-8.0%
Design	1,645	1,799	2,267	622	37.8%
Film, television, video, radio and photography	12,278	12,900	13,512	1234	10.1%
IT, software and computer services	29,941	33,871	39,908	9967	33.3%
Publishing	7,184	7,061	6,858	-326	-4.5%
Museums, galleries and libraries	5,515	5,570	5,575	60	1.1%
Music and performing and visual arts	9,778	9,953	10,094	316	3.2%
TOTAL	**77,212**	**82,296**	**90,218**		

Source: Authors' calculation based on SORS data.

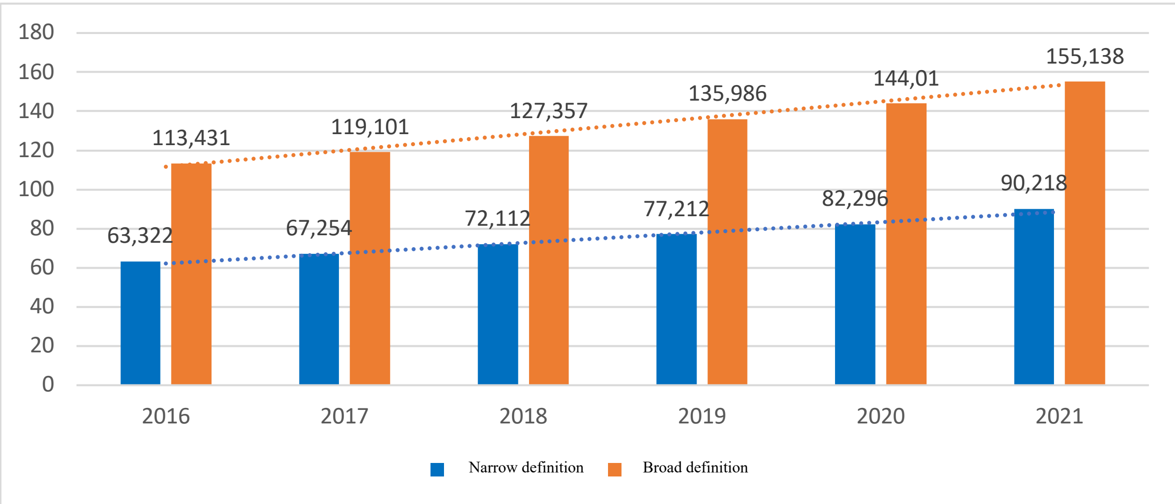
Viewed by activity group under the narrow definition (when the share in employment in creative industries of over 10% is set as a filter), sectors: 1) Advertising and marketing, 2) Film, television, video, radio and photography, 3) IT, software and computer services, 4) Music and performing and visual arts – are the leading sectors in terms of employment. The IT, software and computer services group of activities employed 40,000 people in 2021, which accounts for 44% of employees in the Creative Industries sector. In 2019, that share was 39%, with 30,000 employees. Therefore, there is a clear increase in the number of employees by 10,000, and in the share by 5 pp. Music and performing arts had a share of 11% in the number of employees in creative industries, with 10,000 employees in 2021, and the number of employees and the share remained virtually unchanged relative to 2019. In Film, television, video, radio and photography, there were 13,500 employees in 2021, accounting for 15% of employees in creative industries. Employment in this activity increased by about 1,200, i.e. by 10.1%. The Creative Industries's share in employment was stable in the observed period.

Table 11. Employment trend in Creative Industries, 2016-2021

	2016	2017	2018	2019	2020	2021
Employment						
Narrow definition	63,322	67,254	72,112	77,212	82,296	90,218
Broad definition	113,431	119,101	127,357	135,986	144,010	155,138
Total employment	*1,920,679*	*1,977,358*	*2,052,546*	*2,101,267*	*2,149,099*	*2,212,631*
Share in total employment						
Narrow definition	**3.3%**	**3.4%**	**3.5%**	**3.7%**	**3.8%**	**4.1%**
Broad definition	**5.9%**	**6.0%**	**6.2%**	**6.5%**	**6.7%**	**7.0%**

Note: Employees at legal entities (companies, enterprises, cooperatives, institutions and other organizations), persons individually running business, entrepreneurs and their employees. Both employees with long-term unemployment and temporary and occasional employment are included. enterpreneursTotal employment is based on CRCSI data without registered individual farmers.
Source: Authors' calculation based on SORS data.

Chart 1. Employment trend in Creative Industries, 2016–2021



Source: Authors' calculation based on SORS data.

The analysis of the employment trend in creative industries, as presented in Table 11 and Chart 1, clearly indicates a significant increase in employment, both according to the narrow and according to the broad view of creative industries. According to the narrow definition, the number of employees was 90,000 in 2021, an increase of almost 30,000 employees relative to 2016, i.e. a relative increase of 42%. This is also confirmed by the increase in the share in total employment from 3.3% to 4.1%. According to the broad definition, the number of employees was 155,000 in 2021, an increase of almost 40,000 employees relative to 2016, i.e. a relative increase of 36%. This is also confirmed by the increase in the share in total employment from 5.9% to 7%. Overall, there is a clear increase in the number of employees in creative industries during the past 6 years, amounting to about 35,000 employees on average.

Viewed according to the broad definition, 59% of employees are men, while 41% are women. According to the narrow definition, the share of male employees is 57% (Table 12). The share of male employees in the Creative Industries is somewhat higher compared to total employment, with men making up 54% of employees in the observed period.

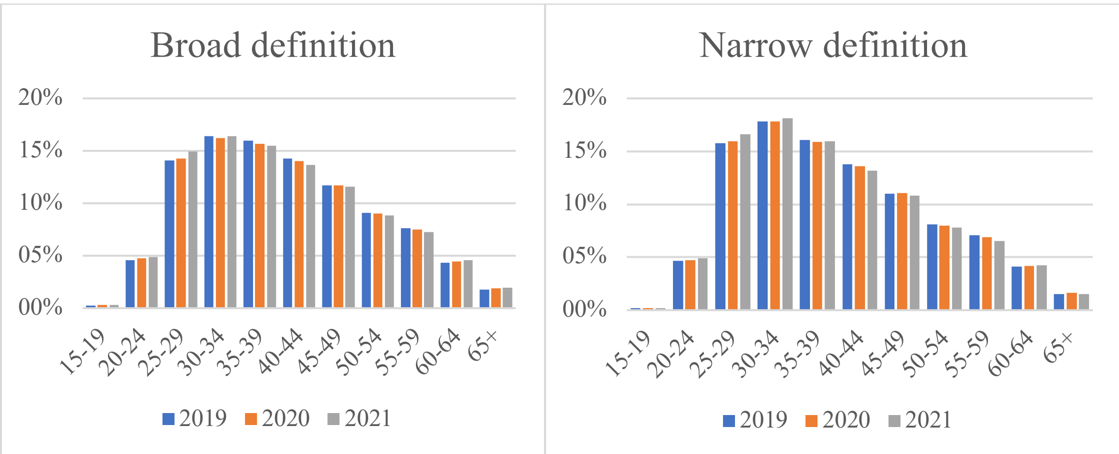
Table 12. Employment by gender, 2019–2021

	2019		2020		2021	
	Male	Female	Male	Female	Male	Female
Employment according to broad definition	80,365	55,621	84,562	59,448	91,038	64,100
% share in employment	59%	41%	59%	41%	59%	41%
Employment according to narrow definition	44,073	33,139	46,706	35,590	51,267	38,951
% share in employment	57%	43%	57%	43%	57%	43%

Source: Authors' calculation based on SORS data.

Viewed by age (Chart 2), the highest share of employees is in the 25–45 age bracket. **As many as 60% of employees according to the broad definition and 64% according to the narrow definition belong to the 25–45 age group**, while that age interval accounts for 50% of total employment. Viewed by five-year age intervals, the biggest difference was recorded among employees aged 25–29 and 30–34, where there is a several percentage points higher share in the Creative Industries according to both definitions compared to their respective shares in total employment.

Chart 2. Employment distribution by age



Source: Authors' calculation based on SORS data.

The structure of employment improved in the observed period (Table 13), with a 34.5% share of highly educated employees (levels 6–8) in 2019, and a 40.5% share in 2021 according to the narrow definition. Viewed according to the broad definition, the share of highly educated employees also increased from 31.3% to 37.4%. We also see that the share of low-skilled employees (without education, levels 1 and 2) decreased in the observed period. In 2019, there was a significant share of persons for whom we have no data on their level of education, corresponding to about a quarter of employees in the Creative Industries. The percentage decreased in 2020 and 2021, and amounted to 10.7% according to the broad definition and 12.4% according to the narrow definition.

Table 13. Distribution of employees by education level

	Level 1 and without education	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Unknown
Broad definition									
2019	1.8%	0.8%	6.6%	36.1%	0.7%	6.3%	24.7%	0.3%	22.8%
2020	1.9%	0.8%	7.8%	39.5%	1.0%	9.9%	26.0%	0.2%	12.9%
2021	1.5%	0.7%	7.9%	40.7%	1.0%	13.2%	23.9%	0.2%	10.7%
Narrow definition									
2019	1.8%	0.6%	3.8%	34.0%	0.4%	6.6%	27.6%	0.3%	25.0%
2020	1.8%	0.6%	4.2%	38.3%	0.6%	10.5%	28.5%	0.3%	15.3%
2021	1.4%	0.5%	4.4%	40.3%	0.6%	14.4%	25.9%	0.3%	12.4%

Source: Authors' calculation based on SORS data.

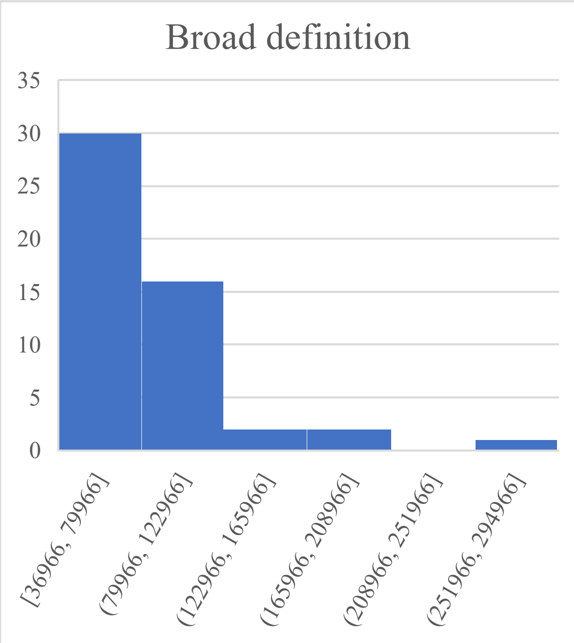
4.3 Wages in the Creative Industries[4]

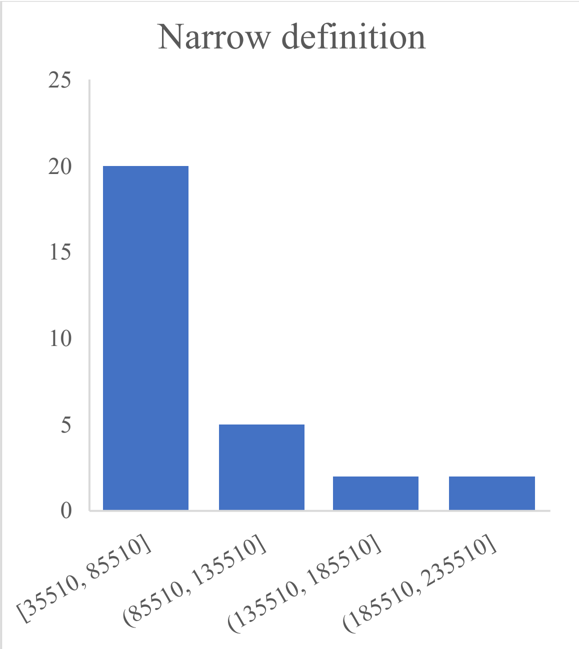
The distribution of wages in the Creative Industries is quite uneven, considering that various activities at four-digit level fall under the Creative Industries. The average net wage in the Creative Industries according to the broad definition amounted to RSD 76,728, 88,880, 105,292 in 2019, 2020 and 2021, respectively.[5] Viewed by activity, the lowest average wages in the amount of 36,966 were recorded in photographic activities in 2021, while wages in other information technology and computer service activities amounted to 260 thousand dinars. **Compared to the total average wage, which was RSD 65,864**, photographic services were at the level of 56% of the country average, **while the average wage in information technology was 5 times higher the national average.** There are also significant differences in cumulative real growth in the observed period - while **wages increased by 77.6% in real terms in the publishing of computer games activities in 2021 relative to 2019,** wages fell by 12% in real terms in satellite telecommunications activities. The drop in wages in the aforementioned activity exceeds the 5.7% inflation rate in the observed period. Almost 60% of activities have wages below 80 thousand dinars (Chart 3).

According to the narrow definition, average wages were higher, 82.5 thousand in 2019 and 120 thousand in 2021. The lowest average net wage amounted to 35.5 thousand dinars in 2021 in the manufacturing of jewellery and related articles, while the highest wages were recorded in media representation, amounting to slightly over 200 thousand dinars. We even see that as many as 20 out of 29 activities had an average wage below 85.5 thousand dinars (Chart 3). The highest real wage growth of almost 80% was recorded in the publishing of computer games (the same activity that posted the highest growth according to the broad definition as well) in the 2019–2021 period, while a decrease of almost 10% in real terms was recorded in communication and public relations.

[4] Data do not include the activity of publishing of directories and mailing lists (58.12), because we lack data on their average wages. Those activities only have one employee in 2021 and 2 employees in the previous two years.
[5] Average value was obtained as the weighted sum of average wages, using shares of employment in activities at four-digit level in total employment of the Creative Industries as weights.

Chart 3. Histogram of average net wages by activity at four-digit level





Source: Authors' calculation based on SORS data.

4.4 Number and structure of business entities in the Creative Industries sector

The size of the Creative Industries sector can be presented through the number of registered business entities engaged in activities belonging to this sector.

According to the broad definition, the total number of business entities was 55,755 in 2021. Of that number, 15,740 were companies (15.3% of the total number of companies in Serbia), 39,919 were entrepreneurs(13.2% of all entrepreneurs in Serbia), and 96 were public (state-owned) enterprises (30.6% of all public enterprises in Serbia). According to the narrow definition, the creative industries sector consisted of 37,575 registered business entities, of which 9,363 were companies, 28,167 were entrepreneurs and 45 were public enterprises.

In order to gain insight into the development of this sector during the observed period (2019–2021), the tables below show the number of registered business entities, according to the broad and narrow definition, by the aforementioned groups (companies, entrepreneurs and public enterprises).

Table 14. Number of registered business entities according to the broad definition

	Companies	**Enterpreneurs**	**Public enterprises**	**Total**
2016	*16,402*	*39,911*	*107*	*56,420*
2019	13,672	36,464	117	**50,253**
2020	14,812	37,234	108	**52,154**
2021	15,740	39,919	96	**55,755**

Source: Authors' calculation based on BRA data.

Table 15. Number of registered business entities according to the narrow definition

	Companies	**Enterpreneurs**	**Public enterprises**	**Total**
2016	*9,064*	*25,314*	*60*	*34,438*
2019	7,697	26,704	60	**34,461**
2020	8,675	26,730	55	**35,460**
2021	9,363	28,167	45	**37,575**

Source: Authors' calculation based on BRA data.

Looking at the sector structure, it can be observed that most business entities are entrepreneurs. Of the total number of business entities, 71.6% are entrepreneurs, according to at the broad definition of a sector, and the share of entrepreneurs in the total number of business entities is 75% according to the narrow definition of a sector.

The rest of the sector (28.4% in case of the broad definition, and 25% in case of the narrow definition) consists of enterprises. In order to gain insight into this part of the sector, the structure of enterprises was analysed by their size. The analysis shows that the CI sector predominantly consists of micro enterprises. Their share is 90.6% according to the broad definition, and 91.2% according to the narrow definition. In terms of their numbers, small companies rank second, with a share of 8.3% according to the broad definition, and 8% according to the narrow definition. They are followed by medium-sized enterprises, with a share of 0.9% according to the broad definition and 0.7% according to the narrow definition. The fewest, according to both the broad and the narrow definition, are large enterprises the shares of which are 0.2% and 0.1%, respectively.

The number of business entities in the CI sector is recording an upward trend. The average annual business entity number increment rate in the broadly defined CI sector was 3.45 percent in the period from 2016 to 2021. The increment rate grew year after year until 2019, which saw a negative increment rate of almost 12 percent. The negative increment rate in 2019 appeared because more business entities were closed than new ones were established that year. A large number of business entities were deleted from the register *ex officio* by BRA, increasing several times over the number of business entities deleted from the register in that year relative to all previous years and years after 2019, which decreases data comparability for that year. After 2019, the increment rate again started to increase in 2020 and 2021. The average increment rate for this sector according to the narrow definition was 3.9 percent for the same period. The development of this rate follows as similar pattern as the rate viewed according to the broad definition, i.e. it also increased year after year before and after 2019 and was negative and stood at -13.6% in 2019. If we look at the average increment rate for the two-year period after 2019 (2020–2021), it is higher and amounts to 4.8% according to the broad definition and 4% according to the narrow definition.

Rising increment rates were caused by an increase in the number of business entities, i.e. because more enterprises were established than were closed. This trend was present in all years except in 2019, which, as already mentioned, was different due to the large number of enterprises deleted from the register, leading to a reduction in the number of business entities. In the period after 2019, the enterprise number reduction trend continued among state-owned enterprises in the sector, whereas the number of companies and entrepreneurs increased, leading to an increase in the total number of business entities. The average increment rate for companies was 6.6% according to the broad definition and 9.1% according to the narrow definition in the two-year period (2020–2021). Meanwhile, the average increment rate for entrepreneurs was 4.1% according to the broad definition and 2.4% according to the narrow definition in the same period.

If we look at only the number of newly established enterprises, it is interesting to note that not a single state-owned enterprise was established in the creative industries sector. In addition, the analysis shows that the number of newly established entrepreneurs is growing much more rapidly than the number of newly established companies. According to the broad definition, the average growth rate of newly established companies was 20% in the observed three-year period, while the average growth rate of newly established entrepreneurs was 81.3%. Looking at the narrow definition, this rate was 29% for companies in the same period, and 81.1% among entrepreneurs. Such high growth rates are a consequence of a significant increase in the number of companies and entrepreneurs in 2020 relative to 2019.

The largest number of companies and entrepreneurs, according to both the narrow and broad definition, were established in the area of Computer programming in this period. Based on broad definition of activities, ranking second in number of newly established companies and entrepreneurs are Engineering activities and related technical consultancy. According to the broad definition, Computer consultancy activities and Advertising agencies activities are also significant in number terms among companies, while the same goes for Specialised design activities and Motion picture, video and TV programme production among entrepreneurs. When analysing the narrow definition, in addition to the aforementioned Computer programming, also significant in terms of the number of newly established companies are Computer consultancy activities, Advertising agency activities and Motion picture, video and TV programme production. When we look at the number of newly established entrepreneurs according to the narrow definition, Specialised design activities, Motion picture, video and TV programme production and Computer consultancy activities also stand out.

Table 16. Activities with the largest number of newly established companies and entrepreneurs according to the broad definition in the 2019–2021 period

Activity	Number of companies	Activity	Number of entrepreneurs
Computer programming activities	1,762	**Computer programming activities**	1,818
Engineering activities and related technical consultancy	464	**Engineering activities and related technical consultancy**	1,466
Computer consultancy activities	424	**Specialised design activities**	1,081
Advertising agencies activities	364	**Motion picture, video and TV programme production**	707

Source: Authors' calculation based on BRA data.

Table 17. Activities with the largest number of newly established companies and entrepreneurs according to the narrow definition in the 2019–2021 period

Activity	Number of companies	Activity	Number of entrepreneurs
Computer programming activities	1,762	**Computer programming activities**	1,818
Computer consultancy activities	424	**Specialised design activities**	1,081
Advertising agencies activities	364	**Motion picture, video and TV programme production**	707
Motion picture, video and TV programme production	167	**Computer consultancy activities**	607

Source: Authors' calculation based on BRA data.

Table 18 presents the geographical distribution of business entities according to the narrow definition and broad definition by region. The data show that, viewed according to both definitions, the largest number of companies and entrepreneurs are registered in the Belgrade region.

Table 18. Geographical distribution of business entities in the Creative Industries sector

Narrow definition	2019	2020	2021
	Belgrade region		
Companies	5,124	5,687	6,110
State-owned enterprises	14	12	9
Entrepreneurs	11,791	12,074	12,723
	Vojvodina		
Companies	1,478	1,744	1,932
State-owned enterprises	18	16	15
Entrepreneurs	6,065	5,989	6,361
	Šumadija and West Serbia		
Companies	560	616	665
State-owned enterprises	11	10	8
Entrepreneurs	5,092	5,053	5,322
	South and East Serbia		
Companies	513	604	632
State-owned enterprises	15	15	11
Entrepreneurs	3,687	3,541	3,681
Broad definition	**2019**	**2020**	**2021**
	Belgrade region		
Companies	8,111	8,767	9,310
State-owned enterprises	42	37	32
Entrepreneurs	15,445	15,994	17,146
	Vojvodina		
Companies	2,861	3,161	3,416
State-owned enterprises	28	24	24
Entrepreneurs	8,462	8,532	9,126
	Šumadija and West Serbia		
Companies	1,481	1,557	1,622

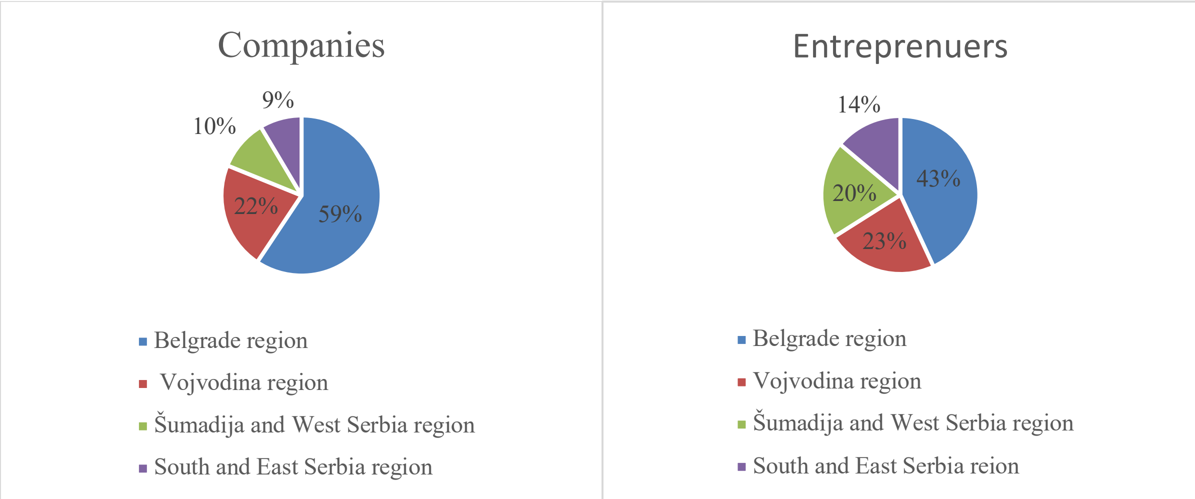
State-owned enterprises	23	22	19
Entrepreneurs	7,340	7,516	7,999
	South and East Serbia		
Companies	1,166	1,272	1,337
State-owned enterprises	20	21	17
Entrepreneurs	5,094	5,064	5,514

Note: Data are as of 31 December without entities deleted from the register during the year. Companies do not include state-owned enterprises.
Source: Authors' calculation based on BRA data.

The analysis shows that there was an increase in the number of registered companies and entrepreneurs in all regions in the observed period. According to the narrow definition, the number of companies increased by 986 in 2021 relative to 2019, an increase of 19.2%. In the Vojvodina region, the number of companies increased by 454, i.e. 30.7%. The number of entrepreneurs in the Belgrade region increased by 932 or 7.9% in 2021 relative to 2019, while the number of entrepreneurs in Vojvodina increased by 296 or 4.9% in the observed period. According to the broad definition, the number of companies in the Belgrade region increased by almost 1,200 (14.8%), while the number of entrepreneurs increased by about 1,700 (11%) in 2021 relative to 2019. In the Vojvodina region, the number of companies increased by 555 (19.4%), while the number of entrepreneurs increased by 664 (7.8%) according to the broad definition in the observed period.

The number of companies is much lower in the Šumadija and West Serbia region and in the South and East Serbia region compared to the Belgrade region and Vojvodina, with the Belgrade region standing out significantly from the others. In the 2019–2021 period, according to the narrow definition (broad definition), the average number of companies in the Belgrade region was almost 5,600 (8,700), in Vojvodina it was about 1,700 (3,150), while the average number in the Šumadija and West Serbia region was about 600 (1,550), and in the South and East Serbia region it was about 580 (1,250). When we look at the number of entrepreneurs, the representation per region follows a similar pattern as companies. In the observed period, in the Belgrade region, the average number of entrepreneurs according to the narrow definition (broad definition) was about 10,150 (13,700), in the Vojvodina region it was 6,100 (8,700), in the Šumadija and West Serbia region it was 5,150 (7,600), and about 3,600 (5,200) in the South and East Serbia region. These data indicate that the concentration of the number of companies and entrepreneurs, viewed according to both the narrow definition and the broad definition, is the highest in the Belgrade region, followed by the Vojvodina region, then the Šumadija and West Serbia region, while it is lowest in the South and East Serbia region.

Chart 4. Concentration of companies and entrepreneurs according to the broad definition in 2021



Source: Authors' calculation based on BRA data.

4.5 Creative Industries exports

The exports of products of Serbia's Creative Industries were analysed according to International Trade Centre data. **The share of the Creative Industries in Serbia's total exports was between 2% and 3% in the observed period (2.5% in 2021), with an increase of 14% recorded in 2021 relative to 2019. Total actual value of Creative Industries exports was USD 650 million in 2021, and exports of Serbia's Creative Industries amounted to over USD 1.7 billion for the entire three-year period analyzed (2019–2021).**

Viewed by country, the largest value of Creative Industries products was exported to Austria, almost 20% of Creative Industries product exports. The largest growth in actual exports, which almost doubled in 2021, was recorded with Russia. Exports decreased by 7.6% in 2020, and then increased by 23.4% in 2021. The average annual growth rate of exports was 6.8%.

Table 19. Serbia's Creative Industries exports to selected countries, in thousands of USD and growth rate

	2019	2020	2021	2021/2019
TOTAL	**568,604**	**525,243**	**648,367**	**114.0**
To selected countries				
Austria	104,604	87,187	122,915	117.5
Romania	85,069	85,065	96,723	113.7
Bosnia and Hercegovina	43,131	35,925	47,082	109.2
Belgium	21,260	27,195	33,262	156.5
Montenegro	37,800	25,027	32,547	86.1
France	27,710	29,275	31,909	115.2
Germany	29,040	32,061	30,659	105.6
Croatia	24,877	21,876	28,194	113.3
Slovenia	17,044	16,566	24,877	146.0
Italy	22,754	17,524	22,267	97.9
North Macedonia	18,378	16,182	19,343	105.3
Russia	9,936	13,090	18,739	188.6
Czech Republic	12,381	16,698	18,201	147.0
Switzerland	11,970	13,239	16,793	140.3

Source: https://www.trademap.org/Index.aspx accessed on 28 Sept.2022; Sources: ITC calculations based on UN COMTRADE statistics as of January 2021; ITC calculations based on Statistical Office of the Republic of Serbia statistics from January 2015 to January 2021; ITC calculations based on UN COMTRADE statistics until January 2015.

Table 20. Serbia's Creative Industries exports trend, 2016–2021, in thousands of USD

	2016	2017	2018	2019	2020	2021
TOTAL	356,621	393,743	460,350	568,604	525,243	648,367
Share in Serbia's total exports	2.7%	2.3%	2.4%	2.9%	2.7%	2.5%

Source: https://www.trademap.org/Index.aspx accessed on 28 Sept..2022; Sources: ITC calculations based on UN COMTRADE statistics as of January 2021; ITC calculations based on Statistical Office of the Republic of Serbia statistics from January 2015 to January 2021; ITC calculations based on UN COMTRADE statistics until January,

Growth of 81% was recorded in 2021 compared to 2016, and total actual value of Creative Industries exports was USD 2.9 billion in this six-year period ending in 2021.

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