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Survey and Mapping of the State of Affairs in the Estonian Creative Industries

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1.3. VOLUME OF CREATIVE INDUSTRIES IN ESTONIA

28,300 employees (see Table 1.1) worked in the creative industries sector in 2019 in Estonia, which made up 4.2% of employed persons in Estonia (671,300 according to Statistics Estonia in 2019). The largest number of employees worked in the field of publishing – a total of 4754 individuals, including related fields, which composed 17% of the number of employees in the sector. More than 3000 employees worked in the field of music and 3700 employees were employed in the field of architecture. The least number of employees worked in the field of entertainment software (1123 employees).

Table 1.1 Creative industries' economic indicators in Estonia in 2019

Field	Number of companies and establishments		Number of employees		Total revenue (million euros)	
	Total	*share*	Total	*share*	Total	*share*
ARCHITECTURE*	1,388	*13*	3,700	*13*	209	*11*
Audiovisual: FILM AND VIDEO	953	*9*	1,546	*5*	131	*7*
Audiovisual: BROADCASTING	62	*1*	1,783	*6*	194	*10*
DESIGN	1,096	*10*	1,141	*4*	56	*3*
PERFORMANCE ARTS	711	*7*	2,199	*8*	67	*3*
PUBLISHING*	793	*7*	4,754	*17*	348	*19*
Cultural heritage: HANDICRAFT	332	*3*	893	*3*	19	*1*
Cultural heritage: MUSEUMS	193	*2*	1,497	*5*	86	*5*
Cultural heritage: LIBRARIES	875	*8*	2,416	*9*	52	*3*
ART*	1,075	*10*	1,174	*4*	24	*1*
ENTERTAINMENT SOFTWARE*	57	*1*	1,123	*4*	125	*7*
MUSIC*	1,921	*18*	3,051	*11*	185	*10*
ADVERTISING	1,249	*12*	3,001	*11*	367	*20*
TOTAL	**10,705**	***100***	**28,278**	***100***	**1,863**	***100***
Share in Estonian companies (%)						
2019	11.2		4.2		2.6	
2015	11.6		4.8		2.8	

*including related fields

The number of employees includes all employees in creative companies and establishments, employees in non-profit associations (MTÜ) and self-employed persons (FIE). There might be some overlap in the number of employees in the fields of music and performance arts because musicians and actors mostly work in several collectives and can own one or more companies or be registered as a self-employed person. Furthermore, overlap might occur in all other fields (in the case of architects, artists, etc.) The actual number of creative persons is higher since the number of employees does not include other creative persons, e.g. designers, who work in industrial enterprises or IT companies. There is no statistical economic overview of the number and revenue of creative persons employed in other sectors, therefore it is not possible to add them to this survey. Additionally, there is no analysed report for some employees in the creative industries and their personal data are only available in the Estonian Tax and Customs Board (if the revenue has been declared). A methodical change impacts the number of employees since the Estonian Institute of Economic Research added one person to the companies whose revenue was more than the minimum salary + labour costs but the number of employees equalled zero (previous mappings added one employee to every revenue-earning company without employees).

10,705 companies/establishments were active in the creative industries sector in 2019 (9098 in 2015), which made up 11.2% of the overall number of Estonian companies (95,407 companies were active in 2019 according to Statistics Estonia). The share of creative companies and establishments was slightly higher than the overall number of Estonian companies (11.6%) in 2015. Most companies and establishments were active in the field of music with a large number of employees. 1921 music companies and establishments, including related fields, were active, which made up 18% of the overall number of creative industry companies and establishments. This was followed by the field of architecture with 1388 companies, including related fields, which made up 13% of the overall number of creative companies, and the field of advertising (1249 companies, 12%).

The sales revenue of creative companies and the total revenue of institutes receiving state subsidies was 1.86 billion euros in 2019 (1.5 billion euros in 2015). This made up 2.6% of the sales revenue of Estonian companies, which was 72.5 billion euros in 2019 according to Statistics Estonia. Compared to 2015, the contribution of the creative industries has slightly diminished because then the creative companies/establishments made up 2.8% of the sales revenue of Estonian companies. The creative industries fields with the highest revenue were advertising (367 million euros) and publishing, including printing (348 million euros).

Private limited companies dominated in the creative industries sector (except museums and libraries) in 2019 – a total of 8380. There were 1087 non-profit associations and 67 private limited companies.

The majority of NGOs were in the fields of music and performance arts. 38% of companies were active in the field of performance arts and 25% of companies and establishments were non-profits. According to the numerical data, most non-profit organisations operated in the field of music where almost every fourth organisation in the field was a non-profit.

In the analysis of the creative industries, the core areas and related fields were identified. The temporal distinctions in the creative industries were compared to one another in a larger context – both the core areas and related fields were considered. The objective of the related fields is to support the creative process and its distribution; therefore, they are closely intertwined with the core areas. Related fields were looked at in five fields – architecture, publishing, art, music and, for the first time, entertainment software – and all of them make up a significant part of the revenue of the field. The structural engineering and technical planning related to the field of architecture makes up 73% of the field's sales revenue; printing related to publishing makes up 65% of the sales revenue; provision of services in the field of entertainment software to game developers, import and localisation make up 23% of the sales revenue; fields related to music make up 45% of the sales revenue and fields related to arts make up 4% of the field's total revenue (see Table 1.2).

Table 1.2. Core of the fields and the economic indicators of the related fields

Field	Number of companies and establishments	Number of employees	Total revenue (million euros)
ARCHITECTURE	1,388	3,700	209
incl. core areas	623	1,200	58
incl. related fields	765	2,500	151
PUBLISHING	793	4,754	348
incl. core areas	411	2,001	122
incl. related fields	382	2,753	226
ART	1,075	1,174	24
incl. core areas	1058	1132	23
incl. related fields	18	45	2
ENTERTAINMENT SOFTWARE	57	1,123	125
incl. core areas	48	1,003	96
incl. related fields	9	120	29
MUSIC	1,921	3,051	185
incl. core areas	1489	2,222	108
incl. related fields	432	829	77
TOTAL Creative Industries	**10,705**	**28,278**	**1,863**

In comparison to the mapping of last year’s data, we can say that the creative industries sector continued to grow. Both the number of companies and the total revenue increased.

Table 1.3. Economic indicators of creative companies in 2015 and 2019

Field	Number of companies, units		Total revenue (million euros)		Number of employees	
	2015	2019	2015	2019	2015	2019
ARCHITECTURE	1,403	1,388	151.9	208.8	3,430	3,700
FILM AND VIDEO	635	953	75.8	130.6	1,196	1,546
BROADCASTING	86	62	160.9	194.1	1,776	1,783
DESIGN	677	1,096	42.2	56.2	1,060	1,141
PERFORMANCE ARTS	419	711	69	67.2	3,004	2,199
PUBLISHING	769	793	324	348.4	5,000	4,754
HANDICRAFT	320	332	14.4	18.9	1,045	893
MUSEUMS	256	191	88.7	85.6	1,733	1,497
LIBRARIES	946	875	41.9	52.4	2,670	2,416
ART	210	1,075	12.3	24.3	1,215	1,174
ENTERTAINMENT SOFTWARE	48	57	100.3	125.4	989	1,123
MUSIC	1,642	1,921	141.4	185.0	4,940	3,051
ADVERTISING	1,160	1,249	258.5	366.6	2,623	3,001

TOTAL	10,703	1,481	1,863	30,681	28,278

In comparison with the economic development in the overall business and creative industries during 2015-2019, it is evident that the total revenue of the creative industries grew somewhat more slowly (Table 1.4).

Table 1.4. Changes in economic indicators in comparison with 2015 and 2019 (%)

	Number of companies	Total revenue	Number of employees
Creative industries	25	26	-8
Estonian companies	21	37	2

Financing models of creative industries fields vary a lot. This survey maps both companies that earn revenue in the free-market competition as well as establishments funded by state subsidies. Not all creative industries fields have commercial objectives; however, they play an important role in cultural preservation and appreciation, the introduction of Estonia abroad, regional development, the promotion of education and servicing other creative and economic fields. In this way, libraries play an invaluable role in furthering education, fulfilling people's interest in reading and information as well as supporting communication of the local community and offering digital services.

The public sector financed the support structures of creative industries and companies with 261.7 million euros in 2019 (193 million euros in 2015 and 164 million euros in 2011). Therefore, 14% of the total revenue of the creative industries came mainly from the state, less from local governments and other sources (13% in 2015). The key financiers of the creative industries are the Ministry of Culture, the Cultural Endowment of Estonia, Enterprise Estonia and the Council of Gambling Tax as well as the Ministry of Education and Research for libraries. The public sector contributes to a great extent to the preservation of cultural heritage – 92% of the total revenue of museums and 70% of the total revenue of museums came from the public sector (see Table 1.5). Moreover, the public sector contributes the most to the performance arts (64% of the total revenue of the field) and the field of broadcasting (mainly to Estonian Public Broadcasting) (28%). However, the public sector's support for creative industries is indirectly even larger, for example, the state is the key contractor in the field of advertising, and the same can be said about the field of architecture and the visual arts (the 1% rule and the obligation to order visual art).

Table 1.5. Total revenue of Estonian creative industries, including subsidies of the public sector for operating activities and development of the field in 2019

Field	Total revenue (million euros)	incl. total funding for the public sector (million euros)	Share of the public sector funds in total revenue (%)
ARCHITECTURE	209	1.5	2.5
Audiovisual: FILM AND VIDEO	131	14.3	10.9
Audiovisual: BROADCASTING	194	54.1	27.9
DESIGN	56	0.9	1.2
PERFORMANCE ARTS	67	43.1	64.2
PUBLISHING	348	6.7	1.9
Cultural heritage: HANDICRAFT	19	0.3	1.4
Cultural heritage: MUSEUMS	86	60.5	70.3
Cultural heritage: LIBRARIES	52	47.9	92.1
ART	24	4.1	17.1

ENTERTAINMENT SOFTWARE	125	0.2	0.2
MUSIC	185	27.8	15.1
ADVERTISING	367	0.3	0.1
TOTAL	1,863	261.7	14.0

The ratios of creative industries fields allow us to compare companies in these fields to the average company in Estonia. The average revenue of creative industries companies/establishments was 174,000 euros in 2019 (163,000 in 2015 and 147,000 in 2011). Therefore, the revenue has continuously increased over the years. Companies in creative industries fields had significantly less revenue than the average company in Estonia (759,800 per company in 2019 according to Statistics Estonia). Companies in various creative industries fields differ notably in their size and productivity (see Tables 1.6 and 1.8). Entertainment software (on average 2,200,6000 euros per company) and broadcasting companies and establishments (3,130,700 euros per company/establishment) earned the most revenue in comparison to the Estonian average. Handicraft companies and libraries earn the least average revenue per company/establishment.

Table 1.6. Ratios of Estonian creative industries – revenue per company/establishment

Field	Revenue per company/establishment (thousand euros)					Amendment 2019/2015 (%)
	2003	2007	2011	2015	2019	
ARCHITECTURE	109.5	136.3	88.9	108.2	150.5	39.0
Audiovisual: FILM AND VIDEO	168.4	190.1	120.5	119.4	137.0	14.7
Audiovisual: BROADCASTING	558.8	1,104.2	1,318.3	1,871.4	3,130.7	67.3
DESIGN	49.5	42.7	26.6	62.3	51.3	-17.2
PERFORMANCE ARTS	611.9	418.8	166.6	164.6	94.6	-43.6
PUBLISHING	514.1	601.5	441.9	421.3	439.3	4.3
HANDICRAFT	...	90.2	59.9	45.1	56.9	26.2
MUSEUMS	86.1	134.6	169.9	346.5	448.0	29.3
LIBRARIES	...	35.6	38.4	44.3	59.9	35.2
ART	70.5	69.6	38.9	58.3	22,6*	-61.3
ENTERTAINMENT SOFTWARE	440.3	1,544.9	1,252.6	2,089.6	2,200.6	5.3
MUSIC	355.1	332.6	163.5	85.8	96.2	47.6
ADVERTISING	253.3	344.4	214.1	222.8	293.5	31.7
AVERAGE	**262.8**	**232.3**	**147.3**	**162.8**	174	**6.9**
Average of Estonian companies**	**613.9**	**840.0**	**745.8**	**673.7**	**759.8**	**12.8**

*Methodology changed

*According to data by Statistics Estonia

An average of 2.7 employees worked in a creative company/establishment in 2019 (3.4 persons in 2015, see Table 1.7). Compared to 2003, 2007, 2011 and 2015, the average number of employees has decreased. Although a similar declining trend characterises Estonian companies more broadly, the number of employees was higher for the average Estonian company (there were 4.75 employees in the average Estonian company in 2019 according to Statistics Estonia). The largest creative companies/establishments in 2019 were broadcasting companies with an average of 28.8 employees. These companies expanded even more thanks to mergers. Entertainment software companies are the largest – on average 19.7 employees worked there. Museums ranked the third (the average number of employees was 7.8 people). The smallest were companies in the fields of design (the average number of employees was one person) and art (1.1 employees).

Table 1.7. Ratios of Estonian creative companies – average number of employees in a company/establishment

Field	Average number of employees in a company/establishment					Amendment 2019/2015 (%)
	2003	2007	2011	2015	2019	
ARCHITECTURE	4.3	3.5	2.5	2.4	2.7	12.5
Audiovisual: FILM AND VIDEO	7.0	4.7	3.0	1.9	1.6	-15.8
Audiovisual: BROADCASTING	13.2	20.6	16.2	20.7	28.8	39.1
DESIGN	2.3	1.0	1.3	1.6	1.0	-37.5
PERFORMANCE ARTS	44.9	21.4	10.6	7.2	3.1	-56.9
PUBLISHING	13.7	10.4	7.3	6.5	6.0	-7.7
HANDICRAFT	...	8.5	5.2	3.3	2.7	-18.2
MUSEUMS	7.5	6.9	6.4	6.8	7.8	14.7
LIBRARIES	...	2.9	3.0	2.8	2.8	0.0
ART	15.1	10.7	7.0	5.8	1,1*	-81.0
ENTERTAINMENT SOFTWARE	16.7	29.5	27.7	20.6	19.7	-4.4
MUSIC	12.7	9.6	7.0	3.0	1.6	-46.7
ADVERTISING	3.9	3.3	2.8	2.3	2.4	-4.3
TOTAL	**8.6**	**5.7**	**3.9**	**3.4**	2.7	-20.6
Average of Estonian companies**	**11.0**	**8.9**	**6.4**	**5.5**	4.7	-14.5

*Methodology changed

*According to data by Statistics Estonia

A lot of labour force is contracted on the basis of a contract for services or the services are outsourced from non-profit associations or self-employed persons in the creative industries. This way, some companies have no full-time employees; all of their work is outsourced and the owners receive the revenue from ownership. Contracted employees' work is project-based and they typically work in several creative industries fields and for several companies. There is no report available on contracted employees and no way to determine their number by expert enquiry. In this mapping, we have fixated the number of full-time employees, to which we added one employee per company/establishment for those that had no employees according to the Business Registry but whose annual revenue was more than a 12-month minimum salary + labour taxes upon calculation of revenue.

In the creative industries, the revenue per employee was 71,000 euros in 2019, an increase of 48% within four years (48,000 euros in 2015, see Table 1.8). According to Statistics Estonia, the average revenue per employee on the Estonian business market was 163,000 euros in a year in 2019, therefore twice as high as the average in creative industries companies. Entertainment software engineers (112,000 per employee, fastest growth across all fields), advertising companies (99,000 euros per employee) and the fields of broadcasting (91,000 euros per employee) and publishing (65,000 per employee, including related fields) had the largest revenue per employee in the creative industries. The arts and handicraft fields had the lowest revenue per employee (21,000 euros).

Table 1.8. Ratios of Estonian creative industries – revenue per employee in a year

Field	Revenue per company (thousand euros)					Amendment 2019/2015 (%)
	2003	2007	2011	2015	2019	
ARCHITECTURE	25	38	36	44	56	27
Audiovisual: FILM AND VIDEO	24	41	40	63	84	33
Audiovisual: BROADCASTING	42	54	81	91	109	20
DESIGN	21	41	21	40	49	23
PERFORMANCE ARTS	14	20	16	23	31	35
PUBLISHING	38	58	60	65	73	12
HANDICRAFT	...	11	12	14	21	50
MUSEUMS	12	19	27	51	57	12
LIBRARIES*	...	12	13	16	22	38
ART	5	7	6	10	21	110
ENTERTAINMENT SOFTWARE	26	52	45	101	112	11
MUSIC	28	35	23	29	61**	210
ADVERTISING	64	105	75	99	122	23
TOTAL	31	41	37	48	71	48
Average of Estonian companies* **	**56**	**95**	**117**	**122**	**163**	**34**

*Based on the total revenue of national, research and professional libraries

*Methodology changed

*According to data by Statistics Estonia

From 2003-2007, when the economy grew 8.1% a year per average, the situation was favourable for the creative industries. The total revenue of the creative industries grew by 89% in this period. The economic recession between 2008-2009 caused a decrease in the volume of the domestic market and had a huge impact on the creative industries. From 2007-2011, total revenue decreased by 11% (see Table 1.9). Other Estonian companies as a whole recovered faster from the economic crisis. From 2011-2015, the revenue increased significantly in the creative industries – a total of 45%. The growth continued from 2015-2019 but at a slower pace – then 26%. From 2015-2019, the field of entertainment software grew the most (258%), which is a fast-developing field operating on the global market. Libraries (10%) and publishing (11%) had the slowest growth in revenue. The sales revenue did not decrease in any mapped field.

2134 companies/establishments were added to the creative industries sector between 2015 and 2019 and the growth rate is similar to that of previous periods. Total revenue grew by 26% and the number of employees decreased. The decrease in the number of employees is partially a result of the change in methodology since, in previous mappings, one employee was added to all companies that earned revenue but did not declare any employees, but now the annual revenue of the company needs to be at least €8670 for this.

In comparison with the development of the creative industries over a longer period, we mainly see rapid growth in the number of companies. The number of companies has grown from 2300 in 2003 to 10,700 in 2019. Total revenue has grown from 608 million to 1863 million within these years.

Table 1.9. General indicators of Estonian creative industries 2003-2019

Field	Number of companies and establishments					Number of employees					Total revenue (million euros)				
	2003	2007	2011	2015	2019	2003	2007	2011	2015	2019	2003	2007	2011	2015	2019
ARCHITECTURE	467	861	1,223	1403	1,388	2,030	3,049	3,048	3,430	3,700	51	117	109	152	209
FILM AND VIDEO	93	225	363	635	953	650	1,050	1,092	1,196	1,546	16	43	44	76	131
BROADCASTING	82	81	89	86	62	1,080	1,670	1,442	1,776	1,783	46	89	117	161	194
DESIGN	173	334	478	677	1,096	400	350	600	1,060	1,141	9	14	13	42	56
PERFORMANCE ARTS	47	95	315	419	711	2,110	2,030	3,343	3,004	2,199	29	40	53	69	67
PUBLISHING	410	578	661	769	793	5,600	6,010	4,844	5,000	4,754	211	348	292	324	348
HANDICRAFT	...	165	198	320	332	...	1,403	1,023	1,045	893	...	15	12	14	19
MUSEUMS	200	217	248	256	193	1,493	1,499	1,586	1,733	1,497	17	29	42	89	86
LIBRARIES	...	1,125	991	946	875	...	3,253	2,948	2,670	2,416	...	40	38	42	52
ART	68	101	151	210	1,075	1,028	1,081	1,050	1,215	1,174	5	7	6	12	24
ENTERTAINMENT SOFTWARE	9	11	22	48	57	150	325	610	989	1,123	4	17	28	100	125
MUSIC*	270	403	827	1,642	1,921	3,430	3,850	5800	4,940	3,051	96	134	135	141	185
ADVERTISING**	488	725	832	1,160	1,249	1,920	2,360	2,366	2,623	3,001	124	250	178	258	367
TOTAL	**2,307**	**4,921**	**6,398**	**8,571**	**10,705**	**19,891**	**27,930**	**29,752**	**30,681**	**28,278**	**608**	**1,143**	**1,067**	**1,481**	**1,863**

According to Statistics Estonia data, the ratio of value added generated by Estonian companies to sales revenue was 22% in 2019. The share of labour force costs was higher in creative companies and establishments than in manufacturing and trade, and the ratio of value added to sales revenue was 32%. Using the indicators of the companies' revenue and labour costs from the annual report to calculate the value added, the creative industries' value added was 605.5 million euros in 2019 (the creative industries created around 595 million euros of value added in 2015 and 408 million euros in 2011).

The value added generated by the creative industries was 2.2% of Estonian GDP (27,693 million euros) in 2019. The fields of publishing, advertising and architecture create the most value added per company. The fields of entertainment software, advertising and architecture create the most value added per employee (Table 1.10).

Table 1.10. Value added by Estonian creative industries in 2019

Field	Value added (million euros)	Value added per employee (thousand euros)
ARCHITECTURE*	97.3	27.8
Audiovisual: FILM AND VIDEO	30.6	19.8
Audiovisual: BROADCASTING	35.8	20.1
DESIGN	17.9	17.2
PERFORMANCE ARTS	27.2	16.2
PUBLISHING*	113.3	24.2
Cultural heritage: HANDICRAFT	5.6	10.4
Cultural heritage: MUSEUMS	42.4	28.3
Cultural heritage: LIBRARIES**		
ART*	5.9	5.8
ENTERTAINMENT SOFTWARE*	67.9	60.5
MUSIC*	44.4	17.7
ADVERTISING	105.5	35.1
TOTAL	605.5	23.0

*including related fields

*Since libraries lack a profit/net surplus indicator, we will not highlight the value added here

Source: Calculations by the Estonian Institute of Economic Research based on the data of the Business Registry

In this survey, we mapped the companies, establishments and self-employed persons in the creative industries, but creative persons also work in other economic fields, e.g. designers and artists work in trade, manufacturing and IT companies. There is no statistical economic overview of the number and revenue of creative persons employed in other fields, therefore it is not possible to include them in this survey. The potential number of creative persons can be estimated by the number of higher education graduates during the last decades or it can be based on expert assessments. It is hard to estimate the revenues of creative persons in other fields because companies do not keep separate records of them.

The mapping of the creative industries includes creative activities – creative people with the relevant professional education whose main income comes from their creative activity. The survey does not include hobby activities, including hobby artists, hobby musicians, hobby dancers, hobby craftsmen, hobby groups and cultural centres as well as music and art schools (except music schools that are incorporated entities). Although hobby activities do not generate value added in the economic point of view, they still play a crucial role. The habit of and interest in creating something should be taught and developed from an early age to make sure that the future generation contains creative individuals. Hobby activities offer emotional pleasure, increase life satisfaction, improve interpersonal relationships and are significant in the reference system of the creative industries because they increase people's ability to appreciate and consume creations by professional creative individuals.

Throughout history, creative individuals have had a characteristic creative mentality and have been less interested in commercialism. Culture statistics have traditionally predominantly measured the content of the culture – the number of performances, the number of published books, etc. However, the experiences of developments in the creative industries during the last decades ascertain that both parties benefit from the convergence and integration of the activities of the creative individuals and other economic sectors as well as the use of business principles in the cultural field. When the Estonian Institute of Economic Research commenced the first mapping of creative industries in 2005, the economic terms and the possibility to put together an economy survey seemed foreign to creative individuals and they were sceptical. The attitude of individuals in the creative industries has notably changed throughout the years. Economic terms are no longer distant; they know how to establish incorporated entities and manage them successfully. Their business awareness has increased and their business models have improved. Besides creative industries, creative persons work in other economic fields (real estate development, renting, tourism, retail trade, etc.) The share of companies that do not need state funding has increased.

The public sector can only finance and intentionally develop a field if the economic statistics as well as the reporting of the companies and non-profit associations are completed properly and it is a registered economy. Parts of the creative industries remain hard to map. There is no overview of the results of the creative persons and the use of micro data is impossible when it comes to self-employed persons. Many business models of companies and non-profit associations attempt to avoid paying taxes and balance their revenue with expenses (where the share of labour costs is relatively small). 4852 creative companies/non-profit associations reported sales revenue in 2019 but had no employees.

2716 companies and 446 non-profit associations were in debt in 2019.

According to the data of the mapping, the average salary in the creative industries was 1086 euros in 2019 and the profit was 464 euros per employee. These indicators are lower than the average indicators of Estonian companies (see Table 1.11).

The last two years have been economically difficult for several creative industries fields due to the pandemic restrictions. The state has significantly supported the cultural field but they have earned a lot less money from the market. In spring/summer 2022, restrictions will be lifted but the new concern will become the rapid price increase related to electricity, energy carriers and other raw materials, which impact both entrepreneurs and consumers. Since food and housing are becoming more expensive, this limits the abilities of people to consume culture and the demand for creative companies decreases.

The share of cultural subsidies of the public sector can grow in accordance with the growth of the budget. Additional means to exponentially increase the salaries of creative persons can predominantly come from the free market; therefore, the capacity of creative companies to pay higher salaries to their employees and be profitable is crucial. The trend of the last decade has been the establishment of many small companies in the fields of music, arts and design, but these companies often cannot cover the necessary living expenses of creative individuals. Simultaneously, in some creative industries fields, mergers are taking place and companies are becoming bigger and more profitable (architecture, broadcasting). With the digital revolution, cooperation between specialists in various creative industries

Table 1.11 Creative industries' labour costs, salaries and profit per employee (2019, in euros)

	Annual labour costs per employee	Gross monthly salary of an employee	Monthly profit per employee
ARCHITECTURE	20,250	1,261	595
FILM AND VIDEO	13,150	819	556
BROADCASTING	17,730	1,104	194
DESIGN	10,448	651	512
PERFORMANCE ARTS	16,241	1,012	-3
PUBLISHING	22,858	1,424	110
HANDICRAFT	8,492	529	95
MUSEUMS			
LIBRARIES			
ART	3,901	243	137
ENTERTAINMENT SOFTWARE	49,175	3,063	944
MUSIC	12,487	778	360
ADVERTISING	17,803	1,109	1445
AVERAGE	17,438	1,086	464
Estonian companies	**20,475**	**1275**	**907**

Source: Calculations by Estonian Institute of Economic Research on the data of the Business Registry; data of Statistics Estonia

has increased and some companies are becoming more interdisciplinary. The good cooperation of the creative industries sector with various economic fields holds critical importance in terms of future success. We can therefore develop international tourism through offering additional cultural services to tourists. An organic part of manufacturing companies' product development and innovation should be product design. Estonia's better reputation in the world, where culture especially (music, film, art, literature) introduces and creates an image of Estonia, will facilitate the export of Estonian products and services.

It is crucial to develop export capabilities and find new export options. Here, close cooperation between specialists and companies is crucial. Minimal capacity is needed to find and fulfil foreign orders and this capacity can only be achieved with the merger and cooperation of companies in the case of small Estonian companies. This is the case for architecture agencies. However, digital possibilities open new export channels where smaller companies can also successfully sell their products on digital platforms or online shops. A more detailed overview of the export of creative industries is depicted in the following subchapter.

CONCLUSION

1. From 2015-2019, the key economical statistical indicators of the creative industries improved. Total revenue grew and the number of companies increased. Internationalisation and export have developed. The sector falls behind the average indicators of the Estonian business market, but this is normal for creative industries because not all of the fields aim for business objectives, therefore we cannot compare them to the commerce fields.

2. The total revenue of the field was 1.863 billion euros in 2019, an increase of 26% in four years. The total revenue was the highest in the field of advertising.

3. From 2015-2019, the number of companies/establishments in the creative industries increased by 25%; the growth rate has decelerated. There were altogether more than 10,000 companies/establishments in 2019.

4. The number of employees is decreasing, but this is partially due to the change in methodology, where the Estonian Institute of Economic Research only added one employee to the revenue-earning companies without employees if the revenue reached at least the minimum salary + labour costs. The field of music was the most affected by this. In 2019, there were over 28,000 employees. Publishing was the largest field in terms of the number of employees (including printing as a related field).

5. An average of 2.7 employees worked in a creative company/establishment in 2019 and the trend of the last twenty years of the decrease in company size continued (3.4 employees in 2015, 8.6 employees in 2003). 71,000 euros of revenue a year was earned per employee. The average revenue per a company/establishment was 174,000 euros.

6. In 2019, 4.2% of the Estonian working population was employed in the creative industries, the number of companies and establishments composed 11.2% of the total number of Estonian companies as well as the sales revenue of companies and the total revenue of institutes receiving state subsidies made up 2.6% of the sales revenue of Estonian companies.

7. The export of creative industries has exponentially grown during the last four years (40%) and totalled 411 million euros in 2019 (293 million euros in 2015). The main export markets are Estonia’s neighbouring countries (Nordic countries, Latvia, Lithuania).

8. The growth of the creative industries sector was slower than the overall development of the Estonian economy, so the value added by creative industries decreased to 2.2% of the GDP (2.9% in 2015.)

9. The sector has become increasingly global and interdisciplinary; therefore, it is harder to define specific fields and categorise companies/establishments. Companies and creative persons often work in several fields.

10. The public sector financed the support structure and companies of creative industries with 262 million euros in 2019 (193 million euros in 2015). Therefore, 14% of the total revenue of the creative industries comprised subsidies. The key financiers of the creative industries were the Ministry of Culture, the Cultural Endowment of Estonia and Enterprise Estonia as well as the Ministry of Education and Research for libraries. The overview of the public sector's funds for financing cultural fields could be improved. It is especially complicated to find data on funding from local governments.

11. Entrepreneurial awareness has increased and business models have improved; as a result, the entire creative industries sector has improved. Reports submitted to the Business Registry have improved (mainly in terms of non-profit organisations.)

12. A third of the companies have amended their business model within the last five years. Digital solutions in business models, sales through an online shop and cooperation with other companies have increased.

13. State support for creative companies/establishments has predominantly impacted business and export competences (increased knowledge, skills, experience). The competitiveness of companies has also grown to better cope on the market. With the help of the state, companies were able to improve the quality of their products/services, which serves as a springboard for further development.

14. Besides the economic aspects, the key role of creative industries is maintaining and fostering Estonian culture, developing regions, creating an attractive living environment, promoting tourism and shaping the reputation of Estonia on foreign markets. The economic impact of creative industries manifests itself indirectly – through larger revenues of tourism, bigger export and foreign investments and offering products/services with a higher value added.

15. In the tightened budget conditions of the coming years, the additional means necessary to exponentially raise the salaries of creative persons can come from the free market, thereby the capacities of creative companies to independently earn revenue will increase. Moreover, the self-sufficiency of support structures should increase – this has not been the case so far.

16. While the trend of the last decades has been the establishment of many small companies, better cooperation with other companies is now needed. We will strengthen existing companies to increase the competitiveness of the sector on internal and external markets. A larger number of

employees, a higher sales volume per company, profitability and capability to invest lay the foundation to move into foreign markets.

17. The business models of companies should move towards incorporated entities. Non-profit organisations should be left to those who truly have non-profit objectives (societies, associations, hobby societies, etc.). There could also be courses for creative people who wish to earn a revenue – what easy steps can be taken to establish a private limited company. This way, reporting and accounting would improve for both creative persons and others.

18. The state can ensure creative individuals social guarantees (health insurance, pension) if the latter also contribute to tax collection. Therefore, it would make sense to show the work input and pay labour taxes for earning revenue. The state for their part need to see how to make the tax system suitable for the hectic, project-based revenue outturn of the creative industries.

19. The creative industries fields' better cooperation with various economic fields holds critical importance in terms of future success. Here, we can mention the development of tourism through the provision of additional cultural services for international tourists (exhibitions, concerts, festivals, museums, etc.). A organic part of manufacturing companies' product development and innovation should be product design (design can contribute the most to the Estonian real economy in terms of the growth of value added). The export of Estonia's goods and services is facilitated by Estonia's better reputation in the world, where culture is an important introduction to Estonia. Museums, arts, entertainment software and film fields should work more closely with the field of education, especially in the context of the rapid development of remote learning due to the pandemic.

20. It is crucial to develop export capabilities and find new export options. The small size of the companies often becomes an issue for export (insufficient volume, small cost bases and low marketing capacity). Closer cooperation between creative industries companies would foster success at foreign markets.

21. Digital developments have significantly, positively impacted the creative industries. Supply chains are changing – creative persons find it easier to perform and sell their art on the domestic market and internationally through digital solutions. Simultaneously, it makes it difficult to get an overview of the economic indicators because the revenue earned on the international market might not be reflected in Estonian reports. Furthermore, some international companies have registered themselves in Estonia but only operate abroad.

22. In the following mappings, we could consider analysing some of the fields that are hard to distinguish together (e.g. art and design). We should consider whether to involve certain fields in the mapping because they are mainly mediators for other fields (e.g. broadcasting), and fields that are mostly financed by the funds of the public sector (libraries, museums) should be separated from commercial fields.

23. Many media agencies that comprise several fields have emerged. They publish newspapers, broadcast radio and television, sell advertisements and organise seminars. They could be their own field.

24. The field of telecommunications has become a mediator of great films, music and television shows and their activities resemble broadcasting. Moreover, it is complicated to differentiate between revenue related to services, calling and data communication in these companies.

25. The creative industries as a whole have learned the rules of the business game. It is easier to ask for subsidies from the public and private sectors if the companies' economic indicators and reports are transparent and proper.

1.4. CREATIVE INDUSTRIES EXPORT

The creative companies and establishments have different objectives and it is not possible to present economic indicators for each field. First, it can be a state-funded field intended to serve domestic consumers (libraries) or, additionally, a field intended to serve foreign tourists (museums). In this case, we cannot talk about economic export or its promotion. Second, there are fields of activities that do not want to profit from export but are creating an image for the country through cultural export (e.g. through performance arts, music, exhibitions). The third group consists of companies and fields that do not need funding from the public sector and that operate in internal and external markets primarily for business purposes and successfully develop export (e.g. the fields of publishing, entertainment software, advertising and architecture). Entertainment software producers focus mostly on the foreign market.

Service export makes up the majority of the economic export of creative industries. Eesti Pank collected statistics about the latter to compose a balance of payments for which Statistics Estonia is now responsible. However, the services are still classified very generally and no separate data exist for the fields reflected in the mappings. Table 1.12 outlines the types of services for which the data about export collected by Statistics Estonia are related to the creative industries fields. These are the fields of architecture, audiovisual software, entertainment software, cultural heritage and advertising, but the data about the export of services by Statistics Estonia additionally include other services that are not classified as creative industries and thus the export indicators are exaggerated. For example, in addition to broadcasting, telecommunications prevalently includes other communications services; creation of entertainment software makes up only a part of all computer services; the field of advertising mapped here does not include the market research covered by Statistics Estonia data; cultural heritage is a narrower categorisation than the field of entertainment; research establishments are not classified as creative industries; etc.

Table 1.12. Export of services by category in 2015 and 2019 (million euros)

Category of services	2015	2019
Computer services	266	700
Advertising services, market research and public opinion surveys	183	243
Architecture, engineering, research and other technical services	56	70
Cultural heritage and entertainment services	27	54
Audiovisual and related services	25	37
Publishing	1	10

Source: Statistics Estonia

Other data sources of export are foreign trade indicators of goods by Statistics Estonia. The main export commodities have been printed paper products, which were exported for 84 million euros in 2019. Since creative industries export is predominantly based on the export of services, the export of goods is only a part of creative export and is more connected to related fields.

The database of the Business Registry gives the best overview of creative industries export across fields since it is based on the annual reports by the companies, which include the export of both goods and services. The annual reports of 898 companies (9% of companies) showed export. In Table 1.13, export is depicted across fields, which shows that 410.8 million euros were exported in 2019 (293.3 million euros in 2015), which is one-fifth of the total revenue. Export thus grew by 40% during these years. Export mainly came from the field of entertainment software (companies export almost all of their products), publishing's related field of printing and the field of advertising. These three fields made up 73% of the total export of creative industries – these are business fields, which do not require state funding. Entertainment software is primarily targeted to foreign markets and since it is a fast-developing field, export is expected to continue to grow. Broadcasting export has also grown exponentially with the active advent of telecommunications to the market for audiovisual products and services. The main target markets of creative industries export are Estonia's neighbouring countries. Of the farther destinations, the US is worth mentioning in terms of entertainment software and musical instruments as well as China for the latter.

Table 1.13. Export of creative companies in 2015 and 2019

Field	2015		2019	
	Export (million euros)	Share of export in total revenue (%)	Export (million euros)	Share of export in total revenue (%)
ARCHITECTURE	14.1	9.3	14.9	7.1
incl. core areas	1.7		1.7	
incl. related fields	12.4		13.1	
Audiovisual: FILM AND VIDEO	11.1	14.7	40.1	30.7
Audiovisual: BROADCASTING	1.0	0.6	26.7	13.8
DESIGN	15.3	37.0	12.2	21.7
PERFORMANCE ARTS	1.3	1.9	0.9	1.3
PUBLISHING	92.0	28.4	98.5	28.3
incl. core areas	1.9		2.5	
incl. related fields	90.1		96.0	
Cultural heritage: HANDICRAFT	1.7	12.1	1.8	9.6
ART	0.3	2.1	1.0	4.1
incl. core areas	0.3		1.0	
incl. related fields	0		-	
ENTERTAINMENT SOFTWARE	96.9	96.7	120.1	95.8
incl. core areas	44.2		91.6	
incl. related fields	52.7		28.5	
MUSIC	9.1	6.4	16.1	8.7
incl. core areas	3.9		3.9	
incl. related fields	5.2		12.2	
ADVERTISING	50.3	19.5	79.4	21.7
TOTAL	**293.3**	**19.8**	**410.8**	**22.0**

Source: Business Registry

The volume of export can still be underestimated to some extent since new export opportunities, which might not be manifested in Estonian statistics, have emerged during the digitalisation of creative industries (e.g. online shops, graphic design services for international clients, sales of music on platforms).

The export revenue of the creative industries in Estonia comprises one-fifth of the total revenue and its volume and share of the total revenue has increased within the last four years. Although in 2015 the share of export was 19.8%, in 2019 it was 22.0% of the total revenue.

The creative industries fields are unique and the fields, which are closely connected to national culture and language or intended for consumption on site (e.g. libraries, museums, performance arts), are not targeted towards export or have very limited export volume. Additionally, there is cultural export, which is mainly financed by Estonia and where earning revenue is not a priority (art exhibitions abroad, art music concerts abroad, etc.). The survey conducted by the Estonian Institute of Economic Research in 2021 revealed that 28% of entrepreneurs mainly see their role as a creator of reputation and image for the state. Around 70% of companies primarily have business objectives (Table 1.14).

Table 1.14 Objectives of companies/establishments (% of respondents)

Objectives	2018	2021	In 3-5 years
Applying for business objectives (sales revenue, profit, market share)	76	71	70
Increasing the markets and revenue of other companies, supporting tourism	30	28	30
Building the state’s reputation and image	29	28	31
Without business objectives, operating for creative objectives		35	27

Source: Survey by Estonian Institute of Economic Research

Note: Respondents were able to pick multiple answers

Products/services can only be exported if there is demand for them abroad. In terms of the demand of their services and products, the companies/establishments assess their national situation to be better than the international one (see Table 1.15). Although 65% of respondents noted in the 2021 survey that they could supply more than there is demand on the international market, fewer companies/establishments (51%) thought the same about the Estonian demand, therefore supply and demand are more balanced nationally. In terms of demand, the situation has not improved within the last four years; instead there are more companies experiencing shortages of demand on internal and external markets. Pandemic restrictions have also left a significant mark here.

Table 1.15 Relationship between supply and demand of companies/establishments (% of respondents)

Relationship between supply and demand	National demand		International demand	
	2018	2021	2018	2021

Demand is more than we can offer	18	16	14	11
Supply and demand are balanced, equal	44	32	26	23
We can offer more than there is demand	38	51	60	65
TOTAL	100	100	100	100

Companies/establishments that participated in the survey exported 53% of their products/services from 2016-2019 (some respondents considered internationalisation and sales to foreign clients in Estonia, e.g. in handicraft shops, to be export activity).

In conclusion, we can say that export and internationalisation have different objectives depending on the field, therefore not every field needs to export for economic purposes. Cultural export is also important for the state, which needs greater budgetary resources but is needed for reputation building and introducing the state and also creates exciting challenges for the fields.

The internationalisation of companies is occurring in many creative industries fields in Estonia. Therefore, the head office of advertising or broadcasting can be located in Estonia, but they can operate in various countries. Nonetheless, there are international companies in Estonia and we might not have data about their revenue. This means that it will be harder to determine and measure the definition and volume of export in the future.