

Content-related works

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Preface

We have prepared this publication especially for those of you interested in the problem of the economic dimension of the cultural sector, and in particular in its GDP share. The team of employees of the Centre for Cultural Statistics at the Statistical Office in Kraków has been dealing with researching phenomena in the field of cultural statistics for several years, taking into account the growing importance of the creative and knowledge-based economy. Poland is one of the few countries that developed a methodology of the culture satellite account and made calculations in this regard.

In order to familiarize you with the issue of the culture satellite account in a popular and illustrative way, we have tried to limit specialist terminology to the minimum necessary. Our goal is to explain step by step how we calculate the culture satellite account, and thus how we determine the real role of the field of culture in the national economy, with a particular emphasis on its contribution to GDP creation.

It is worth noting that the culture satellite account is not the only attempt to capture the economic aspects of culture at the Centre for Culture Statistics at the Statistical Office in Kraków. At the same time, works were underway to prepare a methodology enabling presentation of basic data and indicators that would characterise functioning of cultural and creative industries in Poland. It should be remembered that the results of these works, already presented on the website of the Statistics Poland, cover only a fragment of the area of culture classified as non-financial enterprises, while the culture satellite account covers the entire area of culture (and thus not only the mentioned enterprises, but also cultural institutions, artistic education, activities of non-governmental organisations in the field of culture).

We hope that the chosen form of presentation of the methodology estimating the share of culture in the economy will be useful for you. We will be grateful for any comments and suggestions, allowing us to prepare even more valuable publications in the future.

Director
of the Statistical Office in Kraków

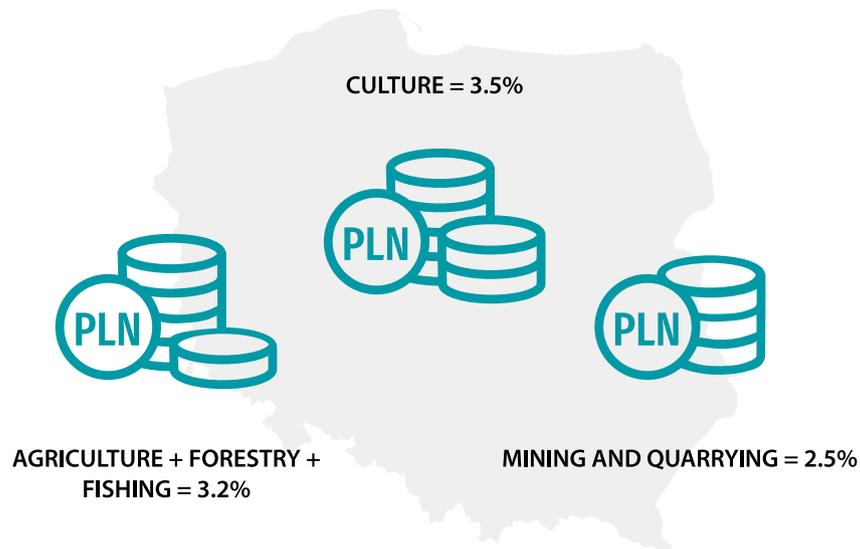
A handwritten signature in black ink, appearing to read 'A. Szlubowska', with a stylized flourish at the end.

Agnieszka Szlubowska

Culture satellite account

Even if we do not realise it every day, culture surrounds us and it is an important part of our lives. Culture is the books we read, the movies and TV series that we watch; it is the concerts and performances we attend, the computer and board games we play; it is the architectural projects and designs that we deal with every day. After a bit of reflection, everyone is able to see the individual value that culture brings into their lives. But does it have any economic significance? Is it part of GDP? Does culture "count"?

Statistical research shows that culture has not only social but also economic impact. What is more, its share in the Polish economy is higher than that of agriculture or mining! We know this thanks to the culture satellite account.



Inspiration: Cultural Satellite Account 2019 (Canada) <https://www.youtube.com/watch?v=BITKtmXSkTw>, data for Poland from 2012.

How do we define the cultural sector? In the broadest sense, culture is everything that is not "nature" but has been created by man and is passed down from generation to generation. In this approach to culture, we include not only the material achievements of a given social group (e.g. art or architecture), but also intangible values, such as attitudes, practices, beliefs. Of course, this approach would be difficult to translate into statistical rules. Therefore, here we look at culture as **diverse forms of cultural activity and their results**.

At first glance, this approach may seem simple. Culture is the activities of cultural institutions: museums, theatres, art galleries, centres of culture as well as protection of monuments – i.e. the **traditionally understood area of culture**. But exhibitions, performances or art classes are not the only forms of cultural expressions. Books, films and TV series, music, computer games are also inseparable parts of our lives; these are products of the so-called **cultural industries**: publishing houses, record companies, film producers, which reach us through radio, television, bookstores and music stores. It turns out, then, that the area of culture begins to expand with the development of human creativity as well as the development of technology. What about architecture? Fashion? Design? They are also based on cultural values or are a kind of artistic expression. Entities that undertake activities in these spheres are called **creative industries** and are included in the broadly understood area of culture.

What kind of statistical data on culture is collected?

Statistics Poland collects and analyses statistical data to learn about and describe phenomena and processes in the field of culture. Regular research is conducted in performing arts entities – such as theatres, operas, operettas, philharmonic, symphony and chamber orchestras, choirs, song and dance ensembles, and entertainment companies. In addition, we collect data on entities conducting professional cultural activities – museums, libraries (public, scientific, pedagogical, professional), film institutions and cinemas, galleries and exhibition halls, centres of culture, cultural centres and establishments, clubs and community centres. The collected data include the number of organised events, the diversity of the cultural offer as well as the number of participants and forms of participation in culture. Our research interests encompass also mass events of an artistic and entertainment nature, works of art and antiques market, as well as artistic education. We systematically analyse private households expenditure on culture and the amount of public funds allocated to culture.

The collected data allow defining selected economic aspects of running cultural and creative industries, such as the number of employees and employment, average salaries and financial results, as well as issues related to foreign trade of cultural and creative goods and services. However, to fully illustrate the contribution of the entire culture area to the GDP creation, an additional study is needed, that is the culture satellite account.



What are satellite accounts?

Before we move to satellite accounts, we must first understand what **national accounts** are. The easiest way to define them is: a statistical way of describing the state of the economy and its development by measuring the effects of economic activity and countless economic transactions taking place during the year in a given country. The collected data is analysed, classified and aggregated in accordance with specific criteria – as a result, indicators that help to understand the state of our economy are calculated. The most well-known measure presenting the effects of a given society's work, the measure of the size of a given economy, resulting from the national accounts is the **Gross Domestic Product (GDP)**.

The activities of each entity that provides goods and services to other entities and the whole of society are included in the national accounts. Each of these entities can be assigned to a specific type of economic activity. The classification of economic activities is conducted according to a systematic set of types of activities called the Polish Classification of Activities (Polska Klasyfikacja Działalności – PKD). The national accounts system obviously also uses other classifications, such as the Polish Classification of Products and Services (Polska Klasyfikacja Wyrobów i Usług – PKWiU) or the Classification of Individual Consumption by Purpose (COICOP).

If so, it would seem that there is nothing simpler than analysing the results only for those entities that undertake cultural and creative activities.

The problem, however, is that international standards for classifying economic activities, as well as the very concept of the system of national accounts (SNA) – i.e. accounts, balances and tables for measuring economic activity, is based on an approach that takes into account primarily those sectors, mainly industrial, which were most relevant when the concept of the system national accounts was first developed. Therefore, it does not comprise the types of activity that have emerged and appear since then¹.

Consequently, in order to examine and present the economic significance (e.g. contribution to the GDP creation) of such areas as culture, health, sports or tourism, a new approach is needed, one that looks for places in the system of national accounts in which data on such activity “have hidden”. This search can be compared to the work of artificial satellites, which observe the Earth from different angles of incidence and from different places in the orbit. In a similar way, satellite accounts, by developing or modifying the basic national account scheme, try to measure the scope of economic activity in those areas or sectors that are not directly and fully specified in the systems national accounts.

¹Tadayuki Hara (2015), Culture Satellite Account: An Examination of Current Methodologies and Country Experiences, Final Report, <https://unstats.un.org/unsd/nationalaccount/workshops/2015/Montreal/Montreal-BK2.PDF>.

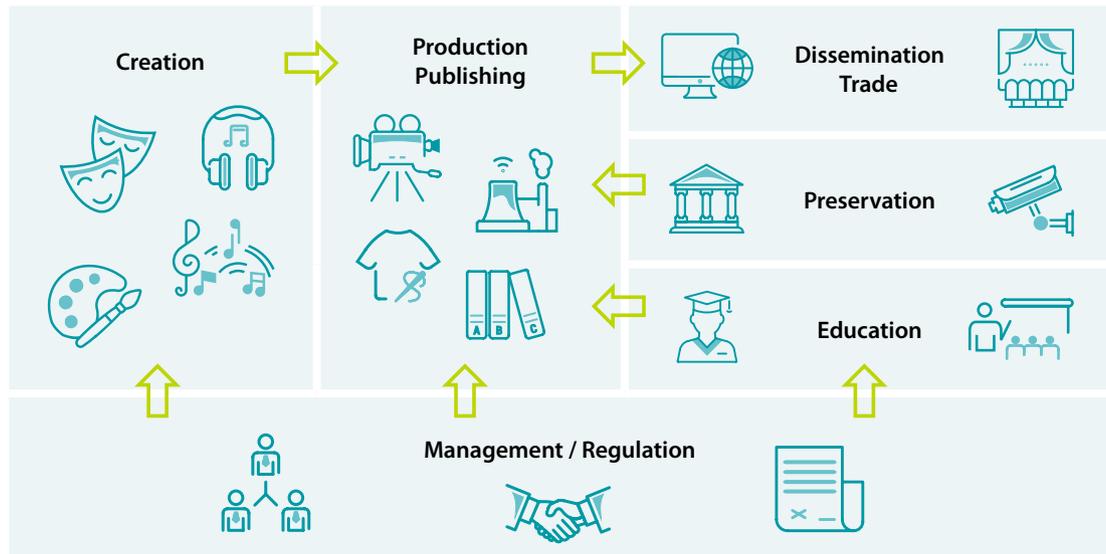
How is a culture satellite account created?

Step 1 – defining the scope of the field of culture

We understand **culture** as various types of cultural and creative activities (of cultural values or artistic expression), conducted both in a commercial and a non-profit way, by cultural institutions, NGOs, natural persons (including artists) and companies of various sizes.

The area of culture defined in this way can be divided into various types of cultural and creative activity, e.g. cultural heritage, performing, audiovisual and visual arts, as well as activities related to books and the press, design and architecture.

It should be remembered that in the satellite account, we look not only at the creative act itself, e.g. writing a novel. In this calculation, we also include the production of a given work – in our example that would be publishing and printing the novel in a specific circulation, as well as its sale, for example in bookstores. Similarly, other areas of culture appear in the satellite account, e.g. activities related to the protection of culture and heritage, as well as education and management and regulations.



Step 2 – identifying entities that operate in the field of culture

Once the area of culture was defined, we had to identify the entities that operate within it. On the one hand, these are state and local government cultural institutions (museums, theatres, community centres, etc.) but also art schools of various education levels and non-profit organizations (associations and foundations) dealing with broadly understood culture. We could not ignore the companies (primarily micro enterprises) and government institutions. In addition, in the culture satellite account we included entities engaged in foreign trade of cultural and creative products and services.

Step 3 – translating the definition into data on specific entities, collected in accordance with various classifications

In practice, the third step means working on identifying all codes in the Polish Classification of Activities that contain activities aligning with the definition of the scope of the field of culture that we adopted. We then made appropriate calculations for the selected codes.

In the case of national accounts, culture is considered to be only what has been included in the R Section (*Arts, entertainment and recreation*) of the Polish Classification of Activities, comprising, inter alia:

- Division 90 *Creative, art and entertainment activities*
- Division 91 *Libraries, archives, museums and other cultural activities.*

It includes only traditionally understood cultural institutions and activities. There is no place here for the cultural and creative industries, nor for sales, education or management. Importantly, the R Section also includes non-cultural activities: Division 92 *Gambling and betting activities*, Division 93 *Sports, entertainment and recreation activities*. The data available within the system of national accounts is, therefore, a combination of traditionally understood culture and activities related to recreation and entertainment. Therefore, it cannot be used directly to describe the area of culture.

As a result, the satellite must "circle" the entire PKD classification to find other cultural and creative activities, "hidden" not only in the section dedicated to culture, but also in other sections, e.g. J Section (Division 58 *Publishing activities*, Division 59 *Motion picture, video and television programme production, sound recording and music publishing activities* or Division 60 *Programming and broadcasting activities*), as well as in Section H concerning trade, or Sections M and N grouping scientific, technical and administrative activities.

In some cases, the matter may be more complicated, if in the selected PKD class (PKD is divided into sections, then divisions, followed by classes and subclasses), cultural activities are included alongside other types of activity. For example, this situation occurs in the case of classes related to education (Division 85, Section P), which do not identify the artistic education included in the area of culture, and thus in the culture satellite account, in the general educational activity. In such a situation, it is necessary to estimate and calculate how much of the volume falling in a given PKD class relates to the area of culture. To this end, appropriate methods of statistical data spreading are used.



Step 4 – calculating the so-called result categories

This step also answers the question:

Why is a culture satellite account created?

The main goal is to provide information on the economic dimension of the activities of entities pertaining to the area of culture and to determine the role of culture in creating the GDP. What do you need this information for? First of all, it facilitates the implementation of the public cultural policy and it is an important tool for monitoring the development potential of the cultural area.

What can we learn from the culture satellite account?

Thanks to calculations made within the culture satellite account, we can find out, on the one hand, what the value of manufactured cultural and creative products and services (so-called global production) is, and on the other, what the value of products and services consumed in the process of creating these products and services (so-called intermediate consumption) is. Comparing both values shows the added value created by the area of culture, which, after taking into account the balance of taxes and subsidies on products, would give us a gross product.

$$\begin{aligned} \text{Output} - \text{Intermediate Consumption} &= \text{Gross Value Added} \\ \text{Gross Value Added} + (\text{Taxes on products} - \text{Subsidies on products}) &= \text{GDP} \end{aligned}$$

If we compare the received data for individual transactions (output, intermediate consumption, gross added value, etc.) in the area of culture with the data for these transactions for the entire economy, we will be able to easily see the share of culture. First of all, we will be able to calculate the share of culture in the economy – in GDP – and thus assess its economic significance.

The whole process is called the production account. There is also the income creation account showing the income generation process that is related to production. The income in this account is the gross value added resulting from the production account, and on the expenditure side compensation of employees, taxes on production and imports less subsidies are recorded. The account ends with a balancing item – gross operating surplus (gross mixed income in the households sector) – illustrating generation of income directly related to the production process.

If we combine available cultural and creative goods and services (expressed in output and imports) with the demand for these products, expressed in the use of products (intermediate consumption, consumption, accumulation and export), we will obtain a balance of supply and demand for cultural goods and services.

Step 5 – publication of data

Data on the contribution of culture to the economy (a share in the GDP) and other result categories calculated as part of the culture satellite account will be available on the portal of Statistics Poland for each year starting from the data for 2017. Their publication will take place with a 5-year delay (i.e. the first data will appear in 2022) due to a long process of analysing results in the form of supply and use tables, which form the basis for calculating data on the economic importance of culture in the context of the culture satellite account.

The results of the first works on the culture satellite account as part of methodological work are available at: <https://stat.gov.pl/en/experimental-statistics/national-accounts-regional-accounts/report-on-methodological-work-culture-satellite-account,8,1.html>

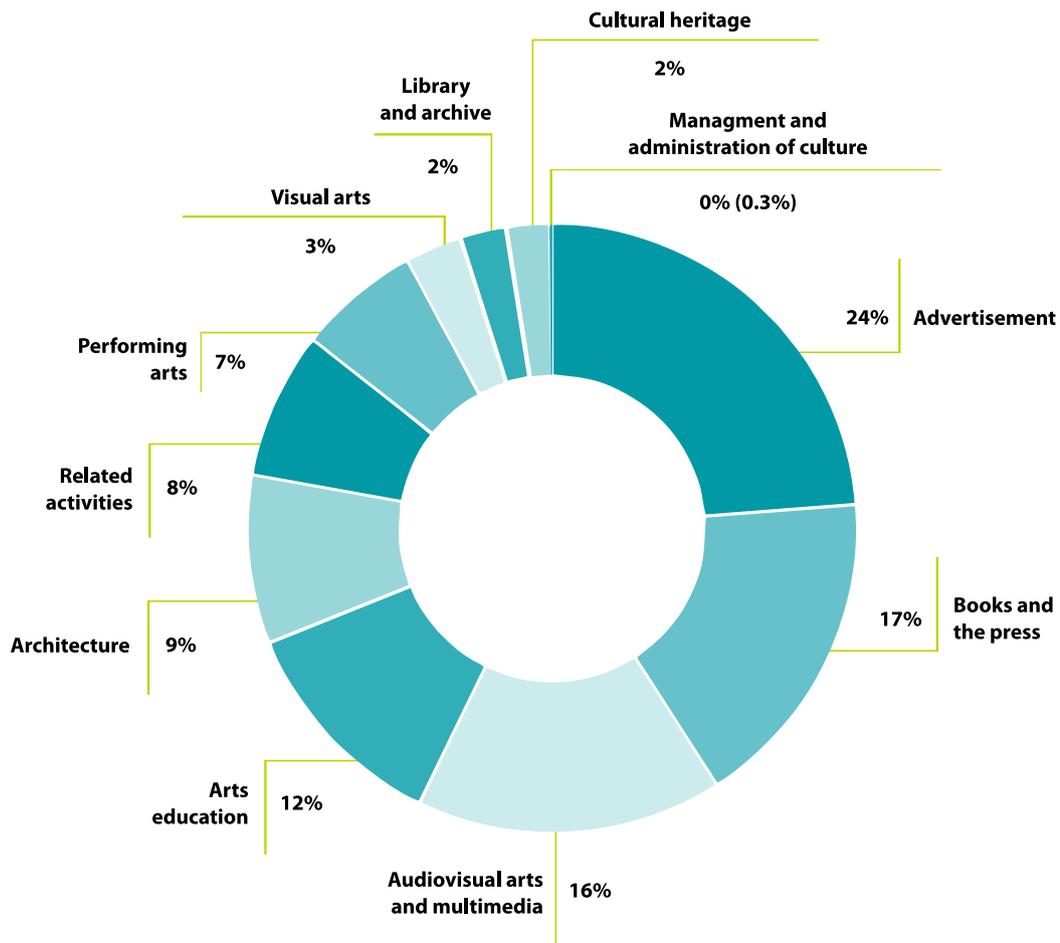
Below there are the results for 2010–2012 presented.

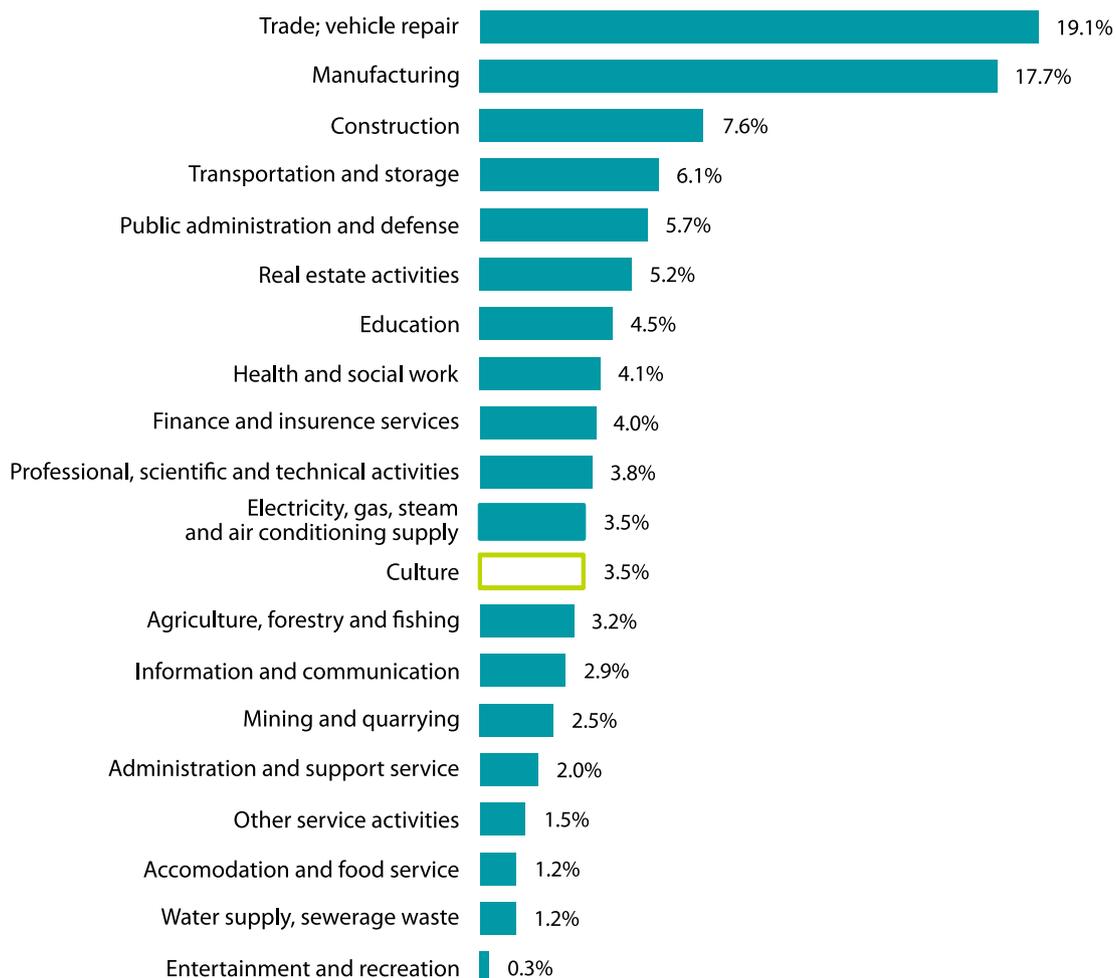
What is the economic potential of Polish culture?

The contribution of culture to the economy in 2010–2012 (in %)

	2010	2011	2012
Output	3.3%	3.1%	3.0%
Intermediate consumption	2.9%	2.7%	2.6%
Gross value added	3.7%	3.7%	3.5%
Compensation of employees	2.9%	3.9%	3.8%
Gross operating surplus	3.4%	3.5%	3.3%

Gross value added according to domains of culture in 2012 (%)



Gross value added structure in 2012, according to the PKD sections^a (%)

^a Section C (Manufacturing) does not include the following classes: 18.11, 18.12, 18.20 and 32.20; Section G (Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles) does not include the following classes: 47.61, 47.62, 47.63; Section J (Information and Communication) is presented without the following divisions 59 and 60 nor the following classes: 58.11, 58.13, 58.14, 58.21, 63.91; Section M (Professional, Scientific and Technical Activities) without the following classes: 71.11, 73.11, 74.10, 74.20, 74.30; Section N (Administrative and Support Service Activities) without the 77.22 class; Section O (Public administration and Defence; Compulsory Social Security) without the following classes: 84.11, 84.12, 84.25; Section P (Education) excluding the 85.52 class; Section R (Arts, Entertainment and Recreation) excluding the 90 division as well as the following classes: 91.01, 91.02, 91.03.

Annexe

Types of activities included in the culture satellite account by domains of culture and PKD classes

Domain of culture	PKD Class 2007	Name of a PKD 2007 class
Cultural heritage	91.02	Museums activities
	91.03	Operation of historical sites and buildings and similar visitor attractions
Libraries and archives	91.01	Library and archives activities
Books and press	47.61	Retail sale of books in specialised stores
	47.62	Retail sale of newspapers and stationery in specialised stores
	58.11	Book publishing
	58.13	Publishing of newspapers
	58.14	Publishing of journals and periodicals
	63.91	News agency activities
Visual arts ^a	74.30	Translation and interpretation activities
	74.10	Specialised design activities
	74.20	Photographic activities
Performing arts	90.03	Artistic creation activities
	32.20	Manufacture of musical instruments
	90.01	Performing arts activities
	90.02	Support activities to performing arts
Audiovisual arts and multimedia	90.04	Operation of arts facilities
	47.63	Retail sale of music and video recordings in specialised stores
	58.21	Publishing of computer games
	59.11	Motion picture, video and television programme production activities
	59.12	Motion picture, video and television programme post-production activities
	59.13	Motion picture, video and television programme distribution activities

^a Within the domain of "visual arts" there is also art works market, but it is not possible to single it out in PKD 2007.

Types of activities included in the culture satellite account by domains of culture and PKD classes (cont.)

Domain of culture	PKD Class 2007	Name of a PKD 2007 class
Audiovisual arts and multimedia (cont.)	59.14	Motion picture projection activities
	59.20	Sound recording and music publishing activities
	60.10	Radio broadcasting
	60.20	Public and licence television programmes broadcasting
	77.22	Rental of video tapes and CDs, DVDs etc.
Architecture	71.11	Architectural activities
Advertisement	73.11	Advertising agencies
Art handcraft ^b	–	–
Art education	85.10	Pre-primary education ^c
	85.20	Primary education ^c
	85.31	General secondary education ^c
	85.32	Technical and vocational secondary education ^c
	85.41	Post-secondary non-tertiary education ^c
	85.42	Tertiary education ^c
	85.52	Out-of-school forms of cultural education ^c
	85.59	Other out-of-school forms of education, not elsewhere classified ^c
85.60	Educational support activities ^c	
Management of culture	72.20	Research and experimental development on social sciences and humanities ^d
	84.11	General public administration activities ^d
	84.12	Regulation of the activities of providing health care, education, cultural services and other social services, excluding social security ^d
	84.25	Fire service activities ^d
	94.12	Activities of professional organisations ^d
Related activities	18.11	Printing of newspapers
	18.12	Other printing
	18.20	Reproduction of recorded media

^b At the PKD classification level, it is not possible to distinguish "artistic handicrafts". ^c Only in the domain of arts education. ^d Only for the expenses of the Ministry of Culture and National Heritage.

