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**Department of Infrastructure, Transport,
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Arts and Regional Research

Cultural and Creative Activity Satellite Accounts Methodology Refresh

Consultation paper

February 2023



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Introduction

Cultural and creative sectors are important for knowledge-based economies. In Australia, this workforce makes a valuable contribution to our economic and social wellbeing. The economic activity generated from the production and support of cultural and creative goods and services is referred to as ‘cultural and creative activity’.

Australia’s ‘cultural and creative activity satellite accounts’ quantify cultural and creative activity and track how it changes over time. This information is used by industry, academia, and policymakers within government. The accounts were established by the Australian Bureau of Statistics (ABS) and have been updated annually by the Bureau of Communications, Arts and Regional Research (BCARR).

The cultural and creative activity satellite accounts are being reviewed to ensure that these estimates remain fit-for-purpose in our changing economy. The review will examine the definition, scope, methodology and data used for quantifying this activity.

As outlined in *Revive: a place for every story, a story for every place*¹ – Australia’s cultural policy for the next five years, an updated methodology is proposed for estimating cultural and creative activity on an annual basis. Refreshing the methodological framework for these satellite accounts will help to better capture the contribution of the cultural and creative sectors and understand how this activity is changing and growing.

The purpose of this consultation paper is to share BCARR’s proposed approach to refreshing the cultural and creative activity satellite accounts. It supports a consultation process which invites stakeholders to provide feedback on these proposals.

Feedback on this paper is sought by **Friday, 26 May 2023**. Please refer to the ‘Request for feedback’ section for more information. We look forward to hearing your views.

A satellite account for cultural and creative activity

Most cultural and creative activity is captured in the national accounts – a statistical framework which summarises the economic activity of a nation. However, the information captured by these accounts does not provide enough detail to accurately measure cultural and creative activity. Furthermore, the national accounts do not capture non-market activity, such as volunteer services and the non-market output of cultural and creative industries.

As cultural and creative activity is not explicitly identified in the national accounts, it requires the construction of a satellite account. A satellite account is a supplemental framework linked to the national accounts which enables focused attention on a particular aspect of economic or social life, making information more visible and easier to use.

Satellite accounts combine national accounts estimates with findings from other statistics and data sources. Satellite accounts can be categorised into two broad types. One type includes the rearrangement of central classifications and can include complementary elements. The other type is based mainly on concepts alternative to the system of national accounts or that extend the production boundary.

The cultural and creative satellite account was developed to fill these gaps for Australia by collecting cultural and creative activity from across the economy. In 2014, the ABS published the Cultural and Creative Activity Satellite Accounts,² which presented an experimental framework to estimate the size of Australia’s cultural and creative activity using 2008–09 data. BCARR within the Department of

Infrastructure, Transport, Regional Development, Communications and the Arts adopted this framework and has updated estimates of cultural and creative activity on an annual basis since 2018.¹

Defining and measuring cultural and creative activity

While there is no universally-accepted definition, the terms ‘cultural’ and ‘creative’ are used to describe activities connected with the arts, media, heritage, design, fashion, and information technology.³

The actual size (or value) of the economic contribution of cultural and creative activity is determined by how it is defined and identified for each activity. In constructing the scope and coverage of Australia’s first cultural and creative activity satellite accounts, the ABS described human creativity as a vital input to cultural and creative activity. Cultural activity requires human creativity as an input and may contain intellectual property to communicate symbolic meaning; while creative activity also requires human creativity as a significant and identifiable input.

These broad definitions were developed by the ABS in consultation with key stakeholders and drew heavily on satellite accounts produced overseas, as well as existing statistical frameworks and academic literature that underpin much of the international research.⁴ For example, the cultural statistics frameworks published by the United Nations Educational, Scientific and Cultural Organization (UNESCO) highlighted that cultural goods and services ‘encompass artistic, aesthetic, symbolic and spiritual values’;⁵ while the United Nations Conference on Trade and Development (UNCTAD)’s Creative Economy Report noted that the creative industries ‘are the cycles of creation, production and distribution of goods and services that use creativity and intellectual capital as primary inputs.’⁶

The existing definition for what industries comprise Australia’s cultural and creative sectors was formulated based on consultation with the federal and state government organisations involved in the Cultural Ministers’ Statistics Working Group, as well as input from Australian academics. The framework was based on the 2009 UNESCO Framework for Cultural Statistics, adapted for Australian use following a series of national industry workshops and consultation.⁷ This definition was agreed by the Meeting of Cultural Ministers, which included representatives from all state and territory governments.

This definition forms the basis of the current cultural and creative satellite account. The satellite account has been important for understanding the types of cultural and creative activity occurring in the Australian economy in more detail. For example, it allows us to consider types of activity by category and domain (such as ‘Performing arts’, ‘Visual arts and crafts’, and ‘Museums’). Given the wide-ranging nature of cultural and creative activity, these more granular domain-level figures provide insights into the economic contribution of particular sectors.

Within this satellite accounts framework, cultural and creative activity is estimated from cultural and creative industry supply chains using a ‘top-down’ approach. Estimates are calculated from aggregates published annually in input-output tables (ABS Cat. no. 5209.0).⁸ Industry information shown in these tables is presented by 114 Input-Output Industry Groups (IOIGs). Cultural and creative industries are identified using the Australian and New Zealand Standard Industrial Classification (ANZSIC) at the class level (4-digit level).

¹ In 2018, BCARR published a working paper [Cultural and creative activity in Australia, 2008–09 to 2016–17](#). This paper expanded the updates by quantifying activity over a 10-year period. Annual updates to the cultural and creative activity estimates have been released in [2020](#), [2021](#), and [2022](#).

The need to refresh the satellite accounts

Current estimates of cultural and creative activity are used widely across government, industry and academia, and have informed our understanding of how cultural and creative industries contribute to economic outcomes relative to other industries. However, while these satellite accounts address some of the limitations when compared to using national accounts estimates, some concerns have been raised about the data sources, scope and approach of the current cultural and creative activity satellite accounts.

The satellite accounts will be reviewed to ensure that estimates remain fit-for-purpose in our changing economy. The review will examine the definition, scope, methodology and data used for quantifying cultural and creative activity.

Following consultation based on this paper, it is proposed that an updated methodology for estimating cultural and creative activity be adopted for future BCARR updates to the satellite account.

A summary of potential issues and the improvements with the current cultural and creative activity satellite accounts is shown below.

Data sources

- Data sources for the satellite accounts could be updated to incorporate newly available data and address concerns that some industries which are currently included in the satellite account are not representative of creative activity.
- Opportunities to include newly available datasets and data with more granular detail.
- Opportunities to better represent evolving cultural and creative industries and platforms, such as the games sector and online media content, as well as activity not well captured, such as workers whose second jobs are creative. Specific considerations of First Nations cultural and creative activity is also a potential area that could be investigated, to test whether data collection and use is fit for purpose.

Definition and scope

- Opportunities to improve the accuracy of the scope of activity. Some activities in the current cultural and creative satellite account may not relate to either cultural or creative activity. For example, clothing retailing and wholesaling are included as creative output despite these industries being dominated by large companies not typically associated with the arts.
- Classifying 'core' sectors of the cultural and creative economy may help to draw distinctions of this activity from wider and related sectors that support this core activity.
- Considering international comparisons may highlight opportunities to align the scope and approach with current and emerging international approaches which consider cultural/creative activity (for example, approaches by the OECD², UNESCO³, United Kingdom⁴, United States⁵).
- The current scope of cultural and creative activity is based on, and consistent with, the Australian and New Zealand standard classifications of industries and occupations (ANZSIC⁶ and ANZSCO⁷).

² [Cultural and Creative Sectors and Local Development - OECD](#)

³ [Economy | Diversity of Cultural Expressions \(unesco.org\)](#)

⁴ [DCMS Sectors Economic Estimates: Monthly GVA \(to September 2021\) - GOV.UK \(www.gov.uk\)](#)

⁵ [Arts and Cultural Production Satellite Account, U.S. and States | U.S. Bureau of Economic Analysis \(BEA\)](#)

⁶ [Australian and New Zealand Standard Industrial Classification \(ANZSIC\), 2006 \(Revision 2.0\) | Australian Bureau of Statistics \(abs.gov.au\)](#)

⁷ [ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2022 | Australian Bureau of Statistics \(abs.gov.au\)](#)

The ABS is undertaking a consultation process to review and update both classifications,^{8,9} which were last released in 2006. More contemporary classifications of ANZSIC and ANZSCO will improve the data collections and their analysis.⁹ This will have implications for the use of industry and occupation classifications by the satellite account.

Methodology

- The construction of the satellite accounts is complex and is not well understood by stakeholders, which can result in information being incorrectly described or attributed. Ensuring a transparent and replicable approach may help support better and more accurate use of the available data.
- The current approach assumes that the weight of the gross value added (GVA)¹⁰ for each cultural or creative industry class within its underlying IOIG remains constant since 2008–09. Using updated data weights from the latest input-output tables and applying a more detailed approach to benchmarking these weights may more accurately reflect current cultural and creative economic activity.
- Changes to help avoid the risk of double counting involved in estimating the economic contribution of cultural and creative activity from both the production and income sides of the ‘creative trident’ framework (see Figure 2).

⁸ [Help Shape the Future of Classification on Industries in Australia - Australian Bureau of Statistics - Citizen Space \(abs.gov.au\)](#)

⁹ [Have your say on ANZSCO review | Australian Bureau of Statistics \(abs.gov.au\)](#)

¹⁰ Gross value added (GVA) refers to the gross value of economic output, minus the value of the goods and services consumed as inputs to the production process (intermediate consumption).

Methodology review and proposed update

Existing approaches to defining cultural and creative industries

Despite its importance to contemporary economies, economic analysis of cultural and creative activity has been limited, both in Australia and abroad. No universally-accepted definition exists for the scope of this activity and no international standard is available to construct a satellite accounts framework. Country specific activities may also be important to consider. Accordingly, a range of models of cultural and/or creative activity have been developed based on how industry classification systems identify the scope of this activity (Table 1).

Table 1. Selected models for cultural and creative industries

Model / framework	Organisation / source	Detail
DCMS model	UK Department of Culture, Media and Sport	This model defines creative industries as ‘those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.’ ¹⁰
Concentric circles model	Throsby, D. (2001), <i>Economics and Culture</i> , Cambridge: Cambridge University Press, 2001	This model was based on the origin and diffusion of creative ideas in sound, text and image from core creative arts. It was used to develop our current definition of cultural and creative activity.
Nesta/ CIIC model/ QUT	National Endowment for Science, Technology and the Arts (UK) / Creative Industry Innovation Centre / Queensland University of Technology	The Nesta/CIIC model was built based on the DCMS model. The method used focused on a measure of creative intensity, which was defined as the proportion of workers in any given creative industry engaged in a creative occupation. ¹¹ In 2014, QUT applied the Nesta methodology to the Australian system of industry and occupation classifications. ¹²
UIS trade-related model	UNESCO Institute for Statistics	This model was based on cultural goods and services entering international trade. ¹³
UNESCO framework¹⁴	United Nations Educational, Scientific and Cultural Organisation	This publication examined multiple models and methodologies used internationally. The UNESCO Framework for Cultural Statistics defines culture through the identification and measurement of the behaviours and practices resulting from the beliefs and values of a society or a social group. ¹⁵
The European framework for cultural statistics	European Statistical System Network on Culture (ESSnet-Culture)	This framework updated the framework established by the Leadership Group Culture (LEG-Culture), with ten cultural domains and six cultural functions being organised. ¹⁶
Arts and Cultural Production Satellite Account (ACPSA)	US Bureau of Economic Analysis and the National Endowment for the Arts	This model is largely consistent with the definitions used by the United Nations and the EU, and is based on an input-output (I-O) framework to conduct an in-depth analysis of the arts and cultural sector’s contribution to domestic product (GDP). ¹⁷

Model / framework	Organisation / source	Detail
Canadian Framework for Culture Statistics	Statistics Canada	For the purpose of measurement, culture is defined as 'creative artistic activity and the goods and services produced by it, and the preservation of heritage'. ¹⁸
Creative industries mapping framework	New Zealand Institute of Economic Research (NZIER)	The framework is based on the Creative Trident model. Six creative segments are the basis for mapping and valuing the creative sector. ¹⁹

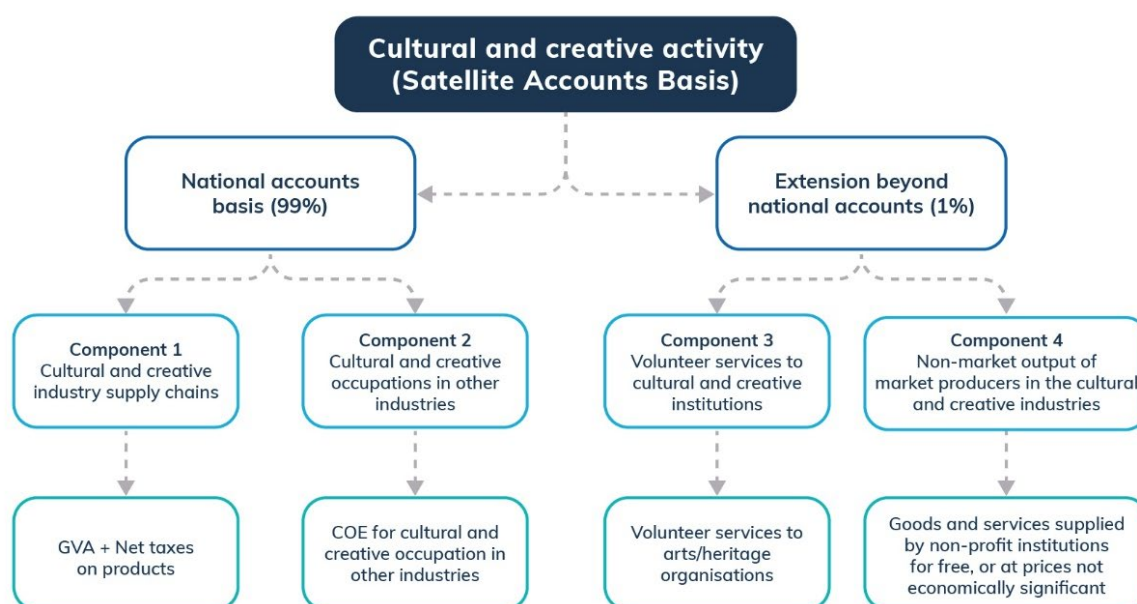
Review of current framework and methodology

Current framework

The current ABS cultural and creative activity satellite accounts framework,²⁰ which has been continued by BCARR, consists of two boundaries (Figure 1):

- the national accounts basis, which captures market-based transactions; and
- an extension beyond the national accounts production boundary which adds volunteer services and non-market production to the types of activity included.

Figure 1. Current framework for the cultural and creative activity satellite accounts



Source: ABS Cat. no. 5271.0

The national accounts production boundary captures most cultural and creative activity, accounting for 99 per cent of the economic contribution. This boundary includes two components:

- Component 1** is activity in industries which form the supply chains for cultural and creative goods and services. This component contains the activity of industries which generate cultural and creative ideas, use these ideas to produce or manufacture cultural and creative goods and services, or distribute cultural and creative goods and services to final consumers.²¹ This component comprises gross value added (GVA) and net taxes on products of cultural and creative industries.
- Component 2** is activity in other industries performed by workers in cultural and creative occupations. As this component was initially valued as a share of aggregated compensation of employees (COE), it is also called 'Imputed COE'.

Extending beyond the national accounts production boundary, cultural and creative activity is measured by two further components:

- **Component 3** is volunteer services to arts and heritage organisations.
- **Component 4** is the non-market output of market producers in the cultural and/or creative industries. This refers to the value of cultural and creative goods and services supplied by non-profit institution for free, or at the prices that are not economically significant.

This current framework applies the ‘creative trident’ model. The trident model initially referred to the three locations of employment within the creative occupations and industries – specialist, embedded and support workers (Figure 2).²² The trident model includes activity from specialist and support workers inside cultural and creative industries as well as embedded workers in cultural and creative occupations in other industries.

Figure 2. The cultural and creative employment trident



Source: S. Cunningham and P. Higgs (2010)

In theory, these three areas of activity are mutually exclusive from each other. Estimates of activity from the production by specialist and support workers in cultural and creative industries (component 1) should not double-count income from embedded workers in other industries (component 2).²³

However, the method for applying this approach in the context of the national accounts system differs for Components 1 and Component 2. While component 1 can be readily identified from the national accounts input-output tables, estimates of Component 2 need to be imputed using different data sources (a far more complicated process).

For example, the Compensation of Employees (COE) shares were calculated starting with employment data from input-output tables, Labour Force data, and the Census workforce occupation structure. This data was then combined with average earnings data from the ABS Survey of Employee Earnings and Hours to estimate employee remuneration in main jobs (the job in which most hours are usually worked) by occupation and industry. Employee remuneration in secondary jobs was estimated in this approach by using data from the ABS Survey of Employment Arrangements, Retirement and Superannuation, adjusted over time for wage inflation using the ABS Wage Price Index.²⁴

Review of BCARR's 2018 methodology

The methodology used in BCARR's current cultural and creative activity estimates is broadly consistent with the ABS's approach to defining the coverage of cultural and creative activity.

Cultural and creative proportions within individual Input-Output Industry Groups (IOIG) for the 2008–09 year were replicated. To provide consistency with the ABS approach, BCARR used 2008–09 as the base year and ensured the economic indicators such as GVA, net taxes on products, and imputed COE were aligned with the ABS satellite accounts. Details on BCARR's 2018 methodology can be found at [Appendix A](#).

Due to the unavailability of some data, BCARR estimates assume that the ratio of the GVA for each cultural or creative industry class (ANZSIC) makes up the same proportion of the GVA of its underlying Input Output Industry Groups (IOIGs) as it did in 2008–09. As more time passes since 2008–09, uncertainty around the granular (domain-level) GVA figures grows and the more likely it is that this assumption will generate erroneous results.

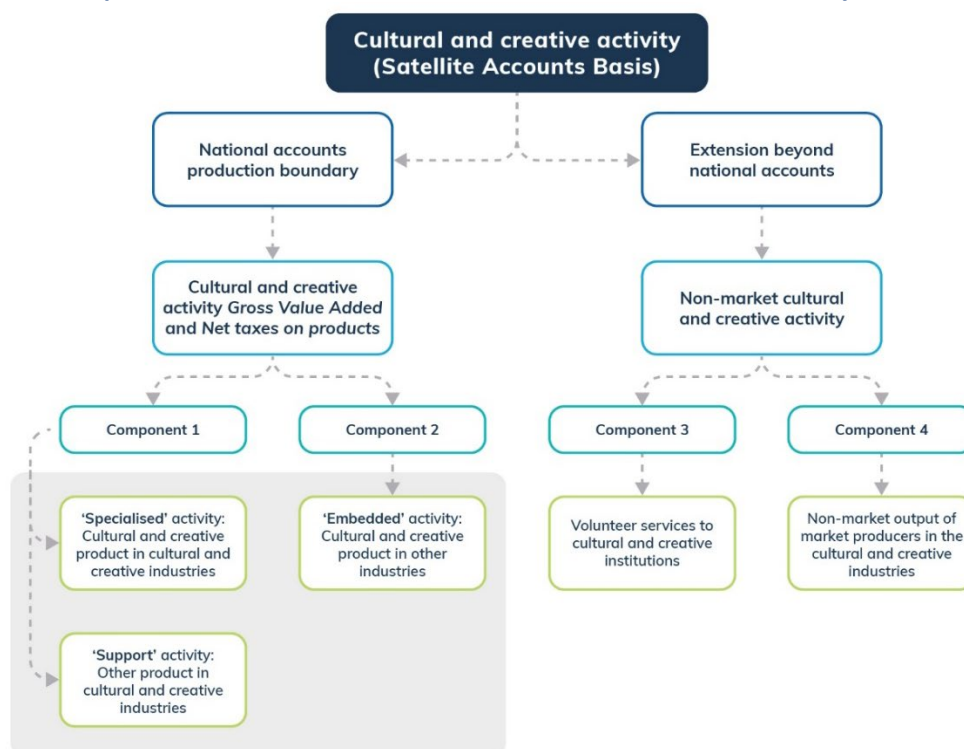
Proposed update of cultural and creative activity satellite accounts

The proposed update of cultural and creative activity satellite accounts will involve two elements that address issues highlighted in the current methodology: an update to the framework used to scope and identify cultural and creative activity; and an update to the methodology used to produce estimates.

Proposed framework update

The proposed update to the framework for producing estimates of cultural and creative activity described in this paper is focused on the national accounts production boundary. Components within this production boundary are proposed to be captured through a new ‘trident’ framework (Figure 3). This update allows the economic value of all three types of cultural and creative activities to be captured within the production-side only, to make sure Component 1 and Component 2 are measured using a consistent approach.

Figure 3. Proposed new trident framework of cultural and creative activity



Source: BCARR analysis

In this new trident framework, cultural and creative activity is represented as GVA and net taxes on products, and is re-identified as three activities:

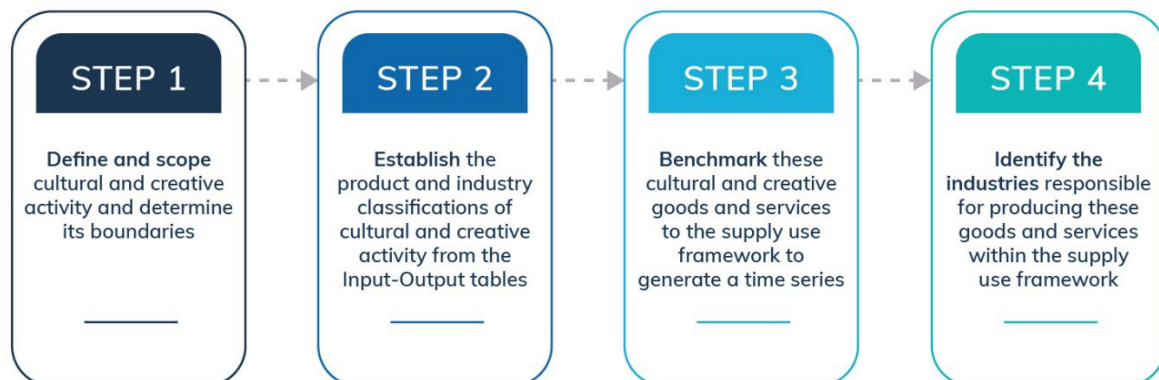
- **Specialised activity:** cultural and creative products in cultural and creative industries;
- **Embedded activity:** cultural and creative products in other industries outside the cultural and creative scope; and
- **Support activity:** any other products outside the scope of cultural and creative products within cultural and creative industries.

This proposed change replaces the former 'imputed COE' with 'embedded activity' (component 2). Component 1 will continue to capture 'specialised' and 'support' activities. These activities can be identified based on the ABS input-output tables which details around 1,000 Input-Output Product Classifications (IOPCs) and then links these to the four layers of the concentric circles model of the cultural and creative industries. Further detail is provided below (Figure 5).

Proposed update on the methodology used for the estimation process

To implement this proposed updated framework, estimates of the economic value of cultural and creative activity would be quantified using the following four step approach (Figure 4).

Figure 4. Proposed estimation process to quantify the economic value of cultural and creative activity

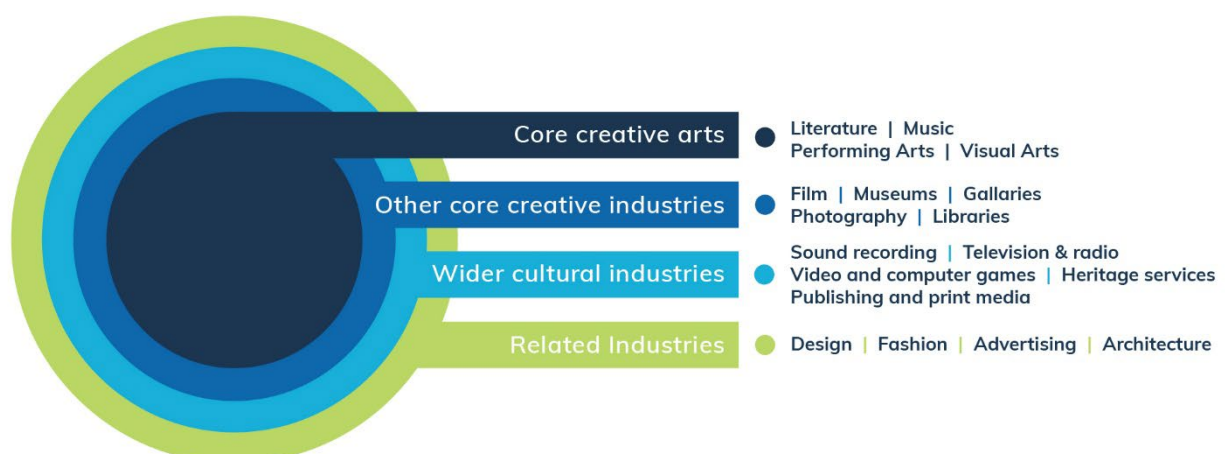


Source: BCARR analysis

Step 1: Define and scope cultural and creative activity and determine its boundaries

In this proposed framework we continue to follow the broad definition of cultural and creative activity as the sum of market and non-market activities that produce and support cultural and creative final goods and services. This activity can also be analysed by domains, which are grouped in terms of related industry classifications. The concentric circles model of cultural industries developed by Throsby²⁵ was adopted when scoping these domains (Figure 5).

Figure 5. The concentric circles model of the cultural industries



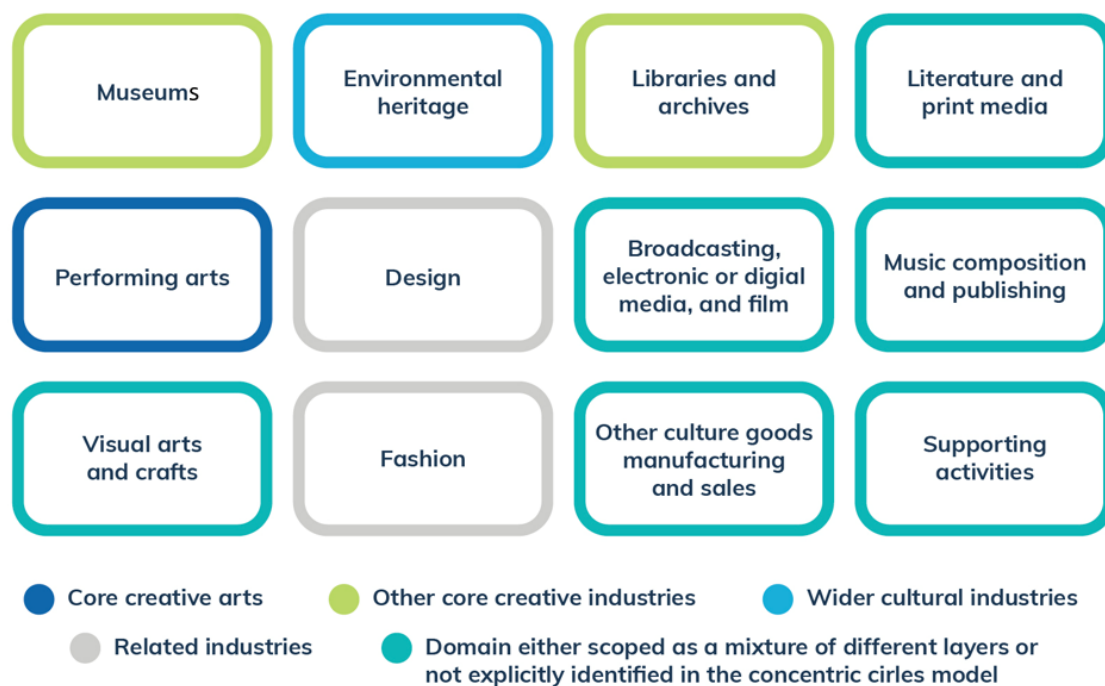
Source: Throsby, D. (2008)

The concentric circles model identifies four layers (or circles), which can be used to classify industries that produce cultural and creative goods and services according to the definitions described earlier.²⁶ In this model, the circle at the centre represents core industries whose proportion of cultural content is deemed highest, with layers extending outwards from the centre as the cultural content falls relative to the commercial value of the commodities or services produced.²⁷

However, when scoping these domains initially, some were either categorised across different layers such as Literature and print media, or not explicitly identified in the original concentric circles model, such as Supporting activities. Also, because domains were defined based on the ANZSIC industry classification level only, some data issues were identified in the current cultural and creative activity satellite accounts.

Twelve domains are listed in the current cultural and creative activity satellite accounts framework (see Figure 6 and [Appendix B](#)).

Figure 6. Cultural and creative domains – ABS 2014 and BCARR’s 2018 framework



Source: ABS Cat. no. 5271.0; BCARR analysis

Data gaps

Consistent with the ABS satellite accounts, some industries currently identified as in-scope contain significant amounts of activity that may not be considered cultural or creative. An example used by the ABS is higher education (a supporting industry) that covers entities engaged mainly in undergraduate or postgraduate teaching, of which only a small part is considered cultural or creative activity.

In these cases, where possible, out-of-scope activities are currently removed from the Satellite Accounts through an apportioning process. When this cannot be achieved, such industries are excluded. This is done in order to prevent the accounts overstating the amount of cultural and creative activity.

The industries currently excluded for this reason are listed in Table 2. Cultural and creative activity in these industries is, however, partly captured by the existing methodology in the second component of the Satellite Accounts (compensation of employees for cultural and creative workers in other industries).²⁸

Table 2. Data gaps for current methodology

Code	ANZSIC Class Name
1320	Leather Tanning, Fur Dressing and Leather Product Manufacturing
2029	Other Ceramic Product Manufacturing
2599	Other Manufacturing n.e.c.
3020	Non-Residential Building Construction
3109	Other Heavy and Civil Engineering Construction
4520	Pubs, Taverns and Bars
4530	Clubs (Hospitality)
6639	Other Goods and Equipment Rental and Hiring n.e.c.
6962	Management Advice and Related Consulting Services
7211	Employment Placement and Recruitment Services
7212	Labour Supply Services
7299	Other Administrative Services n.e.c.
7510	Central Government Administration
7520	State Government Administration
7530	Local Government Administration
8101	Technical and Vocational Education and Training
8102	Higher Education
9499	Other Repair and Maintenance n.e.c.
9551	Business and Professional Association Services
9552	Labour Association Services
9559	Other Interest Group Services n.e.c.

Source: ABS Cat. no. 5271.0

Linking the new trident framework with the concentric circles model

A ‘matrix’ framework is proposed to link the new trident framework with the concentric circles model (Figure 7). This approach would resolve the data gap issue described above. In the matrix, cultural and creative activity can be defined and identified using a two-way approach, based on both the IOPCs and ANZSIC industry classifications.

The IOPC is an industry of origin product classification that has been specifically developed by the ABS for the compilation and application of the Australian Input-Output (I-O) Tables. The structure of IOPC is implemented based on ANZSIC, in which the first four digits of the IOPC (which form the I-O product group) typically refer to the ANZSIC class to which the product is primary to that industry.²⁹

Through this process, any industry class initially identified as ‘partially in-scope’ can be removed from the original industry list:

- For example, *ANZSIC 8102 Higher Education* is not identified as a cultural and creative industry. However, final cultural and creative goods and services, such as computer system design services, can still be captured by this industry through the proposed new matrix framework.

- Another example relates to the events sector. *ANZSIC 7299 Other Administrative Services n.e.c* is an industry class which consists of activities which provide administrative services not elsewhere classified. Events activity, such as those relating to sport, the arts, or similar events promotion services, is a primary component within this class. While the share of events activity is difficult to estimate separately from this broader industry class, it can be identified from the input-output table through the two IOPCs:
 - 72990020 Theatre, concert and sport ticketing and booking services; and
 - 72990030 Event management or promotion (incl sport, art or similar); fund raising services (fee based) or administration services nec.

For any other ANZSIC industry class highlighted as a data gap in Table 2 and excluded from the current satellite accounts, the proposed approach does not require it to be identified as a cultural and creative industry, but will capture the cultural and creative component within this industry at the product level. Furthermore, the matrix allows for opportunities to measure other economic variables such as international trade, household and government spending, and investment based on the input-output tables.

Figure 7. Matrix to link the trident and concentric circles models

CATEGORY		Cultural and creative industry				Other industries
		Core creative arts industries	Other core creative industries	Wider cultural industries	Related industries	Rest of Industries
Cultural and creative products	Core creative arts products	✓	✓	✓	✓	✓
	Other core creative products	✓	✓	✓	✓	✓
	Wider cultural products	✓	✓	✓	✓	✓
	Related products	✓	✓	✓	✓	✓
Other products	Rest of products	✓	✓	✓	✓	

Specialised activity

Embedded activity

Support activity

Source: BCARR analysis

After setting up cultural and creative activity in this proposed new matrix framework, the second step is to establish the product and industry classifications that will capture cultural and creative activity based on the input-output tables.

Step 2: Establish the product and industry classifications of cultural and creative activity from the input-output tables

The input-output tables present details for around 1,000 IOPCs in the latest edition of the ABS release Australian National Accounts: Input-Output Tables (Product Details). These product classifications originate from the ANZSIC industry classification and provide the most disaggregated product classification level within the Australian National Accounts System. These tables provide rich information about the supply and use of products in the Australian economy, and the structure of, and inter-relationships between Australian industries,³⁰ which can be used as a necessary tool to identify and estimate cultural and creative activity at both product and industry levels.

A ‘bottom-up’ approach was applied during this process, by reviewing the entire list of cultural and creative products. During this approach, if a product from the input-output table was considered as partially in-scope but primarily related to cultural and creative activity, it has been included in the total.

Also, because the input-output tables publish only data for the 114 IOIGs (Input-Output Industry Groups) at the industry level, the estimates of ANZSIC industry classification within each IOIG needed to be

weighted and imputed based on different data sources such as the ABS Australian Industry Survey and Census data.

Lists of the input-output product classifications and industries proposed to be considered in-scope for cultural and creative are detailed in the appendices.

Step 3: Benchmark these cultural and creative goods and services to the supply use framework to generate a time series

After identifying cultural and creative activity from the input-output tables, these goods and services need to be benchmarked to the supply use framework to generate a time series for the analysed period. The benchmarking process is required because input-output tables are published only as a point in time and are not revised once finalised. In contrast, supply use tables provide a time series for all periods from 1994–95 up to the year preceding the latest completed financial year, and are subject to revision.³¹

During this benchmarking process, a revision of cultural and creative activity satellite accounts back to 2008–09 will be applied accordingly.

Step 4: Identify the industries responsible for producing these goods and services within the supply use framework

The industries responsible for producing these cultural and creative products can be identified after step 3. Output can be estimated by aggregating the product output across industries. Total intermediate use is estimated by assuming it comprises the same ratio of total industry intermediate consumption to total industry output. GVA can then be derived as the difference between the output and total intermediate use.

Opportunities for additional cultural and creative statistics

Adopting the approach described above may help unlock additional sources of information and statistics about Australia's cultural and creative economy that are not provided by the current satellite accounts. This section outlines some of the opportunities that could be explored in subsequent research.

Employment

BCARR's current cultural and creative activity satellite accounts do not provide an estimate of cultural and creative employment. Employment estimates could be included in this refreshed process, based on the trident framework. The occupations defined as being within the scope of the cultural and creative sectors would be consistent with the ABS 2014 publication of cultural and creative activity satellite accounts ([Appendix E](#)).

These occupations will be determined by analysing data included in the ABS Census of Population and Housing, Labour Force Australia (Detailed), and Labour Account Australia. They can be then used to generate an annual time series at both national and state/territory levels.

Other types of cultural and creative statistics

Other types of cultural and creative statistics may be possible under the proposed new approach, including economic variables such as chain volume measures, international trade, household final consumption expenditure (HFCE), government final consumption expenditure (GFCE), and gross fixed capital formation (GFCF). These new cultural and creative statistics would provide further scope for cross-industry comparisons and trend analysis.

The cultural and creative economic contributions of states and territories have not been covered in the current satellite accounts. Possible data sources that could be used to develop these estimates include ABS Census data, labour force data, labour account data and the State Accounts data. Due to less

availability of the state-level input data, such estimates, if possible at all, would have less industry detail than at the national level.

Events activity

The proposed updated methodology also provides options to better capture other activities such as events activity. As mentioned earlier, events activity is out of scope for the current satellite accounts framework because it cannot be identified directly from the latest ANZSIC classification. The proposed refreshed methodology could resolve this issue by identifying events activity through the product details level.

In this paper, the definition of events activity refers to activities that provide event management, promotion and ticketing services, as well as other events-related administration services. It also includes theatre and concert booking services.

Request for feedback

Australia's cultural and creative activity satellite account has been an important framework for helping people understand the cultural and creative economy and how this contribution has changed over time. The proposed refresh of the definition, scope and methodology is an important step to improve the satellite accounts framework and ensure the relevance of future estimates.

BCARR welcomes input and feedback on these proposed updates. This could include feedback on the following questions:

1. *How do you currently use the cultural and creative activity satellite accounts and estimates?*
2. *Are there further studies in the cultural and creative literature relevant for this analysis?*
3. *What are your thoughts on the proposed new trident framework? Do you think this will address current issues and provide better estimates of cultural and creative activity?*
4. *What are your thoughts on the scope of proposed layers, domains and categories of cultural and creative activity?*
5. *What are your thoughts on the scope of industries and occupations included in the proposed definition of cultural and creative sector?*
 - *What products, industries or occupations are still not captured in the proposed definition of cultural and creative activity?*
 - *Do you have suggestions on which products, industries or occupations should be included, excluded or modified?*
6. *What other datasets could BCARR use to further improve the estimates?*

If you have any feedback or comments on aspects of this proposed refresh, please contact the Bureau of Communications, Arts and Regional Research by email bcarr@infrastructure.gov.au.

Feedback on this paper is sought by **Friday, 26 May 2023**.

Appendix A—BCARR's 2018 Methodology

Table 3. Component 1 and 2: Cultural and creative industry supply chains and Imputed COE

Indicator	BCARR 2018 Methodology
GVA of cultural and creative industries	<ol style="list-style-type: none"> 1. Replicate Satellite Accounts (ABS Cat. no. 5271.0) cultural and creative proportions within individual Input-Output Industry Groups (IOIG) for the 2008–09 year. This sets up 2008–09 as the base year, and aligns the GVA with ABS Cat. no. 5271.0. 2. Apply the current price movement from the 2016-17 publication of Australian System of National Accounts (ABS Cat. no. 5204.0) to step 1. This generates the time series from 2008–09 to 2016-17 as well as incorporate any revisions during the period. 3. Split total GVA into IOIGs by using the proportions from each corresponding Input-Output table (ABS Cat. no. 5209.0). 4. Apply cultural and creative ratios to every financial year to derive each cultural and creative industry GVA. 5. Aggregate all cultural and creative industry GVAs.
Net taxes on products of cultural and creative industries	<ol style="list-style-type: none"> 1. Replicate Satellite Accounts (ABS Cat. no. 5271.0) cultural and creative proportions within individual IOIG for the 2008–09 year. This sets up 2008–09 as the base year, and aligns the net taxes on products with ABS Cat. no. 5271.0. 2. Apply the current price movement from the 2016-17 publication of Australian System of National Accounts (ABS Cat. no. 5204.0) to step 1. This will generate the time series from 2008–09 to 2016-17 as well as incorporate any revisions during the period. 3. Split total net taxes on products into IOIGs by using the proportions from Input-Output tables (ABS Cat. no. 5209.0). 4. Apply cultural and creative ratio to every financial year, to derive cultural and creative activity net taxes on products for each industry. 5. Aggregate the net taxes on products for all cultural and creative industries. 6. Apply the below ratio to Gross Fixed Capital Formation (Private) and Exports $\frac{\text{Total net taxes on products for cultural and creative industries}}{\text{Total net taxes on products for cultural and creative activity related IOIGs}} \times 100\%$ 7. Add figures from Step 5 and Step 6 to generate the total of net taxes on products for cultural and creative activity
COE for cultural and creative occupations in other industries	<ol style="list-style-type: none"> 1. Replicate 2008–09 Satellite Accounts (ABS Cat. no. 5271.0) cultural and creative proportions of COE¹¹ for cultural and creative occupations in other industries by industry division. This sets up 2008–09 as the base year, and aligns the COE for cultural and creative occupations in other industries with ABS Cat. no. 5271.0. 2. Apply the proportions from step 1 to the COE data for financial years after 2008–09.

Outside the national accounts boundary, the current approach for quantifying volunteer services and non-market output for cultural and creative activities assumes these two components as a share of total cultural and creative activity on a national account basis remains stable over the analysed period.

¹¹ The approach to derive cultural and creative COE is the same as methodology outlined in Component 1 GVA of cultural and creative industries.

Table 4. Component 3 and 4: Volunteer services and non-market output of cultural and creative activities

Indicator	BCARR 2018 Methodology
Volunteer services to arts/heritage organisations	The current approach assumes that the volunteer services to arts/heritage organisations retains a constant share of total cultural and creative activity on a national accounts basis over the period.
Non-market output of market producers in the cultural and creative industries	The current approach assumes that non-market output of market producers in the cultural and creative industries retains a constant share of total cultural and creative activity on a national accounts basis over the period.

Appendix B—Cultural and creative domains – BCARR’s current framework

Table 5. Cultural and creative domains – BCARR’s current framework

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
1.	Museums	Museum Operation (8910)	Other core creative industries	Both	Wholly in-scope
2.	Environmental heritage	Zoological and Botanical Gardens Operation (8921)	Wider cultural industries	Cultural	Wholly in-scope
		Nature Reserves and Conservation Parks Operation (8922)	Wider cultural industries	Cultural	Wholly in-scope
3.	Libraries and archives	Libraries and Archives (6010)	Other core creative industries	Both	Wholly in-scope
4.	Literature and print media	Printing (1611)	Wider cultural industries	Cultural	Partially in-scope. Photocopying is out-of-scope.
		Printing Support Services (1612)	Wider cultural industries	Creative	Wholly in-scope
		Book and Magazine Wholesaling (3735)	Wider cultural industries	Cultural	Wholly in-scope
		Newspaper and Book Retailing (4244)	Wider cultural industries	Cultural	Wholly in-scope
		Newspaper Publishing (5411)	Wider cultural industries	Both	Wholly in-scope
		Magazine and Other Periodical Publishing (5412)	Wider cultural industries	Both	Partially in-scope. Racing forms publishing is out-of-scope.
		Book Publishing (5413)	Wider cultural industries	Both	Wholly in-scope
		Other Publishing (except Software, Music and Internet) (5419)	Wider cultural industries	Creative	Partially in-scope. Calendar and diary publishing is out-of-scope.
5.	Performing arts	Pubs, Taverns and Bars (4520)	Not in the concentric circles model	Cultural	Partially in-scope. Included for the activity generated at venues during live entertainment performances.

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
		Clubs (Hospitality) (4530)	Not in the concentric circles model	Creative	Partially in-scope. Included for the activity generated at venues during live entertainment performances.
		Performing Arts Operation (9001)	Core creative arts	Cultural	Wholly in-scope
		Creative Artists, Musicians, Writers and Performers (9002)	Core creative arts	Cultural	Wholly in-scope
		Performing Arts Venue Operation (9003)	Core creative arts	Both	Wholly in-scope
6.	Design	Architectural Services (6921)	Related industries	Both	Wholly in-scope
		Other Specialised Design Services (6924)	Related industries	Both	Wholly in-scope
		Advertising Services (6940)	Related industries	Both	Wholly in-scope
		Computer System Design and Related Services (7000)	Related industries	Creative	Wholly in-scope
7.	Broadcasting, electronic or digital media, and film	Software Publishing (5420)	Wider cultural industries	Both	Wholly in-scope
		Motion Picture and Video Production (5511)	Wider cultural industries	Both	Wholly in-scope
		Motion Picture and Video Distribution (5512)	Wider cultural industries	Both	Wholly in-scope
		Motion Picture Exhibition (5513)	Wider cultural industries	Both	Wholly in-scope
		Post-production Services and Other Motion Picture and Video Activities (5514)	Wider cultural industries	Both	Wholly in-scope
		Radio Broadcasting (5610)	Wider cultural industries	Both	Wholly in-scope
		Free-to-Air Television Broadcasting (5621)	Wider cultural industries	Both	Wholly in-scope
		Cable and Other Subscription Broadcasting (5622)	Wider cultural industries	Both	Wholly in-scope

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
8.	Music composition and publishing	Internet Publishing and Broadcasting (5700)	Wider cultural industries	Both	Wholly in-scope
		Video and Other Electronic Media Rental and Hiring (6632)	Wider cultural industries	Cultural	Wholly in-scope
		Music Publishing (5521)	Wider cultural industries	Both	Wholly in-scope
		Music and Other Sound Recording Activities (5522)	Wider cultural industries	Both	Wholly in-scope
		Leather Tanning, Fur Dressing and Leather Product Manufacturing (1320)	Not in the concentric circles model	Both	Partially in-scope. Associated with crafts.
		Other Ceramic Product Manufacturing (2029)	Not in the concentric circles model	Both	Partially in-scope. Associated with crafts.
9.	Visual arts and crafts	Jewellery and Silverware Manufacturing (2591)	Not in the concentric circles model	Both	Partially in-scope. Coin minting is out-of-scope.
		Jewellery and Watch Wholesaling (3732)	Not in the concentric circles model	Both	Partially in-scope. Watch and clock wholesaling are out-of-scope.
		Watch and Jewellery Retailing (4253)	Not in the concentric circles model	Both	Partially in-scope. Watch retailing is out-of-scope.
		Professional Photographic Services (6991)	Other core cultural industries	Both	Wholly in-scope
		Clothing Manufacturing (1351)	Related industries	Creative	Wholly in-scope
		Footwear Manufacturing (1352)	Related industries	Creative	Wholly in-scope
10.	Fashion	Clothing and Footwear Wholesaling (3712)	Related industries	Creative	Wholly in-scope
		Clothing Retailing (4251)	Related industries	Creative	Wholly in-scope
		Footwear Retailing (4252)	Related industries	Creative	Wholly in-scope

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
		Other Personal Accessory Retailing (4259)	Related industries	Creative	Partially in-scope. Briefcase and luggage retailing are out-of-scope.
11.	Other culture goods manufacturing and sales	Reproduction of Recorded Media (1620)	Wider cultural industries	Cultural	Wholly in-scope
		Other Manufacturing nec (2599)	Not in the concentric circles model	Cultural	Partially in-scope. Included for musical instrument manufacturing.
		Other Goods Wholesaling nec (3739)	Not in the concentric circles model	Cultural	Partially in-scope. Included for musical instrument and recorded media wholesaling.
		Commission-Based Wholesaling (3800)	Not in the concentric circles model	Cultural	Partially in-scope. Included for its role in reselling cultural and creative goods.
		Entertainment Media Retailing (4242)	Wider cultural industries	Cultural	Wholly in-scope
		Antique and Used Goods Retailing (4273)	Not in the concentric circles model	Cultural	Partially in-scope. Coin and stamp dealing are out-of-scope.
		Other Store-Based Retailing nec (4279)	Not in the concentric circles model	Cultural	Partially in-scope. Included for retail art gallery operation and musical instrument retailing.
		Non-Store Retailing (4310)	Not in the concentric circles model	Cultural	Partially in-scope. Included for direct selling of books.
		Retail Commission-Based Buying and/or Selling (4320)	Not in the concentric circles model	Cultural	Partially in-scope. Included for selling and buying of books.

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
		Other Goods and Equipment Rental and Hiring nec (6639)	Not in the concentric circles model	Both	Partially in-scope. Included for art work, video recorder and sound equipment rental.
12.	Supporting activities	Non-Residential Building Construction (3020)	Related industries	Cultural	Partially in-scope. Included for construction of cultural facilities.
		Other Heavy and Civil Engineering Construction (3109)	Related industries	Cultural	Partially in-scope. Included for construction of cultural facilities.
		Management Advice and Related Consulting Services (6962)	Not in the concentric circles model	Cultural	Partially in-scope. Included for artist / entertainer management services.
		Employment Placement and Recruitment Services (7211)	Not in the concentric circles model	Cultural	Partially in-scope. Included for casting agency operation.
		Labour Supply Services (7212)	Not in the concentric circles model	Cultural	Partially in-scope.
		Other Administrative Services nec (7299)	Not in the concentric circles model	Cultural	Partially in-scope. Included for cultural event management, arts promotion and theatre and concert booking services.
		Central Government Administration (7510)	Not in the concentric circles model	Cultural	Partially in-scope
		State Government Administration (7520)	Not in the concentric circles model	Cultural	Partially in-scope
		Local Government Administration (7530)	Not in the concentric circles model	Cultural	Partially in-scope

No.	Domain	ANZSIC Name and Code	Layer of concentric circles model	Segment	Scope
		Technical and Vocational Education and Training (8101)	Not in the concentric circles model	Cultural	Partially in-scope
		Higher Education (8102)	Not in the concentric circles model	Cultural	Partially in-scope
		Arts Education (8212)	Core creative arts	Cultural	Wholly in-scope
		Other Repair and Maintenance nec (9499)	Not in the concentric circles model	Cultural	Partially in-scope. Included for jewellery and musical instrument repair.
		Business and Professional Association Services (9551)	Not in the concentric circles model	Cultural	Partially in-scope
		Labour Association Services (9552)	Not in the concentric circles model	Cultural	Partially in-scope
		Other Interest Group Services nec (9559)	Not in the concentric circles model	Cultural	Partially in-scope

Appendix C—Proposed IOPC list of cultural and creative activity

Table 6. Proposed IOPC list of cultural and creative activity

IOPC	IOPC Description	Layer	Domain	Segment
13200051	Handbags, suitcases (incl canvas), bags (of leather or leather substitute) (incl toiletry bags, purses, wallets) (excl bags for packaging)	Related activities	Fashion	Both
13510011	Men's and boys' clothing (excl shirts, blouses, T-shirts)	Related activities	Fashion	Creative
13510030	Women's and girls' clothing (excl shirts, blouses, T-shirts)	Related activities	Fashion	Creative
13510040	Shirts and blouses (with collars)	Related activities	Fashion	Creative
13510050	T-shirts and tank tops	Related activities	Fashion	Creative
13510061	Swimwear and wetsuits	Related activities	Fashion	Creative
13510071	Underwear and foundation garments (incl brassieres, corsets, girdles)	Related activities	Fashion	Creative
13510090	Outer nightwear (incl dressing gowns and robes) and sleepwear	Related activities	Fashion	Creative
13510101	Plastic clothing and clothing accessories nec (incl waterproof, headwear) (excl footwear, handbags, rubber clothing accessories)	Related activities	Fashion	Creative
13510130	Fur and sheepskin clothing and clothing accessories (excl headwear, footwear, handbags, toys)	Related activities	Fashion	Creative
13510140	Hats and other headgear (excl safety, rubber or plastic)	Related activities	Fashion	Creative
13510151	Safety headgear and eyewear (industrial or sporting) (incl goggles)	Related activities	Fashion	Creative
13510170	Clothing and clothing accessories nec (incl textile or leather belts, gloves) (excl headwear, footwear, handbags, rubber clothing accessories)	Related activities	Fashion	Creative
13520010	Footwear with plastic or rubber uppers (incl waterproof footwear, thongs) (excl sports footwear)	Related activities	Fashion	Creative
13520030	Sports footwear	Related activities	Fashion	Creative

IOPC	IOPC Description	Layer	Domain	Segment
13520041	Footwear with leather uppers (incl leather footwear with outer soles of rubber or plastic) (excl sports footwear)	Related activities	Fashion	Creative
13520050	Footwear nec (incl steel capped footwear)	Related activities	Fashion	Creative
13520060	Footwear parts nec (incl plastic heels)	Related activities	Fashion	Creative
15100020	Newsprint	Wider cultural activities	Publishing and print media	Cultural
15290020	Paper festival, carnival or other entertainment articles (incl conjuring tricks, novelties, Christmas decorations)	Related activities	Visual crafts	Both
16110010	Books (incl atlases & touring guides), maps, charts, plans, sheet music printed but not published by this business	Wider cultural activities	Publishing and print media	Cultural
16110020	Newspapers, journals and periodicals printed but not published by this business once a week or more	Wider cultural activities	Publishing and print media	Cultural
16110030	Newspapers, journals and periodicals printed but not published by this business less than weekly	Wider cultural activities	Publishing and print media	Cultural
16110060	Letter and correspondence cards (printed but not published), postcards	Wider cultural activities	Publishing and print media	Cultural
16110070	Trade advertising material or commercial catalogues printed but not published by this business; other printed matter nec	Related activities	Advertising	Both
16120010	Typesetting and prepared printing plates/cylinders, or other media for use in printing	Wider cultural activities	Publishing and print media	Creative
16120020	Printing trade services nec (excluding desktop publishing)	Wider cultural activities	Publishing and print media	Creative
16200011	Pre-recorded Audio media, manufactured but not published by this business	Related activities	Other support activities	Cultural
16200020	Reproduced computer software, manufactured but not published by this business	Related activities	Other support activities	Cultural

IOPC	IOPC Description	Layer	Domain	Segment
16200040	Other pre-recorded media (including records), manufactured but not published by this business	Related activities	Other support activities	Cultural
20290040	Tableware, ornamental pottery and domestic ware nec	Related activities	Visual crafts	Both
24110020	Photographic goods nec (excl sensitised photographic film, paper, plates & chemicals)	Other core cultural activities	Photography	Creative
24190080	Radio and radar equipment, navigational aids, and radio remote control equipment	Wider cultural activities	Television and radio	Creative
24210061	Printing and photocopying machinery and parts	Wider cultural activities	Publishing and print media	Creative
24220022	Radio and television studio equipment (incl cameras, transmitters and transceivers)	Wider cultural activities	Television and radio	Creative
24220060	Parts for radio and television studio equipment, transmitters and radio transceivers	Wider cultural activities	Television and radio	Creative
24220070	Television antennae parts	Wider cultural activities	Television and radio	Creative
24290010	Television receiving sets (excl parts)	Wider cultural activities	Television and radio	Creative
24290020	Radio receiving sets (incl car radios and clock radios) (excl parts)	Wider cultural activities	Television and radio	Creative
24290030	Sound and video recording and reproducing equipment (incl CD players, record players) (excl parts)	Wider cultural activities	Sound recording	Creative
24290060	Video games, poker machines and other coin or disc operated games	Wider cultural activities	Video and computer games	Creative
24290070	Prepared unrecorded media for sound or video recording (incl blank CDs, magnetic tapes)	Wider cultural activities	Sound recording	Creative
24290080	Other audio and video equipment and accessories (excl parts)	Wider cultural activities	Video and computer games	Creative
24290090	Parts for television and radio receiving sets, sound and video recording and reproducing equipment, other audio and video equipment	Wider cultural activities	Television and radio	Creative
24690100	Printing machinery and parts	Wider cultural activities	Publishing and print media	Creative
24690120	Machinery and parts for paper or book-binding	Wider cultural activities	Publishing and print media	Creative
25910020	Jewellery and silverware	Related activities	Visual crafts	Creative

IOPC	IOPC Description	Layer	Domain	Segment
25910030	Imitation jewellery (excl incorporating precious metal except as plating or as minor constituents)(excl watch straps)	Related activities	Visual crafts	Creative
25990030	Advertising signs, name-plates and sign-plates (excl electric and metal)	Related activities	Advertising	Both
25990070	Musical instruments (incl parts and accessories)	Related activities	Other support activities	Creative
54110010	Newspaper publishing (incl printed and published by the same business) published once a week or more	Wider cultural activities	Publishing and print media	Both
54110020	Newspaper publishing (incl printed and published by the same business) published less than weekly	Wider cultural activities	Publishing and print media	Both
54110030	Newspapers - advertising services	Related activities	Advertising	Both
54110040	Copyright leasing - newspapers	Wider cultural activities	Publishing and print media	Both
54120010	Magazine and other periodical publishing (incl printed and published by the same business)	Wider cultural activities	Publishing and print media	Both
54120030	Magazines and other periodicals - advertising services	Related activities	Advertising	Both
54120040	Copyright leasing - magazines and other periodicals	Wider cultural activities	Publishing and print media	Both
54130010	Book publishing (incl textbooks, encyclopedias, travel guides and atlases) (incl printed and published by the same business)	Wider cultural activities	Publishing and print media	Both
54130030	Books - advertising services	Related activities	Advertising	Both
54130040	Copyright leasing - books	Wider cultural activities	Publishing and print media	Both
54140030	Directory, mailing list, collection or compilation - advertising services	Related activities	Advertising	Both
54190010	Other publishing nec (incl maps, greeting cards, postcards and calendars) (incl printed and published by the same business)	Wider cultural activities	Publishing and print media	Creative
54190030	Other publishing - advertising services	Related activities	Advertising	Both
54190040	Copyright leasing - other	Wider cultural activities	Publishing and print media	Creative
54200010	Software publishing services (non-customised)	Wider cultural activities	Publishing and print media	Both

IOPC	IOPC Description	Layer	Domain	Segment
54200020	Copyright leasing - software (non-customised)	Wider cultural activities	Publishing and print media	Both
55110010	Motion picture and video production	Wider cultural activities	Video and computer games	Both
55120010	Motion picture and video distribution services	Wider cultural activities	Video and computer games	Both
55120020	Copyright leasing - motion pictures and videos	Wider cultural activities	Video and computer games	Both
55130010	Motion picture theatre services	Core creative arts	Film	Both
55140010	Post-production services and other motion picture and video activities	Wider cultural activities	Video and computer games	Both
55210010	Music publishing nec (incl sheet music)	Core creative arts	Music	Both
55210030	Music copyrights (Acquiring, registering and selling)	Core creative arts	Music	Both
55220010	Music and other sound recording studios operation (incl pre-recorded radio programming services)	Core creative arts	Music	Both
56100010	Radio broadcasting services	Wider cultural activities	Television and radio	Both
56210010	Free-to-air television broadcasting services	Wider cultural activities	Television and radio	Both
56220010	Cable (Pay TV) and other subscription broadcasting services	Wider cultural activities	Television and radio	Both
57000010	Internet publishing and broadcasting services (incl radio, television, books, newspapers and magazines)	Wider cultural activities	Publishing and print media	Both
57000020	Internet publishing - advertising services	Related activities	Advertising	Both
60100010	Library and archive services	Other core cultural activities	Libraries	Both
60200010	Other information services (incl radio and television new collection and telephone based recorded information services)	Wider cultural activities	Television and radio	Both
66320010	Video and other electronic media rental or hire	Wider cultural activities	Video and computer games	Cultural
66390010	Other goods and equipment rental hire nec (incl art works, household goods and office machinery)	Related activities	Other support activities	Both
69000020	Architectural services	Related activities	Architecture	Both

IOPC	IOPC Description	Layer	Domain	Segment
69000050	Engineering design and consulting services	Related activities	Architecture	Both
69000060	Commercial art and display services	Related activities	Design	Both
69000070	Specialised design services nec (incl fashion, interior and jewellery design)	Related activities	Design	Both
69000110	Advertising services	Related activities	Advertising	Both
69000150	Management services (incl business, artists, entertainers and sporting professionals)	Related activities	Other support activities	Cultural
69000180	Photography services nec (incl Video filming of Weddings etc)	Other core cultural activities	Photography	Both
69000200	Interpreting and translating services	Related activities	Other support activities	Cultural
70000010	Computer systems, hardware and software design and development services	Related activities	Design	Creative
72990020	Theatre, concert and sport ticketing and booking services	Related activities	Events	Cultural
72990030	Event management or promotion (incl sport, art or similar); fund raising services (fee based) or administration services nec	Related activities	Events	Cultural
82120010	Arts education services (excl vocational)	Related activities	Other support activities	Cultural
89100010	Museum and art gallery services	Other core cultural activities	Museums and galleries	Both
89210010	Zoological and botanical services	Wider cultural activities	Heritage services	Cultural
89220010	Nature reserve and conservation park services	Wider cultural activities	Heritage services	Cultural
90010010	Performing arts operation nec (incl theatre restaurants and circuses)	Core creative arts	Performing arts	Both
90020010	Services of independent creative artists, writers and performers	Core creative arts	Literature and/or creative arts	Both
90020020	Theatre lighting, costume design and set design services	Core creative arts	Literature and/or creative arts	Both
90030010	Performing arts venue operation	Core creative arts	Performing arts	Both
95320010	Photographic film processing	Other core cultural activities	Photography	Creative

Appendix D—Proposed industry classification list of cultural and creative activity

Table 7. Proposed industry classification list of cultural and creative activity

ANZSIC	ANZSIC Description	IOIG	IOIG Description	Layer	Domain	Segment
1351	Clothing Manufacturing	1305	Clothing Manufacturing	Related industries	Fashion	Creative
1352	Footwear Manufacturing	1306	Footwear Manufacturing	Related industries	Fashion	Creative
1611	Printing	1601	Printing (including the reproduction of recorded media)	Wider cultural industries	Publishing and print media	Cultural
1612	Printing Support Services	1601	Printing (including the reproduction of recorded media)	Wider cultural industries	Publishing and print media	Creative
1620	Reproduction of Recorded Media	1601	Printing (including the reproduction of recorded media)	Related industries	Other support activities	Cultural
2591	Jewellery and Silverware Manufacturing	2502	Other Manufactured Products	Related industries	Visual crafts	Creative
5411	Newspaper Publishing	5401	Publishing (except Internet and Music Publishing)	Wider cultural industries	Publishing and print media	Both
5412	Magazine and Other Periodical Publishing	5401	Publishing (except Internet and Music Publishing)	Wider cultural industries	Publishing and print media	Both
5413	Book Publishing	5401	Publishing (except Internet and Music Publishing)	Wider cultural industries	Publishing and print media	Both
5420	Software Publishing	5401	Publishing (except Internet and Music Publishing)	Wider cultural industries	Publishing and print media	Both
5511	Motion Picture and Video Production	5501	Motion Picture and Sound Recording	Wider cultural industries	Video and computer games	Both
5512	Motion Picture and Video Distribution	5501	Motion Picture and Sound Recording	Wider cultural industries	Video and computer games	Both
5513	Motion Picture Exhibition	5501	Motion Picture and Sound Recording	Core creative arts	Film	Both

ANZSIC	ANZSIC Description	IOIG	IOIG Description	Layer	Domain	Segment
5514	Post-production Services and Other Motion Picture and Video Activities	5501	Motion Picture and Sound Recording	Wider cultural industries	Video and computer games	Both
5521	Music Publishing	5501	Motion Picture and Sound Recording	Core creative arts	Music	Both
5522	Music and Other Sound Recording Activities	5501	Motion Picture and Sound Recording	Core creative arts	Music	Both
5610	Radio Broadcasting	5601	Broadcasting (except Internet)	Wider cultural industries	Television and radio	Both
5621	Free-to-Air Television Broadcasting	5601	Broadcasting (except Internet)	Wider cultural industries	Television and radio	Both
5622	Cable and Other Subscription Broadcasting	5601	Broadcasting (except Internet)	Wider cultural industries	Television and radio	Both
5700	Internet Publishing and Broadcasting	5701	Internet Service Providers, Internet Publishing and Broadcasting, Websearch Portals and Data Processing	Wider cultural industries	Publishing and print media	Both
6010	Libraries and Archives	6001	Library and Other Information Services	Other core cultural industries	Libraries	Both
6632	Video and Other Electronic Media Rental and Hiring	6601	Rental and Hiring Services (except Real Estate)	Wider cultural industries	Video and computer games	Cultural
6921	Architectural Services	6901	Professional, Scientific and Technical Services	Related industries	Architecture	Both
6924	Other Specialised Design Services	6901	Professional, Scientific and Technical Services	Related industries	Design	Both
6940	Advertising Services	6901	Professional, Scientific and Technical Services	Related industries	Advertising	Both

ANZSIC	ANZSIC Description	IOIG	IOIG Description	Layer	Domain	Segment
6991	Professional Photographic Services	6901	Professional, Scientific and Technical Services	Other core cultural industries	Photography	Both
8212	Arts Education	8210	Arts, Sports, Adult and Other Education Services (incl community education)	Related industries	Other support activities	Cultural
8910	Museum Operation	8901	Heritage, Creative and Performing Arts	Other core cultural industries	Museums and galleries	Both
8921	Zoological and Botanical Gardens Operation	8901	Heritage, Creative and Performing Arts	Wider cultural industries	Heritage services	Cultural
8922	Nature Reserves and Conservation Parks Operation	8901	Heritage, Creative and Performing Arts	Wider cultural industries	Heritage services	Cultural
9001	Performing Arts Operation	8901	Heritage, Creative and Performing Arts	Core creative arts	Creative and performing arts	Both
9002	Creative Artists, Musicians, Writers and Performers	8901	Heritage, Creative and Performing Arts	Core creative arts	Creative and performing arts	Both
9003	Performing Arts Venue Operation	8901	Heritage, Creative and Performing Arts	Core creative arts	Creative and performing arts	Both

Appendix E—Proposed occupation identified as cultural and creative

Table 8. Proposed occupation identified as cultural and creative

ANZSCO	ANZSCO Description	Segment
131100	Advertising, Public Relations and Sales Managers nfd	Both
131113	Advertising Manager	Both
131114	Public Relations Manager	Both
139911	Arts Administrator or Manager	Both
139912	Environmental Manager	Cultural
142112	Antique Dealer	Cultural
149912	Cinema or Theatre Manager	Cultural
210000	Arts and Media Professionals nfd	Both
211000	Arts Professionals nfd	Both
211100	Actors, Dancers and Other Entertainers nfd	Both
211111	Actor	Both
211112	Dancer or Choreographer	Both
211113	Entertainer or Variety Artist	Both
211199	Actors, Dancers and Other Entertainers nec	Both
211200	Music Professionals nfd	Both
211211	Composer	Both
211212	Music Director	Both
211213	Musician (Instrumental)	Both
211214	Singer	Both
211299	Music Professionals nec	Both
211311	Photographer	Both
211400	Visual Arts and Crafts Professionals nfd	Both
211411	Painter (Visual Arts)	Both
211412	Potter or Ceramic Artist	Both
211413	Sculptor	Both
211499	Visual Arts and Crafts Professionals nec	Both
212000	Media Professionals nfd	Both
212100	Artistic Directors, and Media Producers and Presenters nfd	Both
212111	Artistic Director	Both
212112	Media Producer (excluding Video)	Both
212113	Radio Presenter	Both
212114	Television Presenter	Both
212200	Authors, and Book and Script Editors nfd	Both
212211	Author	Both
212212	Book or Script Editor	Both
212300	Film, Television, Radio and Stage Directors nfd	Both
212311	Art Director (Film, Television or Stage)	Both
212312	Director (Film, Television, Radio or Stage)	Both
212313	Director of Photography	Both
212314	Film and Video Editor	Both
212315	Program Director (Television or Radio)	Both
212316	Stage Manager	Both
212317	Technical Director	Both
212318	Video Producer	Both
212399	Film, Television, Radio and Stage Directors nec	Both

ANZSCO	ANZSCO Description	Segment
212400	Journalists and Other Writers nfd	Both
212411	Copywriter	Both
212412	Newspaper or Periodical Editor	Both
212413	Print Journalist	Both
212414	Radio Journalist	Both
212415	Technical Writer	Both
212416	Television Journalist	Both
212499	Journalists and Other Writers nec	Both
224200	Archivists, Curators and Records Managers nfd	Both
224211	Archivist	Both
224212	Gallery or Museum Curator	Both
224611	Librarian	Both
225100	Advertising and Marketing Professionals nfd	Both
225111	Advertising Specialist	Both
225113	Marketing Specialist	Both
232000	Architects, Designers, Planners and Surveyors nfd	Creative
232100	Architects and Landscape Architects nfd	Both
232111	Architect	Both
232112	Landscape Architect	Both
232300	Fashion, Industrial and Jewellery Designers nfd	Both
232311	Fashion Designer	Both
232312	Industrial Designer	Both
232313	Jewellery Designer	Both
232400	Graphic and Web Designers, and Illustrators nfd	Both
232411	Graphic Designer	Both
232412	Illustrator	Both
232413	Multimedia Designer	Both
232414	Web Designer	Both
232511	Interior Designer	Both
232611	Urban and Regional Planner	Both
233916	Naval Architect	Creative
234314	Park Ranger	Cultural
234911	Conservator	Both
249211	Art Teacher (Private Tuition)	Cultural
249212	Dance Teacher (Private Tuition)	Cultural
249213	Drama Teacher (Private Tuition)	Cultural
249214	Music Teacher (Private Tuition)	Cultural
261100	ICT Business and Systems Analysts nfd	Creative
261111	ICT Business Analyst	Creative
261112	Systems Analyst	Creative
261200	Multimedia Specialists and Web Developers nfd	Both
261211	Multimedia Specialist	Both
261212	Web Developer	Both
261300	Software and Applications Programmers nfd	Creative
261311	Analyst Programmer	Creative
261312	Developer Programmer	Creative
261399	Software and Applications Programmers nec	Creative
272411	Historian	Cultural
272611	Community Arts Worker	Cultural

ANZSCO	ANZSCO Description	Segment
312111	Architectural Draftsperson	Cultural
361114	Zookeeper	Cultural
392000	Printing Trades Workers nfd	Cultural
392100	Print Finishers and Screen Printers nfd	Cultural
392111	Print Finisher	Cultural
392112	Screen Printer	Cultural
392211	Graphic Pre-press Trades Worker	Cultural
392300	Printers nfd	Cultural
392311	Printing Machinist	Cultural
392312	Small Offset Printer	Cultural
394212	Picture Framer	Cultural
399300	Gallery, Library and Museum Technicians nfd	Cultural
399311	Gallery or Museum Technician	Cultural
399312	Library Technician	Cultural
399411	Jeweller	Both
399500	Performing Arts Technicians nfd	Cultural
399511	Broadcast Transmitter Operator	Cultural
399512	Camera Operator (Film, Television or Video)	Cultural
399513	Light Technician	Cultural
399514	Make Up Artist	Both
399515	Musical Instrument Maker or Repairer	Cultural
399516	Sound Technician	Cultural
399517	Television Equipment Operator	Cultural
399599	Performing Arts Technicians nec	Cultural
399611	Signwriter	Cultural
399915	Photographer's Assistant	Cultural
451400	Gallery, Museum and Tour Guides nfd	Cultural
451411	Gallery or Museum Guide	Cultural
561911	Classified Advertising Clerk	Cultural

Appendix F—Glossary

ANZSIC: Australian and New Zealand Standard Industrial Classification developed for the compilation and analysis of industry statistics in Australia and New Zealand.

Gross domestic product (GDP): is the total market value of goods and services produced in Australia within a given period after deducting the cost of goods and services used up in the process of production but before deducting allowances for the consumption of fixed capital. Gross domestic product is ‘at market prices’. It is equivalent to gross national expenditure plus exports of goods and services less imports of goods and services.

Gross value added (GVA): the value of output at basic prices minus the value of intermediate consumption at purchasers’ prices. The term is used to describe gross product by industry and by sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries.

Input-Output tables: input and output tables are a means of presenting a detailed analysis of the process of production and the use of goods and services (products) and the income generated in the production process. These tables can be either in the form of (a) supply and use tables or (b) symmetric input and output tables.

National accounts: system of measuring the economic activity of a nation by representing all output, expenditure, and income activities of the economy.

National accounts basis: the activity measured by the satellite accounts that falls within the national accounts production boundary. In the satellite accounts this comprises activity of cultural and creative industries, net taxes on their products, and activity in other industries performed by workers in cultural and creative occupations.

Output: goods and services that are produced by an establishment for use or consumption both within and outside that establishment.

Production boundary: The national accounts production boundary includes:

- the production of all individual or collective goods and services that are supplied to units other than the producers, or intended to be supplied, including the production of goods and services used up in the process of producing such goods and services;
- the own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation; and
- the own-account production of housing services by owner-occupiers.

Satellite account: a framework linked to the national accounts, which enables focused attention on a particular aspect of economic or social life (e.g. cultural and creative activity) by combining national accounts estimates with the findings of other surveys and statistics.

Satellite accounts basis: in the example of cultural and creative activity - refers to the activity included on a national accounts basis, plus volunteer services and non-market output of market producers in the cultural and creative industries. Data presented on a satellite accounts basis are not directly comparable with national accounts aggregates.

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