Kunnskapsverket
Nasjonalt kunnskapssenter for kulturelle næringer

Putting people at the centre:
Dynamic mapping of Norway's cultural and creative economy methodology discussion paper
December 2016

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1 Background

This paper is designed to be a discussion paper and is not a final report (that will come in 2017). We hope that what we have written in this paper will stimulate debate and feedback and we welcome any comments you can give us.

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This is a discussion paper that is part of a project that aims to produce a dynamic mapping of the cultural and creative sector in Norway that builds upon creative and cultural talent rather than simply looking at registered firms. We believe that in order to understand the potential of Norway's culture and creativity we need to go beyond looking at culture and creativity as a stand-alone sector that fits into an easy box. We believe that we need to focus not just on firms but on the individuals and workers that have core cultural and creative talent: and that these people are to be found throughout the economy. We suggest that we need to see that cultural and creative intensity exists throughout the economy and that policy needs to know where this potential is so that appropriate policy can be developed.

Our approach is very different to previous attempts to measure Norwegian cultural and creative industries. We have not decided upon a list of industries we think are cultural or creative and then worked out the numbers. Rather we have through consultation identified the occupations that can be considered cultural or creative and looked at where those workers are. Our definition of cultural and creative industries (CCIs) is based on the people rather than businesses: it is based on where we find the most cultural and creative workers.

1.1 Aims of the paper

This paper discusses the approach to the definition and measurement of the Creative Industries and Creative Economy in Norway. This initial paper sets out:

- the broad approach that is proposed;
- discusses occupations which have been considered for inclusion in the Cultural and Creative Occupation list;
- discusses data issues; and
- describes an initial suggestion of the size and structure of the Cultural and Creative Industries in Norway.

1.2 Overall approach

There have been numerous attempts to define the industries. In the UK this approach has been to move from a broad definition:

> 'Those industries which have their origin in individual creativity, skill and talent and have a potential for wealth and job creation though the generation and exploitation of economic property.'[1]

To an estimation process, described as a 'Dynamic Mapping' approach, which is its simplest form states that a Creative Industry is one which has within its workforce a high proportion of creative workers. This approach requires three steps:

- a set of occupations are defined as being 'creative';
- we calculate 'creative intensity for all the industries in the economy; and
- we define a threshold beyond which we accept all sectors as being Creative Industries.

In our work on Norway it is important to note that we move away from the UK definition by stressing more the notion of cultural work than 'creative' work. Whilst it is almost impossible to disentangle the two concepts in practice the UK idea of creative industries is much broader in scope and encompasses larger parts of the ICT industries than policy and practice around cultural industries in Norway has traditionally entailed.

A particularly feature of our approach is that it allows the identification of the 'creative trident', namely it allows the identification and estimation, not only of the Cultural and Creative industries, but also of those working in cultural and creative occupations across the wider economy. This is shown below and shows that:

- the cultural and creative industries are segments (1) plus (2): it is a sectoral definition and includes only those jobs which are within the cultural and creative industries, including both cultural/creative and non-creative jobs;
- the cultural and creative economy are segments (1), (2) and (3) and adds to the cultural and creative industry estimates above the number of people employed in creative occupations which lie outside the creative industries.

Figure 1: The Creative trident

		Sectors	
		Cultural/Creative sectors	**Non-creative sectors**
Occupations	Cultural and creative occupations	(1)	(3)

[1] *Creative Industries Economic Estimates: Full Statistical Release*, Department for Culture, Media and Sport, December, 2011

		Cultural and creative jobs in cultural and creative industries	Cultural and creative jobs in non-creative industries
	Non-creative occupations	(2) Non-creative jobs in cultural and creative industries	(4) Non-creative jobs in non-creative industries

The remainder of the paper follows this process – examining the Cultural and creative occupations in Norway, calculating creative intensities and then, finally, calculating the size of the Cultural and creative Industries in Norway and estimating the 'creative trident'. It

2 Creative occupations in Norway

The process by which we identified which occupations should be included in the baseline creative occupation list has been described elsewhere[2] and has been the subject of a workshop held in Oslo. Following this workshop the following list of occupations were identified as those that should be included in the Creative occupations list:

Table 1: List of occupations for the Cultural and Creative occupation list

Occupational code and title (STYRK08)	
1222	Advertising and PR managers
1330	Information and communications technology service managers
2511	Systems analysts
2512	Software developers
2513	Web and multi-media developers
2161	Building architects
2162	Landscape architects
2163	Product and garment designers
2164	Town and traffic planners
2166	Graphic and multimedia designers
2431	Advertising and marketing professionals
2432	Public relations professionals
2621	Archivists and curators
2622	Librarians and related information professionals
2641	Authors and related writers
2642	Journalists
2651	Visual artists
2652	Musicians, singers and composers
2653	Dancers and choreographers
2654	Film, stage and related directors and producers
2655	Actors
2659	Creative and performing artists nec
3431	Photographers
3432	Interior designers and decorators
3433	Gallery, museum and library technicians
3434	Chefs
3439	Other artistic and cultural associate professionals nec
7221	Blacksmiths, toolmakers and forging press workers
7311	Precision instrument makers and repairers
7312	Musical instrument makers and tuners
7313	Jewellery and precious metal workers
7314	Potters and related workers
7315	Glass makers, cutters, grinders and finishers
7316	Sign writers, decorative painters, engravers and etchers
7317	Handicraft workers in wood, basketry and related materials
7318	Handicraft workers in textiles, leather and related materials (but see below)
7319	Handicraft workers nec
7522	Cabinet makers and related trades workers

[2] Discussion Paper 1

3 Calculating creative/cultural intensities

3.1 Data considerations

The data that we have obtained for estimating the Cultural and Creative Industries has been provided by The Division for Labour Market Statistics from the Norwegian Government. We had the choice of two data bases:

- registration data, which gives good detail on occupation and industry, but which does not provide any occupational details for the self-employed – a considerable drawback, given that many creative occupations have high rates of self-employment; and

- the Labour Force Survey (LFS), which includes data on both employed and self-employed. However, as it is a sample survey, it is not as accurate as the registration data and, there are limits to the level of disaggregation of the data – in particular some of the occupational groups we have identified to be included in the Creative occupation list above are not identifiable separately, but instead data is only available on a 'grouped' basis.

Because of the importance of self-employment in the creative occupations and because of the importance attached to including the self-employed at the first discussion workshop we had in Oslo June 2016, a view was taken that the LFS was the preferred data source and accept the limitations. The initial difficulty is that of 'grouped data' we have had to take a view about which of the Creative occupations could be included. Our principle has been that where 'creative occupations' form the bulk of the 'grouped data' then this should be included and, conversely, where the creative occupations do not form the majority of the group then it should be excluded. On this basis, we have excluded:

- **Advertising and PR managers (SOC 1222)**: data is only available when included in a much wider group of general managers, including Finance managers (1211), HR managers (1212), Policy and planning managers (1213), Business service and administration managers nec (1219), Sales and marketing managers (1221) and Research and development managers (1223);

- **Information and communications technology service managers (SOC 1330)**: data is only available when included in a wider group including Agricultural and forestry production managers (1311, Aquaculture and fisheries production managers (1312), Manufacturing managers (1321), Mining managers (1322), Construction managers (1323), Supply, distribution and related managers (1324), Child care services managers (1341), Health services managers (1342), Aged care services managers (1343), Social welfare managers (1344), Education managers (1345), Financial and insurance services branch managers (1346), professional services managers nec (1349), Hotel managers (1411), Restaurant managers (1412), Retail and wholesale trade managers (1420), Sports, recreation and cultural centre managers (1431) and Service managers nec (1439). In addition there were concerns at the first workshop that ICT services might not be part of common ideas of creative and cultural industries in Norway.

- **Systems analysts (SOC 2511), Software developers (SOC 2512) and Web and multi-media developers (SOC 2513)**: data only available when included in a wider group also consisting of Application programmers (2514), Software and applications developers and analysts nec (2519), ICT operations technicians (3511), ICT user support technicians (3512), Computer network and systems technicians (3513) and Web technicians (3514). In addition there were concerns at the first workshop that ICT services might not be part of common ideas of creative and cultural industries in Norway.

- **Advertising and marketing professionals (SOC 2431) and PR professionals (SOC 2432)**: included in a wider group also consisting of management and organisation analysts (2421), Personnel and careers professionals (2423) and Training and staff development professionals (2424).

Table 3: Grouping of 4 digit occupations

SOC code and title		Appearance in data	Inclusion or exclusion?
1222	Advertising and PR managers	Grouped into 1211-1223	Excluded
1330	Information and communications technology service managers	Grouped into 1311-1439	Excluded
2511	Systems analysts	Grouped into a single group including 2511-29 and 3511-14	Excluded
2512	Software developers		
2513	Web and multi-media developers		
2161	Building architects	Grouped into 2161-2166, but which is OK since this the majority of 'our codes' (would mean including 2165 – cartographers, which is OK)	Included as a single group
2162	Landscape architects		
2163	Product and garment designers		
2164	Town and traffic planners		
2166	Graphic and multimedia designers		
2431	Advertising and marketing professionals	Grouped into 2421 (management and organisation analysts), 2423-24 (HR and training), and 2431-32	To be excluded
2432	Public relations professionals		
2621	Archivists and curators	Grouped together as 2621-2622, which is OK	To be included as a single group
2622	Librarians and related information professionals		
2641	Authors and related writers	Grouped together as 2641-42, which is OK, but with the addition of 2656 (announcers on radio, TV and other media)	To be included as a single group
2642	Journalists		
2651	Visual artists	Three groups here: 2651,2659 and then a 2nd of 2652-2653 and a 3rd of 2654-2655	To be included as a single group
2652	Musicians, singers and composers		
2653	Dancers and choreographers		
2654	Film, stage and related directors and producers		
2655	Actors		
2659	Creative and performing artists nec		
3431	Photographers	Ok, separate group of 3431	To be included
3432	Interior designers and decorators	Grouped together as 3432-3439, which is OK	To be included as a single group
3433	Gallery, museum and library technicians		
3434	Chefs		
3439	Other artistic and cultural associate professionals nec		
7221	Blacksmiths, toolmakers and forging press workers	OK, separate group of 7221	To be included
7311	Precision instrument makers and repairers	OK, separate group of 7311	To be included
7312	Musical instrument makers and tuners	OK, separate group of 7312	To be included
7313	Jewellery and precious metal workers	OK, separate group of 7313	To be included
7314	Potters and related workers	Grouped together as 7314-7319	To be included as a single group
7315	Glass makers, cutters, grinders and finishers		
7316	Sign writers, decorative painters, engravers and etchers		
7317	Handicraft workers in wood, basketry and related materials		
7318	Handicraft workers in textiles, leather and related materials (but see below)		
7319	Handicraft workers nec		
7522	Cabinet makers and related trades workers	OK, separate group of 7522	To be included

On this basis, our 'baseline' set of cultural and creative occupations is as shown below. This list does not include many of the 'commercial' creative occupations that would be found in, for example, in the UK list of Creative Occupations. Given that in the UK analysis, these occupations (particularly the IT-related ones) are those with the highest employment numbers, direct comparisons are not applicable. This very different nature of the creative occupations list needs to be remembered when considering the data.

Table 4: Baseline list of occupations

SOC code and title	
2161	Building architects
2162	Landscape architects
2163	Product and garment designers
2164	Town and traffic planners
2166	Graphic and multimedia designers
2621	Archivists and curators
2622	Librarians and related information professionals
2641	Authors and related writers
2642	Journalists
2651	Visual artists
2652	Musicians, singers and composers
2653	Dancers and choreographers
2654	Film, stage and related directors and producers
2655	Actors
2659	Creative and performing artists nec
3431	Photographers
3432	Interior designers and decorators
3433	Gallery, museum and library technicians
3434	Chefs
3439	Other artistic and cultural associate professionals nec
7221	Blacksmiths, toolmakers and forging press workers
7311	Precision instrument makers and repairers
7312	Musical instrument makers and tuners
7313	Jewellery and precious metal workers
7314	Potters and related workers
7315	Glass makers, cutters, grinders and finishers
7316	Sign writers, decorative painters, engravers and etchers
7317	Handicraft workers in wood, basketry and related materials
7318	Handicraft workers in textiles, leather and related materials (but see below)
7319	Handicraft workers nec
7522	Cabinet makers and related trades workers

3.2 Employment in the Creative occupations

In total, the Creative occupations, as described above, accounts for some 52,714 employees and self-employed in the Norwegian economy. This is two per cent of the overall employed and self-employed. When compared to estimates of employment of creative occupations in other countries (such as the UK), this this 2 per cent may seem low, but it is important to note that estimates in different countries are not comparable. In this definition, we are not including all the employees and self-employed engaged in IT-related occupations – which actually forms the highest proportion of creative occupations in the UK definition. As it is now defined, the classification of creative occupations in Norway is now a very different classification to those which may be used elsewhere, making international comparisons misleading.

The biggest single group are those covering Architects and Designers (15,985), some 30 per cent of the Creative occupations, followed by 12,974 authors and journalists (25 per cent), with 9.370 (18 per cent) being in the Interior designers and decorators, Gallery, museum and library technicians and Chefs group.

Table 5: Numbers working in Creative occupations

SOC code and title		**n**	**%**
2161	Building architects	15,985	30
2162	Landscape architects		
2163	Product and garment designers		
2164	Town and traffic planners		
2166	Graphic and multimedia designers		
2621	Archivists and curators	5,349	10
2622	Librarians and related information professionals		
2641	Authors and related writers	12,974	25
2642	Journalists		
2651	Visual artists	:	2
2652	Musicians, singers and composers		
2653	Dancers and choreographers		
2654	Film, stage and related directors and producers		
2655	Actors		
2659	Creative and performing artists nec		
3431	Photographers	4,073	8
3432	Interior designers and decorators	9,370	18
3433	Gallery, museum and library technicians		
3434	Chefs		
3439	Other artistic and cultural associate professionals nec		
7221	Blacksmiths, toolmakers and forging press workers	:	1
7311	Precision instrument makers and repairers	:	1
7312	Musical instrument makers and tuners	:	0
7313	Jewellery and precious metal workers	:	1
7314	Potters and related workers	:	1
7315	Glass makers, cutters, grinders and finishers		
7316	Sign writers, decorative painters, engravers and etchers		
7317	Handicraft workers in wood, basketry and related materials		
7318	Handicraft workers in textiles, leather and related materials		
7319	Handicraft workers nec		
7522	Cabinet makers and related trades workers	:	2
Total Creative occupational employment		**52,714**	100
Total employment in Norwegian economy		**2,650,000**	
Creative employment as a proportion of all employment		**2**	

Note: employment numbers lower than 4,000 are suppressed

4 Calculating creative/cultural intensities

It is important at this stage to underline again how different our approach is to previous attempts to measure the cultural and creative industries. We have not decided upon a list of industries we think are cultural or creative and then worked out the numbers. Rather we have through consultation identified the occupations that can be considered cultural or creative and looked at where they are. Our definition of cultural and creative industries (CCIs) is based on the data: it is based on where we find the most cultural and creative workers.

There are 591 industrial sectors classified in the data set for the Norwegian economy. We have calculated the Creative Intensity (ie the proportion of employment in each sector accounted for by employment in creative occupations) for each of these sectors. The values range from zero to 81 per cent, though we do need to be aware of a need to take care with some of these values. The levels of employment in some these sectors are very small and the data cannot be regarded as reliable (or published). For example, the sector with the highest creative intensity actually only has a total of 42 people working within it, and so this very high Creative Intensity needs to be treated with some caution??

As important as the range is the distribution. Half of all the sectors have a Creative Intensity of zero – that is the LFS has not identified anyone in those sectors who are engaged in any of our Creative occupations. A further 22 per cent have a Creative intensity of one per cent. In total, eight per cent of sectors have a creative intensity of more than 10 per cent. A relatively small number of sectors (eight per cent) have a Creative Intensity of more than 10 per cent.

This distribution of Creative Intensities is different from that which has been observed in other countries: the distribution in the UK was clearly bi-modal, with the overwhelming majority of sectors with zero or one per cent intensity, just as with the Norwegian distribution. However, the UK then had a cluster of sectors with high CIs. This seems not to be the case in the Norwegian data, which seems to suggest a relatively long tail. However, as we have discussed before, because of the different definitions of creative occupations included, direct comparisons are not always valid.

Table 6: Distribution of Creative Intensities

Creative intensity range	Number	%	Cumulative percentage
zero	296	50	
1	132	22	72
2	39	7	79
3	29	5	84
4	13	2	86
5 - 9	36	6	92
10 - 19	18	3	95
20 - 29	9	2	97
30 - 39	4	1	97
40 - 49	5	1	98
50 - 59	5	1	99
60 - 69	1	*	99
70+	4	1	100
Total	591	100	

A further examination is needed of the type of sectors which have been identified in the data as being creative intense. In the table below, we have listed the sectors which have a creative intensity of more than 10 per cent. Because of restrictions on the data that can be published we have not shown the employment size in each of these sectors.

Table 7: Sectors with a creative intensity of 10 per cent and greater

Sector		**Creative intensity**
Code	**Name**	**%**
1420	Manufacture of articles of fur	10
3211	Striking of coins	10
5030	Inland passenger water transportation	10
6399	Other information service activities nec	10
7990	Other reservation services and related activities nec	10
3109	Manufacture of other furniture	12
1413	Manufacture of other outerwear	13
4665	Sale of office furniture	15
3102	Manufacture of kitchen furniture	15
3299	Manufacturing nec.	15
5629	Other food services	15
1393	Manufacture of carpets and rugs	16
9525	Repair of watches, clocks, jewellery	16
4648	Sale watches, clocks	17
7021	PR and communication activities	17
1813	Pre-press and pre-media services	18
9102	Museums activities	18
1622	Manufacture of assembled parquet floors	19
2349	Manufacture of other ceramic products	20
9001	Performing arts	21
3291	Manufacture of brooms and brushes	22
7311	Advertising agencies	23
2313	Manufacture of hollow glass	24
5819	Other publishing activities	24
7430	Translation/interpretation	24
9002	Support activities to performing arts	25
5920	Sound recording and music publishing activities	27
5912	Post-production of motion pictures, video etc.	30
9101	Libraries and archives activities	31
3240	Manufacture of games and toys	35
5821	Publishing of computer games	37
5811	Book publishing	41
5911	Production of motion pictures, video, etc.	41
5814	Publishing of journals and periodicals	42
6010	Radio broadcasting	43
5813	Publishing of newspapers	48
6391	News agency activities	53
3212	Manufacture of jewellery and related art	54
7410	Specialised design activities	55
3213	Manufacture of imitation jewellery and art	57
6020	Television programme broadcasting activities	59
1722	Manufacture of household and sanitary goods	67
7420	Photographic activities	73

7111	Architectural activities	75
9003	Artistic creation	76
3220	Manufacture of musical instruments	81
Total	**Employment**	**87,325**
	Economy-wide creative intensity	**3.3%**

As a 'list' ordered by levels of creative intensity, it can be a little difficult to understand the nature of the sectors which the data have identified as being creatively intense. So, if we re-order these into 'SIC code groups', rather than in descending order of creative intensity, we get a better view of what is included in the list at this stage. This shows that we have identified:

- a **manufacturing** group, drawn from across a range of manufacturing sectors, but which include some with high levels of design and creative input – glass manufacture, ceramic products and jewellery;

- a **publishing** group, which contains all the publishing sub-sectors with the exception of Publishing of directories and mailing lists (58.12 – employment size of 34, CI of 3 per cent). This also includes the Publishing of computer games (58.21);

- a **Film, TV and music** group, which includes production and post-production activities, but excludes distribution and projection activities;

- a **programming and broadcasting** group, of TV (60.20) and radio (60.10) broadcasting. This is all the 4 digit SIC codes within this broader 2 digit sector of Programming and broadcasting activities;

- what we have termed a broader '**Business services'** group which contains News agency activities, Architectural activities, Advertising agencies, Specialised design activities, Photographic activities and Translation/interpretation

- **Arts activities**, which includes Performing arts, Support activities to performing arts and Artistic creation;

- **Libraries and Museums**; and

- A range of activities which do not fit into any of the above, which we have called '**miscellaneous activities**'.

Again, we do not show employment sizes of each sector in this table because of restrictions on the publication of the data.

Table 8: Sectors with a creative intensity of 10 per cent and greater grouped in SIC code groups

Sector		Creative intensity
Code	**Name**	**%**
Manufacturing		
1393	Manufacture of carpets and rugs	16
1413	Manufacture of other outerwear	13
1420	Manufacture of articles of fur	10
1622	Manufacture of assembled parquet floors	19
1722	Manufacture of household and sanitary goods	67
1813	Pre-press and pre-media services	18
2313	Manufacture of hollow glass	24
2349	Manufacture of other ceramic products	20
3102	Manufacture of kitchen furniture	15
3109	Manufacture of other furniture	12
3211	Striking of coins	10
3212	Manufacture of jewellery and related art	54
3213	Manufacture of imitation jewellery and art	57
3220	Manufacture of musical instruments	81
3240	Manufacture of games and toys	35
3291	Manufacture of brooms and brushes	22
3299	Manufacturing nec.	15
Publishing		
5811	Book publishing	41
5813	Publishing of newspapers	48
5814	Publishing of journals and periodicals	42
5819	Other publishing activities	24
5821	Publishing of computer games	37
TV, Film and Music		
5911	Production of motion pictures, video, etc.	41
5912	Post-production of motion pictures, video etc.	30
5920	Sound recording and music publishing activities	27
Broadcasting		
6010	Radio broadcasting	43
6020	Television programme broadcasting activities	59
Business services		
6391	News agency activities	53
6399	Other information service activities nec	10
7021	PR and communication activities	17
7111	Architectural activities	75
7311	Advertising agencies	23
7410	Specialised design activities	55
7420	Photographic activities	73
7430	Translation/interpretation	24
7990	Other reservation services and related activities nec	10
Creative arts and entertainment activities		
9001	Performing arts	21
9002	Support activities to performing arts	25
9003	Artistic creation	76
Libraries and museums		
9101	Libraries and archives activities	31
9102	Museums activities	18
Miscellaneous activities		
4648	Sale watches, clocks	17
4665	Sale of office furniture	15

5030	Inland passenger water transportation	10
5629	Other food services	15
9525	Repair of watches, clocks, jewellery	16
Total	**Employment**	**87,325**
	Economy-wide creative intensity	**3.3%**

5 Moving to a definition of the Cultural and Creative Industries.

To move to our definition of the cultural and creative industries, we now further need to consider two factors:

- the creative intensity threshold – the threshold level at which it is determined that a sector has enough cultural and creative workers to be considered a 'creatively intense' sector; and
- overall size of sectors, where we need to exclude any sectors which are too small on the grounds of statistical reliability as a relatively small number of workers in cultural and creative occupations can create a rogue result.

The second of these is more immediately resolvable than the first. The advice of the Division for Labour Market Statistics is that there should be a minimum sector size cut off point, below which the data is unreliable, in that any sector which had a total employment size of less than 5,000 cannot be published and essentially excluded from the final selection unless it formed part of a wider SIC code block that were also all over the threshold. We have not strictly applied this to individual 4 digit SIC codes but to our wider SIC code groups to form our definition of the creative industries.

The threshold level is more a subject for debate. In the UK this was set at 30 per cent, but the inclusion of the ICT occupations has clearly resulted in a different distribution, and that comparison is not valid. The distribution shown in Table 6 above does not indicate an obvious cut-off point, as there is no indication of a bi-modal distribution in this data. In the absence of a statistical guide, we have arbitrarily set the threshold at a creative intensity of 20 per cent.

This last point reinforces an over-riding consideration in this process, which is that it should be regarded as **a 'data-informed' process**, not a 'data-driven' one. The difference being that in a data-driven process, the sectors which are above the threshold are definitely included and those that are below it are excluded, whilst in a data-informed process, the analysis gave us our first, baseline indication of which sectors would be included (and which ones not) for consideration and consultation. In the final list of Cultural and Creative Industries some are included which actually fell below the threshold on the dynamic mapping analysis and/or are below the size threshold. Where this is the case, we note below.

Our proposals for the Cultural and Creative sectors at this stage are:

- The main **publishing** activities of Books, Newspapers and journals and periodicals (which covers magazine publishing). This grouping employs over 13,000 workers and comprises a fifth (20 per cent) of the Creative Industries;
- the **TV, Film and Music** sectors, which employs just under 4,500 workers, some six per cent of the proposed Creative Industries;

- the **Programming and broadcasting** sectors, which employs over 6,000 workers, some nine per cent of the Cultural and Creative industry employment;

- the range of **business service** sectors, including News Agency activities, Architecture, Advertising, Design, Photography and Translation. Collectively these employ nearly 21,000 people and form 31 per cent of the creative industries;

- the three sub-sectors from within the **Creative arts and entertainment** sectors, which collectively employ nearly 15,500 people and account for 23 per cent of the creative industries; and

- we have included both libraries and museums to form a wider **museums and libraries** sector. The Museums sector has a creative intensity below the threshold level of 20 per cent (at 18 per cent), but it has been argued that the infrastructure which surrounds the need museums to have public buildings creates the need for non-creative staff (receptionists, security guards, cleaners, etc) which depresses the creative intensity. On this basis, we have included this sector.

The main 'casualty' of this approach is the **Manufacturing** grouping, and the Creative industries as currently proposed does not include any representation of the Manufacturing sector. As this includes sectors such as the Manufacture of jewellery, bijouterie and related articles this may be an element for discussion. However, it should be noted that if all the Manufacturing sectors which have a creative intensity of more than 20 per cent are included, then collectively total employment is still less than 1,000 – much lower than our cut off point of 5,000. Also not included are the range of miscellaneous activities, none of which exceeded the threshold of 20 per cent.

Table 9: Baseline proposal for the Cultural and Creative Industries

Sector		Creative intensity	Employment size	
Code	**Name**	**%**	**(n)**	
Publishing			**13,314**	**20**
5811	Book publishing	41	2,107	
5813	Publishing of newspapers	48	7,808	
5814	Publishing of journals and periodicals	42	2,856	
5819	Other publishing activities	24	441	
5821	Publishing of computer games	37	102	
TV, Film and Music			**4,373**	**6**
5911	Production of motion pictures, video, etc.	41	3,445	
5912	Post-production of motion pictures, video etc.	30	322	
5920	Sound recording and music publishing activities	27	606	
Programming and broadcasting			**6,202**	**9**
6010	Radio broadcasting	43	462	
6020	Television programme broadcasting activities	59	5,740	
Business services			**20,910**	**31**
6391	News Agency activities	53	353	
7111	Architectural activities	75	5,993	
7311	Advertising agencies	23	6,204	
7410	Specialised design activities	55	4,595	
7420	Photographic activities	73	2,251	
7430	Translation/interpretation	24	1,514	
Creative arts and entertainment activities			**15,370**	**23**
9001	Performing arts	21	8,037	
9002	Support activities to performing arts	25	1,975	
9003	Artistic creation	76	5,358	
Libraries and museums			**7,870**	**12**
9101	Libraries and archives activities	31	3,958	
9102	Museums activities	18	3,912	
Total			**68,039**	**100**

6 The Creative Trident in Norway

As we can see below:

- the cultural and creative industries are comprised of 30,044 workers in Creative/Cultural occupations and 37,995 non-creative occupational workers. This is 2.6 per cent of the economy.

- the cultural and creative economy employs 91,709 workers: ie the 68,039 workers from the Cultural and Creative Industries plus the 22,670 workers in cultural/ creative occupations who are working within (embedded within) non-creative sectors. This comprises 3.5 of all employment in the economy.

Figure 2: The Creative trident in Norway

		Sectors		
		Creative sectors	**Non-creative sectors**	**Total**
Occupations	Cultural-Creative occupations	30,044	22,670	52,714
	Non-creative occupations	37,995	2,559,291	2,597,286
	Total	68,039	2,581,961	2,650,000

Conclusions

Within the confines of the data available to us, we have used the dynamic mapping approach to inform a the creation of a definition of the Norwegian Cultural and Creative Industries. We find that the CCIs in Norway employs a total of 68,039 workers (2.6 per cent of the economy), although in addition there are a further 22,670 cultural/creative occupational workers engaged outside the creative industries. This wider cultural and creative economy employs 91,709 workers, some 3.5 per cent of all employment in the economy.

Nonetheless, some of the proposals we have made within this paper maybe considered controversial and will not find favour with all parties. Questions we would pose at this juncture are whether people are content with

- the definition of the cultural/creative occupations? If not, which occupations would they like to see added, and which removed?

- the SIC groupings that we have used? Would there be a preference for individual 4 digit SIC code sectors to be re-located within other sector groupings?

- the creative intensity threshold of 20 per cent?

- the inclusion of sectors with a creative intensity of less than 20 per cent if a compelling case for that sector can be made within this data informed approach?

- the cut-off for employment size of 5,000 and are people content with the way that this has been applied *ie* at the sector grouped level rather than the individual 4 digit level;

- with the definition we have arrived at of the Creative Industries and the wider Creative Economy.

The definition would benefit from a consideration and discussion of these questions to improve the definition as laid out above. In short we would greatly appreciate your expertise and feedback on the methodology and concepts we are using. Please do not hesitate to send us any feedback at:

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