

### **3 approaches for measuring „cultural employment“ in the EU 25+ J. Geppert 2006**

<b><u>1. ISCO</u></b>	<b><u>2. Eurostat Taskforce2</u> <u>/ DEPS case</u></b>	<b><u>3. NACE</u></b>
<ul style="list-style-type: none"><li>- 4-digit from 2001</li><li>- goal: delivering from all countries in 2007</li><li>- 49 entities used</li></ul>	<ul style="list-style-type: none"><li>- 2002 available</li><li>- 2003/4 announced</li><li>- working group ?</li><li>- 13 ISCO + 9 NACE entities used</li></ul>	<ul style="list-style-type: none"><li>- 4-digit from SBS</li><li>- 3-digit from LFS</li><li>- 70 entities used</li></ul>

After having defined and agreed as a team the 4-digit NACE classification (see Annex 1) we were ready to define the appropriate 4-digit ISCO classification (see Annex 2). The idea was to show a realistic total employment figure for the one hand through the way dealing with occupations (ISCO) and for the other hand dealing with industrial data (Structural Business Statistics (SBS) from eurostat) via NACE. It was clear from the beginning that both ways would not show the same figures – but we wanted to use both approaches knowing that they are incomplete.

#### **ad 1 ISCO:**

In contradiction to the NACE classification (=industrial indicators in terms of SBS), ISCO refers directly to occupations. 4-digit ISCO pictures at the best and precisely the cultural employment, because it reveals specific cultural occupations.

The eurostat-website goes not deeper than 3-digits. This database contained 37 015 entities showing the situation of the years 1999-2005, for 30 countries and 49 chosen 4-digits. From the beginning it was obvious that the list would be incomplete taking into consideration that not all countries had collected data using the 4-digit ISCO.

In addition we learned that the countries are only obliged to deliver 3-digit (if possible 4-digit). So until today a 4-digit delivery is not mandatory.

In reference to eurostat, most of the national states collect their own data using their national statistical standards. After the delivering from the national statistic offices eurostat transfers into ISCO. Our data-base contains 4-digit not earlier than of the year 2001, because more recent data was not available.

That means for our ISCO frame:

- it contains the 4 digit ISCO
- refers to data from 2001(4-digit) to 2005

As a result of our data processing our frame shows now 5 spreadsheets with the total employment numbers for EU 25 + with the 49 chosen 4-digit ISCO. The figures for the total culture employment for the EU25+ for these years move always around 10 Mio employees. We detect that this is a figure which

- does not include all countries (missing countries or countries presenting only 2- or 3-digits are e.g. Belgium, Denmark, France, Germany, Greece or Italy - differing from year to year)

- contains three 3-digit-ISCO (because for those figures a 4-digit-ISCO is not available)
- those 3-digit-ISCO summarizes various 4-digits which means the figures are too big in number to be realistic/ valid

So even now, dealing with an incomplete and therefore not satisfying frame/approach, we state our research way is not a dead-end road. Indeed it opens the way for a precise (=the team's) definition of the economy of culture in Europe under one condition:

The organs of the European Union – European Parliament, European Commission and the European Council of Ministers – must prepare the necessary legislation, work power, financial resources and priority to generate the appropriate data; ideally harmonized and collected by eurostat through the national statistic offices!

According to eurostat and to national statistic offices the common goal for 2007 is to deliver in 4-digit entities. 2007 could therefore be the first year where the teams definition could be applied totally for the first time.

Available	2001-2005 (4-digit); 1999-2000 (3-digit)
Ready	2003-2005

### **ad 2 eurostat Taskforce 2/DEPS case- a “photograph of cultural employment in the EU”**

The TASK Force 2 on cultural employment of Eurostat, later changed into a working party with theoretically 2 members from each member state of the 25 (1 from the cultural ministry so far existing and 1 from the national statistic office) nowadays, gave the final report in 2002. The concept of this report was not brought to an end by Eurostat. Therefore the leaders of the above mentioned Task Force (Coordination to be executed from France), that means a combination of the French Cultural Ministry and the “French Département des études, de la prospective et des statistiques”, published in 2005 their study on the cultural employment in the EU 2002. This report showed the until then widest definition of cultural industries and employment in the EU 25+, in particular:

- ISCO                                    2431, 2432, 2451, 2452, 2453, 2454, 2455  
    3131  
    3471, 3472, 3473, 3474  
    2141 (estimation)
- NACE                                     221  
    921, 922, 923, 924, 925  
    742 (estimation), 744, 748

The definition of this study implicated

- < 13 4-digit ISCO including for the first time architects; and
- < 9 3-digit NACE entities.

As you can see (in annex 3) the authors calculated their figures of total cultural employment with a special mathematical formula generated by cross multiplications between NACE and ISCO. Furthermore they published ratios by gender, age, education level etc. all for the year

2002 – without showing for interested parties the way how they reached it. So this part of the study is to be seen as a “black box” generated in an internal Eurostat way.

According to face-to face and telephone interviews we learned that the Eurostat experts applied the same procedure as in 2002 for the year 2003 and 2004! They will hopefully publish the data during this spring, so that we can use the comparison between 2002 and 2004 to show variances, equities, identities or even growth if given. 2003 is also an appropriate year, because most of the available Eurostat data for our NACE collecting goes until 2003.

The teams definition has  
 < 49 4-digit ISCO and  
 < 51 4-digit NACE entities.

So in comparison with the TASK FORCE/Eurostat/French study our approach leads to a situation where it is even more difficult to picture a complete ISCO or NACE frame.

Available (soon)	2002-2004
Ready	2002

**ad 3 NACE :**

The NACE classification of the team is about 70 4-digit entities and therefore the widest and most precise – and most ambitious - approach to measure cultural industries and cultural employment ever tried within the EU 25+. Obviously the data for the industrial activities, coming out from the Structural Business Statistic (SBS), showing good but incomplete data. This is different for the data on employment, coming out from the Labour Force Survey (LFS) and usually available only on a 3-digit level. The data of LFS is generated from the Household Survey – and cannot be compared with the “richness” and completeness of the industrial NACE data. Though both NACE data have not the same source and are therefore inconsistent!

When looking at the tables the statistical data for the new member states is for example available for Estonia, Slovakia and Cyprus since the year 2000 and for the Czech Republic and Poland since 2002. Looking at the total figures of the years 1999-2003 for total employment with the team’s definition it becomes obvious that the total figures varied: from 1999: 12,7 Mio, up to 2002: 15,2 Mio, to 2003: 13,2 Mio. One explanation for the variances in figures is that not all countries in all years deliver data following the same data pattern.

In addition we learned that the countries are only obliged to deliver 2-digit (if possible 3-digit). So until today a 4-digit delivery is not mandatory.

Available	1999-2003
Ready	1999-2003

## Annex 1

Domains	Sectors	<u>NACE</u>
<b>1. Visual arts</b>	- Architecture	<i>7420 Architectural and engineering activities and related technical consultancy</i>
	- Design	<p><b>Fashion design:</b>            1700 Manufacture of textiles            1800 Manufacture of wearing apparel            1930 Manufacture of footwear            2624 Manufacture of other technical ceramic products            5116 Agents involved in the sale of textiles clothing, footwear and leather goods            5141 Wholesale of textiles            5142 Wholesale of clothing and footwear            5241 Wholesale of textiles            5242 Wholesale of clothing and footwear            7487 Other business activities n.e.c.            9305 Other business activities n.e.c.</p> <p><b>Graphic design:</b>            2222 Printing n.e.c.            2225 Ancillary services related to printing            7420 Architectural and engineering activities and related technical consultancy            7440 Advertising            7487 Other business activities n.e.c.            9231 Artistic and literary creation and interpretation            9305 Other service activities n.e.c.</p> <p><b>Product design:</b>            2222 Printing n.e.c.            2225 Ancillary services related to printing            7420 Architectural and engineering activities and related technical consultancy            7440 Advertising            7487 Other business activities n.e.c.            9231 Artistic and literary creation and interpretation            9305 Other service activities n.e.c.</p>
	- Paintings	<p><b>Paintings, picture framing and sale of art:</b>            5212 Other retail sale in non-specialised stores            5248 Other retail sale in specialised stores            7020 Letting of own property            7487 Other business activities n.e.c.            9231 Artistic and literary creation and interpretation            9232 Operation of arts facilities            9252 Museums activities and preservation of historical sites</p>
	- Sculpture	<p>5212 Other retail sale in non-specialised stores            5248 Other retail sale in specialised stores            7020 Letting of own property            7487 Other business activities n.e.c.            9231 Artistic and literary creation and interpretation            9232 Operation of arts facilities            9252 Museums activities and preservation of historical sites</p>
	- Photography	<p>7481 photographic activities            9240 news agency activities</p>
<b>2. Performances</b>	- Theatre	<i>9231 Artistic and literary creation and interpretation</i>
	- Dance	<i>9231 Artistic and literary creation and interpretation</i>
	- Circus	<i>9234 Other entertainment activities n.e.c</i>
<b>3. Audiovisual</b>	- Film and video	<p>9211 motion picture production            9212 motion picture distribution            9213 motion picture exhibition            5248 Other retail sale in specialised stores</p>

		7140 renting of personal and household goods n.e.c.
	- Radio and Television	9220 radio and television activities 6420 telecommunications
	- Advertising	7440 advertising agencies
	- Software publishing	7221 publishing of software 2214 publishing of sound recordings
<b>4. Music</b>		9231 Artistic and literary creation and interpretation 5248 Other retail sale in specialised stores
<b>5. Books and press</b>		2211 publishing of books 2212 publishing of newspapers 2213 publishing of magazines 5147 wholesale of other household goods 5247 retail sale of books newspapers and stationary 5261 retail sale via mail order houses
<b>6. Heritage</b>	- Museums - Arts and antique markets - Libraries - Archeological activities - Archives	9251 library and archives activities 9252 Museums activities and preservation of historical sites
<b>7. Tourism</b>	- Hotels  - Camping sites and other provision of short-stay accommodation  - Activities of travel agencies  - Activities of tour operators and tourist assistance activities n.e.c.	55.11 hotels and motels with restaurants 55.12 hotels and motels without restaurants  55.21 youth hostals and mountain refuges 55.22 Camping sites, including caravan sites 55.23 Other provision of lodgings n.e.c.  63.30 Activities of travel agencies, tour operators and tourist assistance activities n.e.c.

## Annex 2

3-digit Isco	Sectors
<b>3-digit ISCO classes consisting only of cultural occupations</b>	
123	<i>Other specialist managers</i>
243	<i>Archivists librarians and related information professionals</i>
245	<i>Writers and creative or performing artists</i>
313	<i>Optical and electronic equipment operators</i>
341	<i>Finance and sales associate professionals</i>
347	<i>Artistic, entertainment and sports associate professionals</i>
511	<i>Travel attendants and related workers</i>
521	<i>Fashion and other models</i>
713	<i>Building finishers and related trades workers</i>
<b>3-digit ISCO classes consisting only of cultural occupations together with non-cultural occupation</b>	
121	<i>Directors and chief executives</i>
122	<i>Production and operations managers</i>
123	<i>Other specialist managers</i>
131	<i>Managers of small enterprises</i>
214	<i>Architects, engineers and related professionals</i>
231	<i>College, university and higher education teaching professionals</i>
243	<i>Archivists, librarians and related information professionals</i>
244	<i>Social science and related professionals</i>
342	<i>Business services agents and trade brokers</i>
414	<i>Library mail and related clerks</i>
422	<i>Client information clerks</i>
512	<i>Housekeeping and restaurant services workers</i>
731	<i>Precision workers in metal and related materials</i>
732	<i>Potters, glass-makers and related trade workers</i>
733	<i>Handicraft workers in wood, textile, leather and related materials</i>
734	<i>Craft painting and related trades workers</i>
742	<i>Wood treaters, cabinet-makers and related trades workers</i>
743	<i>Textile, garment and related trades workers</i>

3-digit Isco	4- digit Isco	Sectors
<b>4-digit ISCO classes consisting only of cultural occupations</b>		
123	1234	<i>Advertising and public relations managers</i>
243	2431	<i>Archivists and curators</i>
245	2451	<i>Authors, journalists and other writers</i>
	2452	<i>Sculptors, painters and related artists</i>
	2453	<i>Composers, musicians and singers</i>
	2454	<i>Choreographers and dancers</i>
	2455	<i>Film, stage and related actors and directors</i>
313	3131	<i>Photographers and image and sound recording equipment operators</i>
341	3414	<i>Travel consultants and organisers</i>
347	3471	<i>Decorators and commercial designers</i>
	3472	<i>Radio, television and other announcers</i>
	3473	<i>Street, night-club and related musicians, singers and dancers</i>
	3474	<i>Clowns, magicians, acrobats and related associate professionals</i>
511	5113	<i>Travel guides</i>
521	5210	<i>Fashion and other models</i>
713	7133	<i>Plasterers</i>
<b>4-digit ISCO classes consisting only of cultural occupations together with non-cultural occupation</b>		
121	1210	<i>Directors and chief executives</i>
122	1225	<i>Production and operations managers in restaurants and hotels</i>
	1229	<i>Production and operations managers not elsewhere classified</i>
123	1234	<i>Advertising and public relations managers</i>
131	1315	<i>Managers of small enterprises of restaurants and hotels</i>
	1319	<i>Other specialist managers not elsewhere classified</i>
214	2141	<i>Architects, town and traffic planners</i>
	2149	<i>Architects, engineers and related professionals not elsewhere classified</i>

231	2310	<i>College, university and higher education teaching professionals</i>
243	2432	<i>Librarians and related information professionals</i>
244	2442	<i>Sociologists, anthropologists and related professionals</i>
	2443	<i>Philosophers, historians and political scientists</i>
	2444	<i>Philologists, translators and interpreters</i>
342	3429	<i>Business services agents and trade brokers not elsewhere classified</i>
414	4141	<i>Library and filling clerks</i>
422	4221	<i>Travel agency and related clerks</i>
512	5122	<i>Cooks</i>
731	7312	<i>Musical-instrument makers and tuners</i>
	7313	<i>Jewellery and precious-metal workers</i>
732	7321	<i>Abrasive wheel formers, potters and related workers</i>
	7322	<i>Glass-makers, cutters, grinders and finishers</i>
	7323	<i>Glass engravers and etchers</i>
	7324	<i>Glass, ceramics and related decorative painters</i>
733	7331	<i>Handicraft workers in wood and related materials</i>
	7332	<i>Handicraft workers in textile, leather and related materials</i>
734	7341	<i>Compositors, typesetters and related workers</i>
	7342	<i>Stereotypers and electrotypers</i>
	7343	<i>Printing engravers and etchers</i>
	7344	<i>Photographic and related workers</i>
	7345	<i>Bookbinders and related workers</i>
	7346	<i>Silk-screen, block and craft textile printers</i>
742	7422	<i>Cabinetmakers and related workers</i>
743	7433	<i>Tailors, dressmakers and hatters</i>
	7434	<i>Furriers and related workers</i>
	7435	<i>Textile, leather and related pattern-makers and cutters</i>



### Annex 3

#### LE CALCUL DES COEFFICIENTS CULTURELS

La méthode consiste à calculer un coefficient culturel pour chaque croisement profession x activité codé en Isco 3/Nace 2 (profession codé à 3 chiffres et activité codé à 2 chiffres).

*Exemple 1* : croisement Nace 22 (Édition, imprimerie, reproduction)  
avec Isco 131 (Dirigeants et gérants)

Ici la Nace 22 comprend des activités culturelles (voir les inclusions/exclusions page 29) et l'Isco 131 ne contient que des professions non culturelles.

Le coefficient culturel est calculé de la façon suivante :

$$\text{Coefficient (Nace 22/Isco 131)} = \frac{(\text{croisement Nace 221 x Isco 131})}{(\text{croisement Nace 22 x Isco 131})} = 39 \%$$

Ce croisement est uniquement disponible pour les pays détaillant en Nace à 3 chiffres.

*Exemple 2* : croisement Nace 75 (Administration publique)  
avec Isco 313 (Techniciens d'appareils optiques et électroniques)

Ici la Nace 75 ne comprend que des activités non culturelles et l'Isco 313 contient des professions culturelles.

Le coefficient culturel est calculé de la façon suivante :

$$\text{Coefficient (Nace 75/Isco 313)} = \frac{(\text{croisement Nace 75 x Isco 3131})}{(\text{croisement Nace 75 x Isco 313})} = 20 \%$$

Ce croisement est uniquement disponible pour les pays détaillant en Isco à 4 chiffres.

*Remarque* : pour un croisement contenant à la fois des activités et des professions culturelles (exemple : croisement Nace 22 x Isco 313), il y a donc deux manières de calculer le coefficient culturel. Il a été choisi ici de faire la moyenne des deux coefficients (très élevés à chaque fois).

Une fois l'ensemble des coefficients calculés, on l'applique à chacun des pays et pour chacun des croisement Nace x Isco.

*Exemple* : pour un pays donné, le croisement Nace 22 x Isco 131 donne 10 000 actifs. Le coefficient culturel pour ce croisement est de 39 %. Il y a donc 3 900 emplois culturels dans ce croisement. En procédant ainsi pour tous les croisements Nace à deux chiffres et Isco à trois chiffres, on estime au final le nombre total d'emplois culturels.]