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STD/NAES(2005)9



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

28-Sep-2005

English - Or. English

STATISTICS DIRECTORATE

STD/NAES(2005)9
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National Accounts and Economic Statistics

PROPOSALS FOR TWO SNA/ISIC AGGREGATIONS FOR SNA DATA REPORTING

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WORKING PARTY ON NATIONAL ACCOUNTS

To be held on 11 - 14 October 2005

*Tour Europe, Paris La Défense
Beginning at 9:30 a.m. on the first day*

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JT00190441

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PROPOSALS FOR TWO SNA/ISIC AGGREGATIONS FOR SNA DATA REPORTING

Note by OECD Statistics Directorate
(September 2005)

1. Background

1. OECD has conducted an exercise with countries and partner international organisations to agree to a standard **top-top** aggregation of ISIC¹ revision 4 of around ten categories and an **intermediate** aggregation of around 30 to 40 categories for internationally comparable data reporting of national accounts by activity.

2. This paper sets out the outcome of the consultations and makes **firm proposals for these two aggregations** for the consideration of the OECD Working Party on National Accounts (WPNA)

3. This exercise was undertaken in the context of the updating of the System of National Accounts (SNA) and the revision of the ISIC, following the advice of the OECD WPNA meeting in October 2004, a request from Eurostat, and the SNA Advisory Expert Group meeting in December 2004.

4. In developing the proposals OECD considered, within the new proposed ISIC framework, initial proposals from UNSD, Eurostat, and France. Also considered, after discussion with OECD analysts, were issues of international comparability, relevance, and continuity, the needs of input-output compilation, some major policy interests, productivity analysis, and separately identifying activities that follow different tracks in the economic cycle and that have developed differently over time. An OECD EDG was established to encourage discussion of the proposals. Proposals were developed in consultation with Eurostat and UNSD.

5. Initial proposals for these two standard SNA/ISIC aggregations for future SNA data reporting by activity were circulated on 11 February 2005 and posted on the EDG. Following a range of comments received, a revised proposal was circulated on 24 May. This was sent to OECD and Eurostat national accountants, the UN, Eurostat and posted on the OECD EDG. It was also reviewed by the UN Expert Group on Economic and Social Classifications meeting in June 2005. In all comments were received from 15² countries, Eurostat and the European Central Bank.

6. Since the first OECD SNA/ISIC proposals were circulated, the UN Technical Sub-group, charged with drawing up detailed proposals for the revision of ISIC, has met to review worldwide comments received and has subsequently refined the ISIC revision 4 draft. The proposed ISIC structure has also been reviewed and finalized by the UN Expert Group on Economic and Social Classifications in June 2005. These changes, including coding changes, in the ISIC rev. 4 draft are reflected in this paper. The detailed ISIC rev. 4 draft, including the explanatory notes, can be consulted at <http://unstats.un.org/unsd/cr/isic-4.asp>.

¹ International Standard Industry Classification of All Economic Activities (ISIC)

² AUS, AUT, DEU, EST, FIN, FRA, GBR, GRC, IRE, JPN, KOR, NLD, POL, SVK, USA

7. The UNSD final proposals for ISIC rev. 4 set out a top-level of 21 Sections and second-level of 88 Divisions instead of 17 and 60 respectively in ISIC rev 3.1. Thus aggregations of A*21 and A*88 might be expected for the new SNA. National accountants have expressed an interest in developing a top-top level aggregation of around 10 categories for world-wide use. A number of countries have suggested that an intermediate aggregation of around 30 to 40 categories for common reporting across OECD or possibly wider would be useful, as it could be feasible for a wide range of countries in different regions of the world to report. Eurostat has proposed an aggregation of 65 categories for its own use. The US GDP by industry tables also use an aggregation of about 65 categories³. A range of standard SNA/ISIC aggregations – both proposed ISIC rev. 4 and existing ISIC rev. 3 aggregations - are set out in Annex 1 for reference purposes.

8. Some ISIC categories are outside or partially outside the SNA production boundary. All of section U (extra-territorial organizations) and much of section T division 98 (undifferentiated household production for own consumption) are outside the SNA production boundary. EDG comments suggest that it is preferred that they are listed for completeness, even though for SNA data reporting they will be empty.

2. Top-top proposal

	ISIC rev 4 sections	Description
1	A	Agriculture, forestry and fishing
2	B, C, D and E	Manufacturing, mining and quarrying and other industry
2a	C	<i>Of which: manufacturing</i>
3	F	Construction
4	G, H and I	Wholesale and retail trades, transport, accommodation and food service activities
5	J	Information and communication
6	K	Financial and insurance activities
7	L	Real estate activities
8	M and N	Business services
9	O, P, and Q	Public administration, defence, education, human health and social work activities
10	R, S, T and U	Other services

9. Various criteria are possible for grouping activities. OECD is aware of a general interest in primary, secondary and tertiary production, as well as non-market and market production. Splitting production into stages is followed in general terms but cannot be achieved cleanly within the ISIC framework. As for non-market production this involves different activities in different countries and over time, which makes for greater difficulty.

10. There is an interest in productivity analysis and business sector productivity. One consideration is to try to isolate imputed rents included in real estate activity, within the constraints of the ISIC structure and hierarchy, as this represents a large chunk of production, perhaps 5% or more of GDP with no corresponding labour input.

³ US GDP by Industry categories are based on the US version of the North America Industry Classification System (NAICS)

11. While the business sector will vary from one economy to another it may be possible to group those activities that are usually non-market or partly non-market such as public administration, education, health and social work.

12. Analysts may wish to try to group activities which behave similarly over the business cycle and separate those that behave differently.

13. There is a strong interest in continuity for analytical purposes for long time series analysis. Thus the existing SNA aggregations, the OECD Input-output and STAN databases classifications are taken into consideration. Currently with ISIC revision 3.1 there are a number of standard aggregations of ISIC used for national accounts data reporting on the Eurostat-OECD ESA/SNA questionnaires. It is clear that the proposals for ISIC revision 4 include some fairly radical changes from ISIC revision 3.1, with the priority given to increased international comparability and relevance. The scope for maintaining continuity is consequently limited, but still exists in many parts of the classification.

14. The comments received indicate a high degree of agreement on the top-top aggregation of 10/11 categories. There were several requests both from Europe and at the December 2004 SNA AEG to identify manufacturing separately because of its size and importance. This was confirmed by the EDG.

15. The isolation of real estate activities was also supported and has been facilitated by the UN TSG, responsible for the ISIC revision agreeing to move "Rental and leasing activities" to the section "Administrative and support services".

16. There is a strong request from Europe to follow the ISIC order and hierarchy. Conformity with the ISIC hierarchy has recently been aided by the UN TSG repositioning the ISIC section "Public administration and defence" ahead of the "Education" section in the latest ISIC revision 4 draft.

17. The previous (24 May 2005) version of the proposals set out a number of questions for consultation. This paper repeats the questions and summarises the responses.

18. There were differing views about the make up of the last two categories in the top-top aggregation. The options being advocated are as follows:

- Option i)** Group 9 Sections O, P, and Q consisting of public administration, defence, education, health and social work activities, which are activities accounting for a large proportion of government expenditure in many countries;
Group 10 Sections R, S, T and U "other services" a mixed residual section of (mainly personal) services. Option i) is proposed in this paper.
- Option ii)** Group 9 Section O "Public administration and defence", which represents the core activities of government;
Group 10 Sections P, Q, R, S, T and U which makes up a largely personal service grouping, consisting of Education, health and social work activities, arts, cultural, recreation and other (mainly personal) services.

Consultation questions:

A) *For the last two groups 9 and 10 do you prefer option i) or option ii) or some other combination? (Responses: Option i) 9 votes, Option ii) 7 votes.)*

19. Although opinions were fairly evenly divided, option i) to group public administration with the major public services of education and health won by a very narrow margin. US did not express a

preference, but advice was received that both could be matched equally well with US BEA GDP by industry data supplied to OECD.

B Do you agree with the revised formulation of the Top-top SNA/ISIC aggregation for SNA data reporting? (Responses: Yes 14; No 2)

20. Two countries (Australia and UK), while supporting the proposed aggregation suggested to **increase** the number of categories to 12 (separately identifying mining and to avoid the “of which” to identify manufacturing” which they thought anomalous) and two countries (Estonia and Germany) suggested to **reduce** the number of categories to 10 and 6 respectively. Thus the support for the A10/11 aggregation appears strongly based and a balanced reflection of country views.

21. For illustrative purposes only, an estimated breakdown of value added for the 10/11 categories is shown in table 2 for France, US, and Australia. This is based on recalculated ISIC rev. 3 data in STAN database and other information from national sources.

Table 2 Estimated value-added weights for top-top proposal for selected countries

			France	US	Australia
	ISIC rev 4 sections	Description	Estimated* % value added	Estimated* % value added	Estimated* % value added
1	A	Agriculture, forestry and fishing	2.5	1.0	3.5
2	B, C, D and E	Manufacturing and other industry	19.5	16.0	19.5
2a	C	<i>of which: manufacturing</i>	<i>16.5</i>	<i>12.5</i>	<i>11.0</i>
3	F	Construction	5.0	4.5	6.5
4	G, H and I	Wholesale and retail trades, transport, accommodation and food service activities	17.5	18.5	20.0
5	J	Information and communication	5.0	5.5	5.0
6	K	Financial and insurance activities	5.0	8.0	7.0
7	L	Real estate activities	12.0	11.5	10.0
8	M and N	Business services	11.5	11.0	11.0
9	O, P, and Q	Public administration, defence, education, human health and social work activities	20.0	20.5	15.0
10	R, S, T and U	Other services	2.0	3.5	2.5
	Total		100.0	100.0	100.0

*Estimates by author for illustrative purposes from OECD STAN database - latest available year - and national sources

3. Intermediate aggregation proposal

22. The OECD's SNA Industry EDG supported a standard intermediate aggregation of about 40 categories, between A*21 and A*88, for internationally comparable SNA data reporting within the OECD. The idea is that this intermediate aggregation level could be a target for internationally comparable reporting of national accounts data by activity for European, North American and Asia-Pacific OECD member countries. It is as yet an untested question whether such an aggregation could be useful for worldwide data reporting.

23. There was also from Europe the strong view that this intermediate aggregation should fully respect the ISIC order and hierarchy⁴ between A*21 and A*88, although there was a willingness to argue for a necessary change in ISIC order if a good case was made. On the other hand Japan was more relaxed about the question of following ISIC order and hierarchy exactly. There appear on balance to be advantages to following the ISIC order and hierarchy for internationally comparable data reporting.

24. Following the results of the consultation in May and June an intermediate aggregation of 38 categories is proposed.

Table 3 Proposed intermediate SNA/ISIC aggregation A*38

	A*38 code	ISIC rev 4	ISIC rev 4 code	Links to ISIC rev 3 A31**
1	A	Agriculture, forestry and fishing	01 to 03	A31 continuity with A+B
2	B	Mining and quarrying	05 to 09	A31 continuity with CA + CB
3	CA	Manufacture of food products, beverages and tobacco	10 to 12	A31 continuity with DA
4	CB	Manufacture of textiles, wearing apparel and leather products	13 to 15	A31 continuity with DB +DC
5	CC	Manufacture of wood and paper products, and printing	16 to 18	New A*40 CC = A31 DD + DE - publishing
6	CD	Manufacture of coke, and refined petroleum products	19	A31 approximate continuity with DF
7	CE	Manufacture of chemicals and chemical products	20	New A*40 CE+CF = A31 DG
8	CF	Manufacture of pharmaceuticals, medicinal chemical and botanical products	21	Ditto
9	CG	Manufacture of rubber and plastics products, and other non-metallic mineral products	22 + 23	A31 continuity with DH + DI
10	CH	Manufacture of basic metals and fabricated metal products	24 + 25	A31 continuity with DJ
11	CI	Manufacture of computer, electronic and optical products	26	New
12	CJ	Manufacture of electrical equipment	27	New
13	CK	Manufacture of machinery and equipment n.e.c.	28	New
14	CL	Manufacture of transport equipment	29 + 30	A31 continuity with DM
15	CM	Other manufacturing and repair	31 to 33	New
16	D	Electricity, gas, steam and air-conditioning supply	35	New
17	E	Water, sewage, waste management and remediation	36 to 39	New
18	F	Construction	41 to 43	A31 continuity with F
19	G	Wholesale and retail trades	45 to 47	New A*40 G = A31 G – repair of household goods*
20	H	Transportation and storage	49 to 53	New A*40 H = A31 I – telecommunications, travel agencies and tour operators
21	I	Accommodation and food service activities	55 + 56	A31 continuity with H
22	JA	Publishing, audiovisual and broadcasting activities	58 to 60	New

⁴ Any higher level aggregation should be fully derivable from lower level aggregations simply by aggregation

23	JB	Telecommunications	61	New
24	JC	IT and other information services	62 +63	New
25	K	Financial and insurance activities	64 to 66	A31 continuity with J
26	L	Real estate activities	68	New
27	MA	Legal, accounting, management, architecture, engineering, technical testing and analysis activities	69 to 71	New
28	MB	Scientific research and development	72	New
29	MC	Other professional, scientific and technical activities	73 to 75	New
30	N	Administrative and support service activities	77 to 82	New
31	O	Public administration and defence	84	A31 continuity with L
32	P	Education	85	A31 continuity with M
33	QA	Human health services	86	New A*40 QA+QB = A31 N – veterinary services
34	QB	Residential care and social work activities	87 + 88	Ditto
35	R	Arts, entertainment and recreation	90 to 93	New
36	S	Other services	94 to 96	New
37	T*	Activities of households as employers of domestic personnel and undifferentiated goods and services production of households for own use	97 + 98*	A31 continuity with P for SNA purposes as 98 is effectively empty
38	U*	Extra-territorial organizations and bodies	99*	A31 continuity with Q (empty for SNA purposes)

* All of U and part of T 86 are outside the SNA production boundary, and will be empty for SNA data reporting, but are included for completeness.

** ISIC rev 3 A31 is listed in Annex 1

25. This proposal takes into account the preservation of continuity, albeit limited given the degree of change in the ISIC proposals. The A*38 is partly derived from the existing A31 aggregation in ISIC rev 3.1. It also take into account various analytical needs, input-output interests with links to products, major policy information needs, and productivity estimation.

26. Some explanation of the reasoning behind the choices may assist the readers' assessment of their usefulness.

27. The current A31 breaks out in some detail, what is in most relatively developed economies the largest ISIC rev 3.1 section, namely manufacturing.

28. This A*38 proposal for SNA/ISIC revision 4 adopts this broad approach, while also breaking out further some of the service sections, where they are seen as particularly important or different, or of sufficient policy interest. The revision of ISIC has elaborated the classification of information-communication-related activities and services generally. This A*38 proposal expands the detail for the service sector with 20 out of 38 categories for services activities compared to 11 out of 31 in the ISIC revision 3.1 A31. Nonetheless it is felt important to maintain a similar level of disaggregation as before in manufacturing for three reasons:

- i) data for manufacturing output, including volume data, remain more comparable internationally, more robust, and more analytically usable than services output data;
- ii) data giving a good representation to primary and secondary industries will have a wider currency, and comparability among countries at different levels of development;
- iii) a reasonable number of time series can be preserved despite the rather radical changes proposed for ISIC revision 4.

29. The proposed manufacturing section in ISIC rev. 4 differs in its overall contents from that in ISIC rev. 3.1. Publishing is moved from manufacturing to the Information and Communication section. Materials recovery has been moved out of recycling, which was in manufacturing to the 'Environmental' section E and the division for "Waste management and remediation activities".

30. In the manufacturing section "printing and copying activities" (division 18), without publishing (which moves to the Information and Communication section), becomes rather small and less interesting and is grouped with "manufacture of wood and paper products". Manufacture of pharmaceuticals, computers and electronic equipment, and electrical equipment are felt to have a high policy interest from high-technology and ICT perspectives and are separately identified.

31. The first OECD proposal for an intermediate aggregation identified a set of energy-related activities/products in mining, manufacturing and distribution, which is seen as useful for input-output analysis. These were Divisions 05, 06, 19, and 35. The break-out of mining of energy-producing materials was criticized as being imperfect as the division 13 services to mining was partly energy related and partly not, that it was relatively unimportant for OECD countries, and it did not fit the hierarchy criterion regarding Eurostat's draft A65. Japan said they did not have this breakdown. Australia supported the concept of the break out, but thought data might not be available due to confidentiality issues. UK and Korea also supported this break out and the US has this break out in its GDP by industry table. However overall the break-out of "Mining and quarrying of energy producing materials" was not supported and is not included in this A*38 proposal because of its relative lack of importance in many countries.

The question was asked:

*C) Do you agree that mining of energy materials should **not** be broken out at this intermediate level? Yes 9, No 5;*

Alternatively a three way breakout of mining and quarrying would have been proposed i) Divisions 9,10 energy producing materials; ii) Divisions 11,12 non-energy producing materials; and iii) 13 Services to mining and quarrying.

32. The previous proposal had the Trade section G split into its three component divisions, because of its size and to facilitate a view of wholesale and retail as intermediate and final demand activities, although the ISIC motor trades division 41 is not helpful in that respect nor for wider international comparability. Japan has stated that it would find it difficult to match the motor trades Division 45. And it is for reasons of international comparability on the advice of respondents that it is proposed to have just section G not broken out as indeed was the case in A31. This section G differs slightly from the corresponding section of ISIC Rev 3.1 in that repairs of personal and household goods have been placed in a new Division 95 in section S.

The question was asked:

D) For the sake of international comparability should section G be combined into one? Yes 11; No 3

33. The Information and Communication section J is split because of the extremely high and continuing policy interest in this area worldwide. Telecommunications is currently probably the fastest growing activity in most countries and is likely to be a focus of attention for many years to come. One can also anticipate that the boundaries between telecommunications, broadcasting, internet and IT services will be in a state of flux with developments in broadband and mobile telephony and that this section J might be left unsplit. Splitting would allow an approximate high-level ICT grouping as well as identification of what is something like information content activities (JA). On balance it was considered more appropriate

to split it. The Netherlands observed that the proposed breakdown was meaningful at present, but broadband was undermining the distinctions.

34. Real estate activities are isolated, which as explained earlier is potentially useful for productivity analysis. The UN ISIC TSG in March 2005 decided to move rental and leasing services to the section “Administration and support services”.

35. Finally human health activities are split out because of their size, and the high policy interest in health activities, including a knowledge economy interest. It is relatively untested whether this is practical for SNA practitioners. The move was strongly supported.

The question was asked:

E) Do you agree that health and social services be split as proposed in the intermediate aggregation? Yes 12; No 3

36. Eurostat, ECB and France requested a breakout of section M “Professional, scientific and technical services”, which would include breaking out “Research and Development”. R&D has a high policy interest for governments and analysts, and in the update of SNA there is a decision to capitalize R&D expenditure in future. It could be interesting for input-output analyses. On the other hand Ireland, Estonia and some OECD analysts have advised that coverage may be low as most R&D activity is not to be found in this ISIC category, but in practice is a secondary activity of other activities e.g. pharmaceuticals, electronics or aerospace manufacturing, or education. The situation would likely be better for data collected at the establishment rather than enterprise level and may vary from country to country. This paper follows the Eurostat proposal on R&D, which was widely supported in the consultation.

The question was asked:

*F Do you agree with the break-out of R&D in the A*40 aggregations? (Yes 13; No 3)*

37. There were suggestions to save space by aggregating further in manufacturing or in other services, but these were not well supported.

The question was asked:

G) Do you agree that it is preferable to maintain break-out of manufacturing at about the same level as the existing A31 maintaining links as far as practical for a feasible and useful aggregation for internationally comparable national accounts reporting? (Yes 10 ; No 1).

38. France suggested an additional break-out of “manufacture of transport equipment” to identify “manufacture of motor vehicles” and “manufacture of other transport equipment” as they suggest that these may follow different paths through the business cycle. Three other countries agreed with France but it was concluded that there was insufficient evidence and backing to support such a break.

The question was asked:

H) Do you agree to keep the group manufacture of transport equipment, which is similar to the existing ISIC rev 3 A31. Yes 9; No 4

Question to delegates to the OECD Working Party on National Accounts

39. Delegates are asked to consider whether these proposed aggregations can be accepted for SNA data reporting.

40. In particular:

- i) Do delegates agree the proposed Top-top aggregation (A*10/11) for SNA data reporting?**
- ii) Do delegates agree the proposed intermediate aggregation (A*38) for SNA data reporting?**

41. Any further comments from delegates are welcome.

42. Subject to delegates views and comments a final OECD paper would then go to the ISWGNA in November in time for consideration of the proposals by the SNA Advisory Expert Group in January 2006 as standard aggregations in the revised SNA.

Annex 1: Proposed ISIC rev 4 and Existing ISIC rev 3 Aggregations
 i) Proposed ISIC rev 4 SNA/ISIC aggregations

Proposed Top-top SNA/ISIC A*10/11		A*21 ISIC rev 4 top level		Proposed OECD SNA/ISIC A*38	
A	1. Agriculture, forestry and fishing	A	Agriculture, forestry and fishing	A	Agriculture, forestry and fishing
B, C, D, E	2. Manufacturing and other industry	B	Mining and quarrying	B	Mining and quarrying
C	(2a) of which: manufacturing	C	Manufacturing	CA	Manufacture of food products, beverages and tobacco
F	3. Construction	D	Electricity, gas, steam and air-conditioning supply	CB	Textiles and leather products
G, H, I	4. Trade, accommodation and food services and transport	E	Water supply, sewerage, waste management and remediation activities	CC	Wood and paper products and printing
J	5. Information and communication	F	Construction	CD	Manufacture of coke and refined petroleum products
K	6. Financial and insurance	G	Wholesale and retail trade	CE	Chemicals and man-made fibres
L	7. Real estate	H	Transportation and storage	CF	Pharmaceuticals
M, N	8. Other business services	I	Accommodation and food service activities	CG	Rubber, plastics and other non-metallic mineral products
O, P, Q	9. Public administration, education and health	J	Information and communication	CH	Basic metals and fabricated metal products
R, S, T, U	10. Other services	K	Financial and insurance activities	CI	Computers, electronic and optical products
		L	Real estate activities	CJ	Electrical equipment
		M	Professional, scientific and technical	CK	Manufacturing of machinery and equipment n.e.c.
		N	Administrative and support services	CL	Transport equipment
		O	Public administration	CM	Other manufacturing and repair
		P	Education	D	Electricity, gas, steam and air-conditioning supply
		Q	Human health and social work	E	Water supply, sewerage, waste management and remediation activities
		R	Arts, entertainment and recreation	F	Construction
		S	Other service activities	G	Wholesale and retail trade
		T	Activities of households as employers of domestic personnel; undifferentiated goods- and services- producing activities of private households for own use	H	Transportation and storage
		U	Activities of extraterritorial organizations and bodies	I	Accommodation and food service activities
				IA	Publishing, audiovisual, broadcasting
				JB	Telecommunications
				IC	IT and information service activities
				K	Financial and insurance activities
				L	Real estate activities
				MA	Legal, accounting, management, engineering etc
				MB	Scientific research and development
				MC	Other scientific, professional and technical
				N	Administrative and support services
				O	Public administration and defence; compulsory social security
				P	Education
				QA	Human health activities
				QB	Residential care and social work activities
				R	Arts, entertainment and recreation
				S	Other service activities
				T	Activities of households as employers of domestic personnel; undifferentiated goods- and services- producing activities of private households for own use
				U	Activities of extraterritorial organizations and bodies

ISIC rev 4 A*88 draft August 2005	
ISIC code	
A01	Crop and animal production, hunting and related service activities
A02	Forestry and logging
A03	Fishing and aquaculture
B05	Mining of coal and lignite
B06	Extraction of crude petroleum and natural gas
B07	Mining of metal ores
B08	Other mining and quarrying
B09	Mining support service activities
C10	Manufacture of food products
C11	Manufacture of beverages
C12	Manufacture of tobacco products
C13	Manufacture of textiles
C14	Manufacture of wearing apparel
C15	Manufacture of leather and related products
C16	Manufacture of wood and of products of wood and cork, except furniture
C17	Manufacture of paper and paper products
C18	Printing and reproduction of recorded media
C19	Manufacture of coke and refined petroleum products
C20	Manufacture of chemicals and chemical products
C21	Manufacture of pharmaceuticals, medicinal chemical and botanical products
C22	Manufacture of rubber and plastics products
C23	Manufacture of other non-metallic mineral products n.e.c.
C24	Manufacture of basic metals
C25	Manufacture of fabricated metal products except machinery and equipment
C26	Manufacture of computer, electronic and optical product manufacturing
C27	Manufacture of electrical equipment
C28	Manufacture of machinery and equipment n.e.c.
C29	Manufacture of motor vehicles
C30	Manufacture of other transport equipment
C31	Manufacture of furniture
C32	Other manufacturing
C33	Repair and installation of machinery and equipment
D35	Electricity, gas, steam and air conditioning supply
E36	Water collection, treatment and supply
E37	Sewerage
E38	Waste collection, treatment and disposal activities, materials recovery
E39	Remediation activities and other waste management services
F41	Construction of buildings
F42	Civil engineering
F43	Specialized construction activities
G45	Wholesale and retail trade and repair of motor vehicles and motorcycles
G46	Wholesale trade, except of motor vehicles and motorcycles
G47	Retail trade, except of motor vehicles and motorcycles
H49	Land transport and transport via pipelines
H50	Water transport
H51	Air transport
H52	Warehousing and support activities for transportation
H53	Postal and courier activities
I55	Accommodation
I56	Food and beverage service activities
J58	Publishing activities
J59	Motion picture, video, television programme production, sound recording and music publishing activities
J60	Broadcasting and programming activities
J61	Telecommunications
J62	Information technology service activities
J63	Information service activities
K64	Financial intermediation, except insurance and pension funding
K65	Insurance, reinsurance and pension funding, except compulsory social security
K66	Other financial activities
L68	Real estate activities
M69	Legal and accounting activities
M70	Activities of head offices, management and management consultancy activities
M71	Architecture, and engineering activities, technical testing and analysis
M72	Scientific research and development
M73	Advertising and market research
M74	Other professional, scientific and technical activities
M75	Veterinary activities
N77	Rental and leasing activities
N78	Employment activities
N79	Travel agency, tour operator and other reservation service activities
N80	Security and investigation activities
N81	Services to buildings and landscape activities

N82	Office administrative, office support and other business support services
O84	Public administration and defence; compulsory social security
P85	Education
Q86	Human health activities
Q87	Residential care activities
Q88	Social work activities without accommodation
R90	Creative, arts and entertainment activities
R91	Libraries, archives, museums and other cultural activities
R92	Gambling and betting activities
R93	Sports activities and amusement and recreation activities
S94	Activities of membership organizations
S95	Repair of computers and personal and household goods
S96	Other service activities
T97	Activities of households as employers of domestic personnel
T98	Undifferentiated goods- and services- producing activities of private households for own use
U99	Activities of extraterritorial organizations and bodies

ii) Existing ISIC 3.1 SNA/ISIC Aggregations

A3	SNA	A6/7	SNA	A17	ISIC	A31	SNA
A+B	Agriculture and fishing	A+B	Agriculture and fishing	A	Agriculture and forestry	A	Agriculture and forestry
C to F	Industry construction	C to E	Industry including energy	B	Fishing	B	Fishing
G to P	Services	D	<i>Of which: manufacturing</i>	C	Mining and quarrying	CA	Mining and quarrying of energy producing materials
		F	Construction	D	Manufacturing	CB	Mining and quarrying except energy producing materials
		G to I	Wholesale and retail, hotels and transport	E	Utilities	DA	Manufacture of food products, beverages and tobacco
		J+K	Financial, real estate and business services	F	Construction	DB	Manufacture of textiles and textile products
		L to P	Other services	G	Wholesale and retail	DC	Manufacture of leather and leather products
				H	Hotels and catering	DD	Manufacture of wood and wood products
				I	Transport and communication	DE	Manufacture of pulp, paper and paper products; publishing and printing
				J	Financial services	DF	Manufacture of coke, refined petroleum products and nuclear fuel
				K	Real estate and business services	DG	Manufacture of chemicals, chemical products and man-made fibres
				L	Public administration and defence	DH	Manufacture of rubber and plastic products
				M	Education	DI	Manufacture of other non-metallic mineral products
				N	Health and social services	DJ	Manufacture of basic metals and fabricated metal products
				O	Community, social and personal services	DK	Manufacture of machinery and equipment n.e.c.
				P	Households with employed persons	DL	Manufacture of electrical and optical equipment
				Q	Extra-territorial organizations	DM	Manufacture of transport equipment
						DN	Manufacturing n.e.c.
						E	Utilities
						F	Construction
						G	Wholesale and retail
						H	Hotels and catering
						I	Transport and communication
						J	Financial services
						K	Real estate and business services
						L	Public administration and defence
						M	Education
						N	Health and social work
						O	Community, social and personal services
						P	Households with employed persons
						Q	Extra-territorial organizations

ISIC 3 A60		ISIC 3 OECD /IO 41		ISIC 3 OECD/STAN 60	
A01	Agriculture	A+B	Agriculture and fishing	A	Agriculture and forestry
A02	Forestry	C	Mining and quarrying	B	Fishing
B05	Fishing	DA	Manufacture of food products, beverages and tobacco	CA	Mining and quarrying of energy producing materials
CA10	Coal, lignite and peat	DB+DC	Textiles and leather products	CB	Mining and quarrying except energy producing materials
CA11	Crude petroleum and natural gas	DD	Manufacture of wood and wood products	DA15	....Food products and beverages
CA12	Uranium and thorium ores	DE	Manufacture of pulp, paper and paper products; publishing and printing	DA16	....Tobacco products
CB13	Metal ores	DF	Manufacture of coke, refined petroleum products and nuclear fuel	DB17	.....Textiles
CB14	Other mining and quarrying	DG24 exc 2423	.....Chemicals excluding pharmaceuticals	DB18	.....Wearing apparel, dressing and dyeing of fur
DA15	Food products and beverages	DG2423	Pharmaceuticals	DC19	....Leather, leather products and footwear
DA16	Tobacco products	DH25	Rubber and plastic products	DD20	Wood and products of wood and cork
DB17	Textiles	DI26	Manufacture of other non-metallic mineral products	DE21	....Paper and paper products
DB18	Wearing apparel; dressing dyeing of fur	DI271 +2731	.....Iron and steel	DE22	....Publishing, printing and reproduction of recorded media
DC19	Leather and leather products	DI272+2732	.....Non-ferrous metals	DF23	....Coke, refined petroleum products and nuclear fuel
DD20	Wood and wood products	DI28	Fabricated metal products	DG24 exc 2423	.....Chemicals excluding pharmaceuticals
DE21	Paper and paper products	DK 29	Manufacture of machinery and equipment n.e.c.	DG2423	.....Pharmaceuticals
DE22	Publishing, printing and reproduction of recorded media	DL30	Office, accounting and computing machinery	DH25	Rubber and plastic products
DF23	Manufacture of coke, refined petroleum products and nuclear fuel	DL31	Electrical machinery and apparatus n.e.c.	DI26	Manufacture of other non-metallic mineral products
DG24	Manufacture of chemicals, chemical products and man-made fibres	DL32	Radio, TV and communication equipment	DI271 +2731	.....Iron and steel
DH25	Rubber and plastic products	DL33	Medical, precision and optical instruments, watches and clocks	DI272+2732	.....Non-ferrous metals
DI26	Manufacture of other non-metallic mineral products	DM34	Motor vehicles and trailers	DI28	Fabricated metal products
DI27	Basic metals	DM351	.....Building and repairing of ships and boats	DK 29	Manufacture of machinery and equipment n.e.c.
DI28	Fabricated metal products	DM353	.....Aircraft and spacecraft	DL30	Office, accounting and computing machinery
DK29	Manufacture of machinery and equipment n.e.c.	DM352+359	.....Railroad equipment and transport equipment n.e.c.	DL31	Electrical machinery and apparatus n.e.c.
DL30	Office, accounting and computing machinery	DN	Manufacturing n.e.c.	DL32	Radio, TV and communication equipment
DL31	Electrical machinery and apparatus n.e.c.	E	Utilities	DL33	Medical, precision and optical instruments, watches and clocks
DL32	Radio, TV and communication equipment	F	Construction	DM34	Motor vehicles and trailers
DL33	Medical, precision and optical instruments, watches and clocks	G	Wholesale and retail	DM351	.....Building and repairing of ships and boats
DM34	Motor vehicles and trailers	H	Hotels and catering	DM353	.....Aircraft and spacecraft
DM35	Other transport equipment	I60 to I63	Transport	DM352+359	.....Railroad equipment and transport equipment n.e.c.
DN36	Other manufacturing n.e.c.	I64	Post and telecommunications	DN36	Furniture and other manufacturing n.e.c.
DN37	Recycling	J	Financial services	DN37	Recycling

E40	Electricity, gas, steam and hot water supply	K70	Real estate	E40	Electricity, gas, steam and hot water supply
E41	Water	K71	Real estate	E41	Water
F45	Construction	K72	Renting of machinery/equipment	F45	Construction
G50	Motor trades	K73	Computer and related activities	G50	Motor trades
G51	Wholesale	K74	Research and development	G51	Wholesale
G52	Retail	L	Other business services	G52	Retail
H55	Hotels and catering	M	Public administration and defence	H55	Hotels and catering
I60	Land transport and pipelines	N	Education	I60	Land transport and pipelines
I61	Water transport	O	Health and social work	I61	Water transport
I62	Air transport	P	Community, social and personal	I62	Air transport
I63	Supporting transport activities, travel agencies		Households with employed persons	I63	Supporting transport activities, travel agencies
I64	Post and telecommunications			I64	Post and telecommunications
J65	Financial intermediation except insurance			J65	Financial intermediation except insurance
J66	Insurance			J66	Insurance
J67	Activities auxiliary to financial intermediation			J67	Activities auxiliary to financial intermediation
K70	Real estate			K70	Real estate
K71	Renting of machinery/equipment			K71	Renting of machinery/equipment
K72	Computer and related activities			K72	Computer and related activities
K73	Research and development			K73	Research and development
K74	Other business services			K74	Other business services
L75	Public administration and defence			L75	Public admin. and defence;
M80	Education			M80	Education
N85	Health and social work			N85	Health and social work
O90	Sewage, refuse and sanitation activities			O	Other community, social and personal services
O91	Activities of membership organizations			P95	Households with employed persons
O92	Recreational, cultural and sporting activities			Q	Extra-territorial organisations and bodies
O93	Other service activities				
P95	Households with employed persons				
Q99	Extra-territorial organizations				

Proposed A*65 Eurostat

Eurostat code	Description	ISIC rev 4 code
AA	Crop and animal production, hunting and related service activities	01
AB	Forestry and logging	02
AC	Fishing and aquaculture	03
B	Mining and quarrying	05 to 09
CA	Manufacture of food products, beverages and tobacco products	10 to 12
CB	Manufacture of textiles, wearing apparel and leather	13 to 15
CC	Manufacture of wood and of products of wood and cork,	16
CD	Manufacture of paper and paper products	17
CE	Printing and reproduction of recorded media	18
CF	Manufacture of coke and refined petroleum products	19
CG	Manufacture of chemicals and chemical products	20
CH	Manufacture of pharmaceuticals, medicinal chemical and botanical products	21
CI	Manufacture of rubber and plastics products	22
CJ	Manufacture of other non-metallic mineral products	23
CK	Manufacture of basic metals	24
CL	Manufacture of fabricated metal products, except machinery and equipment	25
CM	Manufacture of computers, electronic and optical products	26
CN	Manufacture of electrical equipment	27
CO	Manufacture of machinery and equipment n.e.c.	28
CP	Manufacture of transport equipment	29 to 30
CQ	Manufacturing n.e.c.	31 to 32
CR	Repair and installation of machinery and equipment	33
D	Electricity, gas, steam and air conditioning supply	35
EA	Water collection, treatment and supply	36
EB	Sewerage, waste management and remediation activities	37 to 39
FA	Construction of buildings and civil engineering	41 + 42
FB	Specialized construction activities	43
GA	Wholesale and retail trade and repair of motor vehicles and motorcycles	45
GB	Wholesale trade, except of motor vehicles and motorcycles	46
GC	Retail trade, except of motor vehicles and motorcycles	47
HA	Land transport; transport via pipelines	49
HB	Water transport	50
HC	Air transport	51
HD	Warehousing and support activities for transportation	52
HE	Postal and courier activities	53
I	Accommodation and food service activities	55 +56
JA	Publishing activities	58
JB	Motion picture, video, television programme production, sound recording and music publishing activities	59
JC	Broadcasting and programming activities	60
JD	Telecommunications	61
JE	IT and information services	62 +63
KA	Financial intermediation, except insurance and pension funding	64
KB	Insurance and pension funding, except compulsory social security	65
KC	Other financial activities	66
L	Real estate activities	68
MA	Legal, accounting, activities of head offices, management and management consultancy activities;	69 +70
MB	Architecture and engineering activities; technical testing and analysis	71
MC	Scientific research and development	72
MD	Advertising and market research	73
ME	Other professional, scientific and technical activities	74 + 75
NA	Rental and leasing activities	77
NB	Employment activities	78
NC	Travel agency, tour operator and other reservation service activities	79
ND	Investigation and security and other support activities,	80 to 82
O	Public administration and defence; compulsory social security	84
P	Education	85
QA	Human health activities	86
QB	Residential care and social work activities	87 + 88
RA	Arts, entertainment, library and museum activities etc	90 + 91
RB	Sports, amusement and recreation activities	92 + 93
SA	Activities of membership organizations	94
SB	Repair of computers and personal and household goods	95
SC	Other service activities	96
T	Activities of households as employers of domestic personnel; undifferentiated goods- and services- producing activities of private households for own use	97+98
U	Activities of extraterritorial organizations and bodies	99