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**PROPOSALS FOR TWO SNA/ISIC AGGREGATIONS
FOR SNA DATA REPORTING**

by William Cave
OECD Statistics Directorate

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William Cave

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Executive Summary

1. The new ISIC revision 4 provides a top-level of 21 sections and a second level of 88 divisions. The SNA Advisory Expert Group in December 2004 requested an ISIC aggregation above the top-level (described here as *Top-top* level) of about 10 categories for worldwide SNA data reporting by activity. In addition, a number of OECD countries have expressed support for an *intermediate* aggregation of 30-40 categories that would be suitable for data reporting from a wide range of countries.

2. This paper proposes the structure of these two SNA/ISIC aggregations (see pages 3 and 6), describes the consultative process and reasoning that led to their development by an OECD EDG, which recommends that the two aggregations be incorporated in the revised SNA.

1. Background

3. OECD has conducted an exercise with countries, the UNSD and Eurostat 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.

4. This paper sets out the outcome of the consultations and makes **firm proposals for these two aggregations** for the consideration of the SNA Advisory Expert Group (AEG).

5. This exercise was undertaken in the context of the updating of the 1993 System of National Accounts (SNA) and the revision of the ISIC, following the advice of the OECD Working Party on National Accounts (WPNA) meeting in October 2004, a request from Eurostat, and the SNA Advisory Expert Group meeting in December 2004.

6. 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. The OECD

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

EDG included country national accounts and classification experts, UNSD, Eurostat and the European Central Bank.

7. 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 OECD EDG. Following a range of comments received, a revised proposal was circulated on 24 May. This was sent to OECD and Eurostat national accountants, UNSD, Eurostat and posted on the OECD EDG. The revised proposal was also reviewed by the UN Expert Group on Economic and Social Classifications meeting in June 2005. In all, comments on the revised proposal were received from 15² countries, Eurostat and the European Central Bank. Final draft proposals were then prepared for and reviewed by the OECD WPNA in October 2005, where over 40 countries participated.

8. 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 the 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>.

9. 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 would be useful, as it could be feasible for a wide range of countries in different regions of the world. 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.

10. 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. The EDG preferred that they are listed for completeness, even though for SNA data reporting they will be empty.

2. Top-top proposal

11. 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

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

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

the ISIC framework. As for non-market production this involves different activities in different countries and over time, which makes for greater difficulty.

Table 1 Proposed Top-top SNA/ISIC aggregation A*10/11

	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

* of which imputed rents of owner-occupied dwellings

12. There is a strong interest in productivity analysis, and one consideration is to try to isolate (and exclude) the imputed rents of owner-occupied housing, within the constraints of the ISIC structure and hierarchy, as this represents a large chunk of production, perhaps 5% or more of GDP. Imputed rents do not represent an ISIC activity as such, but are included for reasons of consistency across time and between countries. However, there is no market production of owner-occupied housing services, and the values have to be imputed – as indicated by their name. For this reason, and the fact that there is no labour used, many analysts prefer to exclude them when deriving productivity statistics. Imputed rent of owner-occupied housing is included in section L, real estate activities, and often accounts for most of it.

13. Productivity analysts and others may also wish to exclude other non-market production from their statistics and focus on the so-called “business sector”. While the scope of the business sector varies from one economy to another it may be possible to group those activities that are mostly, or at least partly, non-market such as public administration, education, health and social welfare.

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

15. There is a strong interest in continuity for analytical purposes for long time series analysis. Thus the existing SNA aggregations and the OECD analytical database 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 in the 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.

16. The comments received indicate a high degree of agreement on the top-top aggregation of 10/11 categories. There were requests from the December 2004 SNA AEG, from analysts and in countries' comments to identify manufacturing separately because of its size and importance. This was further confirmed by the EDG.

17. 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".

18. There was 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.

19. 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.

20. 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.)

21. 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)

22. Two countries, 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 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.

23. 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>	16.5	12.5	11.0
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

24. The OECD EDG supported a standard intermediate aggregation of about 40 categories, between A*21 and A*88, for internationally comparable SNA data reporting. The idea is that this intermediate aggregation level could be a target for internationally comparable reporting of national accounts data by activity for a wide range of countries in different regions of the world.

25. There was also the strong view from Europe 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 non-European countries were more relaxed about the question of following ISIC order and hierarchy exactly. There appear on balance to be some advantages to following the ISIC order and hierarchy for internationally comparable data reporting.

26. Following the results of the consultation the following 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
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 (of which <i>imputed rents</i>)	68	New
27	MA	Legal, accounting, management, architecture, engineering, technical testing and analysis activities	69 to 71	New

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

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

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

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

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

30. 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 of 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.

31. 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".

32. 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.

33. 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 had some support conceptually, but others thought it was imperfect because division 13, services to mining, was partly energy related and partly not. There were also criticisms on practical grounds: it was relatively unimportant for many countries, some countries said they could not report this breakdown, and some raised confidentiality issues. A minority of countries supported it, and the US already publishes this break out in its GDP by industry table. Overall the break-out of “Mining and quarrying of energy producing materials” was not supported and is not included in this A*38.

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.

34. 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***

35. 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. One country observed that the proposed breakdown was meaningful at present, but broadband Internet was undermining the distinctions.

36. Real estate activities are isolated, which as explained earlier is potentially useful for productivity analysis, although, ideally, the imputed rents of owner-occupied dwellings component should be split out. The UN ISIC TSG in March 2005 decided to move rental and leasing services to the section “Administration and support services”.

37. 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, but 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***

38. It was requested to break out “Scientific Research and Development” out of section M “Professional, scientific and technical services”. R&D has a high policy interest for governments and analysts, and in the update of SNA there is the decision to capitalize R&D expenditure in future. It could be interesting for input-output analyses. On the other hand some countries and 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 and aerospace manufacturing, 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 proposes to breakout R&D, which was widely supported in the consultation.

39. It was further suggested that it would be neater if ISIC were to be reordered to make R&D the first category of section M, and only have one other category in section M. However, at this late stage of the ISIC revision process, the UN TSG responsible was not prepared to undertake such a reordering.

The question was asked:

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

40. 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 a 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).***

41. There was a proposal for an additional break-out of “manufacture of transport equipment” to identify “manufacture of motor vehicles” and “manufacture of other transport equipment” as these may follow different paths through the business cycle. There was, however, 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

Questions to SNA Advisory Expert Group:

i) Do you agree that the proposed top-top aggregation can be accepted for SNA data reporting?

*ii) Do you agree that the proposed intermediate aggregation (A*38) can be accepted for SNA data reporting?*

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 Intermediate level SNA/ISIC A*38			
A	1. Agriculture, forestry and fishing	A	Agriculture, forestry and fishing	A	Agriculture, forestry and fishing	01 to 03
B, C, D, E	2. Manufacturing and other industry	B	Mining and quarrying	B	Mining and quarrying	05 to 09
C	(2a) of which: manufacturing	C	Manufacturing	CA	Manufacture of food products, beverages and tobacco	10 to 12
F	3. Construction	D	Electricity, gas, steam and air-conditioning supply	CB	Textiles and leather products	13 to 15
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	16 to 18
J	5. Information and communication	F	Construction	CD	Manufacture of coke and refined petroleum products	19
K	6. Financial and insurance	G	Wholesale and retail trade	CE	Chemicals and man-made fibres	20
L	7. Real estate*	H	Transportation and storage	CF	Pharmaceuticals	21
M, N	8. Other business services	I	Accommodation and food service activities	CG	Rubber, plastics and other non-metallic mineral products	22 + 23
O, P, Q	9. Public administration, education and health	J	Information and communication	CH	Basic metals and fabricated metal products	24 + 25
R, S, T,U	10. Other services	K	Financial and insurance activities	CI	Computers, electronic and optical products	26
	<i>* of which imputed rents</i>	L	Real estate activities	CJ	Electrical equipment	27
		M	Professional, scientific and technical	CK	Manufacturing of machinery and equipment n.e.c.	28
		N	Administrative and support services	CL	Transport equipment	29 + 30
		O	Public administration	CM	Other manufacturing and repair	31 to 33
		P	Education	D	Electricity, gas, steam and air-conditioning supply	35
		Q	Human health and social work	E	Water supply, sewerage, waste management and remediation activities	36 to 39
		R	Arts entertainment and recreation	F	Construction	41 to 43
		S	Other service activities	G	Wholesale and retail trade	45 to 47
		T	Activities of households as employers of domestic personnel; undifferentiated production activities of private households for own use	H	Transportation and storage	49 to 53
		U	Activities of extraterritorial organizations and bodies	I	Accommodation and food service activities	55 + 56
				JA	Publishing, audiovisual, broadcasting	58 to 60
				JB	Telecommunications	61
				JC	IT and information service activities	62 + 63
				K	Financial and insurance activities	64 to 66
				L	Real estate activities (of which <i>imputed rents</i>)	68
				MA	Legal, accounting, management, engineering etc	69 to 71
				MB	Scientific research and development	72
				MC	Other scientific, professional and technical	73 to 75
				N	Administrative and support services	77 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
R	Arts entertainment and recreation	90 to 93
S	Other service activities	94 to 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

ISIC rev 4 A*88 draft September 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/ESA
A+B	Agriculture and fishing	A+B	Agriculture and fishing	A	Agriculture and forestry	A	Agriculture and forestry
C to F	Industry and 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