

Statistical Commission
Fifty-second session
1–3 and 5 March 2021
Item 3(k) of the provisional agenda

Background document
Available in English only

Items for discussion and decision: International statistical classifications

Report of the Technical subgroup on ISIC to the Expert Group on International Statistical Classifications on the Review of the International Standard Industrial Classification of All Economic Activities (ISIC)

Prepared by the Technical subgroup on ISIC

Review of the International Standard Industrial Classification of All Economic Activities (ISIC)

Report of the Technical subgroup on ISIC
to the Expert Group on International Statistical Classifications

11 November 2020

Contents

A. Introduction.....	2
B. Work done by the TSG-ISIC	3
C. Final recommendations.....	4
1. Consolidated list of issues.....	4
2. Proposed timeline for the revision of ISIC	13
Annex 1: Terms of Reference for the Technical Subgroup on ISIC (TSG-ISIC).....	15
Annex 2: Consolidated list of issues.....	18

A. Introduction

1. The Expert Group on International Statistical Classifications (EGISC) at its meeting in September 2017 reviewed the discussion on various issues related to ISIC including the issue of the statistical unit and the treatment of Factoryless Goods production. Based on the discussion, the EGISC agreed there was no need to review ISIC Rev. 4 in the immediate future and that the Technical Subgroup on ISIC (TSG-ISIC) would assess the issues on its work on factoryless good producers and the work on the statistical units model and make a recommendation at the next meeting of the Expert Group on whether ISIC needs to be reviewed (see para 17 of E/CN.3/2018/15¹).

2. Since the meeting in September 2017, the Eurostat Standards Working Group has considered proposals of change in NACE Rev.2, and the US Economic Classification Policy Committee (ECPC), Statistics Canada and Mexico's Instituto Nacional de Estadística y Geografía are assessing issues for reviewing NAICS. Issues identified by both these activities may lead to

¹ <https://unstats.un.org/unsd/statcom/49th-session/documents/2018-15-Classifications-E.pdf>

the identification of issues that warrant reviewing ISIC Rev.4. The EGISC therefore asked the TSG-ISIC to investigate if the issues raised could be addressed in the current structure of ISIC with additional guidance provided. If the TSG-ISIC investigation showed that this was not a practical approach, it could recommend to the EGISC that a review of ISIC Rev. 4 take place.

3. The mandate of the TSG-ISIC was to: (1) reassess the issues discussed at the TSG-ISIC meeting in 2016² (e.g. Factoryless Goods production) and the issues presented at the meeting of the EGISC in 2017³ for relevance and impact for influencing a revision of ISIC; (2) assess issues raised in the NACE and NAICS proposals for relevance and impact for influencing a revision of ISIC; (3) consolidate a list of issues from 1 and 2 above, and work with UNSD to enable global consultation on those issues to take place; (4) analyse the results of the consultation and identify issues for which ‘case laws’ could provide resolution; and (5) analyse the extent of the remaining issues which could not be solved by case law and, if they are significant, make proposals of change in the present version of ISIC and, if necessary, recommend to the EG that a revision of ISIC take place.

4. In October 2020, the TSG-ISIC completed the review and presents in this report the final recommendations to the EGISC on a possible revision of ISIC. This report contains in Section B a description of the work carried out by the TSG-ISIC to review the issues in the current version of ISIC. Section C presents the final recommendation of the TSG-ISIC for a revision of the ISIC based on the detailed discussion of the issues that were identified by the TSG-ISIC. This Section also propose a timeline for the revision of ISIC which takes into account ongoing revisions of regional classifications as well the update process of major international statistical standards such as the System of National Accounts and the Balance of Payments. Annex 1 contains the Terms of references of the TSG-ISIC as mandated by the EGISC. Annex 2 contains a consolidated list of issues considered by the TSG-ISIC.

B. Work done by the TSG-ISIC

5. In the last couple of years, the TSG-ISIC focused its work on the tasks mandated in its terms of references (see Annex 1). A description of the activities undertaken by the TSG-ISIC is described below.

6. The TSG-ISIC held a meeting in New York, 18-20 June 2019, to review issues that were raised at the meeting of the TSG-ISIC in May 2016 (such as, the treatment of factoryless goods producers (FGPs) and statistical units) and emerging issues arising from national and regional reviews of the Statistical classification of economic activities, such as that of the European Community (NACE), the North American Industry Classification System (NAICS), the Philippine Standard Industrial Classification (PSIC), etc. The objective was to investigate whether these issues could be addressed in the current structure of ISIC in order to formulate a recommendation to the Expert Group on Classification. The TSG-ISIC prepared a consolidated list of issues as a

² <https://unstats.un.org/unsd/classifications/ExpertGroup/egm2017/ac340-Bk10.PDF>

³ <https://unstats.un.org/unsd/classifications/ExpertGroup/egm2017/ac340-P23.PPSX>

basis for a global consultation. A detailed description of the issues is found in the final report of the meeting available at <https://unstats.un.org/unsd/classifications/ExpertGroup/TSG-ISIC2019/>

7. During the period from September to October 2019, the TSG-ISIC conducted a Global Consultation with countries and international and regional organizations. The questionnaire sought inputs on the issues identified by the TSG-ISIC in its meeting in June 2019, and asked respondents to further identify additional issues, if any. A total of 114 responses were received during the consultation from 101 countries and 6 international organizations (for some countries, there were multiple responses from different institutions within the country).

8. During the period from November 2019 to April 2020, the TGS-ISIC reviewed the responses of the global consultation and prepared an initial set of recommendations to the EGISC and an updated process and timeline for the review of ISIC in order to arrive to a final set of recommendations on the likely impact of the issues on the structure of ISIC. The EGISC provided guidance to the TSG-ISIC and requested that a more complete content review of ISIC Rev. 4 be carried out by the TSG-ISIC to identify any gaps in the current classification.

9. Since then, the TSG-ISIC established a ‘wiki’ space to facilitate the discussion and developed an interim index of ISIC Rev. 4 based on that of ISIC Rev. 3 and the correspondence between ISIC Rev.3 and ISIC Rev. 4. The index was intended to facilitate the discussion of the issues. In addition, the TSG-ISIC put together a consolidated list of issues to organize the discussion. During the period from May to September 2020, the TSG-ISIC held a series of meetings to discuss each issue in the consolidated list of issues and discuss possible solutions.

10. A final meeting of the TSG-ISIC was held virtually on 18, 23 September and 2 October. The meeting formalized the recommendations of possible treatment of the issues and arrived to the overall recommendation on the revision of ISIC for consideration of the EGISC.

11. The membership of the TSG-ISIC was extended in 2020 to include experts from China, Japan, the European Central Bank, the International Monetary Fund and the OECD. The list of members of the TSG-ISIC is presented in Annex 1.

C. Final recommendations

12. Based on the discussion on the consolidated list of issues (see details in Section 1 below) and the potential impact of their possible solutions on the current structure of the ISIC, the **TSG-ISIC recommends that a comprehensive revision of ISIC Rev. 4 be initiated**. In addition, since several possible solutions of the issues would require a change in the classification of products, the TSG-ISIC also recommends to the EGISC that a revision of CPC is undertaken.

13. Section 1 below provides a description of the issues, the various options considered by the TSG-ISIC and an assessment of the potential impact of the issues on the structure of ISIC. Section 2 presents the proposed timeline for the revision of ISIC.

1. Consolidated list of issues

Issue 1a: Store and non-store retail distinction

14. Digitalization has changed enormously the way retailers operate. There are retail activities that operate only in-store, others operate only online, and others operate in a hybrid mode where they maintain a physical presence in store, but they also sell products online. There is an increasing interest to monitor online retail activities from the user perspective, however, there is a debate on if and how to reflect these activities in ISIC.

15. The TSG-ISIC acknowledged that there are difficulties in classifying retailers that have both a physical and online presence and that the current structure of ISIC does not properly reflect the situation in reality. The TSG-ISIC therefore considered the possibility that a change in the structure of ISIC (more specifically, in division 47) is made to reflect the fact that the activities of store and non-store retail are in fact the same activity (selling products to the users) but they have different distribution channels. Additional criteria outside of ISIC (products, other targeted inquiries) could be used to separate the online activity from the store activity. A number of countries expressed the preference for merging the store and non-store activities, with at least one supporting national detail if the activities are combined in ISIC.

16. The TSG-ISIC recommends that further consultation with the users take place on the possible changes in the structure of ISIC taking into account the availability to collect relevant data.

Issue 1b: Distinction between wholesale and retail trade

17. The distinction between wholesale and retail trade relies on the distinction between the resale activities (without transformation) to industrial, commercial, institutional or professional users or to other wholesalers in “wholesale activities”, versus resale activities mainly to the general public for personal or household consumption in “retail activities”. The distinction has become very blurred in practice as many companies sell to both businesses and consumers. The reality is that there are pure wholesalers, pure retailers and hybrids. Countries rely very much on guidance to classify the hybrid models.

18. The TSG-ISIC acknowledged that the distinction is very much linked to the SNA recording of the output of the wholesalers and retailers and based on the discussion and the outcome of the Global Consultation the TSG-ISIC does not foresee the need for a change in current structure of ISIC at the division level (namely keep separate divisions 46 and 47 between Wholesale and Retail trade), but encourage the elaboration of additional guidance on the distinction between these two activities based on the review of country practices.

19. However, the TSG-ISIC also acknowledged that from a classification point of view, reflecting the reality of blurred lines between these two activities, the option to merge wholesale and retail should be further discussed in order to provide a classification that is easy to implement and is supported by solid data. Also, the consistency of the Group/Class detail of Wholesale and Retail trade should be reviewed. This would imply a structural change in ISIC at lower levels.

Issue 1c: Division 45 (wholesale and retail trade and repair of motor vehicles and motorcycles)

20. Division 45 of ISIC treats the wholesale and retail trade and repair of motor vehicles and motorcycles differently from other activities. The issue considered by the TSG-ISIC is whether or not to treat the wholesale, retail trade and repair as separate activities.

21. The TSG-ISIC acknowledged that, based on the discussion and the global consultation, there is not a clear indication that a change in the structure of ISIC (specifically, in division 45) is needed, but agreed that further work is needed to understand the policy interest in this Division, and further review the changes in the automotive industry and country practices. This issue has potential impact on the structure of ISIC.

Issue 1d: Intermediary of retail sale and Issue 2: Digital Intermediaries (Question 2 of the Global Consultation)

22. The TSG-ISIC discussed the issue of intermediaries in general, but also the issue of digital intermediaries. Retail intermediaries are retailers that sell products without owning them. These intermediation activities have increased enormously due to the technological advances through digital platforms. The identification of these activities is of great importance from the policy perspective.

23. Currently, there is an intermediate ruling⁴ from the Expert Group on Classification on the treatment of intermediation activities within the current structure of ISIC, but enterprises are generally coded in SBRs based on national rules or reflections. The possibility of having one new group in division 47 for intermediaries of retail sale (including digital intermediaries) was considered a possible solution but with major structural implications for countries following the intermediate ruling. Alternatively, additional criteria outside of ISIC (products, other targeted inquiries) could be considered. The TSG-ISIC recognized that this is a particularly important issue considering the growing number of intermediaries (and digital intermediaries) and the policy need to identify and monitor these activities. The TSG-ISIC agreed that this issue has a potential structural impact on ISIC across multiple high-level categories and needs to be addressed in the next revision of ISIC.

Issue 1e: Scope of Section G

24. Section G of ISIC Rev. 4 “includes wholesale and retail sale (i.e. sale without transformation) of any type of goods and the rendering of services incidental to the sale of these goods. The ongoing discussions on the digital economy and e-trade are expanding trade activities to intangible/digital goods, intermediaries for retail services, platforms, etc. This raises the issue whether activities of trade of intangible goods should be classified under section G.

25. The TSG-ISIC considered that this issue has a potential structural impact on ISIC, specifically on the scope of Section G.

⁴ See document ESA/STAT/AC.340/10 at <https://unstats.un.org/unsd/classifications/expertgroup/egm2017/ac340-10.PDF>, together with the decision of the Expert Group on International Statistical Classification in para 79 of the meeting report at <https://unstats.un.org/unsd/classifications/expertgroup/egm2017/ac340-4.pdf>

Issue 3: Section J, Information and Communication (together with issue 6b Social media and search engines)

26. There are a number of issues in Section J that were identified by the TSG-ISIC and the Global Consultation. With new technologies, new activities have emerged and/or gained importance and a close review of Section J is needed. Issues in Section J are below:

27. **Media streaming** whether it should be classified in publishing or broadcasting. In general, the guiding principle is to recognize new audio/video distribution activities but not to recognize new activities based solely on technology. Media streaming by publishers would be classified as a product of publishing. The primary concept for publishing is ownership or control of copyrights and licensing of rights to distribute. Media streaming services provided by payments to publishers for the right to distribute content are conceptually more similar to broadcasting rather than publishing. The existing structure for broadcasting could accommodate audio and video streaming services. ISIC 6020, Television programming and broadcasting activities, includes on-demand viewing and could be updated further via title and definition modifications to include video streaming services. Similarly, ISIC 6010, Radio broadcasting, could be updated to include audio streaming services (with a change in the link of CPC 84322 to ISIC 6010 instead of ISIC 5920). The title of Division 60 would also require a title change. IT services of streaming on a fee basis in ISIC 6311, Data processing, hosting, and related services, should be clarified in the definition of ISIC 6311.

28. **Social media sites/networks/platforms, publishing of blogs and wikis, and other self-publishing sites:** If content owned/controlled by copyright, publishing is appropriate. Also need to distinguish between blog/video publishing and bloggers/YouTube creators (similar to distinction between news agency activities and independent journalists; book publishing and authors; video production activities and own-account actors). Recognizing these as new activities unique from publishing and broadcasting, that extend communications between people, possible options that were discussed by the TSG-ISIC include:

- (a) Combine these activities with web portals to create a new class within Group 631.
- (b) Combine these activities with Other information service activities n.e.c. to create a new class within Group 639.
- (c) Combine these activities into a new class within Group 63.

29. **Wired, wireless, and satellite telecommunications classes in Division 61.** In general, countries find these activities are not separable, others indicate that these distinctions are obsolete. Possible options that were discussed by the TSG-ISIC include:

- (a) Merge wired and wireless telecommunications groups and classes (ISIC 611, 6110, 612, and 6120) into group 614 and class 6140.
- (b) Merge all three groups and classes (ISIC 611, 612, and 613, and ISIC 6110, 6120 and 6130) into group 614 and class 6140.

- (c) Retain separate classes renumbered to 6141, 6142, and 6143, and combine groups 611, 612, and 613 into group 614.

30. **Video tape and disk rental Section N, ISIC 7722.** This activity is similar to other media content distribution activities. The question is whether this activity should be moved out of Section N and into Section J, with other media content distribution activities. Also, if this class is retained, regardless of where it resides, there is a need to update title and definition to address dated language.

31. **Overall structure of Section J.** There is an increasing overlap in activities in Section which requires an overall review of its structure. Possible restructures that were discussed are:

- (a) At a minimum, review language and update terminology and explanatory notes. Leave the structure at the Division level as is and address combination activities of publishing and broadcasting/distribution.
- (b) Combine Divisions 58, 59, and 60, move all classes under a single Division, and combine classes if necessary.
- (c) Combine Divisions 59 and 60, move all classes under a single Division, and combine classes if necessary.

32. The TSG-ISIC agreed that the issues mentioned above will likely require a structural change in ISIC. The TSG-ISIC also recommended to formulate clear definitions of various concepts (publishing, programming, content distribution, etc.).

Issue 5a: Crypto-currency and Digital ledgers

33. The activities of designing and producing virtual currency and the activities of selling, exchanging, distributing virtual currencies are not clearly mentioned in ISIC. Currently there is a lack of understanding on related technology, usefulness and approval on trading/transaction on such assets and measuring the size of business in such activities due to lack of conceptual clarity. There is a need to integrate activities related to crypto-currencies and digital ledgers in the classification. The activities related to crypto assets that should be considered are mining; trading and cryptocurrency hardware manufacturing. Crypto assets may become increasingly important in the future.

34. The issue of the classification and recording of activities related to crypto assets in the SNA is being discussed by the Advisory Expert Group on National Accounts and the TGS-ISIC should follow this discussion. Before agreeing on a potential treatment in the ISIC, it is relevant to have consensus on whether cryptocurrencies should be regarded as financial or nonfinancial assets⁵.

35. Possible solutions that have emerged from the discussion include: (a) the creation of a new division in Section K that cover all activities related to crypto assets; (b) the creation of a new

⁵ Note that after the issue was discussed within the TSG-ISIC, the AEG, during its 14th meeting, agreed that crypto assets should be classified as financial assets when they have a corresponding liability or act as a general medium of exchange and requested that more research be done on whether to classify crypto assets without a corresponding liability, that do not (yet) act as a general medium of exchange, as nonfinancial assets or financial assets, taking into consideration the existing definitions of these assets.

group/classes in Section K to cover all activities related to crypto assets; or (c) separately classify activities related to crypto assets between Section J (creation of crypto assets) and Section K (trading of crypto assets).

36. The TSG-ISIC recommended to follow the discussion on crypto assets in the AEG and recognized that this issue may have a structural impact on ISIC.

Issue 5b: Fintechs

37. Over the last decade, there has been significant developments in the financial landscape, with a growing number of Fintechs that use digitized technologies to provide financial services. In some cases, these services are like traditional banking activities but are not subject to bank regulations, transparency, consumer protection, or capital requirements. The growing importance of Fintechs presents a challenge for national statistics offices and central banks globally to track their economy's financial services.

38. At the moment, there is a need to agree on a statistical definition of Fintechs. The BOPCOM Financial and Payment Systems Task Team is discussing the issue of Fintechs within the Balance of Payments (a draft guidance note is expected by March 2021) and the TSG-ISIC should follow the discussion to ensure a consistent definition and approach to the treatment of Fintechs in the classification and macroeconomic statistics.

39. The TSG-ISIC discussed different options for the classification of Fintechs in ISIC. There could be a separate class created in Section K to cover all Fintech activities; or Fintechs could be classified according to the functions (and therefore spread over the classes in Division 66). The possibility to identify Fintech with a product classification was also discussed.

40. In general, the TSG-ISIC recognized that Fintechs can be view as intermediation services enabled by new technology and therefore the question remains whether technology becomes a classification criterion and how this is applied consistently throughout ISIC. The TSG-ISIC should have a clear approach to the digital intermediaries and more in general have a conceptual discussion on the framework and concepts used in ISIC.

41. Based on the discussion, the TSG-ISIC agreed that further work is needed on the definition of Fintechs in collaborations with the BoPCom. Given the options identified during the discussion, the TSG-ISIC recognized that there is a possible impact on the structure of ISIC.

42. The TSG-ISIC also agreed that further work needs to be done on the conceptual framework of ISIC with regard to whether digitalization creates new activities or provides the same activities with new technology. This conceptual guidance will guide the deliberations on the various issues.

Issue 5c: Other financial services

43. There are new activities in the financial sector (e.g. shadow banking) and activities that have gained importance in the last twenty years (such as securitisation, security and derivative dealing, central clearing of transactions, factoring, import/export finance, etc.). The question is how these new activities are treated in ISIC and if there is a need to provide additional detail in ISIC.

44. The TSG-ISIC agreed that this is an issue that needs to be further elaborated in order to identify which activities in the financial sector need to be reviewed. At this point the TSG-ISIC could not provide a clear assessment on the type of impact of this issue on ISIC, but agreed to further explore this issue.

Issue 6a: 3D printing

45. 3D printing has gained importance in the past twenty years and its treatment in ISIC has to be explicitly addressed. There is an increased interest from the users in 3D printing activities, often also based on the input material used in the 3D printing. The TSG-ISIC agreed that the classification of these activities should be looked at in combination with related activities such as the manufacture of 3D printers, the modelling software activities, and other activities such as research and development.

46. In general, the TSG-ISIC discussed the two possible treatments of 3D printing and related activities in ISIC: one is to classify these activities within the existing ISIC structure (and further elaborate the explanatory notes), the other is to classify in one place 3D printing and related activities.

47. Although the preference of the TSG-ISIC is to classify these activities within the current structure, thus not requiring a structural change in ISIC, this issue may still have a structural impact on ISIC as further work is done on this issue. The TSG-ISIC recommended to follow the discussion taking place on 3D printing in international trade statistics and at the changes introduced in HS regarding relevant products and also consider possible implications for CPC.

Issue 6d-Robotics and artificial intelligence

48. Robotics and Artificial intelligence (AI) have gained importance and the issue is where and how to reflect these activities in ISIC. Robotics and AI, although interrelated, are not the same concepts and do not represent the same business models. In addition, the activities related to robotics and AI need to be considered as well, such as, for example, the manufacture of robotics versus the application of robotics to perform certain activities. Similarly, the development and creation algorithm of AI vs machine learning processes. The use of technology as classification criteria plays a role in the discussion and requires a consistent application in the classification.

49. The TSG-ISIC discussed two possible treatments of robotics and AI in ISIC. One would be to classify these activities depending on output, namely classify manufacturing of robots / AI according to their field of application. This would imply only a change in the explanatory notes with no changes in the existing ISIC classes. The second option is to classify the manufacturing of robots and related software activities in one group/class. This option would require a change in the structure of ISIC.

50. In general, the preference of the TSG-ISIC is to treat these activities within the current structure and to improve the explanatory notes. However, there is a potential impact on the structure of ISIC if a different solution is chosen based on the further work on this issue.

Issue 6e: Cloud technologies

51. Cloud technology relates to delivery of computer services over the internet rather than in your own computer. Literature suggests there are three main types of cloud services: complete infrastructure provision, platform provision, and software sharing. These activities are not explicitly mentioned in ISIC.

52. The TSG-ISIC's general recommendation is to integrate activities using cloud technology into ISIC with an improvement of the explanatory notes, with a focus on Divisions 58, Publishing activities, 62, Computer programming, consultancy and related activities, and 63, Information service activities, of Section J, Information and communication. Therefore, the classification of Cloud technology does not imply a structural change in ISIC.

Issue 7b1: Biofuels

53. The production of biofuels and in particular the production of Biodiesel needs to be clarified in ISIC. In ISIC 4, the production of biofuel is classified in class 2029 Manufacture of other chemical products n.e.c. However, biodiesel may comprise of up to 70% of crude oil, the issue was whether or not to classify the production of biodiesel, biokerosene and bio-jet kerosene in ISIC 1920 Manufacture of refined petroleum products.

54. In addition, the production of solid biofuels and biogases also need to be made explicit in ISIC by elaborating the explanatory notes.

55. The TSG-ISIC recommended to clarify the treatment of these activities in ISIC taking into account the classification of energy products and energy industries in IRES. This will likely not have a structural impact, but it will need to be further worked on.

Issue 7b2: Electric cars, charging stations

56. The activities related to electric cars are not explicitly mentioned in ISIC. The TSG-ISIC discussed the classification of these activities (e.g. manufacturing of electric cars, parts and repairs of electric cars, installation of electric charging stations and distribution of electricity). In general, the TSG-ISIC indicates that these activities can be addressed within the current structure of ISIC with updated explanatory notes, and no structural change in ISIC is expected.

Issue 7b3: Energy production and storage

57. Several countries expressed the need to create new breakdowns for the generation of electricity by detailing and disaggregating electricity generation by energy source (either based on renewable and non-renewable sources or detailing generation by source) and energy storage. The TSG-ISIC agreed that such a breakdown should be made explicit in ISIC and this will have a structural impact in ISIC. The TSG-ISIC will discuss further the options for the breakdown by energy source (for example, by energy source or by renewable vs non-renewable sources) and energy storage. The TSG-ISIC will conduct further consultation with stakeholders and users to refine the proposal for breakdown.

Issue 7c: Drones

58. Currently ISIC does not mention the activity of the manufacturing of drones and related activities, such as the operation/piloting of drones, the selling of drones and surveying and surveillance services undertaken by drones. The TSG-ISIC recognized that these activities could be accommodated in the current structure of ISIC, however depending on the further consultation with users and stakeholders there may be the need to explicitly identify the manufacturing of drones in ISIC thus affecting the structure of ISIC.

Issue 8a: Bundled services

59. Bundling (or bundled services) generally refers to joining a package of two or more products (goods or services) at a discounted price from one provider, or in some cases, two partnering providers. The key issue in the modern economy is that bundling may combine products from different suppliers, enterprises or manufacturers, and not just services that consumers may want to purchase. The TSG-ISIC agreed that a clear definition of bundled services needs to be developed in order to evaluate whether additional guidance is needed and/or structural additions at the class level could occur subject to the outcomes of the definition.

8(b) Imbalance of the classification between manufacturing and services

60. During the global consultation some concerns were raised on the imbalance between the degree of detail of manufacturing versus services industries. The TSG-ISIC recognized that the perceived imbalance reflects the historical artefact of the development of the ISIC classification with an initial focus on manufacturing industries. However, it acknowledged that a review of the balance of the classification based on an assessment of the relevance of the detailed categories would be a useful exercise in order to identify obsolete classes. In addition, it was noted that the breakdowns of ISIC Divisions of manufacturing industries (like in furniture) by input material or by purpose should be reviewed and possibly it should be clarified in the classification which criteria is applied for which divisions. There was a general agreement that the total number of industries at the class level across all industries in the ISIC should remain relatively stable in order to limit the further increase in ISIC classes by encouraging further scrutiny for relevance of classes of goods producing industries with the further detailing of the classes for services industries..

8(c) Consistency with other classifications

61. The consistency with other classifications is particularly important. The TSG-ISIC noted that there may be possible structural change in ISIC to recognise content in other classifications such as those used in the Frascati manual 2015 and CPC Division 81 for Research and Development activities; ISCED 2011 for Education categories, etc. In addition, the TSG-ISIC recommends providing additional guidance on the interaction of ISIC and CPC and provide greater clarity on when something is treated as an activity and when it is treated as a product. In this regard, the TSG-ISIC also recommends the revision of CPC to ensure the alignment with the revision of ISIC.

8(d) Statistical Units

62. The TSG-ISIC noted that establishments are the current building block for ISIC. The discussion on statistical units must take into consideration the discussion within the SNA research

agenda and also the new strategic perspective of an enterprise approach to business statistics and SBRs for the purpose of the integration of statistics whereby the enterprise is a statistical unit, that is a statistical construct that is established from the enterprise as legal unit. The TSG-ISIC was informed that a joint Task Team on statistical units is being established to prepare a guidance note on statistical units. It will consist of experts from national accounts, classifications, SBRs, and business and trade statistics. UNSD as Secretariat of this joint task team will extend the invitation to classification experts to advance in the work. The TSG-ISIC also emphasized that ISIC is the reference classification of economic activities that is applicable for different statistical units. For this purpose, criteria for the application of ISIC to the different statistical units will need to be reviewed.

8(e) Primary Classification Criteria

63. The TSG-ISIC recognized that the review of the classification criteria is a major issue as it affects the underlying principles of ISIC and its application. Most notably in this review is the application of technology as a tool rather than a new activity. The TSG-ISIC recommended a thorough review of the current classification criteria, which may lead to amendments of the criteria. It was noted that changing the criteria may lead to a structural impact on the ISIC.

Other issues

64. There were several other issues that were raised during the global consultation that referred to the proposal for additional breakdowns and the request additional clarification. Although the TSG-ISIC was not able to discuss them in detail, it took note of these issues and recommended that a thorough review of these issues be undertaken. It was noted that a number of these miscellaneous issues are related to other broader cross-industry issues such as ‘digital economy (including intermediaries)’ which are already addressed in other discussions. These issues may still have a potential impact on the structure of ISIC.

2. Proposed timeline for the revision of ISIC

65. Based on the discussion of the issues, the TSG-ISIC discussed a possible timeline for the revision process. In articulating the proposed timeline, the TSG-ISIC considered the alignment with the revision process of the 2008 SNA, BPM6 and other international statistical standards, and with the revision process of relevant regional industry classifications such as NACE, NAICS, ANZIC. In addition, the TSG-ISIC recognized that the revision process must be more iterative allowing for more frequent revisions to ensure a more flexible and responsive classification to new and emerging policy needs while ensuring consistency of time series.

66. The TSG-ISC therefore proposed the following timeline and process:

Mar 2021 – UNSC mandates the revision of ISIC

Apr-Nov 2021 – finalize the list of proposal changes; conduct and review results of a global consultation

Dec 2021 – Develop a complete draft structure of the revised ISIC

Jan 2022-Dec 2022 – Finalize explanatory notes, circulate the finalized classification for global consultation and submit for approval process of the revised International Standard Industrial Classification of All Economic Activities (ISIC)

Dec 2022 – adoption of the revised ISIC by the UNSC.

67. As part of the proposed time line the TSG-ISIC proposes a continuous update process where specific issues in ISIC are considered on a continuous basis with a possible new update in 2025 along with the other international statistical standards of the system of economic statistics.

Annex 1: Terms of Reference for the Technical Subgroup on ISIC (TSG-ISIC)

Background

The Expert Group on International Statistical Classifications (EG) at its meeting in September 2017 considered a report from the Technical Sub-Group ISIC (TSG-ISIC) which outlined progress on the treatment of factoryless goods producers (FGPs), and the treatment of intermediaries. In addition, the TSG-ISIC was to assess the OECD/UNECE Task Force review on the Statistical Units Model for any impacts on ISIC Rev.4

The EG agreed, at that time, that there was no need to review ISIC Rev.4 and that the TSG-ISIC should assess the issues on its work on factoryless good producers and the statistical units model and report back to the next EG meeting on whether ISIC Rev.4 needed review.

Since the September meeting, the Eurostat Standards Working Group has considered proposals of change in NACE Rev.2, and the US Economic Classification Policy Committee (ECPC), Statistics Canada and Mexico's Instituto Nacional de Estadística y Geográfica are assessing issues for reviewing NAICS. Issues identified by both these activities may lead to the identification of issues that warrant reviewing ISIC Rev.4.

The main task of the TSG-ISIC is not to prepare for a future revision of ISIC, but rather to investigate if the issues raised can be addressed in the current structure of ISIC with additional guidance provided. If the TSG-ISIC investigation showed that this was not a practical approach it could recommend to the EG that a review of ISIC Rev. 4 take place.

Scope of work

As decided by the EG, the TSG-ISIC is expected, in the first instance to complete its assessment of the known issues in relation to FGPs, and the statistical units model with reference to the documents presented at the meeting of the EG:

- ESA/STAT/AC.315/4 – Final Report Meeting of the Technical Subgroup for the International Standard Industrial Classification (ISIC)
- ESA/STAT/AC.340-BK10 – Do current issues require a revision of ISIC?

The TSG-ISIC should carry out the following tasks:

1. Reassess the issues presented in paper 4 and background document 10 for relevance and impact for influencing a revision of ISIC.
2. Assess issues raised in the NACE and NAICS proposals for relevance and impact for influencing a revision of ISIC.
3. Consolidate a list of issues from 1 and 2 above, and work with UNSD to enable global consultation on those issues to take place.
4. Analyse the results of the consultation and identify issues for which 'case laws' could provide resolution

5. Analyse the extent of the remaining issues which could not be solved by case law and, if they are significant, make proposals of change in the present version of ISIC and, if necessary, recommend to the EG that a revision of ISIC take place.

Composition of the TSG-ISIC

Based on discussions within the Bureau of the EG, it is decided to continue with the current composition of members, subject to confirmation of their continual involvement and determination of a Chair. The TSG-ISIC will consist of the following members:

- Mr. Franklin Assoumou Ndong (Canada), Chair of the TSG-ISIC
- Mr. Francisco de Souza Marta (Brazil)
- Mr. Wei Ran (China)
- Ms. Clotilde Masson (France)
- Mr. Anthony Kofi Krakah (Ghana)
- Mr. Shinji Ueda (Japan)
- Mr. Abdelkader Choqiri (Morocco)
- Mr. Andrew Hancock (New Zealand)
- Ms. Severa Belista De Costo (Philippines)
- Ms. Cindia Duc Sfez (Switzerland)
- Mr. Oliver Gallusser (Switzerland)
- Ms. Fay Dorsett (USA)
- Mr. Andrew Kanutin (ECB)
- Ms. Ana Franco (Eurostat)
- Mr. Claude Macchi (Eurostat)
- Ms. Francien Berry (IMF)
- Ms. Jennifer Ribarsky (IMF)
- Mr. Jorrit Zwijnenburg (OECD)
- Mr. John Mitchel (OECD)
- Mr. Ivo Havinga (UNSD)
- Ms. Ilaria di Matteo (UNSD)
- Mr. Zhiyuan Qian (UNSD)

UNSD serves as the Secretariat of the TSG-ISIC.

Organization of work

The TSG-ISIC will communicate through email and the use of conference calls.

A physical meeting is not proposed as no funds are allocated for this and participants would have to attend at their own expense.

Timeline

A final report of the TSG-ISIC back to the EG is expected by late October 2020.

The report should contain explicit recommendations on how to address the issues raised.

Annex 2: Consolidated list of issues

Prepared on 25 May 2020

The current list of issues is based on (1) the list of issues explicitly identified by the TSG-ISIC in its meeting in June 2019 and included in the questionnaire during the Global Consultation, and (2) the additional issues raised by the respondents in the open questions 6.3, 7.2, 10.2, 10.3 of the questionnaire. An Excel file was created to include requests for additional breakdowns in ISIC and requests for additional clarification (grey areas).

General Issue	Issue description
1 Section G, Wholesale and Retail Trade (Questions 1, 4.1, 4.2, and 4.3 of the Global Consultation)	
1a Store and non-store retail distinction	Currently ISIC makes a distinction at Group and Class level. Should store and non-store retail activities be merged? There is a growing number of retailers that have both a physical and online presence. (Question 1 of the Global Consultation) - Marketplace, as identified in the question 1 (store or non-store), is an issue for policy makers and researchers who wish to determine how the economy is evolving. To simplify the issue removing marketplace (e.g. non-store) from the classification and using another means of identifying it (e.g. another classification) may be a solution. What is left in the industrial classification is just a breakdown of who is selling what to whom, not how it is sold.
1b Distinction between wholesale and retail trade	Should ISIC continue to keep separate divisions for wholesale trade and retail trade? And given the fact that the majority of NSOs support separate divisions, what criteria should be used to clarify the distinction? (Questions 4.1 and 4.2 of the Global Consultation) Should type of customer remain the primary distinction between wholesale and retail trade divisions?
1c Division 45 (wholesale and retail trade and repair of motor vehicles and motorcycles)	Should the activities in Division 45 be classified consistently with other activities and therefore split between existing divisions for wholesale, retail, and repair, or should they remain together? (Question 4.3 of the Global Consultation)
1d Intermediary of retail sale	Should they be coded in section G (like intermediary in wholesale trade) or should they be placed elsewhere together with other intermediation in services?
1e Scope of Section G	Shall it include the trade of only tangible goods or also intangible goods?
2 Digital Intermediaries (Question 2 of the Global Consultation)	
2a Internet transport access services (Uber)	Internet transport access services Activities in the field of road transportation of passengers by means of orders via the Internet (such as Uber), as well as car sharing. We propose to clarify the descriptions of the relevant groupings of transport and rental activities.
2b Health intermediary services	Medical specialists medical consultation service activities at medical centers as the individual service providers. Those individual medical consultancy services are currently supported by intermediaries that provide online e-channeling services whereby patients can make appointments to the relevant medical specialist and make necessary payments as well

	<p>through this online e-channeling service via mobile phones. Those consultation fees are added to the patients' mobile phone bills ultimately. Accordingly, both the principle economic Activity (Medical consultation services) and intermediary service (online e-channeling service providers) are classified under ISIC class 8620. As the ISIC Rev 4 doesn't accommodate any special section, division, group, or class for those online intermediary services (except the travel related reservation services in the class 7990), we are compelled to assign those intermediary services under the ISIC class of the principle economic activities. Therefore, it is better to assign separate section, division, or group to accommodate all types of online intermediary services (Service related e-commerce activities) incorporating travel related reservation services as well in that place. Assigning separate Section or division to accommodate all types of e-commerce service intermediary activities provides an enabling environment to assign ISIC easily to the entities, which are providing intermediary services across several principle economic activities simultaneously.</p>
2c "deal of the day" websites	<p>- it is unclear the classification of the businesses that carry out activity of "deal of the day" websites (for example Groupon, Bigdeal...) that can sell both many types of services (food services, leisure, tour...) and goods (computers, home accessories, clothes, wine...). If these businesses provide only services, the Expert Group on ISIC recommends, although admitting that it is only a default solution to classify it in ISIC class 7990-other reservation service and related activity. There is no solution preconized for deal of the day that concern both goods and services. One difficulty is that according to the type of deals got everyday the classification can move easily from retail trade to producer of services and the contrary.</p>
3 Section J, Information and Communication	<p>ISIC J currently distinguishes activities according to the media (e.g. publishing activities motion picture video and television programme production, music publishing activities, broadcasting activities and telecommunication activities). However, much of these distribution activities takes place over a mixture of media. Does the current structure of Section J appropriately classify the new distribution activities of both audio and video content, or should activities such as audio and video content distribution be classified regardless of the technology used (e.g., wired, wireless, broadcast, Internet, etc.)? (Question 3 of the Global Consultation)</p> <p>Rising importance of internet broadcasting services (division 59, 60, 63?).</p> <p>With the last ISIC-Revision (Rev.4) the former group Publishing (221) switched from Manufacturing to services, whereas Printing (former 222) remained within Manufacturing (new Division 18). Usually publishers sell books, newspapers etc. and printers only provide the service for publishers which is paid by the publishers. Hence producer price statistics lacks the price development of end products of printing and publishing which is sold by publishers. We recommend to return to the former structure at this point.</p> <p>For traditional TV broadcasting vs live streaming its better to merged together</p>
4 Treatment of FGP	(Question 5.1 of the Global Consultation)

5 Treatment of new activities in the financial sector such as Fintech, peer-to-peer lending that make use of new technological advances (Question 6.1 of the Global Consultation)

5a Crypto-currency and Digital ledgers	<ul style="list-style-type: none"> - The issue of digital currency. The activities of designing and producing virtual currency (or Q coins) and the activities of selling, exchanging, distributing virtual (or Q coins) are not clearly classified in ISIC. According to China's 2017 edition of Industrial classification for national economic activities, our practice is to classify the activities of designing and producing virtual currency (or Q coins) into 6513 application software development (corresponding to 6201 Computer Program Design Activities in ISIC), and activities for the sale, exchanging, distribution of virtual (or Q coins) are included in 6439 other Internet platforms (corresponding to 6311 data processing, storage and related activities in ISIC). - Companies involved in Crypto-currencies and Block chain developers. - Blockchain and e-signature, Distributed Ledger Technology
5b Fintech	<ul style="list-style-type: none"> - Fintech comprises activities and products involving financial services that are rendered with the aid of technology and using innovative procedures. These typically give rise to new business models. In practice, such services are generally not rendered by established financial service providers, such as banks or insurers, but by companies that are often classified as business service providers or IT enterprises under the current rules. The growing importance of fintech is presenting a problem for central banks, as they are charged with statistically tracking and describing financial activities.
5c Other financial services	<ul style="list-style-type: none"> - Other financial services. For the same reason, we believe that it is essential to include activities that are of a financial nature from a functional perspective in division 66, even if these do not constitute "fintech" activities in a narrower sense. In division 82, such activities include debt collection agencies, rating agencies as well as crowdfunding and fundraising organizations, which should be shown in sector K. - classification of crowdfunding activities. - work is on-going in national accounts to look at the potential need and scope for more detailed subsectors, including definitions, in the financial corporations' sector)

6 Treatment of 3D printing, digital music sharing, sharing of Internet TV services, additional issues/activities related to Digital Economy (Questions 6.2, 6.3, 7.1, 7.2, 10.2 and 10.3 of the Global Consultation)

- Digital economy needs further consideration as does the use of technology in the mitigation of climate change and in global habitat changes that will occur, let alone AI and automation in jobs and industry as the existing activities and classes in ISIC do not articulate or enable measurement of these issues.
- In our view, in the ISIC should reflect the activities associated with digital technology. In this connection Section J "Information and communication" should be rename "Information, communication and digital technology".
- There is a need to capture the emerging technologies especially on digital economy, applications of artificial intelligence in manufacturing, services, etc.
- For many industries, digitalization has changed the method of ordering or delivery of the good or service. In these instances, when the product as such has not changed in a fundamental way, an entirely new industry classification would not be required. Statistical offices, however, will be asked to provide greater granularity of output of these different types of units. This is not only to better understand how technology has disrupted one particular industry (e.g. e-commerce on clothing retailing), but also how technology has been disruptive across the economy (e.g. the impact of e-commerce on all transactions in goods). Both of

<p>these questions could be addressed by an additional classification at suitable levels delineating those units that are exclusively or majority digital.</p> <p>- Digitalisation has also created new products (both inside and outside the SNA production boundary) and, with this, new types of industries. The providers of these new products such as digital intermediation and zero priced digital services are generating economic activity that is different enough from the activity created elsewhere in the economy to warrant a new classification. Due to this, as shown in the responses above, new industry groupings should be created explicitly to separately distinguish these units. This will allow national statistical organisations to be better placed to address the many questions that are being raised in response to digitalization.</p> <p>- There is a need for us to provide elaboration and guidance on the classification of new digital related activities. For example, for crypto currencies, should mining of cryptocurrencies be considered as production (akin to mining of commodities such as gold, etc) or as the provision of services. For cloud technology, we may need to differentiate further among the different activities, e.g. storage in the cloud, database management, cyber security, etc).</p> <p>- Examples or recommendations on the application of technology in existing activities in general?</p>	
6a 3D printing	3D printing is classified according to the raw material, mainly in the manufacture of plastic products. But in the future, it would be wise to classify 3D printing on all types of materials in one place.
6b Social media and search engines	<p>- There is currently no ISIC classification for Social Media and search engine sites; the activities of these types of businesses is not well defined in the current CPC</p> <p>- Web based various channel as YouTube channel and other social media channel or publicity</p> <p>- - migration of advertising to media such as YouTube or Facebook is becoming stronger, while traditional channels have seen their advertising and consumption diminished – radio, TV and press -, which in turn have been replaced by social media, web portals, and internet, among others.</p> <p>- It is not clear for us where to classify activities related with content creation for <u>social network or other non-journalistic digital media, such as those developed by youtubers</u>, bloggers, copy, community managers and so on.</p> <p>- You tubers, Publishing of blogs, Social networks</p>
6c Online education	- Online educational providers/services
6d Robotics and artificial intelligence	<p>- Robotics and Artificial Intelligence activities – programming, services, manufacturing etc.</p> <p>- Digital economy needs further consideration as does the use of technology in the mitigation of climate change and in global habitat changes that will occur, let <u>alone AI and automation in jobs and industry</u> as the existing activities and classes in ISIC do not articulate or enable measurement of these issues.</p>
6e Cloud technologies	Cloud technology relates to delivery of computer services over the internet rather than in your own computer. Cloud is a buzz word identifying a new technology and should be classified according to what service is being provided. Literature suggests there are three main types of cloud services: complete infrastructure provision, platform provision or software sharing.
6f Cybersecurity activities	The development of new technologies can contribute to the emergence of new activities if they result in fundamentally new goods or services. For example, the growth of game software development has led to the development of the <u>cyber industry</u> , which includes not only the development itself, but also competitions in cyber-games, training of cyber teams, broadcasting of cyber games on the Internet, selling of in-game virtual resources, etc. Consideration could be given to

	distinguishing relevant activities (taking into account the scale of activities in countries) or to providing corresponding clarifications in the classification.
6g Smart appliances	Classification of the wholesale and the retail sale of "smart home applications and technologies"
6h Additional activities of digital economy	<p>- Virtual reality, Laser production, biotechnology and nanotechnology, mechatronics activities, domotics activities, E-procurement activities, Nursing-care robots, e-sport, Electronic cigarettes.</p> <p>Add new classes related to gambling and betting activities using new technology (mobile application and internet).</p> <p>- "Activities of web series production", "Activities of e-commerce photography and videography".</p>
7 Additional activities, breakdowns, decreased relevance/obsolete activities, grey areas	
7a Screen Printing (printing on different types of ceramic products, fabric, plastics, among others) for advertising purposes.	To adapt the national classifier to the current reality, a new class was created (1813) due to the increase in the activity of Screen Printing (printing on different types of ceramic products, fabric, plastics, among others) for advertising purposes.
7b Better identify activities connected to the "green economy" output of organic-products and organic production processes.	renewable sources, bio-economy: Production with input or
7b1 Biofuels	Production of biodiesel is part of ISIC class 2029 and hence part of chemical industry. Though biodiesel is an energy carrier it is not possible to classify it with energy since biodiesel is only part of class 2029. As biodiesel may comprise up to 70% of mineral oil products the manufacturing of biodiesel could be transferred to group 192 (Manufacture of refined petroleum products).
7b2 Electric cars, charging stations	- With electric vehicles industry development, there is a need for reflecting these types of activity in this sphere. At the moment, ISIC Rev. 4 does not contain item for activity to produce, repair and charge electric vehicles.
7b3 Energy production and storage	<p>Splitting the production of electricity by sources (renewable vs non-renewable) or by type of fuel (fossil, nuclear, hydro, wind, solar, biomass, etc.)</p> <p>New categories for energy storage, in particular charging stations for e-mobility, peak-shaving storage, large industrial energy storage capacity and decentral energy from PV systems as well as electric vehicle charging services</p>
7c Drones	- Drones are being used for multiple uses (transport, photography and video, recreation and military (reconnaissance and weapons platforms) etc.). Depending on size, what's included (e.g. camera or no camera) and use, each type of drone will be a different product and the appropriate manufacturing class needs to be determined. If a business provides a service with a drone, it should be classified to the service they provide e.g. using a drone for military reconnaissance is a defense service while using a drone for police reconnaissance is a police service.
7d Section Q - Human health activities	<p>Add a class in human health activities for "health promotion and diseases prevention activities", to better reflect a society where prevention will be one of the challenges of tomorrow;</p> <p>Add classes for "non-conventional therapy", "holistic treatment", "aesthetic medicine practice activities" and "psychotherapist's activities" in human health activities;</p>

	Criteria for inclusion: Dispensing chemist in specialised shops is considered an activity of retail trade and was not included in section Q until now . Although Pharmacies also provide health advices or laboratory activities, the main activity is selling goods without transformation therefore this activity was considered to belong to section G. However, ambulance transport, although being transport, is classified in 86.90 (Human health). A more consistent criteria should be found to delimit the boundaries of the sections. What should be considered Human health activities?
7e Electronic versus electric (manufacturing)	The distinction between what is classified in Divisions 26 or 27 is mainly based on what is considered electronic or electric. This distinction is now becoming more and more blur
7f Specialized production of crops or animals and non-specialized production of crops and animals	Definition of specialized production of crops or animals and non-specialized production of crops and animals: The explanatory notes mention "production of crops in a given unit is 66% or more of standard growth margin". Since 2010 Eurostat (in agreement with DG AGRI) stopped collection of Standard Gross Margin (SGM) and replaced it by Standard Output (SO) for the definition of the farm typology. Change had to do with the decoupling of subsidies to production in the CAP. Would it make sense to use Standard output in the definition of specialized or non-specialized production of crops or animals? SGM=level of profit to be expected on the farm = gross production value + subsidies - specific costs SO = average monetary value of a product at farm gate in EUR/ha or EUR/head
7g Manufacturing of food products by farms	If units manufacture food products from own-produced agricultural products, according to NACE Rev. 2 these units will be classified in agriculture by convention. However, this is not in line with the (value added) concepts from ISIC and may lead to inconsistencies between the 2 classifications.
7h Burning waste for gas or electricity	Should burning waste for gas or electricity be classified in Section D, Electricity, gas, steam and air conditioning supply, or E, Water supply; sewerage, waste management and remediation activities?
7i Additional activities	Suggestions for additional breakdowns based on the responses to the Global Consultation Question 7.2
7j Decreased relevance/obsolete activities	Is code 0729 "Mining of Other Non-ferrous Metal Ores" (which includes mining of gold, mining of bauxite, and mining of manganese) is still relevant? Delete classes which are not very relevant like 58.12 Publishing of directories and mailing lists (not many enterprises, content not very clear) and 77.22 Rental of video tapes and disks (outdated and not many enterprises).
7k Grey areas	A number of requests for clarification in ISIC were mentioned in the responses to question 10.2 of the questionnaire. A separate list for request of clarification was compiled.
8 The applicability of the ISIC concepts, main principles, definitions of higher-level categories of the ISIC structure, i.e. Sections and Divisions, statistical units (Question 10.1 and others of the Global Consultation)	
8a Bundled services	- Better guidance for businesses that provide bundled services. This has been occurring more with utilities, telecommunications (mobile, internet, landline etc) and insurance.

8b Imbalance of the classification between manufacturing and services	<p>- Services' share of the GDP in European countries varies from 60% up to 90%. However, ISIC presents much more detail in manufacturing than in services. ISIC should reflect the structure of the present economy.</p> <p>- More comprehensive breakdown of the services industries and products.</p>
8c Consistency with other classifications	<p>- Consistency between ISIC and existing product classifications such as Harmonized System (HS) and Central Product Classification (CPC) is important.</p> <p>- Also, the consistency of ISIC with other classifications should be improved. In particular Section P- Education refers to the International Standard Classification of Education (ISCED).</p>
8d Establishments, other statistical units	<p>ISIC, like NACE etc., are classifications set up for classifying establishments or enterprises. The actual economic reality is evolving very fast, and units with the same structure and organization like 20-30 years ago are more and more limited to small and medium enterprises. Actual classifications are not thought to code big enterprises, enterprises groups and multinational enterprises (see also our response to question 7.2). There is a need to find another approach to this new reality, to find a way to classify these "new" enterprises". Within the scope of the ISIC revision this point should seriously be deepened.</p>
8e Primary classification criteria	<p>Some grey areas could be avoided by better clarifying the criteria that characterize the different categories. Indeed, different criteria are used to group activities, such as the inputs of goods, services and factors of production; the process and technology of production; the characteristics of outputs; and the use to which the outputs are put (ISIC Rev. 4, para 7) (as recalled at the beginning of this questionnaire) but from one category to another, it is not always the same criterion, among these, that gives the major characterization. It would be useful to clarify for each category whether it is mainly characterized by a similarity of inputs, or of the process, or of outputs, or in some other way.</p>
8f Contracted services	<p>Individual private entrepreneurs working as employees: We can find in many sectors of the economy individual private entrepreneurs working as waiters, chefs, bartenders, sellers in supermarkets, fuel attendants, teachers working on contract basis at a school or university, surgeons working on a contract basis at a hospital etc. Paragraph 81 of NACE introduction says "Contractors, i.e. units carrying out an activity on a fee or contract basis, are usually classified with units producing the same goods or services for their own account. However, does this makes sense in all cases? Should we classify teachers working on contract basis at a school or university as a school or university? Should a surgeon working on a contract basis at a hospital be classified as an hospital?"</p>
8g New divisions or groups	<p>Suggestions for additional activities within ISIC, decreased relevance/obsolete activities; need for new divisions or groups in the ISIC structure</p>
8h Proxies for value added	<p>Clearer treatment for proxies for value added. New business models exist where a business makes more or all of its income from other services (e.g. web search engines, free to air television or internet content or recruitment agencies making money from producing and/or hosting advertisements). If a</p>

	proxy for income was adopted for value added, the wrong industry classification would be applied.
--	---