# Overview of the main changes to CPC Ver.2.1 and the process of finalization of the revised CPC

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## Introduction

- 1. The Central Product Classification (CPC) constitutes a complete product classification covering all goods and services. The primary purpose of CPC is to classify the goods and services that are the result of production in any economy.
- 2. The United Nations Committee of Experts of International Statistical Classification (UNCEISC), following endorsement by the Statistical Commission at its fifty-second session in 2021, established a task team to revise the Central Product Classification (CPC)¹. The task team comprises experts on statistical classifications and subject matter experts on, inter alia, national accounts, environmental accounts, and trade statistics, to ensure that the classification supports the international statistical standards. Regular virtual meetings of the task team on the revision of CPC were held from 2021 to 2023, along with the use of a wiki to advance the discussion and resolution of the issues for the revision of CPC. In some instances, a subset of subject-matter experts from the task team met to develop and refine proposals that were later presented to the full task team. Ultimately, the task team agreed to a number of proposals for changes in CPC. The revised CPC will be finalized and submitted to the Statistical Commission at its fifty-fifth session, in 2024.
- 3. This paper provides an overview of the main changes that were introduced in the revised CPC. It is not a comprehensive list of changes which will be made available at a later stage together with the finalized CPC Ver. 3.0 structure.

## Definitions of goods, services and products

- 4. Products where the information embedded in the product is the essential component or are characterized as intellectual products are considered neither as good or services in CPC Ver.2.1. 2008 SNA and CPC Ver. 2.1. use distinct terms to describe these similar concepts. They do differ, however, as the SNA term focuses on products where the information embedded in the product is the essential component ("knowledge-capturing products"), while the CPC refers to products that do not technically meet the requirement of either a good or a service ("other products"). There is considerable overlap between the two, as these "information" products are often the most difficult to conceptualize, and the differing terminology has led to some confusion. CPC Ver. 2.1 acknowledges the overlap between the terms, but does not specify how they differ in scope or how they relate, nor does it provide an exhaustive list of such products.
- 5. The main change of the revised CPC is as follows: First, the concept of knowledge capturing products defined in the 2008 SNA was introduced in revised CPC, as follows:

<sup>&</sup>lt;sup>1 1</sup> See decision 52/113 of E/2021/24 E/CN.3/2021/30 available at https://unstats.un.org/UNSDWebsite/statcom/session\_52/documents/2021-30-FinalReport-E.pdf

Knowledge-capturing products concern the provision, storage, communication and dissemination of information, advice and entertainment in such a way that the consuming unit can access the knowledge repeatedly. The industries that produce the products are those concerned with the provision, storage, communication and dissemination of information, advice and entertainment in the broadest sense of those terms including the production of general or specialized information, news, consultancy reports, computer programs, movies, music, etc. The outputs of these industries, over which ownership rights may be established, are often stored on physical objects (whether on paper or on electronic media) that can be traded like ordinary goods. They have many of the characteristics of goods in that ownership rights over these products can be established and they can be used repeatedly. Whether characterized as goods or services, these products possess the essential common characteristic that they can be produced by one unit and supplied to another, thus making possible division of labour and the emergence of markets (2008 SNA, para. 6.22).

- 6. The introductory text of CPC will be adjusted to introduce the above-mentioned definition of knowledge capturing product, noting that the objective was not to create a third category of products but rather to clarify the characteristics of these products. The categorization of products into two categories remains, i.e., goods and services, and knowledge capturing products does not constitution a third category of products.
- 7. Sections 0 to 4 of CPC continued to be defined in terms of headings of the Harmonized System, that is, physical transportable goods, and the rest of the products remain in Sections 5 to 9.

## Alignment with other international statistical classifications

- 8. One of the key themes of the updating the CPC structure is to improve its alignments with other international statistical classifications, including: the International Standard of Industrial Classification of Economic Activities (ISIC) Revision 5; Harmonized Systems (HS) 2022; Standard International Energy Product Classification (SIEC); 2016 Frascati Field of Science classification; International Standard Classification of Education (ISCED) 2011, and FAO nomenclature and data collection products.
- 9. Changes to CPC to improve its alignment with FAO nomenclature and data collection products and HS 2022 mainly involved more detailed breakdowns mostly at the five-digit level for forestry products, fisheries, fertilizers and pesticides in CPC divisions 01/03/04 and 31/32/24, and for new products defined in HS 2020 in CPC Sections 2, 3 and 4.
- 10. Significant structure changes below the 2-digit level of CPC Division 81 (Research and Development) improved the alignment of CPC with the 2016 Frascati Field of Science classification. It discontinues the current CPC Ver 2.1 distinctions between basic, applied, and experimental development research services at the 4-digit class level. The 4-digit level instead becomes where subject matter is distinguished, e.g., natural sciences, engineering, technology, medical and health sciences, etc. The 5-digit subclass further breaks down the subject matter, e.g., the 4-digit research and development services in technology is further divided into environmental biotechnology, industrial biotechnology, nanotechnology, and other technology at the 5-digit level.

- 11. CPC Division 92 on education services was updated to align with the structure and definitional content of ISCED 11 and the new structure of ISIC Rev.5. Key changes include adding a class and subclass for early childhood development under a new group for early childhood and pre-primary education services, new subclasses under tertiary education services and various title changes.
- 12. Changes of CPC to improve its harmonization with SIEC mainly involved spliting classes and additional breakdowns at the 5-digit level of the relevant CPC classes on coal, coal products, coal gases, peat, petroleum and crude oils and natural gas liquids.

### Intermediation service activities

- 13. Intermediation activities have increased enormously due to the technological advances through digital platforms. The new ISIC Rev 5 introduces the definition of (non-financial) intermediation service activities and creates separate groups or classes for intermediation services in the same divisions where the underlying goods and services are produced and where delivery is a significant component of the underlying good or service.
- 14. The treatment of (non-financial) intermediation services in CPC is different from ISIC, in that a product perspective emphasizes the intrinsic nature of the product. In this case, intermediation is the intrinsic product, regardless of the underlying good or service being intermediated. In the revised CPC, all (non-financial) intermediation services are consolidated under Division 85 "Support services" in four new Groups in the revised CPC.
  - Group 855 Intermediation services on goods
  - Group 856 Intermediation services for accommodation, food and beverage, transport and electricity, gas and water distribution services
  - Group 857 Intermediation for community, social and personal services
  - Group 858 Other intermediation services

#### Financial services

- 15. In recent years, the use of digital technologies has transformed the global economy to the extent that the statistics produced to aid in measuring and understanding economic performance need to be adapted and updated to reflect the rapid rate of change. The use of new technology in the financial sector is particularly prevalent. The revised introductory text of CPC will address and define "Fintech" and offer a general approach for applying the relevant classification criteria. The scope of financial services in CPC will be expanded to include Fintech services by adding new categories (e.g., new CPC subclass 71594 on digital payment services) and by updating explanatory notes (e.g., inclusion of robo-advisory services in CPC subclasses 71530/71640/71591; insure-techs in groups 713/714).
- 16. Other changes on financial services include splitting the CPC Ver.2.1. class 7113 credit granting-services into two new classes CPC Ver.3 7113 non-business credit-grant services and CPC Ver.3 7115 business credit granting services, and introduce new subclasses under CPC Ver. class 7115 to better aligned with the new ISIC Class 6491-6495. CPC Ver.2.1. group (712) investment bank services are deleted, and these services are classified into appropriate subclasses in CPC Ver.3.1. classes 7115 and 7119.

#### Data

- 17. The updated version of the SNA incorporate data into the SNA production and asset boundary, and explicitly considers data as the output of a productive activity and a separately identified intellectual property product in the updated version of the SNA, due for publishing in 2025. As a result, the revised CPC has been updated to reflect such changes.
- 18. First, a definition for data in the CPC was agreed upon as the "Original compilations of information content organized for retrieval and consultation, produced by accessing and observing phenomena". Based on this definition, a new group 837 "Data and data compilation" consisting of two classes 8371 "data" and 8372 "compilation services of data)—was created in the revised CPC. All relevant classes and subclasses containing data and the services used to create data in CPC Ver 2.1 will be moved to this newly created group 837. In addition, the language in some data-relevant categories would be updated to better align with definitions used in other manuals and guidance notes. Explanatory notes will clarify that data products are independent from output that is being produced using the data. Other classes determined not to be data so will remain separate, e.g., "Market research and public opinion polling services."

## Cloud Computing and Artificial Intelligence

- 19. Cloud computing services consist of computing, data storage, software, and related IT services accessed remotely over a network, supplied on demand and with measured resource usage. ISIC Rev.5 classified activities of providing such services in the newly created Group 631 in "Computing infrastructure, data processing, hosting, and related services." To reflect cloud computing services in CPC, the explanatory notes of class 8315 "Hosting and information technology (IT) infrastructure provisioning services", subclasses 83152 "application service provisioning" and 83159 "other hosting and IT provisioning services" will be revised to add reference to the respective cloud computing services including Infrastructure-as a services (laaS), Platform as-a-service (PaaS), Function as-a-service (FaaS) and Software as-a-services (SaaS).
- 20. The revision process also reviewed product areas on artificial intelligence (AI). The explanatory notes on relevant existing categories, such as subclasses 83152 "application software provision" and 84392 "On-line software" will be revised to explicitly mention inclusion of AI for such categories. However, no new classes for AI will be created in CPC because of the increasingly ubiquitous nature of its application in software products.

## **Environmental services**

- 21. To better align with the changes in ISIC and to reflect the growing prominence of environmental services, the revised CPC made the following changes:
  - Create a new class 9114 "public administrative services related to the provision on environmental services"
  - Create a new class 9444 "Treatment of air pollution services"
  - Create a new class 9445 "Carbon capture and storage services"
  - Adjust the explanatory notes on class 8597 "Landscape care and maintenance services" to reflect inclusion of management and restoration services of ecosystem and biodiversity
  - Create new subclasses under 5465 "Insulation services" to separately classify noise or vibration insulation services and Thermal insulation services.

## Way forward

- 22. The structure of the revised CPC will be submitted to the 2023 UNCEISC Meeting for discussion and endorsement. A global consultation on the CPC structure will be launched in November 2023 for review and comment with an objective to seek agreement with the proposed new structure of CPC. The CPC structure will be finalized based on the response from the global consultation and submitted to the Statistical Commission at its fifty-fifth session, in 2024, for endorsement. In this regard, the TT-CPC requests an extension of its mandate beyond the 2023 UNCEISC meeting to address comments received from the global consultation that begins in November 2023 to finalize the CPC structure.
- 23. Introductory text, explanatory note, correspondence table, and alphabetical index will be developed in 2024 for the finalization of the CPC Ver. 3.0.
- 24. The UN Statistical Commission at its 54th session in March 2023 "endorsed the establishment of standing task teams to facilitate the ongoing maintenance, updating and implementation of the International Standard Industrial Classification of All Economic Activities and the Central Product Classification (CPC), and requested the Committee to formulate a proposal for a regular revision cycle of these classifications and the development of a research agenda for future revisions for consideration by the Commission"<sup>2</sup>. A regular revision cycle would allow for a more adaptive and responsive classification. The UNCEISC is developing the terms of reference of the standing task team on CPC and conducting a consultation with countries on the national practices regarding the revision cycle and implementation of national classifications of economic activities in order to develop a proposal for consideration of the UN Statistical Commission.

<sup>&</sup>lt;sup>2</sup> See decision 54/112 of E/2023/24 E/CN.3/2023/37 available at https://unstats.un.org/UNSDWebsite/statcom/session\_54/documents/2023-37-FinalReport-E.pdf