

**13th Meeting of the Advisory Expert Group on National Accounts,
1-3 October 2019, Washington D.C., USA**

Agenda item: 2.3.1

**Presentation on the Objectives and Progress of the Sub-Group, Including a Broad
Overview of the Priority Area Digitalization**

Introduction

This paper informs the AEG members on the objectives and work arrangements of the subgroup on Digitalisation, its progress so far and the milestones for future work.

A paper on: the objectives and progress of the sub-group, including a broad overview of the priority area digitalization

Main issues to be discussed

The AEG is invited:

- to take note of the subgroup's progress and the milestones for future work.

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THE SUB-GROUP, INCLUDING A BROAD OVERVIEW
OF THE PRIORITY AREA DIGITALIZATION**

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**Presentation on the objectives and progress of the sub-group, including a
broad overview of the priority area digitalization**

Erich Strassner and Sri Soelistyowati

Overview

Following a recommendation of the Advisory Expert Group, in March 2018 the UN Statistical Commission agreed on three priority areas for SNA research agenda, namely *digitalization*, *globalization* and *wellbeing and sustainability*. In November 2018, for each priority area the AEG established a list of specific issues that need to be prioritised (see Annex I) according to their relevance, urgency and potential impact on the current system of accounts, the SNA 2008.

To advance the work, the ISWGNA has established three subgroups to deal with issues related to the priority areas. The subgroups are co-chaired by AEG members, who are supported by one international organisation ensuring the secretariat:

- Erich Strassner (BEA) and Sri Soelistyowati (BPS - Statistics Indonesia) co-chair the *digitalisation* subgroups, with Eurostat ensuring the secretariat;
- Michael Connelly (CSO Ireland) and Paul Roberts (ABS) co-chair the subgroup on *globalisation*, with the IMF ensuring the secretariat;
- Catherine Van Rompaey (Statistics Canada) and Carol Coy (Statistics Jamaica) co-chair the subgroup on *wellbeing and sustainability*, with the OECD ensuring the secretariat.

Members of the subgroups, identified by the co-chairs and the secretaries (giving the priority to AEG members), are experts from different statistical domains, geographical areas and professional fields. They include for instance national accountants, environmental accountants, balance of payment experts, as well as official statisticians, central bankers and academics.

The UNSD provides the overall coordination between the subgroups and their work streams. It has set up an online wiki platform for the various subgroups to connect and work collaboratively, post background documents and collect contributions from the members of the subgroups for discussion and review.

‘Digitalisation’ subgroup: objectives, membership and organization of work

Five topics have been identified as a priority for the ‘digitalisation’ subgroup:

- 1) Framework for a satellite account on the digital economy;
- 2) Valuation of free assets and free services
- 3) Recording of data in the national accounts
- 4) Crypto assets
- 5) Price and volume measurement of goods and services affected by digitalization

These topics have been suggested by the AEG in 2018. The subgroup considered adding *digital trade* as a sixth topic, to deal with an increasingly important phenomenon especially in developing countries. However, considering that extensive work has already been carried out and that agreed solutions have been identified, the subgroup finally decided not to retain the topic as a separate research item. If necessary, issues related to digital trade would be addressed in the context of the digital economy satellite account.

The subgroup is expected to develop guidance notes on each of the five topics above by the first half of 2020, following the outline agreed by the AEG in November 2018¹ – see Annex II.

Overall, 15 experts are involved in the subgroup, as shown in figure 1.

Figure 1 – Members of the Digitalisation subgroup

Members	Affiliation	Members	Affiliation
Eric Strassner (Chair)	Bureau of Economic Analysis	Sebastián Rébora	Banco Central De Chile
Sri Soelistyowati (co-chair)	BPS - Statistics Indonesia	Richard Heys	ONS
John Mitchell	OECD	Ziad Ghanem	Statistics Canada
Kevin Fox	UNSW Sydney	Fabienne Fortanier	Dutch Central bank
Andreas Dollt	Eurostat	Jennifer Ribarsky	IMF
Teck-Wong Soon	Department of Statistics of Singapore	Carol Robbins	National Science Foundation
Benson Sim	UNSD	Nicola Massarelli (Secretary)	Eurostat
Markie Muryawan	UNSD		

The work is organised as a matrix – see figure 2 (no research task is attributed to the secretary). Each topic has one designated leader, supported by three or four experts (depending on the topic). Each expert is in general involved in two topics.

¹ The AEG agreed that [...] the guidance notes should clearly identify issues affecting the central system, versus those that would go into supplementary tables or satellite accounts. The guidance notes should also assess implications for a possible SNA update and the opportunities for harmonisation with other domains. They should not only look at the conceptual implications, but also address the feasibility of implementing the proposed conceptual solutions.

Figure 2 – Organisation of work

Topics	Eric Strassner (chair)	Sri Soelistiyowati (co-chair)	John Mitchell	Kevin Fox	Andreas Dollt	Teck-Wong Soon	Benson Sim	Markie Muryawan	Sebastián Rébora	Richard Heys	Ziad Ghanem	Fabienne Fortanier	Jennifer Ribarsky	Carol Robbins
Framework for a satellite account on the digital	x		x			x			x					
Valuation of free assets and free services				x			x			x			x	x
Recording of data in the national accounts		x	x		x						x			x
Cryptocurrencies						x			x			x	x	
Price and volume measurement of goods and services affected by digitalisation		x		x	x		x			x				
Digital trade (considered and not retained)	x							x			x	x		

Topic leader

All subgroup members work on a voluntary basis. Work is carried out remotely using digital tools. Regular coordination teleconferences between the co-chairs, the secretariat and the UNSD take place to monitor progress and plan the following steps. These have been particularly intense for the preparation of the AEG meeting. Topic leaders are free to organise the work of their ‘team’ either via email or via teleconferences. The time difference (e.g. 14 hours between the US and Australia, 12 between the US and Indonesia) makes the organisation of teleconferences challenging.

Progress so far

The subgroup’s contributions for this meeting provide at least a description of the issues, a review of relevant work so far and a list of options, possibly with an assessment of their potential impact on the core SNA 2008. This covers the first three chapters of the guidance note’s outline. Research work on some of the topics is well advanced. In those cases, this is reflected in more complete papers.

Extensive work has already been done on a **framework for a satellite account on the digital economy**, in particular by the *Informal Advisory Group on measuring GDP in a digitalised economy*, chaired by Erich Strassner of BEA and coordinated by the OECD. The paper presented at this meeting largely benefits from that work. The topic is sufficiently developed for the paper to already advance recommendations.

Extensive research has also been carried out on **crypto assets**, especially by the IMF and the OECD. The paper presented at this meeting recommends concrete solutions for the treatment of crypto assets of different nature, based on the IMF and OECD work. This topic is sufficiently developed for further reflections by the AEG, even if it is not yet complete for final recommendations.

Considerable work has also been carried out on **price and volume measurement of goods and services affected by digitalization**, in particular by a joint Eurostat-OECD *Task force on intellectual property products*, which has produced recommendations at least on some of the

aspects considered here. The AEG paper on this topic reflects this work, but also benefits from additional input.

Research on **valuation of free assets and free services** is less advanced. The paper presented at this meeting describes the issues and presents the literature and options stemming from discussions so far.

Research on **recording of data in national accounts** is in a similar situation. The paper presented here is mainly based on work done by the OECD and Statistics Canada.

Future milestones

The subgroup on digitalisation is expected to finalise guidance notes on each of the topics above in the **first half of 2020**.

The 2019 AEG meeting is a milestone for the work of the subgroup. For the more advanced topics, the AEG is expected to comment and ideally support the recommendations; for the topics where research has not yet reached mature conclusions, the AEG is expected to discuss options and provide guidance on future lines of work.

Considering feedback from the AEG, the subgroup will prepare a report on its activities by **November 2019**. This will serve as input for the ISWGNA report to the UN Statistical Commission in 2020, which will present options for a possible update of the SNA 2008.

A detailed timetable for the remainder of the work will be prepared by the subgroup after the AEG meeting.

Annex I - Priority research issues

Globalisation

- Economic ownership and recording of intellectual property products
- Treatment of multinational enterprises and special purpose entities
- Intra MNE flows
- CIF-FOB valuation of imports/exports
- Identifying economic presence and residency

Digitalisation

- Framework for a satellite account on the digital economy
- Valuation of free assets and free services
- Recording of data in the national accounts
- Crypto assets
- Price and volume measurement of goods and services affected by digitalisation

Wellbeing and sustainability

- Unpaid household work
- Distribution of household income, expenditure and wealth
- Environmental-economic accounting
- Education and human capital
- Health and social conditions
- Defining a broader framework for capturing economic activities, well-being and sustainability

Annex II – Guidance Note outline

1. Introduction to the issue

Background to the issue and ‘problem statement’. Quantitative size of the issue if known.

2. Existing material

The existing SNA approach described, together with other existing material (Handbooks, technical papers, AEG papers from the past if discussed before). Links to other statistical domains.

3. Options considered

A list of options, with advantages and disadvantages considered. The options should clearly distinguish between those which would require a change in the central system from those which would be developed out of the central system.

4. Recommended approach – conceptual aspects

Summary of the recommended conceptual approach. Detailed impacts across the accounts to be described in the Annex (including potential impacts on key indicators like GDP, GNI...).

5. Recommended approach – practical aspects

Focus on practical feasibility of the approach – availability of data sources, their quality and timeliness, need for modelling/assumptions.

Identification of further work needed to develop/test the approach.

6. Changes required to the 2008 SNA and other statistical domains

If relevant, identification of all paragraphs in the 2008 SNA which would need to be updated (with suggested text) and guidance of other statistical domains which would need to be updated to introduce/retain consistency.

Annex – elaboration of the impacts of the recommended recording on the full sequence of accounts