

**17<sup>th</sup> Meeting of the Advisory Expert Group on National Accounts,  
15, 16 and 19 November 2021, Remote Meeting**

**Agenda item: 6.1**

**Digitalisation Task Team  
Global consultation on Digital Supply and Use Tables**

- The April 2021 meeting of the Advisory Expert Group (AEG) approved the global consultation of the guidance note on increasing the visibility of digitalisation in the national accounts, via digital SUTs. The consultation collected information on both the conceptual aspects of digital SUTs and practical aspects of their implementation as well as whether countries were interested in participating in the experimental estimates exercise.

**Summary of consultation**

- Substantive replies were received from 50 contributors, comprising 48 separate countries (two different respondents for one country) and 1 international organisation. Responses were received from all regions of the world.
- 42 out of 50 completed responses supported the digital SUT framework as a way of increasing the visibility of digitalisation in the national accounts, with the remaining ones being “undecided” rather than actively against it. The vast majority of responses 44/50 considered the compilation of digital SUTs as “very relevant” for their country, or “somewhat relevant”, while only 4 consider them as “not relevant”.
- Around two thirds of responses indicated an intention to compile digital SUTs in the next 3-5 years, these responses included countries from all regions of the world. That said, a significant *minority* of responses (18/50) indicated that they had no plans to compile digital SUTs in the next 3-5 years. Many countries (20-25) are expecting to publish digital SUT outputs by 2025, including a consistent stream of new outputs coming on line each year. Of the 18 countries that do not intend to produce experimental statistics related to the digital SUTs almost all (16) cited a lack of statistical resources as the main reason.
- Of the countries that answered the question on difficulties that they have faced, many were linked to the availability of the data sources: (i.e. very costly, very difficult to obtain, the granularity required is below the level that the survey tools are designed to capture). Others included a lack of capacity in team.
- A majority of countries (30/50) indicated an interest in participating in an experimental estimate exercise, however many added the caveat that they would require assistance in capacity building, methodological and practical guidance.
- Alternative methods for making digitalisation visible in the national accounts ranged from countries having some indicators related to e-commerce, copying the work previously done by other countries the (BEA/Statistics Canada/ABS approach) or some other centralised approach promoted by various international organisations. This suggest that there is a benefit and appetite for a consolidation of approaches in order to improve comparability.

## Takeaways for the DZTT

- **There appears broad support to formalise this work and place some form of it into the revised SNA.** While not all countries will be able to produce outputs consistent with the framework by 2025, there is overwhelming support that this is not only a useful way to improve the visibility of the digital transformation in the national accounts and but is also clearly relevant to users.
- Importantly, the vast majority of countries who did not flag any short term plans in this area, did so because of data source or resource constraints rather than fundamental concerns with the conceptual framework or due to irrelevance to users. It is envisioned that **with the development of compilation guidelines and tools, the ability to compile digital SUTs will improve across all countries. This can occur concurrently with the formal inclusion into the SNA.**
- There still appears an assortment of different methods and definitions used to measure the digital transformation in macro-economic statistics. Since the digital SUTs do not advocate for a single definition of the digital economy to be included in the revised SNA, its inclusion (even just as a satellite account) in such a universally used framework, would **greatly assist in converging different methodologies into one standard comparable approach, without the accompanying controversy of what exactly the digital economy is or is not.**

## Documentation

Full summary including questions posed.

## Questions for AEG

1. Does the AEG approve that the conceptual framework included in the GN be reflected in the updated SNA?
2. How does the AEG view the best way to incorporate the digital SUTs into a revised SNA?

## Digitalisation Task Team

### Report of the global consultation on Digital Supply and Use Tables

#### BACKGROUND

---

The April 2021 meeting of the Advisory Expert Group (AEG) approved the global consultation on the production of digital Supply Use Tables (digital SUTs). The consultation was based on the guidance note on increasing the visibility of digitalisation in the national accounts, via digital SUTs. The guidance note recognises that digital SUTs are largely aligned with the current SNA and therefore, compilation of digital SUTs is already encouraged. The questionnaire therefore focused as much on the usefulness of digital SUTs as well as country intentions for implementation. This will inform how best to include them in the revised SNA.

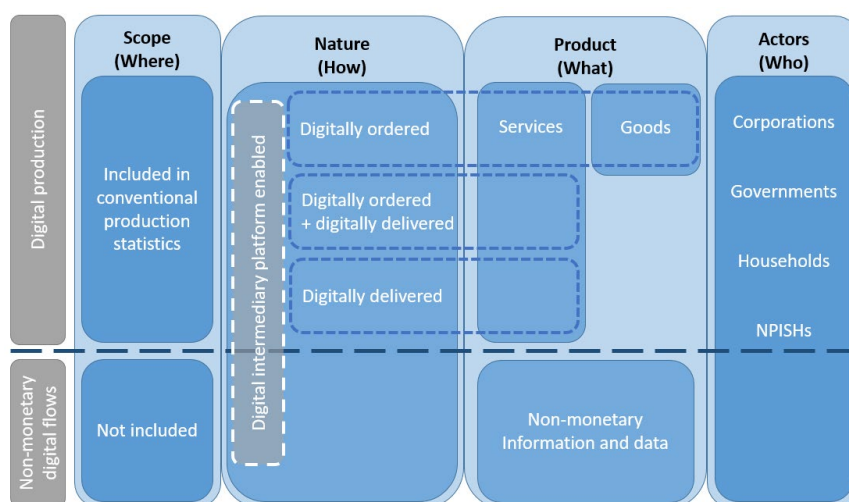
This report presents an overview of the results of the global consultation on the production of digital Supply Use Tables (Digital SUTs) and draws conclusions on the way forward.

#### 1. INTRODUCTION

---

- Digitalisation has allowed firms to radically alter production processes and their access to markets using digital tools.** Digitalisation has also permitted consumers to access a larger variety of goods and services, while exercising greater control over the characteristics of the transaction. Despite digitalisation being overtly present in our professional and personal lives, it is not nearly as identifiable in the various indicators currently used to measure the economy. This absence of specific information on such a key trend within the economy continues to create confusion about what is (and is not) being included and who is (or is not) benefiting from these changes.
- The guidance note sets out a framework for the production of digital supply and use tables (digital SUTs) which define a range of products and actors at the core of digitalisation in the economy.** The framework is capable of producing statistics on digital activity that can assist the development of appropriate policy as well as facilitate international comparison between countries. Additionally, it provides insight in how specific elements of the digital economy, which may have been considered to be missing or underrepresented within the national account aggregates, are accounted for. The guidance note does not define the digital economy and indeed the digital SUTs framework contained within it does not advocate a single measure of the digital economy to represent digitalisations impact.
- The guidance note focuses predominately on measuring the effect of digitalisation on economic activity that is already within the System of National Account 2008 (SNA) production boundary.** The provision of free digital services, the appropriate measurement of data and digitalised information within the production process are both important aspects of the digital economy. While the digital SUTs framework accommodates the inclusion of estimates related to these subjects (to achieve a digital economy satellite account), guidance regarding the appropriate conceptual treatment and practical measurement of them are covered in a separate SNA guidance note.
- The guidance note presents a conceptual framework for the measurement of the digital economy (Figure 1).

**Figure 1: Conceptual framework for the measurement of the digital economy**



Source: OECD, adapted from OECD-WTO-IMF (2019).

5. This framework is designed to be as consistent as possible with the existing SNA by modifying the conventional Supply-Use tables to separately identify digitally ordered and/or digitally delivered goods and services. The modifications include:

- Five additional rows under each product (and aggregates of products), representing the nature of the transaction.
- Seven additional industry columns, representing the new “digital” industries.
- Four additional rows, representing digital product categories that fall within the SNA production boundary.
- Three additional rows, representing data and digital services currently outside the SNA production boundary.
- Additional columns next to household consumption, total output, imports and exports to separate supply and demand that was digitally delivered

## 2. THE GLOBAL CONSULTATION

6. The April AEG meeting agreed that the digital SUT guidance note be circulated to the national accounts' community for global consultation. The consultation collected information on both the conceptual aspects of digital SUTs and practical aspects of their implementation. The consultation also requested whether countries were interested in participating in the experimental estimates exercise. The list questions is provided below:

- 1) Country
- 2) On a conceptual level, do you support the digital SUTs framework as a way to increase the visibility of digitalization in the national accounts?
- 3) Please provide arguments in favour of your response
- 4) Is the construction of digital SUTs relevant for your country
- 5) In the next 3-5 years, do you intend to compile, or have you already compiled, experimental statistics, partially or fully consistent with the digital SUTs framework in your country?
  - If YES, further questions on what is planned, timeliness, length of time series, as well as difficulties faced, when the experimental estimates will be available.

- If there are NO plans to compile digital SUTs, further questions on reasons why
    - lack of demand from users
    - the use of digital technology is not widespread in your country
    - lack of statistical resources
    - other reasons
- 6) Would your institution be interested in participating in an experimental estimate exercise?
- If yes, what technical assistance, if any, would you need?
- 7) Does your country currently undertake any alternative approach to increasing the visibility of digitalisation in the national accounts?
- 8) Please share any other comment or information you may have that is relevant to the discussion.

### 3. RESULTS OF THE GLOBAL CONSULTATION

7. **Question 1.** Substantive replies were received from 50 contributors, comprising 48 separate countries (two different respondents for one country) and 1 international organisation. Responses were received from all regions of the world. (see Chart 1 in the Appendix).

**Table 1:** Regional breakdown of responses.

EU	11
Other Europe	7
Americas	8
Middle East and Near East	6
Asia and Pacific	12
Africa	6
TOTAL	50

8. **Question 2.** There was very strong support for the development of digital SUTs - 42 out of 50 completed responses supported the digital SUT framework as a way of increasing the visibility of digitalisation in the national accounts, with the remaining ones being “undecided”. Some respondents highlighted the advantages of the digital SUT framework in identifying activity which may currently go unrecorded in the national accounts, as well as providing clarity on the impact of the digital economy on overall economic growth.

**Table 2.** Question 2: On a conceptual level, do you support the digital SUTs framework as a way to increase the visibility of digitalization in the national accounts?

	YES	Undecided	Blank
EU	6	5	0
Other Europe	7	0	0
Americas	8	0	0
Middle East and Near East	5	1	0
Asia and Pacific	11	1	0
Africa	5	0	1
TOTAL	42	7	1

9. **Question 3.** While there was strong support in principle, a number of responses highlighted the continuing conceptual and practical challenges in compiling digital SUTs. These include:
- -the treatment of digital producers without a physical presence and the difficulty of collecting data on digital intermediary services. Both of which may require further guidance.
  - A number of responses also highlighted the resourcing challenges in both collecting good quality data and compiling digital SUTs.
  - Other responses highlighted the importance of ensuring that updates to product and industry classifications also reflect the increased role of digitalisation in the economy
10. **Question 4.** The vast majority of responses also considered the compilation of digital SUTs as “very relevant” for their country, or “somewhat relevant”, while only 4 consider them as “not relevant”.

**Table 3.** Question 4: Is the construction of digital SUTs relevant for your country?

	Very relevant	Somewhat relevant	Not relevant	Blank
EU	3	6	2	
Other Europe	1	5	1	
Americas	6	2	0	
Middle East and Near East	4	1	1	
Asia and Pacific	6	5	0	1
Africa	3	2	0	1
TOTAL	23	21	4	2

11. **Question 5.** Around two thirds of responses indicated an intention to compile digital SUTs in the next 3-5 years, or that they already compile experimental statistics, partially or fully consistent with the digital SUTs framework. These responses indicated a broad global coverage, with countries from all regions of the world indicating an intention to compile digital SUTs. It should be noted that a significant minority of responses indicated that they had no plans to compile digital SUTs in the next 3-5 years. These responses again included countries from all regions of the world.

**Table 4.** Question 5: In the next 3-5 years, do you intend to compile, or have you already compiled, experimental statistics, partially or fully consistent with the digital SUTs framework in your country?

	YES	NO	Blank
EU	6	4	1
Other Europe	4	3	
Americas	7	1	
Middle East and Near East	3	3	
Asia and Pacific	7	4	1
Africa	2	3	1
TOTAL	29	18	3

12. **Question 5.1.** What are you planning to compile? The answer was provided by 29 countries. More than one third (11) of the respondents said they will compile some of the high priority indicators outlined in the guidance note and 8 countries plan to compile all high priority indicators and as much as possible of the table. 7 countries plan to fill out the full table.
13. **Question 5.2.** Out of 30 countries that intend to compile, or have already compiled, experimental statistics, 11 countries indicated they have not decided yet about the timeliness and the length of time series of the indicators they that they are planning to comp, 19 countries replied to this question describing their plans for the near future. See the table below

**Table 5.** Timeliness and the time series length of the data of the indicators that are going to be to be introduced.

1	Quarterly GDP by expenditure in 2022, time series from 2000 to 2020. Annual GDP by income approach, 2022, time series from 2000 to 2020.
2	In October 2021 we planned to publish data for reporting year 2018. Right now, we are exploring possibilities to add a year (depended upon finance)
3	Annual
4	Published 2017-2019. Plan to extend to 2015-2020.
5	All indicators, the SUT is for Annual
6	The process of approval of the methodological design will lead to the elaboration of the first experimental estimates in 2022 with the available information and based on the experimental exercises advanced during 2021 with the support of the IMF. It is expected that the first experimental estimates will lead to calculate series for a minimum period of two years with the open possibility of increasing the extension of the series, subject to progress in obtaining specific indicators to achieve the openings, as well as historical information from the different sources.
7	Statistical year 2018 and if reasonable/possible longer time series.
8	Every 5 years after conducting the establishment census which is compiled each 5 years
9	2023-2025

10	The Benchmark year (2018), and new series of national accounts, will be published in March 2022.
11	We have estimated and released preliminary digital SUT for 2015 and will release for 2018 in this year.
12	The timeliness is the end of 2023 and to publish Annual indicators from 2013 to 2020 depending on the sources of information for the annual accounts.
13	It is planned to introduce tables for the 21-22 reference period with the time series expected to commence from this point.
14	Timeliness : within 5 years' time series length of the data : 1 year(2019)
15	Annual, with some beginning in 2016 and some beginning in years after 2021
16	We are planning to introduce the indicators through a project to be developed in a period of 4 or 5 years. The length of the data will depend on the availability of the information and the relevance of the indicator.
17	In five years' time we are planning to identify and estimate the value added associated to companies from the digital, the minimum time series length will be two years.
18	The data to be obtained would be annual.
19	Data timing annually. work is underway to issue an initial version of these tables and then work on creating a time series

14. **Question 5.3.** 28 countries answered to the question on difficulties that they have faced in attempting to compile outputs consistent with the guidance note. The main difficulty that was mentioned by all the countries is linked to the availability of the data sources:

- some details like the transaction types for each product are very difficult to quantify based on available data sources
- new data sources need to be developed that is very costly
- new developments in the national statistical system are required
- complexity of the digitization issue and the need to make greater use of administrative records

Many countries indicated that the process is very costly compared to the extra information obtained. Several countries pointed the need of the capacity building of the team.

One country mentioned that the granularity required is mostly below the design and quality assurance level of existing statistics. One country suggested that it would be helpful if there would be a statistical classification of digital products and its corresponding activities to allow consistency and international comparability.

15. **Question 5.4.** When will experimental estimates be available? 26 countries provided information on this question. 5 countries are going to have some data in 2021, 5 countries – in 2022, 5 countries –in 2023, 5 countries- in 2024, 6 countries - after 5 years.

16. **Question 5.5 (multiple answers allowed).** Out of 18 countries that do not intend to produce experimental statistics related to the digital SUTs, 16 indicated that the main reason is a lack of



statistical resources to compile these outputs, 2 countries mentioned a lack of demand from users, 2 countries the use of digital technology is not widespread in their economy, 5 countries indicated other reasons:

- The international method of compiling digital SUTs is not clear, and there is a shortage of compilation experience.
- Production of digital SUTs will require to apply a lot of not well justified assumptions.
- The problem of staff training in terms of methodology and compilation technics. Other organisational issues.
- The cost would far outweigh any benefit. It is still unclear who are the users of such SUTs.

17. **Question 6.** A significant number of responses (30 out of 50) indicated an interest in participating in an experimental estimate exercise. Many countries mentioned that they would need assistance in capacity building, methodological and practical guidance.

**Table 6.** Question 6: Would your institution be interested in participating in an experimental estimate exercise?

	YES	NO	Blank
EU	1	9	1
Other Europe	7	0	0
Americas	6	2	0
Middle East and Near East	5	1	0
Asia - Pacific	8	3	1
Africa	3	2	1
TOTAL	30	17	3

18. **Question 7.** Finally, the consultation asked whether countries undertake any alternative approach to increasing the visibility of digitalisation in the national accounts. 19 out of 50 respondents indicated they did have alternative approaches for increasing the visibility of digitalisation in the national accounts, ranging from the use of E-commerce surveys to the compilation of satellite accounts on different aspects of digitalisation. A number of responses indicated that they would move away from current approaches and adopt the digital SUT approach when approved.

**Table 7.** Question 7: Does your country currently undertake any alternative approach to increasing the visibility of digitalisation in the national accounts?

	YES	NO	Blank
EU	0	9	2
Other Europe	1	6	
Americas	6	2	
Middle East and Central Asia	3	3	
Asia - Pacific	6	5	1
Africa	3	2	1
TOTAL	19	27	4

19. **Question 8.** 19 respondents provided comments and shared information that might be relevant to the discussion. The comments are provided below:

**Table 8.** Question 8. Comments of the countries

1	National accounts statistics are published on our website and all sources data information are being digitized
2	We should do hands on for the compilation of the SUT
3	We carried out experimental assessments of digital SUT with the help of ADB experts
4	We publish a satellite account on the value of data.
5	While the guidance note raises the need to adjust the current ISIC and CPC classifications, it is also important to review the COICOP 2018 classification, in particular division 08.3.9.2, which groups traditional television services with content transmission services in digital media (Netflix, Disney Plus, etc.) as well as the entire network of nomenclatures that consider the digital dimension, so that there is thematic articulation and analytical consistency between their different applications. On the other hand, it is of great interest to know the experiences that other countries have had in the measurement of digital services provided by non-resident companies that are present in the countries through technology platforms that provide digital services from abroad and make their charges directly to the end user from their headquarters and that in the countries only provide auxiliary services (for example, customer support). Likewise, we consider it relevant to propose the creation of a specific Internet site or sites (OECD and United Nations are proposed) to serve as a repository of all documentation, conceptual production and developments on the measurement of the digital economy. There is an abundance of literature that is scattered in different portals and that does not facilitate the monitoring, evaluation and contrast of the different advances made in this area.
6	A new department of digital economy to be responsible of the digital statistics and related issues is constructed
7	Currently a set of indicators on the digital economy is being building, so the collected documents are only general in nature, there is not much experience in integrating the digital economy into the supply and use table. We hope that in the near future, with the technical help of UNSD, we will fully complete the source table and use it in the digital economy.
8	We are following up on this new mission from the perspective of the International Monetary Fund and the OECD.
9	An experimental digital economy measure is being produced, based on the research and methods developed by the US BEA. It is considered that these estimates as being no longer fit for purpose and will cease producing them once digital SU tables are available.
10	We are currently not undertaking an alternative approach for national accounts. However, we do want to explore some options in the context of supporting the development of a digital strategy. The draft strategy has 3 pillars: trust, inclusion, and growth. When developing measures for the growth pillar, we intend to align as much as possible with the OECD framework for measuring the digital economy. The approach we are taking is 'admin data first'. Instead of setting up new surveys, we will be looking at existing data sources, the wider government data system, and the private sector. In

	<p>2021/22 the focus is to explore this further. We need to secure funding and resourcing to actually develop publishable measures later on. One initiative is to explore web-scraping to identify digital businesses in the country. Some other comments on the guidance note: <b>1.</b> On page 11 (3rd paragraph) of the guidance note is the possibility mentioned the possibility, not actually proposed, of having a trade margin for 'digital intermediary services'. As there is no change in ownership involved, a trade margin would not be appropriate in our view. This is better treated as a product dimension with an explicit fee charged, as currently in the SNA/Digital SUTs. <b>2.</b> Following on from the first point and the overall guidance note, the recommendation is no changes to be made to SNA 2008. The focus of work on the digital economy will be via a digital SUT, which is essentially a satellite account. <b>3.</b> Although this would be outside the SNA update process we would like to see a focus on both visibility and measurement issues in regard to measuring the digital economy. We would appreciate the development of manuals and guidelines reflecting this.</p>
11	There are 3 main difficulties: - collecting basic data for digital economy, IT background human resources
12	It would be incredibly useful to develop / share information about best practice in terms of how to collect data necessary to populate the digital supply use table, as well as methodologies of how to best leverage more standard data sources.
13	Currently a new framework for SUT is being developed. After introducing the new framework we'll be able to start working on Digital SUT issues.
14	In Costa Rica the annual survey: Economic Study of Companies includes some questions about electronic commerce since 2018.
15	The currently has a module on ICT for companies, in an annex to the Economic Survey Annual.
16	A private Research Institute is working on making digitalization more visible in statistics. The work is financed by the Ministry of Economics.
17	Throughout work in building traditional supply and use, it is necessary to expand the visibility and highlight of these industries whose participation is increasing in the size of economy
18	According to Collective classification of Digital sector estimation on the portion of Digital sector's value added in GDP is being made.
19	Since there is no agreed definition and framework in measuring digital economy, the BEA and ABS approaches were utilized in the pilot study. Moving forward, relevant activities towards institutionalizing the measurement of the contribution of digital economy in the country were identified. These include the following: updating of the PSIC and the Philippine Central Product Classification (PCPC), establishing of a statistical classification for digital goods and services, improving data sources, improving estimation methodology, identifying important indicators, establishing institutional arrangements, and crafting of a communication plan.

## Conclusions

---

Conclusions for the DZTT that may be drawn from the global consultation that occurred include:

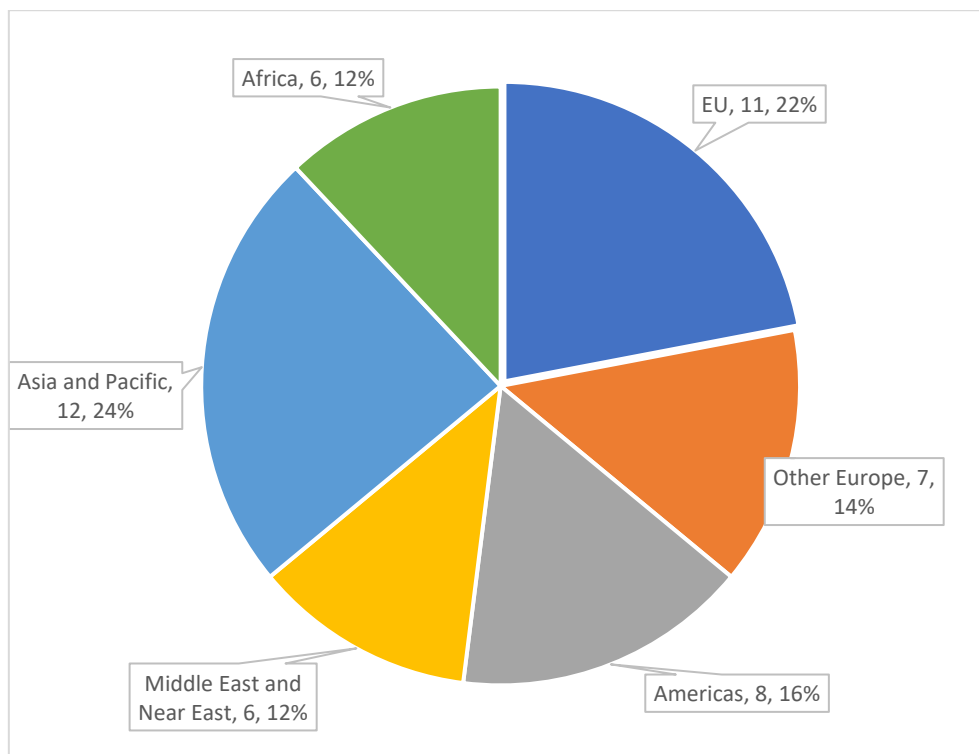
- **There appears broad support to formalise this work and place some form of it into the revised SNA.** While not all countries will be able to produce outputs consistent with the framework by 2025, there is overwhelming support that this is not only a useful way to improve the visibility of the digital transformation in the national accounts and but is also clearly relevant to users.
- Importantly, the vast majority of countries who did not flag any short-term plans in this area, did so because of data source or resource constraints rather than fundamental concerns with the conceptual framework or due to irrelevance to users. It is envisioned that **with the development of compilation guidelines and tools, the ability to compile digital SUTs will improve across all countries. This can occur concurrently with the formal inclusion into the SNA.**
- There still appears an assortment of different methods and definitions used to measure the digital transformation in macro-economic statistics. Since the digital SUTs do not advocate for a single definition of the digital economy to be included in the revised SNA, its inclusion (even just as a suggested satellite account) in such a universally used framework, would **greatly assist in converging different methodologies into one standard comparable approach, without the accompanying controversy of what exactly the digital economy is or is not.**

## Appendix

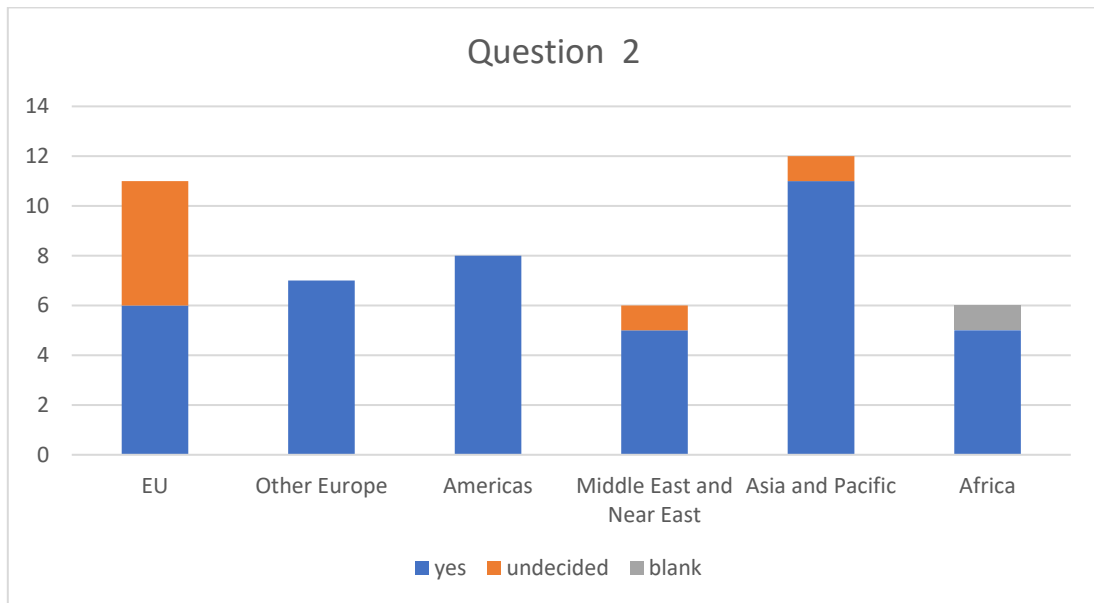
Table 1. Respondents by region

REGIONS	COUNTRIES											
EU	Bulgaria	European Union	Finland	Germany	Hungary	Latvia	Lithuania	Netherlands	Romania	Slovenia	Spain	
Other Europe	Albania	Norway	Belarus	Russian Federation	Turkey	Ukraine	United Kingdom					
Americas	Argentina	Bolivia	Canada	Chile	Colombia	Costa Rica	Mexico	Peru				
Middle East and Near East	Armenia	Georgia	Jordan	Lebanon	State of Palestine	Saudi Arabia						
Asia and Pacific	Australia	China (2 replies)	Japan	New Zealand	Philippines	Kazakhstan	Korea	Singapore	Turkmenistan	Uzbekistan	Vietnam	
Africa	Ethiopia	Ghana	Mauritius	Sierra Leone	South Africa	Zimbabwe						

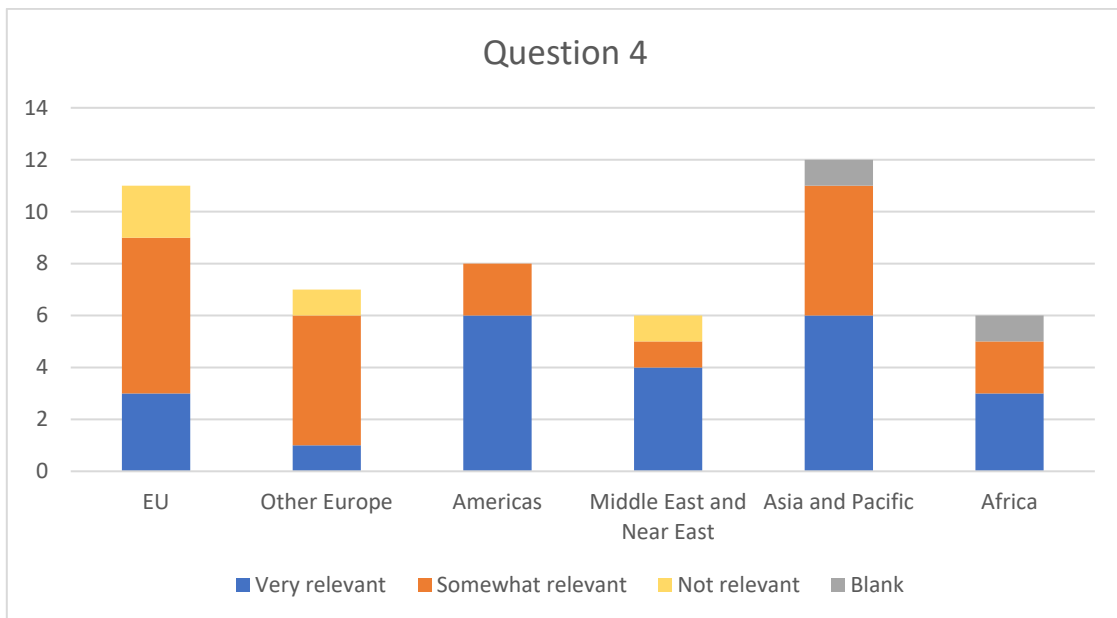
Chart 1: Number of respondents by region



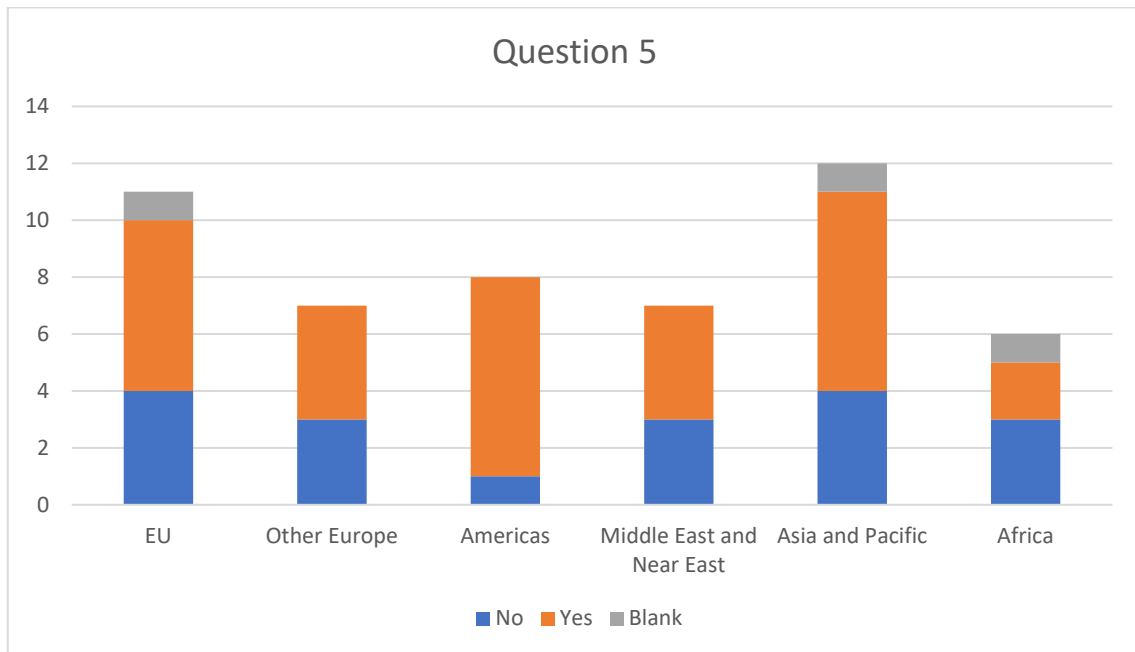
**Chart 2. Question 2:** On a conceptual level, do you support the digital SUTs framework as a way to increase the visibility of digitalization in the national accounts?



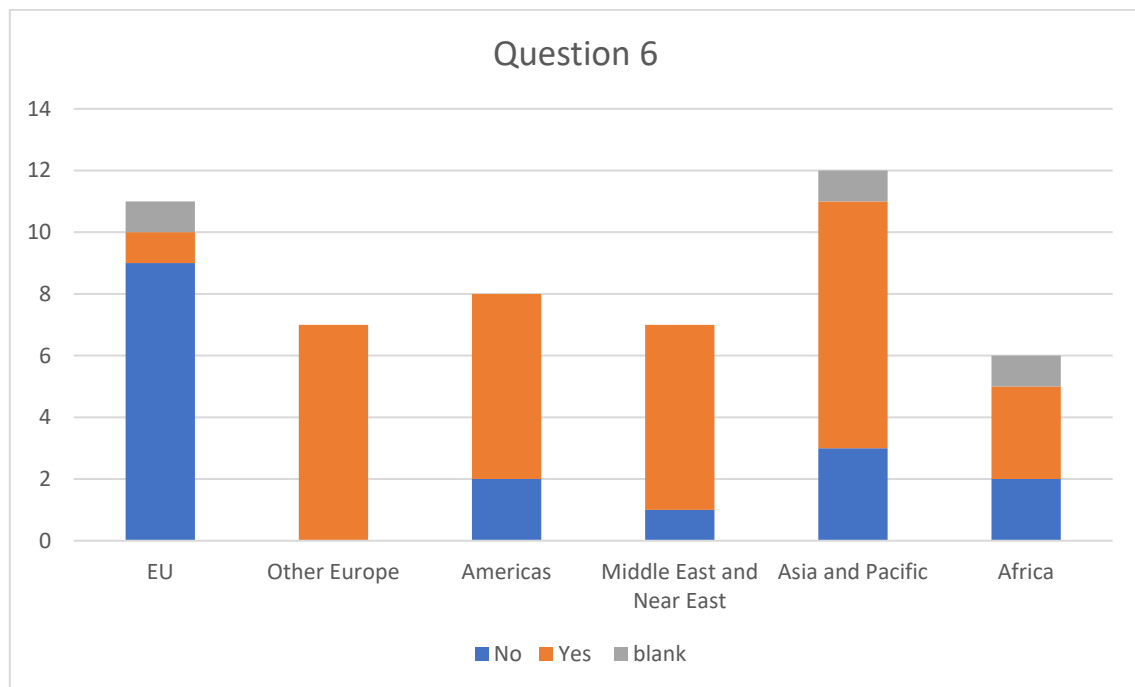
**Chart 3. Question 4:** Is the construction of digital SUTs relevant for your country?



**Charts 4. Question 5:** In the next 3-5 years, do you intend to compile, or have you already compiled, experimental statistics, partially or fully consistent with the digital SUTs framework in your country?



**Chart 5. Question 6:** Would your institution be interested in participating in an experimental estimate exercise



**Chart 6. Question 7-** Does your country currently undertake any alternative approach to increasing the visibility of digitalisation in the national accounts?

