

# Digital Supply and Use Tables: a useful tool for digital transformation

**11<sup>th</sup>** Meeting of the Steering Committee of the Arab Statistics Initiatives (ARABSTAT)

**13- 14<sup>th</sup> November 2024**

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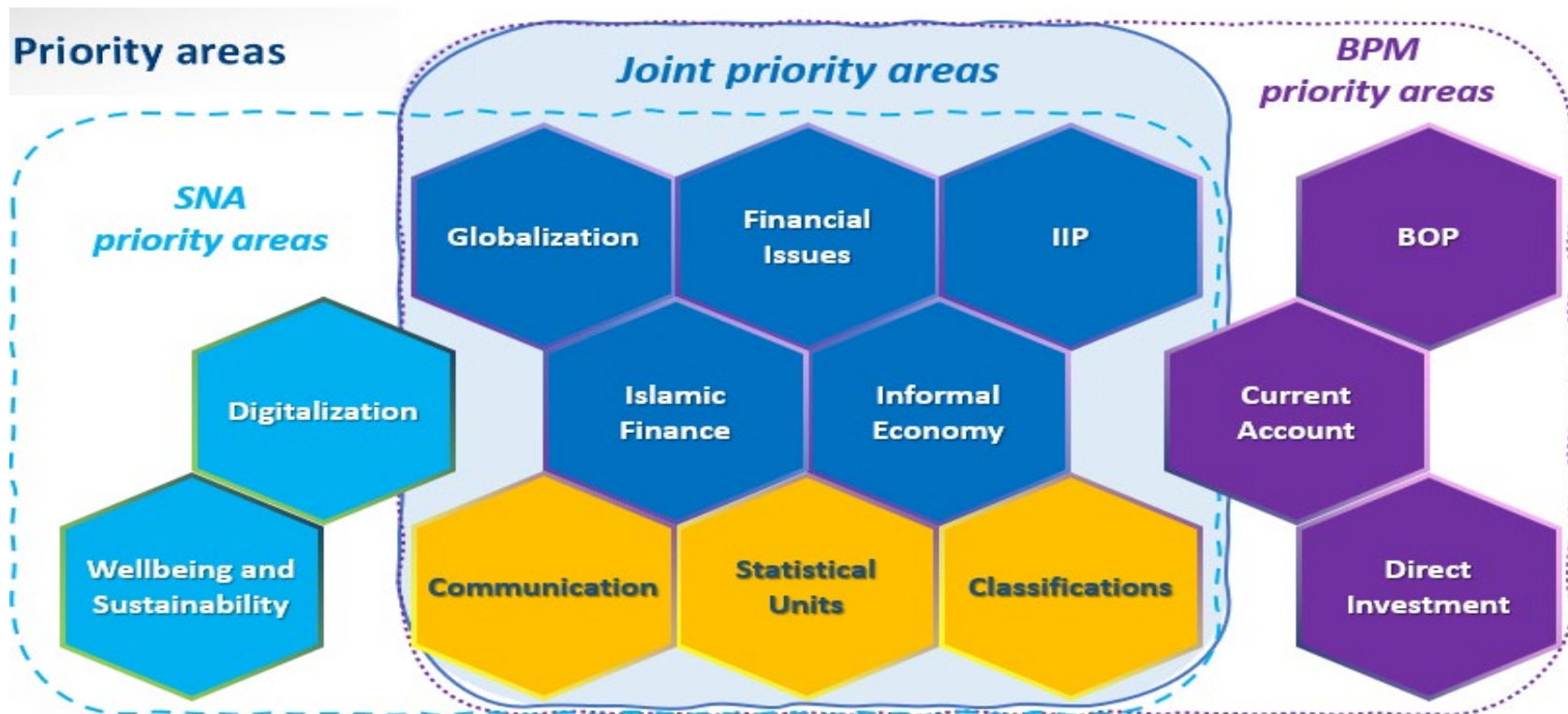
## Outline

- 1 International initiatives**
- 2 Digital Supply and Use Tables**

# International initiatives

**UNSC 2020: Launch update process  
2008 SNA**

**Parallel update process: BOPCOM  
BPM6**





## National Accounts

### About the National Accounts Section

The National Accounts Section of the United Nations Statistics Division:

- ▶ Contributes to the international coordinated development and updating of the **System of National Accounts (SNA)**; and undertakes methodological research on issues on the **research agenda** of the SNA in collaboration with the **Intersecretariat Working Group on National Accounts (ISWGNA)**.
- ▶ Supports the **implementation programme of the SNA** by developing and updating supporting normative standards, training material and compilation guidance for the implementation of national accounts and supporting economic statistics and maintaining a **knowledge base on economic statistics**.
- ▶ Delivers a **statistical capacity building programme** for the implementation of the 2008 SNA and supporting statistics through a series of regional and interregional workshops and seminars in collaboration with the regional commissions and regional agencies and through a limited number of individual country technical assistance missions.
- ▶ Collects and disseminates **annual national accounts statistics** from countries and provides substantive service to the Committee on Contributions of the Fifth Committee of the United Nations on technical aspects of the elements of scale methodology for assessing the contributions to the United Nations by Member States.
- ▶ Publishes the outputs of the Section in various **publications** of UNSD.

### Towards the 2025 SNA

The progress of the revision of the 2008 SNA

### System of National Accounts (SNA)

Information on the SNA, 2008 SNA, 1993 SNA, historic versions of the SNA, etc.

### ISWGNA

Information about ISWGNA activities, SNA implementation, AEG, Research agenda, etc.

### Publications

List of available National Accounts Publications

### Data

Information about the collection and dissemination of National Accounts data

### Technical Cooperation

Information on workshops, seminars, meetings, etc.

### Consultations on issues for the update of the 2008 SNA Consultations

#### National Accounts News

Updated  
25 January 2024

The latest online release of the National Accounts - Analysis of Main Aggregates (AMA) is now available at the following [link](#). The Yearbook is available for download [here](#).

Webinar on the Recommended List of Changes to the 2008 SNA was held on 25 August 2023. For more information, please click on the following [link](#).

SNA News and Notes - Issue 41 is now available for download [here](#).

**National Accounts Capacity Building Resources** website is now available. This website is aimed at providing a single-entry point to trusted resources for National Accounts capacity-development



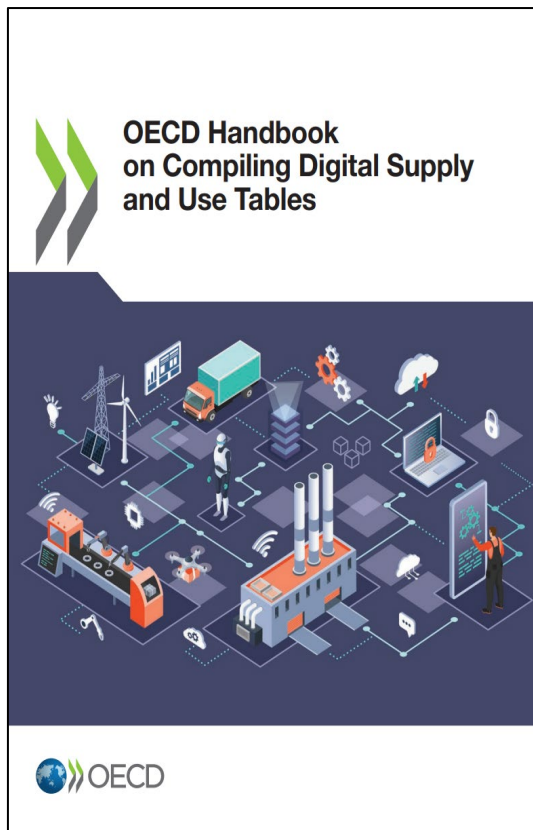
Latest National Accounts Brochure

# 11<sup>th</sup> Meeting of ARABSTAT- Digital Economy Statistics Session

The **draft 2025 SNA** is available for global consultation. For more information, please [click here](#).

Glossary of terms and definitions in macro-economic statistics		PDF		
Chapter	Title	Annotated Outline	Draft Chapter	Final Draft Chapter
<b>A. Introduction and overview</b>				
1.	Introduction (revised content)			PDF
2.	National accounts and measures of well-being and (environmental) sustainability (new chapter)	PDF	PDF	PDF
3.	Overview of the integrated framework (revised title)			PDF
Chapter	Title	Annotated Outline	Draft Chapter	Final Draft Chapter
<b>B. The main foundations</b>				
4.	(BPM Chapter 3) Flows, stocks and accounting rules (revised title)	PDF	PDF	PDF
5.	(BPM Chapter 4) Residence, institutional units and sectors (revised title)	PDF	PDF	PDF
6.	Enterprises, establishments and industries			PDF
Chapter	Title	Annotated Outline	Draft Chapter	Final Draft Chapter
<b>C. Structure of the framework and the sequence of economic accounts</b>				
7.	Production account			PDF
8.	Earned income accounts (revised title)			PDF
9.	Transfer of income accounts (revised title)			PDF
10.	Use of income accounts			PDF
11.	Capital account			PDF
12.	Financial account			PDF
13.	Other changes in assets and liabilities accounts (revised title)			PDF
14.	Balance sheet			PDF
15.	Supply and use tables (revised title)			PDF
16.	Labour (chapter 19 in the 2008 SNA, moved upwards, revised title and revised content)	PDF	PDF	PDF
17.	Capital services (chapter 20 in the 2008 SNA, moved upwards, revised title and revised content)			PDF
18.	Measuring prices, volumes and productivity (revised title and revised content)			PDF
19.	Summarizing, integrating and balancing the accounts (revised title and revised content)			PDF
20.	Elaborating the accounts (moved upwards, revised title and revised content)	PDF	PDF	PDF
21.	(BPM Chapter 20) Communicating and disseminating economic statistics (new chapter)	PDF	PDF	PDF
Chapter	Title	Annotated Outline	Draft Chapter	Final Draft Chapter
<b>D. Cross-cutting issues</b>				
22.	(BPM Chapter 16) Digitalisation (new chapter)	PDF	PDF	PDF
23.	(BPM Chapter 15) Globalisation (new chapter)	PDF	PDF	PDF
24.	Insurance and pensions (Parts 1 and 2 of chapter 17 in the 2008 SNA, moved downwards)			PDF
25.	Selected issues on financial instruments (Parts 3, 4 and 6 of chapter 17 in the 2008 SNA, moved downwards)	PDF	PDF	PDF
26.	(BPM Chapter 17) Islamic finance (new chapter)	PDF	PDF	PDF
27.	Contracts, leases, licenses and permits (Part 5 of chapter 17 in the 2008 SNA, moved downwards)			PDF





# Digital Supply and Use Tables



## Conventional SUT is a good starting point for the Digital SUT

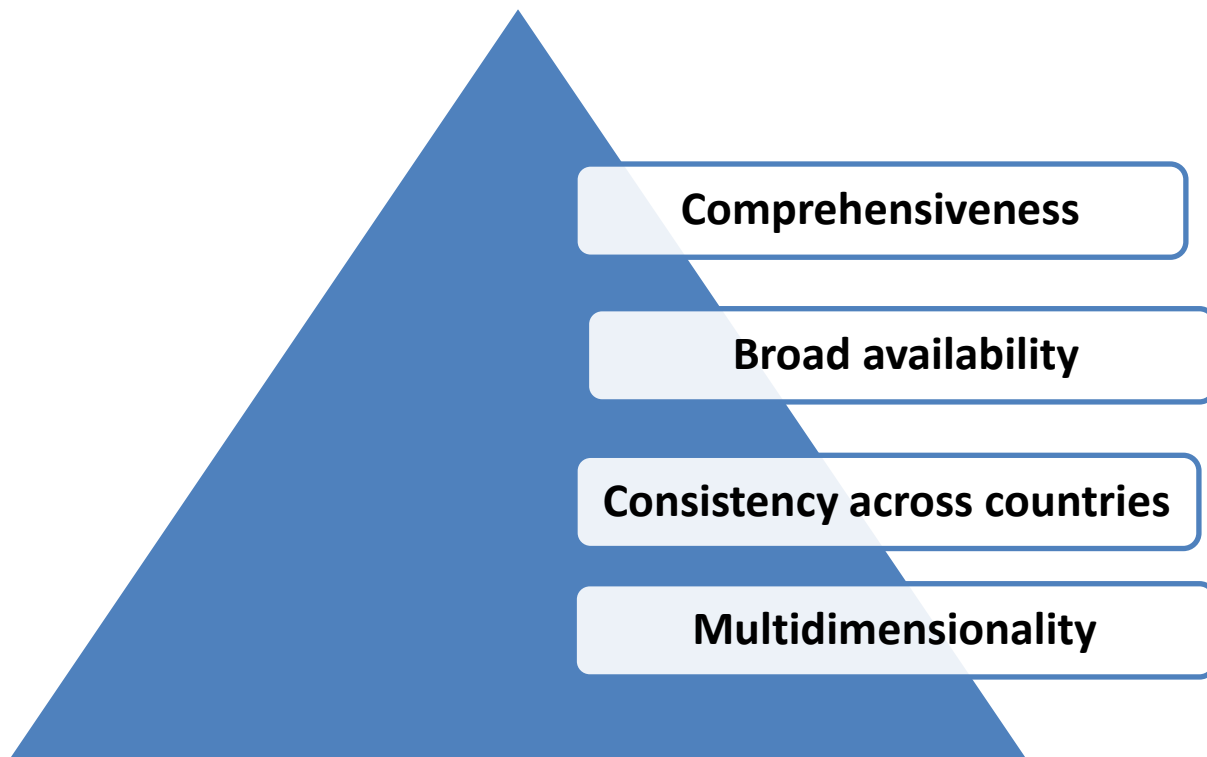
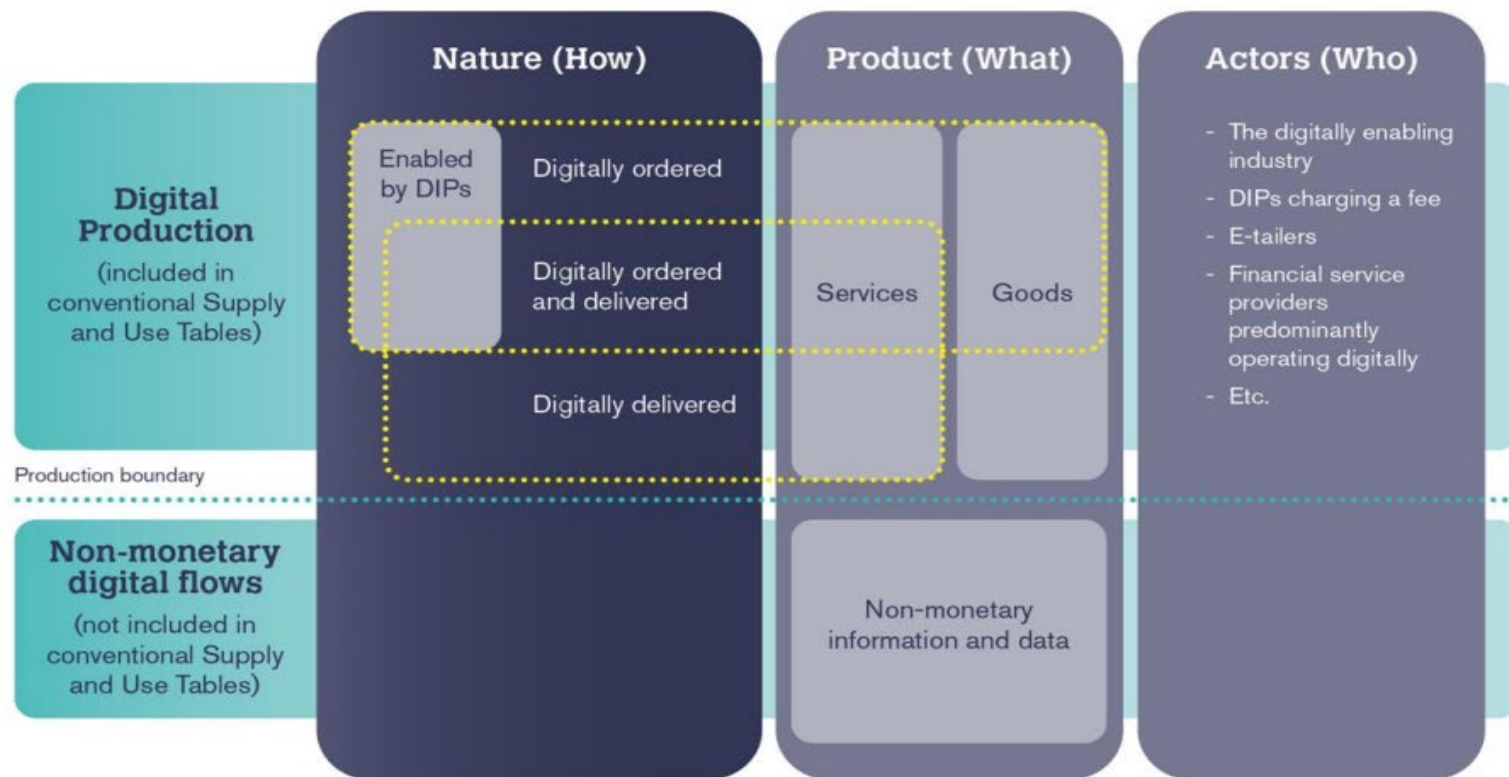


Figure 2.1. Proposed framework of Digital SUTs



1. DIPs = Digital Intermediation Platforms.

2. There are currently seven new digital industries; the last column in Figure 2.1. shows examples. The full list is provided later in the chapter.

Source: (IMF, OECD, UNCTAD, WTO, 2023<sup>[13]</sup>) adapted.

# Dimensions of Digital SUTs Framework

## Dimension 1:

### The Nature of the transaction (the “how”)

- **Digitally ordered or Non-Digitally ordered**  
 Digitally ordered *directly from the counterparty*  
 Digitally ordered via a *digital intermediary platform*
- **Digitally delivered**

### Template:

	Column	A	B	C	D	E	F
	Transaction perspective <u>Supply Table</u>	Nominal values					
Row		Total Output	Of which, digitally delivered	Imports	Of which, digitally delivered	Total Supply	Of which, digitally delivered
1	Total Products						
2	Total Products - Digitally ordered						
3	Direct from a counterparty						
4	Via a digital intermediation platform						
5	Via a resident digital intermediation platform						
6	Via a non-resident digital intermediation platform						
7	Not Digitally ordered						

## Dimension 2:

### Digital products (the “what”)

In **conventional** SUTs, digital products may be recorded in many product rows that include non- digital products

In **digital** SUTs, digital products shown separately:

- Information and Communication Technology (**ICT**) **goods**
- Digital **services**

**In Addition:**

- **Cloud computing services** (CCS)
- **Digital intermediation services** (DIS)

## Template

	Column	A	B	C
	Product perspective <u>Supply Table</u>	Nominal values		
Row		Total Output	Imports	Total Supply
1	Total Products			
2	Total Digital Products			
3	ICT goods			
4	Digital Services (except CCS and DIS)			
5	Cloud Computing Services (CCS)			
6	Digital Intermediation Services (DIS)			
7	Total Non - Digital Products			

Source: Annex Figure 6.A.7. OECD Handbook on Digital SUTs (OECD, 2023)

## Dimension 3:

### Digital Industries (the “who”)

Additional columns in the digital SUTs to introduce the [Digital Industries](#):

1. The digitally enabling industry (e.g., Samsung)
2. DIPs charging a fee (e.g., Amazon; Uber)
3. Data- and advertising-driven digital platforms (e.g., Google, Instagram)
4. Producers' dependent on DIPs
5. E-tailers
6. Financial service providers predominantly operating digitally
7. Other producers only operating digitally (e.g., Netflix, YouTube)

## Template

		Column	A	B	C	D	E
		Industry perspective	Nominal values				
Row	Output		Gross Value Added	Compensation of employees	Gross operating Surplus	Taxes less subsidies on production and imports	
1	All industries						
2	Non-digital Industries						
3	Digitally enabling industries						
4	DIPs charging a fee						
5	Data and advertising driven digital platforms						
6	Producers dependent on DIPs						
7	E-tailers						
8	Financial service providers predominantly operating digitally						
9	Other producers only operating digitally						

Source: Annex Figure 6.11 OECD Handbook on Digital SUTs (OECD, 2023)



## High priority Indicators

**Fully Digital SUT is too ambitious for most countries**

## **High priority indicators**

## **Templates**

1. Expenditure split by **nature of the transaction**.
2. Output and/or Intermediate consumption of **Digital Intermediation Services (DIS), Cloud Computing Services (CCS) and total information and Communication Technology (ICT) goods and digital services**.
3. **Digital industries'** output, gross value added (GVA) and its components.

## Countries experiences

## Canada: Digital industries gross domestic product

	2017	2018	2019	2020
	millions of dollars	millions of dollars	millions of dollars	millions of dollars
<b>Total, all industries</b>	<b>1,991,534</b>	<b>2,083,379</b>	<b>2,161,924</b>	<b>2,076,634</b>
Total digital industries	104,356	110,633	122,018	122,628
Information and communications technology				
Hardware	6,536	6,913	7,454	6,575
Software	41,891	46,067	52,840	54,565
Telecommunications	36,166	36,399	38,133	38,526
Other services	9,912	9,981	10,151	9,966
Digital intermediary platforms	1,762	2,446	3,025	2,504
Data- and advertising-driven digital platforms	1,024	1,106	1,326	434
Online retailers and wholesalers	3,793	4,017	4,611	5,699
Digital-only firms providing finance and insurance services	2,204	2,476	2,947	2,944
Other producers only operating digitally	1,069	1,229	1,530	1,415

## Canada: Digital industries jobs

	2017	2018	2019	2020
	thousands of jobs	thousands of jobs	thousands of jobs	thousands of jobs
<b>Total, all industries</b>	<b>18,757</b>	<b>19,098</b>	<b>19,506</b>	<b>17,559</b>
Total digital industries	757	817	879	872
Information and communications technology				
Hardware	54	57	56	51
Software	344	373	409	422
Telecommunications	125	128	128	121
Other services	81	81	84	81
Digital intermediary platforms	69	86	93	75
Data- and advertising-driven digital platforms	17	17	20	7
Online retailers and wholesalers	51	54	61	68
Digital-only firms providing finance and insurance services	18	19	22	22
Other producers only operating digitally	13	16	18	16

# Canada: Digital supply table, product totals, 2020

	Output, all digital industries	Output, all digital industries, digitally delivered	Total output	Total output, industries, digitally delivered	Total imports	Imports, digitally delivered	Taxes on products	Total supply at purchasers' prices	Total supply at purchasers' prices, digitally delivered
	millions of dollars	millions of dollars	millions of dollars	millions of dollars	millions of dollars	millions of dollars	millions of dollars	millions of dollars	millions of dollars
<b>Total</b>	<b>210,554</b>	<b>79,786</b>	<b>3,881,838</b>	<b>102,081</b>	<b>688,546</b>	<b>19,993</b>	<b>156,741</b>	<b>4,727,125</b>	<b>127,401</b>
Digitally ordered	53,139	24,831	290,956	42,178	61,565	12,909	8,827	361,349	55,366
Direct from a counterparty	38,811	24,081	224,513	41,429	25,713	12,266	1,379	251,605	53,861
Via a resident digital intermediary	1,413	749	1,413	749	0	0	0	1,413	749
Via a non- resident digital intermediary	2,077	0	2,077	0	793	643	48	2,919	674
Via a resident retailer or wholesaler	10,838	0	62,953	0	35,059	0	7,400	105,413	82
Not digitally ordered	157,415	54,955	3,590,881	59,903	626,981	7,084	147,914	4,365,776	72,035

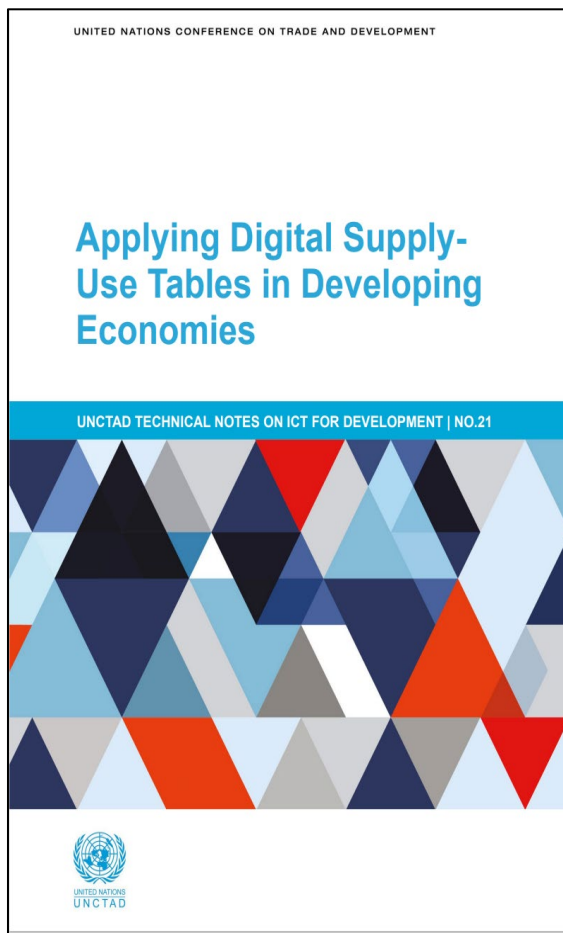
**Source(s):** Digital supply and use tables, 2020, and special tabulations.

## Netherlands: Output and Gross Value Added of digital industries, Netherlands, 2018

	Output (million euros)	GVA (million euros)	Share of output (%)	Share of GVA (%)
All industries	1,514.5	692.6	100	100
Total digital industries	137.4	55.3	9	8
Digitally enabling industries	95.4	36.4	69	66
DIPs	16.3	5.4	12	10
Firms dependent on DIPs	1.0	0.7	1	1
E-tailers (retail)	3.4	1.7	2	3
E-tailers (wholesale)	20.7	10.8	15	20
Digital-only firms providing finance and insurance services	0.7	0.4	0	1
Other producers only operating digitally	n/a	n/a		

Source: (Statistics Netherlands, 2021<sub>[43]</sub>).

# Sengal: Supply table, Senegal, 2018



[UNCTAD- Manual](#)  
[Page 29](#)



Contribution of Digital Economy to GDP (14.0%)

In 2022, the digital economy contributed to Saudi Arabia's GDP by (14.0%). This is according to the results of the Digital Economy Survey carried out by the General Authority for Statistics for the first time in 2023, which is in line with the recommendations of the organization for Economic Cooperation and Development (OECD) and the United Nations Conference on Trade and Development (UNCTAD).

Percentage of establishments purchasing cloud computing services (48.0%)

The percentage of establishments that purchased cloud computing services reached (48.0%) of the total establishments. These services include many cloud computing services, most notably postal services, security software application services, file storage services and database hosting. Information and communication activities establishments account for the largest percentage of establishments that have purchased cloud computing services (68.3%), followed by education activities establishments (66.9%), and professional, scientific, and technical activities establishments (59.5%).

Percentage of establishments offering services through electronic applications (20.3%)

The percentage of establishments that offered services through electronic applications reached (20.3%), with education activities establishments having the highest percentage offering their services through their own electronic applications or through other applications (44.5%), followed directly by the activities of accommodation and food services (39.9%), then establishments of arts and entertainment activities (31.9%).

Percentage of establishments receiving their purchases electronically (18.5%)

The percentage of establishments that received their purchases electronically reached (18.5%), out of the total establishments that ordered or purchased goods and services through the Internet. Information and communication establishments are at the forefront of establishments that received their purchases electronically (40.1%), followed directly by professional, scientific, and technical activities establishments and financial and insurance activities establishments with equal percentages (35.7%).

Percentage of establishments using Internet-related devices or systems (60.1%)

The percentage of establishments that used devices or systems connected to the Internet reached (60.1%) of total establishments. The most prominent of these devices and systems are smart alarm systems, smart meters, lamps, and smart surveillance cameras. The establishments of health and social work activities were the most commonly using establishments by (67.4%), followed by establishments of financial and insurance activities and establishments of education activities with equal percentages of (65.2%).

Figure1. Percentage of establishments that purchased cloud computing services according to economic activities for the year 2022.

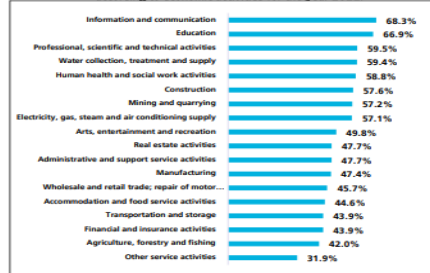


Figure2. Percentage of establishments receiving their purchases electronically out of the total establishments ordering or purchasing goods and services through Internet according to economic activities 2022.

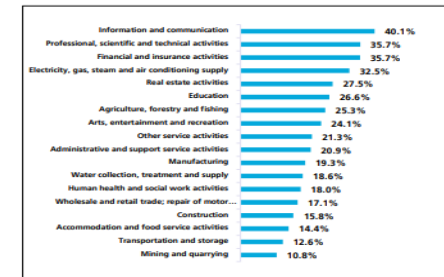


Table1. Key Indicators of digital economy statistics 2022

Indicator	%
Contribution of digital economy to GDP	14.0%
Percentage of establishments that purchasing cloud computing services	48.0%
Percentage of establishments that offering services through electronic applications	20.3%
Percentage of establishments receiving their purchases electronically out of the total establishments that ordered or purchased goods and services through the Internet	18.5%
Percentage of establishments using devices or systems connected to the Internet	60.1%

Reference Metadata

The General Authority for Statistics conducts all its statistical work according to a unified methodology that aligns with the nature of each statistical product. This is based on the Statistical Business Process Procedures Manual, which is compatible with the work procedures adopted by international organizations. Specifically, international standards proposed by the Manual for the Production of Statistics on the Digital Economy, issued by the United Nations Conference on Trade and Development (UNCTAD) in 2020, have been followed to ensure the comparability of indicators internationally. Additionally, reference has been made to the Roadmap toward a Common Framework for Measuring the Digital Economy - Report for the G20 Digital Economy Task Force, Saudi Arabia 2020, issued by the Organization for Economic Co-operation and Development (OECD). More details can be found through the links below:

Reference: Metadata - Tables

# Saudi Arabia: Digital Economy Statistics

# Saudi Arabia: Digital Economy Statistics



General Authority for Statistics  
Digital Economy Statistics

## Digital Economy Statistics 2022

Table number	Description
1	Contribution of digital economy to GDP
2	Percentage of establishments offering services through electronic applications by economic activities
3	Percentage of establishments using systems or devices connected to the Internet by economic activities
4	Percentage of establishments purchasing cloud computing services by economic activities
5	Percentage of establishments delivering their sales electronically out of total establishments receiving purchase orders through Internet by economic activities
6	Percentage of establishments receiving their purchases electronically out of total establishments ordering or purchasing goods and services through Internet by economic activities
7	Percentage of establishments tracking goods and services through Internet by economic activities
8	Percentage of establishments having account on social media platforms by economic activities
9	Percentage of establishments advertising their products through social media platforms by economic activities
10	Percentage of establishments providing online support for after-sale services through their website by economic activities

## Comments and Recommendations

- Digital SUT and the suggested Templates could be a good starting points for comparability.
- The available international manuals have the necessary background and guidance to move forward.
- Business ICT usage survey can be a key source for the information needed for the disaggregation of the conventional SUT and National Accounts.
- Not necessary to complete the full Digital SUTs matrix, but rather there are indicators and aggregates from the conventional production of the GDP could be applied at this stage.
- Any attempts from the countries must be assessed and also encouraged, in addition to that estimates at the transactional/ industry/ product could be started.
- Technical missions and assistance should be provided.

## References

- OECD HANDBOOK ON COMPILING DIGITAL SUPPLY AND USE TABLES, OECD 2023  
[OECD Handbook on Compiling Digital Supply and Use Tables | OECD](#)
- Handbook on Measuring Digital Trade, Second Edition, OECD Publishing, Paris/International Monetary Fund/UNCTAD, Geneva 10/WTO, Geneva,  
<https://doi.org/10.1787/ac99e6d3-en>.
- Digital supply-use tables: A step toward making digital transformation more visible in economic statistics  
[https://goingdigital.oecd.org/data/notes/No8\\_ToolkitNote\\_DigitalSUTs.pdf](https://goingdigital.oecd.org/data/notes/No8_ToolkitNote_DigitalSUTs.pdf)
- Applying Digital Supply Use Tables in Developing Economies  
[Applying digital supply-use tables in developing economies | UNCTAD](#)



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**Thanks for your Attention**

**Amina Khasib- Senior Statistician at Arab Monetary Fund**

