



SNA update: Digitalisation task team

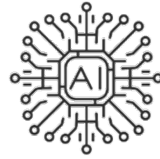
Nicola Massarelli, Eurostat, National Accounts methodology

Group of Experts on National Accounts, 19 May 2022

Digitalization Task Team: 7 research topics



Recording of data in the national accounts



Artificial Intelligence



Increasing the visibility of digitalization in NA (Digital SUTs)



Free products (valuation of free assets and free services)



Cloud computing



Price and volume measurement of goods and services affected by digitalization



Digital intermediation platforms



Recording of data in the National Accounts

Selected recommendations

- Data as a new produced asset → impact on asset boundary
- Data is distinct from ‘observable phenomena’ (OP), which are ‘a fact or situation whose characteristics or attributes may be recorded’.
OP are inputs for data
- Most data are produced on own-account and valued at sum of costs.
- Explicit payments to access OP should be treated as rent. Including these in the SoC requires changing the SNA

Status

- Global consultation concluded, results being analysed
- Tests for practical feasibility needed to finalise recommendations: disentangling data from software and databases; PIM model parameters



Free products (valuation of free assets and free services)

2 work streams:

- i) Clarifications in core accounts
- ii) Free products satellite account

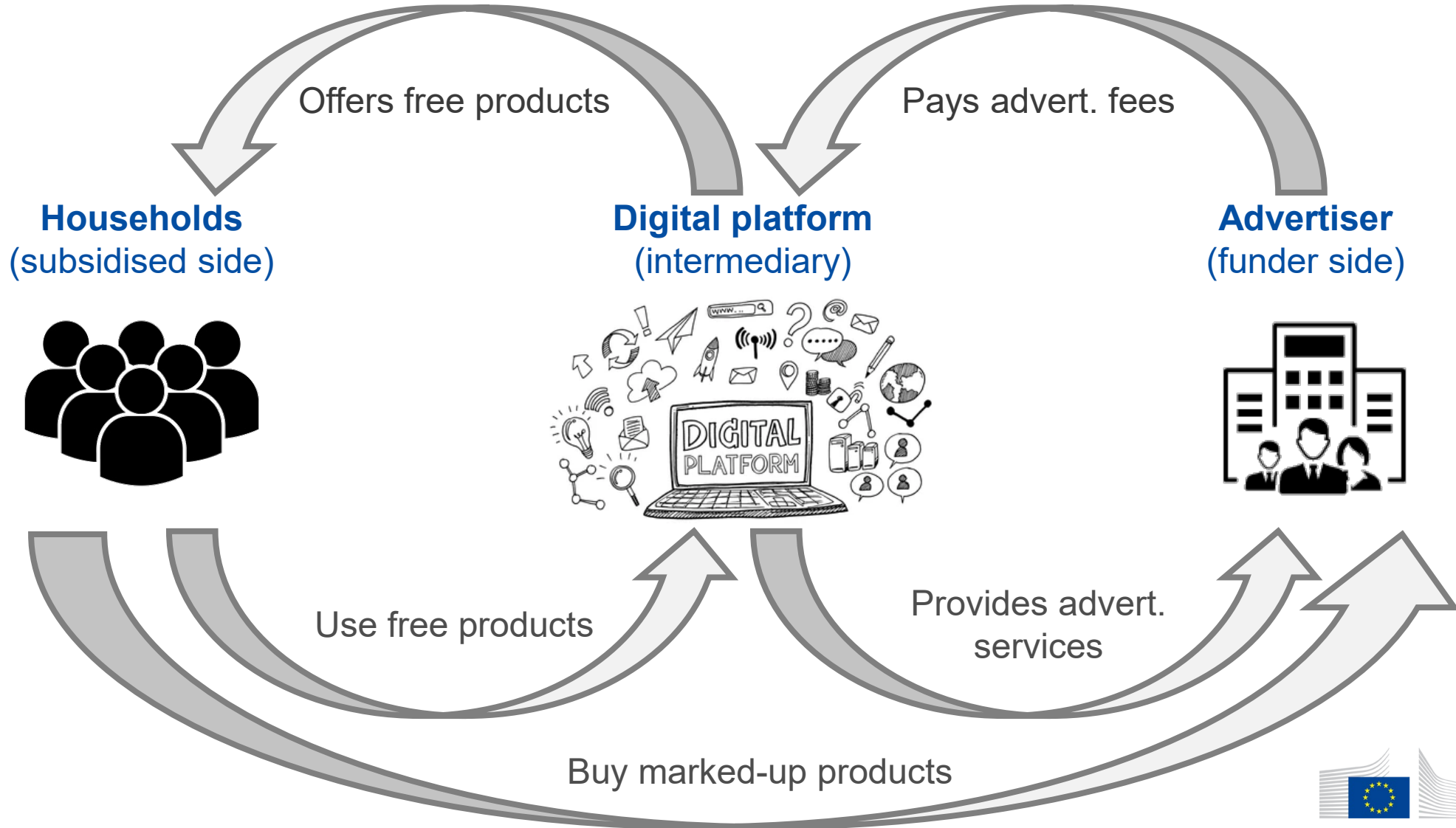
**No changes to
SNA central framework**

Link with **data**: digital platforms and digital apps offering free products are tools to access OP, which are input for the production of data assets and use data to offer their services

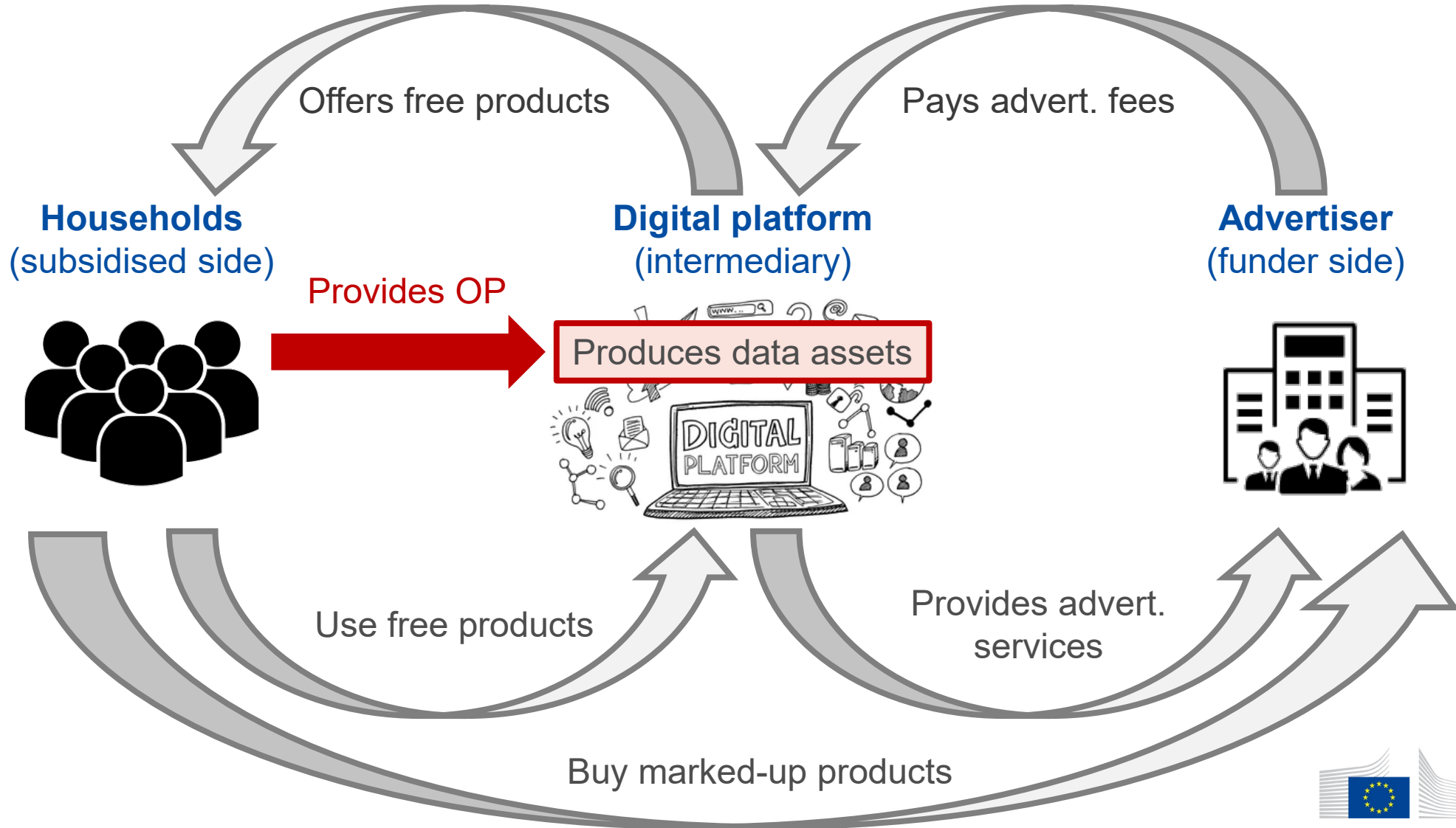
Status

- Global consultation concluded, results being analysed
- Early implementation of free products satellite account encouraged

Free products: GN on **current** SNA treatment



Free products: GN on SNA satellite account





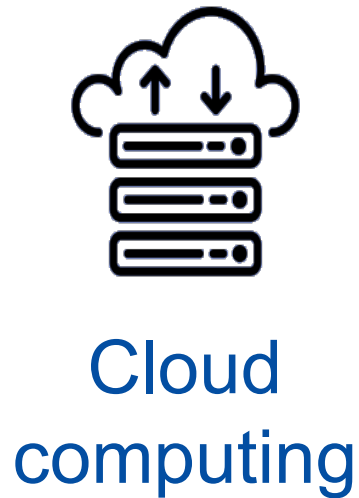
Artificial Intelligence

Recommendations

- Focus on visibility of AI in national accounts (already covered but not visible in 2008 SNA)
- The GN proposes a definition of AI to include in the updated SNA:
“AI is a computer program operating a system capable of recognition and reasoning consistent with human recognition and reasoning.”
- AI is **produced** and falls within the SNA production and asset boundaries → **GN proposes to record it together with software**
- Strong link between **Data** and **AI**: cost of producing data sets to train AI should be included in the value of own-account AI or Data? → **GN proposes to keep them with Data**
- AI should be appropriately reflected in the activity (ISIC) and product (CPC) **classifications**, currently under review
- Final consideration: AI is part of IPP and should be included in IPP definition

Status

- Global consultation currently ongoing
- Early-implementation tests encouraged



Main issues and possible solutions

- **Visibility in the accounts:** updating industry and product classifications to identify cloud computing separately would help business registers record their details, and business surveys to include relevant questions
- **Recording options - intermediate vs capital services:** payments for software subscriptions treated as purchases of a service rather than as purchases of software fixed assets. However, long-term licenses for software hosted in cloud computing datacenters are likely to represent software assets of the user
- **International transactions:** precise measurement of the international transactions in cloud computing services across these networks is not feasible, but methods that consider the consumption and production of cloud computing services in each country can yield satisfactory estimates

Status

- Global consultation to be launched soon
- Early-implementation tests encouraged



Digital intermediation platforms

Definition *: online interfaces that facilitate, for a fee, the direct interaction between multiple buyers and multiple sellers, without the intermediation platform taking economic ownership of the goods, or rendering the services that are being intermediated

Examples: Airbnb, eBay, Alibaba, Booking, Uber.

Excluded: Google, Facebook, YouTube, etc.

3 main issues

- Visibility in the accounts
- Intermediation fees when the DIP is non-resident
- Recording (net vs gross)

Status

- Global consultation currently ongoing
- Early-implementation tests encouraged

* *From the 2019 OECD-WTO-IMF “Handbook on Measuring Digital Trade”*

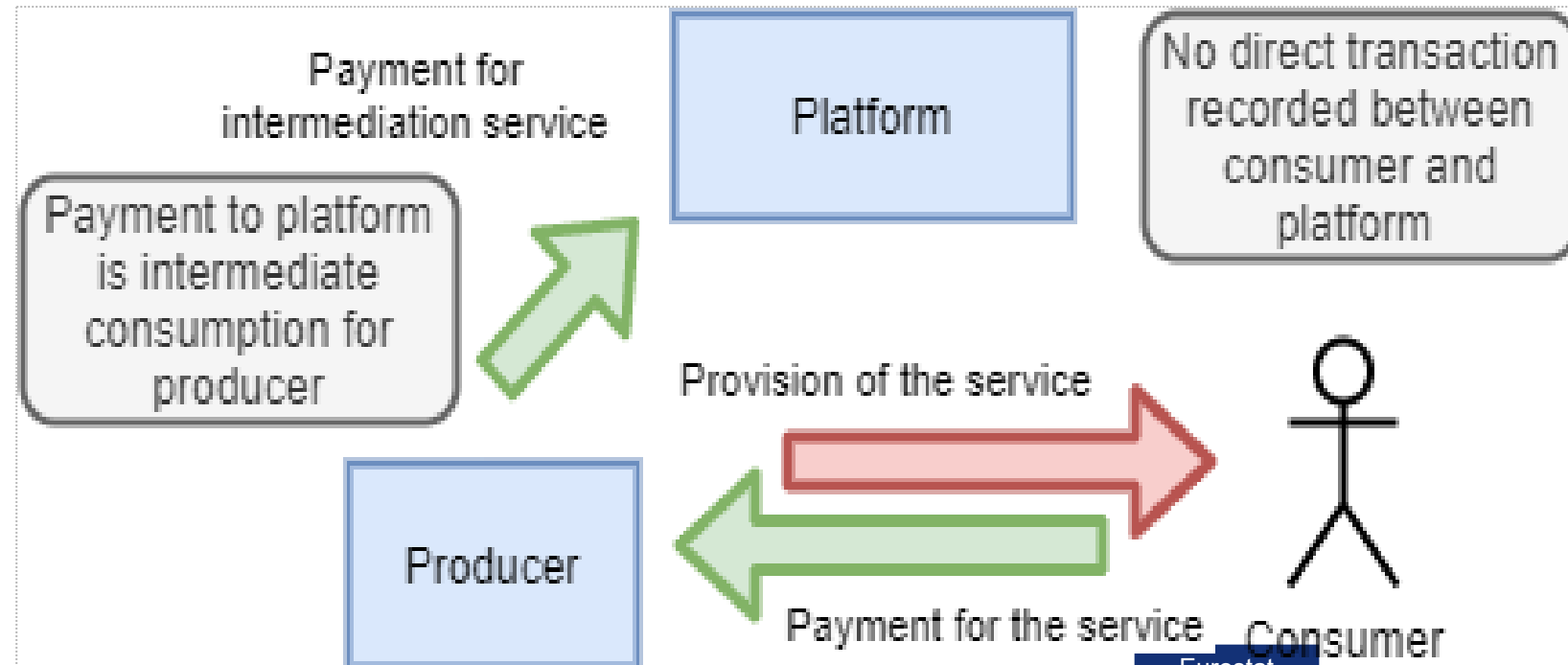
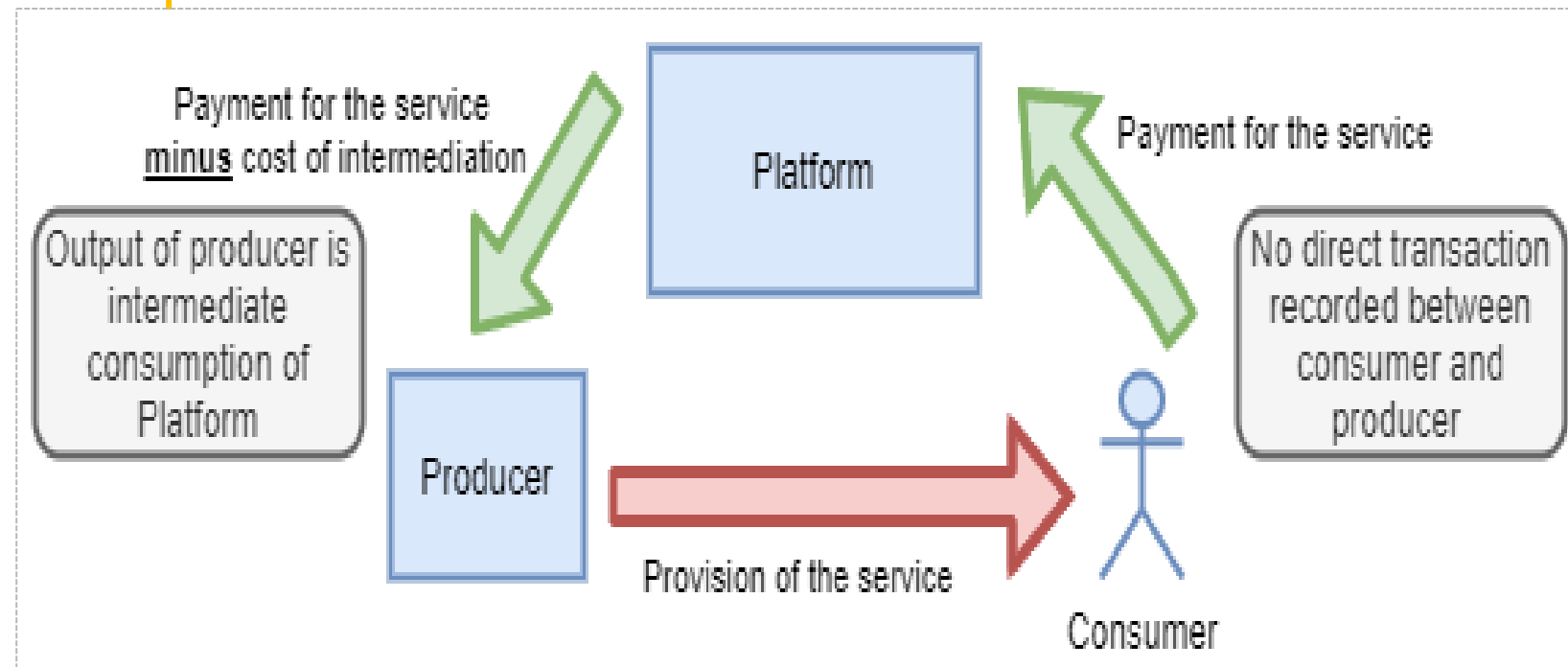
DIPs: recording options

Gross recording

Customers buy products directly from the DIP, as if they were the output of the DIP

Net recording

DIP facilitates the transaction: it only provides intermediation service. The exchange of service between the producer and consumer is shown clearly as the transaction. The DIP service is an import of service to the producer if the platform is non-resident.





Increasing the visibility of digitalization in NA (Digital SUTs)

- DSUTs and priority indicators are key tools to **increase the visibility of digitalization in NA**
- DSUTs: an **extension** of the national accounts through supplementary tables. **Do not affect the ‘core’ accounts**

Status

- Conceptual development of the DSUTs by the Task Team is finished and the GN has been **endorsed by the AEG**. Work is now on promoting its implementation
- Several countries have started working on the framework, targeting some **priority indicators**
 - **Output, Gross Value Added (GVA)** and its components, of **digital industries**
 - Intermediate consumption of **Digital Intermediary Services, Cloud Computing Services** and total ICT goods and digital services
 - Expenditures **split by nature of the transaction**, including estimates of **digital trade**





Price and volume measurement of goods and services affected by digitalization

Traditional data sources need to be **updated more frequently** to capture rapid changes associated with digitalization. Otherwise,

- **Nominal spending** may not reflect the value of these goods in a timely fashion, and
- **Price and volume measures** may not adequately represent:
 - New versions of existing goods (quality improvements in cars),
 - New types of outlets (UBER, Airbnb),
 - Entirely new goods (cloud services)

This GN provides practical recommendations on conceptual and practical issues and is now finalized

Summary and next steps

Expected impact on updated SNA

- GN on *Data* will **change** core accounts
- GNs on *Digital SUTs* and *Free products satellite account* will **extend** the core accounts
- All other GNs will help **clarifying** the accounts without changing them

Status of GNs

- *Digital SUTs* and *Price and volume* **endorsed by AEG**
- *Data* and *Free products*: **global consultation completed**, results being analysed
- *AI* and *DIPs*: **global consultation ongoing**
- *Cloud computing*: **global consultation to be launched soon**

Experimentation and testing

- GN on *Data* to be tested before finalisation
- Early-implementation tests encouraged for GNs on *Digital SUTs*, *Free products satellite account*, *AI*, *Cloud computing* and *DIPs*

Thank you for your attention!

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Any omissions are accidental.