CONSEIL NATIONAL DE L'INFORMATION STATISTIQUE

COLLOQUE SUR L'ÉCONOMIE NUMÉRIQUE

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Challenges in measuring the Collaborative Economy

CARSTEN OLSSON
EUROSTAT / G4 "INNOVATION AND INFORMATION SOCIETY"
EUROPEAN COMMISSION

Digitalisation

- Digital economy
  - New ways of producing existing products
  - New ways of selling existing products
  - New products satisfying needs that did not exist before
  - ≡ Drivers: Efficient (global) communication & computational power
- Digital trade
  - Much like traditional trade
    - Contractual arrangements
    - Financial flows
    - Physical flows
  - But
    - New ways of selling existing products & New products
- Need statistical definitions, classifications, …

Collaborative (sharing) Economy

Collaborative Economy is Subset of Digital Economy

- Policy context

  - High policy interest for past 2-3 years

  - High profile: Uber (taxi services), Airbnb (short term rentals), Blablacar (car sharing) all growing market share, small jobs (Amazon mechanical Turk), babysitting (e.g. Facebook groups)

  - Policy challenges include

    - Economic impact on traditional businesses, Labour, Consumer/producer protection, etc.

    - … and legal issues

=> What is the size of the Collaborative Economy?

First ESS results

ICT Survey 2017 (Eurostat publish in Dec. 2017)

- Q: Have you used any website or app to arrange an accommodation (room, apartment, house, holiday cottage, etc.) from another individual in the last 12 months?
  - a) Yes, dedicated websites or apps (such as AIRBNB, other national examples)
  - b) Yes, other websites or apps (including social networks)
  - c) No, I have not.

- Q: Have you used any website or app to arrange a transport service (e.g. by car) from another individual in the last 12 months?
  - a) Yes, dedicated websites or apps (such as UBER, other national examples)
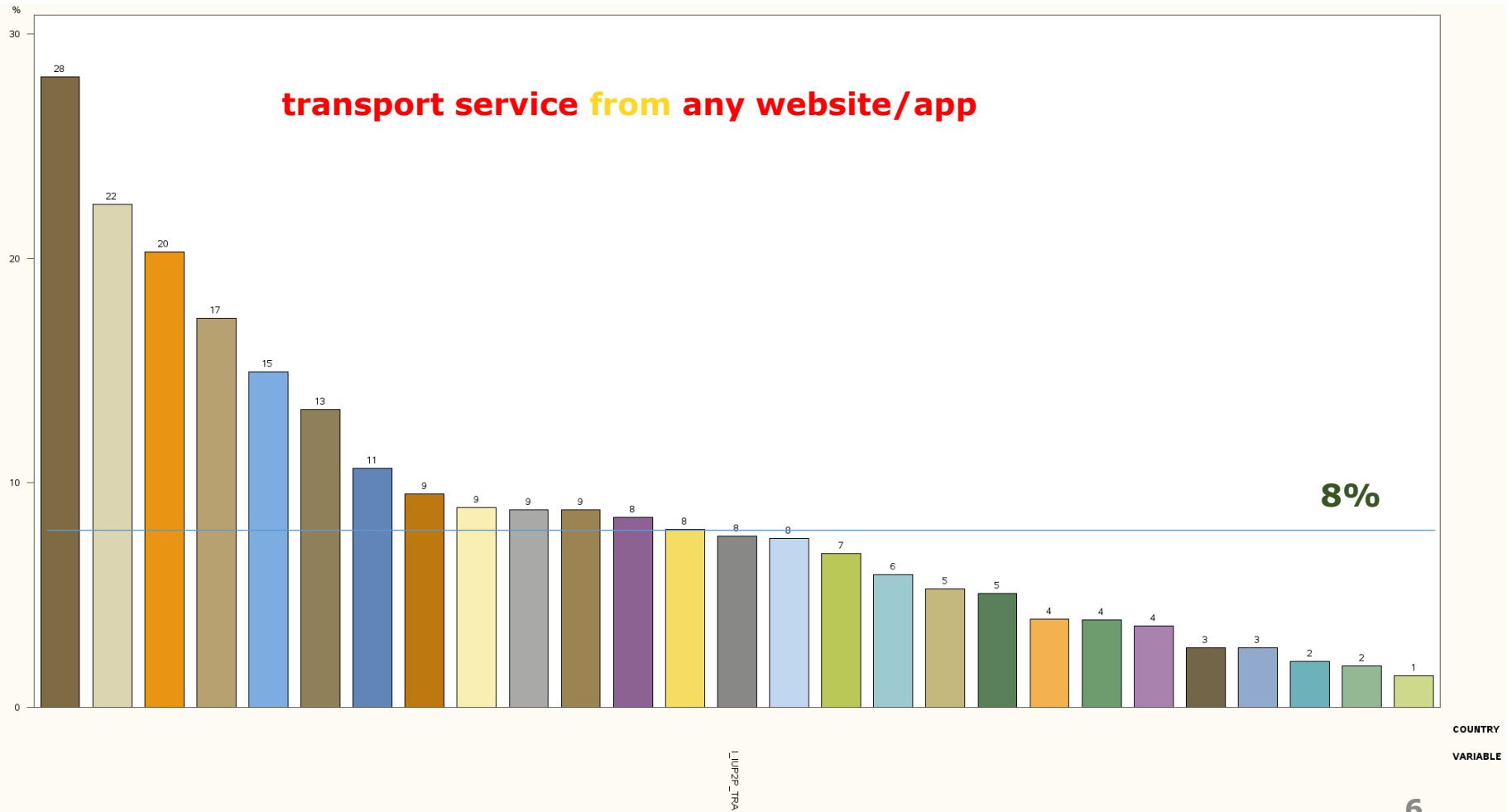 - b) Yes, other websites or apps (including social networks)
  - c) No, I have not.

Have you used any website or app to arrange an accommodation in 2016 (% individuals)

accommodation **from** any website/app

14%
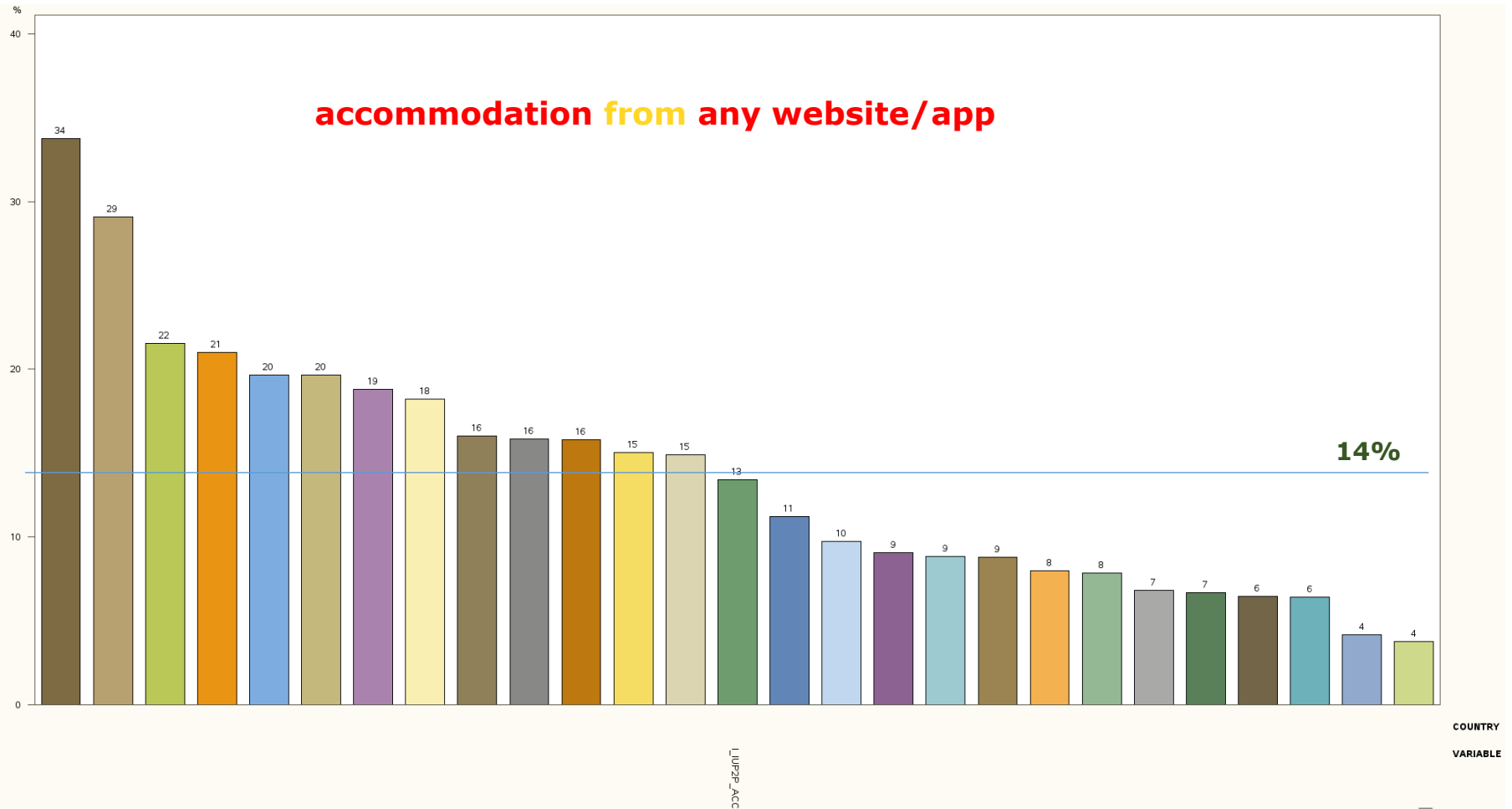
Have you used any website or app to arrange a transport service in 2016 (% individuals)

transport service from any website/app

8%

Collaborative economy

Statistical challenges for measuring collaborative economy

- Methodology - theory
  - Scope, definitions, concepts, classifications, indicators;
- Data collection tools
  1. General surveys of producers, consumers, and intermediaries (platforms)
  2. Dedicated surveys of …
  3. Web scraping techniques

- Data gap - reality
  - Micro-enterprises, cross-border (extra-EU intermediation), peer-peer

Collaborative Economy

Methodology: Scope, definitions, concepts, classifications, indicators

- **Scoping the Collaborative Economy**
  - Airbnb and Uber OK (sharing of significant assets) but what about booking.com and traditional taxi services
  - Shareyourmeal and Amazon Mechanical Turk OK but what about <u>freelancers</u> through agencies (indeed.fr/www.stellenanzeigen.de/…)

- **Classifications**
  - NACE not sufficient for identifying platforms
  - Alternative: Classification for Ordering of Products
    - Main characteristics such as Physical presence vs cloud; Time of day; Contracts/solving disputes
    - Examples: High-street; postal catalogue/phone; digital direct website; digital intermediated website; digital subscription

Collaborative economy

Statistical challenges - Data collection tools

Traditional surveys of

1. Producers
   - How to identify producers (most are micro-enterprises or peer-peer), sample size
   - Willingness to provide information
   - Level of detail?

2. Consumers
   - How to identify consumers
   - Reliable information more than 'I have used this type of service'?

3. Business surveys of intermediaries (platforms)
   - Turnover and employment, but no information about intermediation;

Web scraping techniques

- How to identify platforms
- Scrape data on offers, not consumption

Data gap - reality

- Micro-enterprises, cross-border (extra-EU intermediation), peer-peer

Collaborative economy

Statistical challenges - Data collection tools

- Dedicated survey of intermediaries (platforms)
  - Why?
    - Hubs of trade (market place)
    - IT heavy
    - Less burden on SMEs and consumers
  - Issues:
    - How to identify platforms (Business Register or web scraping?)
      - NACE classification in BR not sufficient for ID
      - Platforms are often located abroad
    - Confidence, confidentiality, standards
      - Willingness to provide information
      - Lack of legislation about the data collection from the platforms;
    - Data security/Anonymization, missing background information
    - Validation of the original data to avoid information monopoly, policy influence and manipulation of data.

Collaborative economy

Statistical challenges – practical work

2016

Communication "A European agenda for the collaborative economy", 2 June 2016

> "Collaborative platforms should cooperate closely with the authorities, including the Commission, to facilitate access to data and statistical information in compliance with data protection law. "

> (Now also general data access to privately held data)

- Contacts with Airbnb, summer 2016 - spring 2017

2017

Set up network of statistical experts

- Exchange experiences between NSIs and prepare future modes of collaboration:
  - Network of Statistical Experts on Measuring the Collaborative Economy
  - 16 NSIs (DK, DE, ES, FR, IT, HR, NL, AT, PL, PT, SI, FI, UK, CH, IS, and NO)
  - Identify and address major concerns
    - e.g. confidentiality, data requirements, setting up regular data transmission
  - Contact 10+ platforms of different sizes

Collaborative Economy

- **Network of Experts on Collaborative Economy to…**
  - Exchange experiences (September/October)

    Main results so far:
    - Most have no registers of the Collaborative Economy platforms; DK Ministry of Industry, Business and Financial Affairs has list of platforms: 85/140 platforms on list are in statistical register.
    - Data collection: UK survey data especially from individuals. IT suggests using Big Data Bank transactions. DK engaged in a project to establish cooperation with online platforms.
    - The sectors of interest are especially tourism (63%) and transportation (44%).
    - Statistical effects: GDP underestimated; Consumer prices affected; who is employed through the platforms, and main or second job.
  - Workshop in May 2018
    - Policy context; Methodology & indicators; Data collection challenges

Thanks for your attention