# **Measuring the platform economy in Italy**. Methodological challenges and open issues

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# Defining a conceptual framework

**Two-sided markets**
**(Rochet and Tirole 2003, Armstrong 2006)**

**Digitalisation**

**Platform business model**

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# Which kind of platforms?

## Transaction platforms

Technology, product or service that acts as an intermediary facilitating exchange or transactions between users, buyers, or suppliers.

## Integrated platforms

Both a transaction platform and an innovation platform (e.g. Apple)

## Innovation platforms

Technology, product or service that serves as a foundation on top of which other firms develop complementary technologies, products or services.
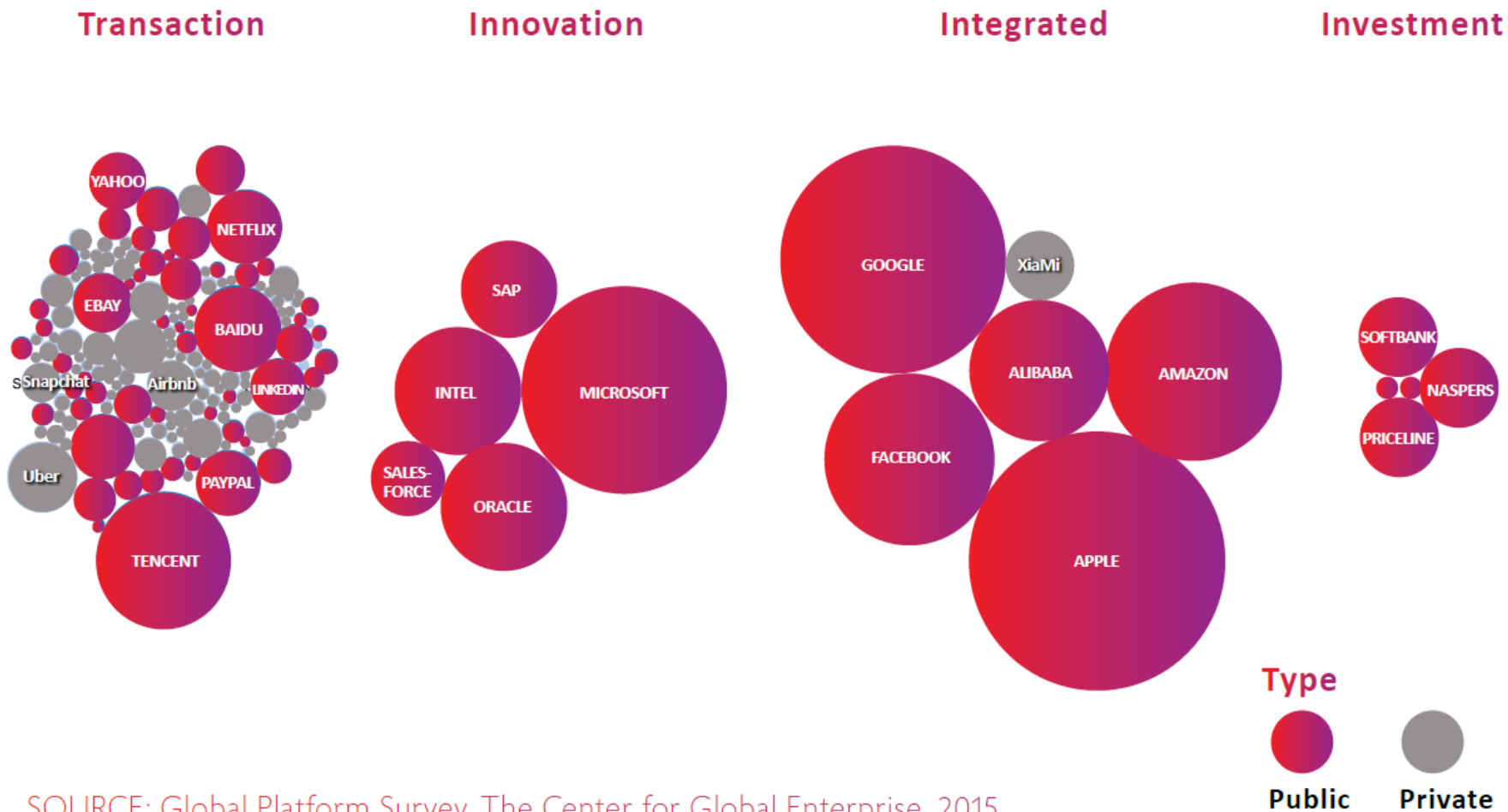
## Investment platforms

Companies that have developed a platform portfolio strategy and act as a holding company, active platform or both.

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# Which kind of platforms?



Transaction | Innovation | Integrated | Investment

YAHOO, NETFLIX, EBAY, BAIDU, sSnapchat, Airbnb, LINKEDIN, Uber, PAYPAL, TENCENT

SAP, INTEL, MICROSOFT, SALES-FORCE, ORACLE

GOOGLE, XiaMi, ALIBABA, AMAZON, FACEBOOK, APPLE

SOFTBANK, NASPERS, PRICELINE

Type
Public     Private

SOURCE: Global Platform Survey, The Center for Global Enterprise, 2015

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# Transactions and sharing (P2P) platforms
## in the digitalised economy
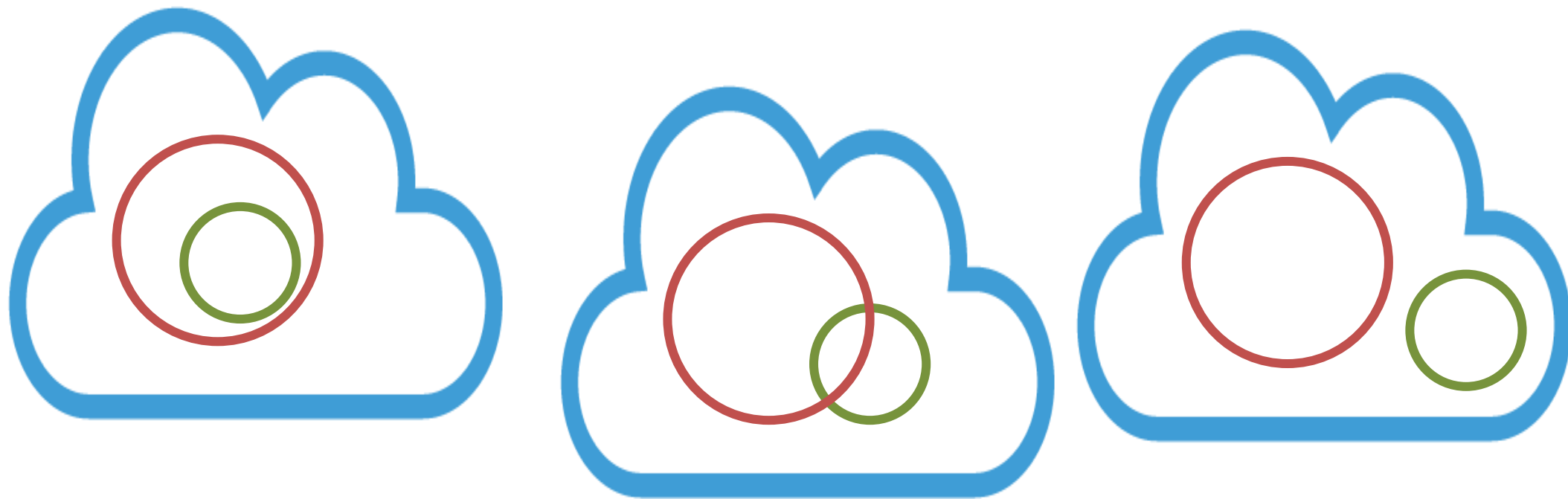


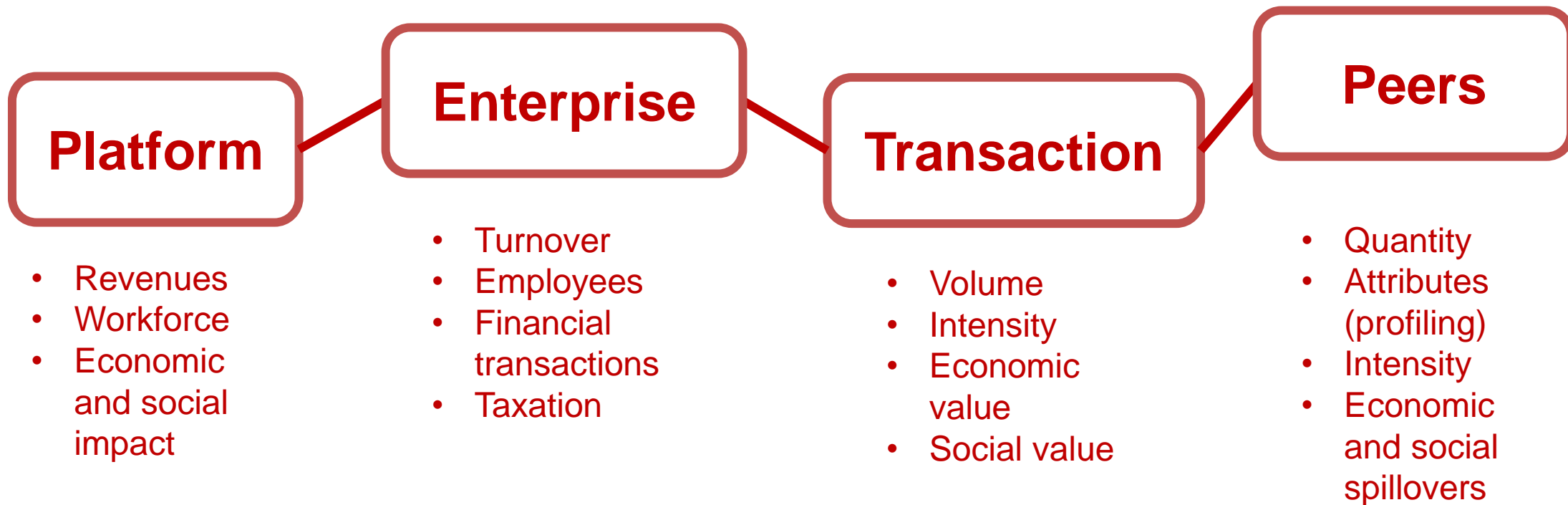○ **Transaction platforms**    ○ **Sharing (P2P) platforms**

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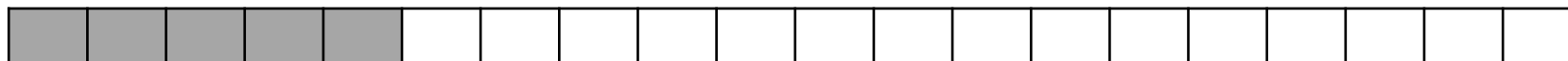
# Identification of a platform

- **Nationality (i.e. the country where the owner – or the Holding Company if the platform is owned by an enterprise group – is based).**
- **Country where is (potentially or actually) operating.**
- **Internet address (URL).**
- **Ownership (individuals, domestic firms, multinationals, etc.).**
- **Business model.**
- **Workforce (number, occupations, skills).**
- **Algorithm(s) – a classification of which is not yet available.**
- **Access features (free, registration, restricted / mobile / languages / etc.).**
- **Money management (internal / external / multi-channel).**
- **Providers (number, characteristics, etc.).**
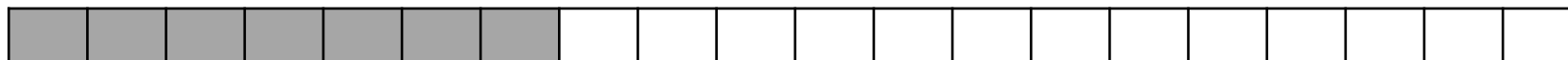- **Users / Customers (number, characteristics, etc.).**

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# Definition of a statistical framework
## 1) The statistical unit

**Platform**
- Revenues
- Workforce
- Economic and social impact

**Enterprise**
- Turnover
- Employees
- Financial transactions
- Taxation

**Transaction**
- Volume
- Intensity
- Economic value
- Social value

**Peers**
- Quantity
- Attributes (profiling)
- Intensity
- Economic and social spillovers

**Does a breakdown by «asset-based» and «labour» platforms make sense?**

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# Definition of a statistical framework
## 2) A proposal for classification by platform type

| Features | Peer-to peer model (sharing) | Two-sided market (Business-to-peer) | | Intermediaries using platform technologies |
|---|---|---|---|---|
| | | Neutrality | Additional service provision | |
| Peers | Individuals, households, businesses. | Businesses and consumers | Consumers, including businesses (as either providers or customers). | Customers |
| Legal nature of the managing institution(s). | Public, non-profit institutions, households, businesses. | Businesses | Businesses | Businesses |
| Workforce | IT staff, managers. Low ratio personnel expenditure / revenues. | IT staff, managers. Low ratio personnel expenditure / revenues. | IT staff, managers, clerical support staff, logistics and warehousing staff, delivery staff (riders). High ratio personnel expenditure / revenues. | Employees |
| Business model | No fees but also registration or low transaction fees. Advertising. | Registration fees. Advertising. Trade of data. | Two-sides' transaction fees. Advertising. Trade of data. | Pay-per-use |

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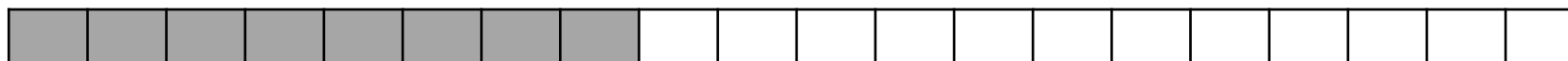
# Definition of a statistical framework
## 3) A proposal for classification by sector of activity

| Sectors | Peer-to peer model (sharing) | Two-sided market (Business-to-peer) | |
| --- | --- | --- | --- |
| | | Neutrality | Additional service provision |
| E-commerce (multi-product) | Kijiji, subito.it | ebay, Amazon Marketplace, … | Amazon |
| E-commerce (sector-specific) | Gumroad | | Eprice, Pixmania, Wish, Zalando |
| General logistics | | Shiply, Eurosender | Glovo!, Deliver.ee |
| Food delivery | | | Foodora, JustEat, UBER Eats, Deliveroo, ………. |
| Public transportation | BlaBlaCar, GoCarShare, Drivy .. | UBER-black, Blacklane, ……… | MyTaxi, itTaxi |
| Accomodation services | AirBNB | Trivago | Booking.com, Expedia |
| Travel services | Vayable, With Locals, ………. | Volagratis, Skyscanner, Barqo | |
| Professional services | | GoPillar, Starbytes, ……… | |
| Personal care services | Suppershare, Croqqer, ……. | Helpling, TreatWell | |
| Crowdsourcing (C2B) | GloVo | BeMyEye, Microtask, ……… | |

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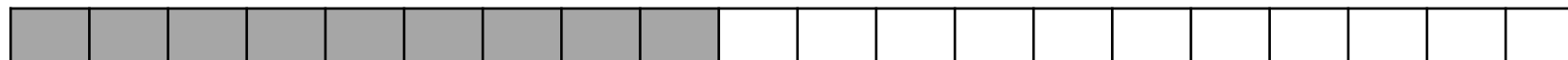
Opinion **Gig economy**

# The gig economy is neither 'sharing' nor 'collaborative'

Upwork and its like shape the labour market in more profound ways than the labels suggest
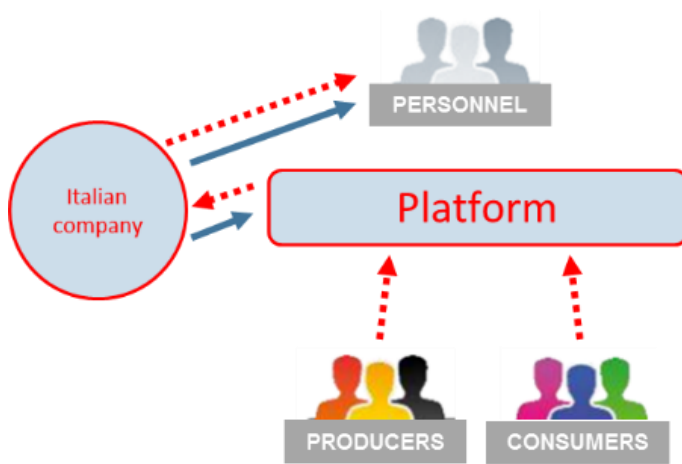
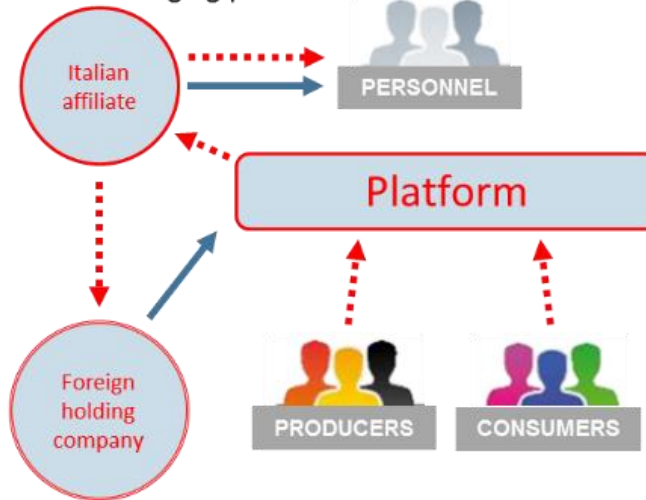**SARAH O'CONNOR** ( + Add to myFT )   June 14, 2016

# Definition of a statistical framework
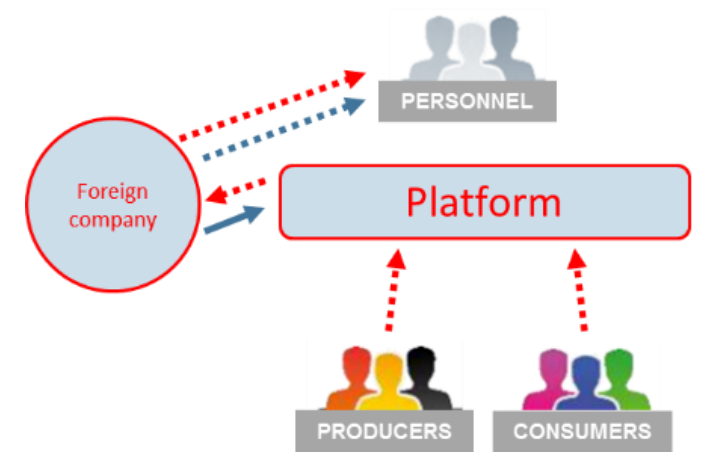## 4) Problems in linking platforms and enterprises

# Definition of a statistical framework
## 5) Mismatch between platforms' activities and NACE

**Food delivery** (12 enterprises)

47.91 Retail sale via mail order houses or via Internet

56.21 Event catering activities

62.01 Computer programming activities

62.02 Computer consultancy activities

62.09 Other information technology and computer service activities

63.12 Web portals

73.11 Advertising agencies

82.99 Other business support service activities n.e.c.

# Measurement issues
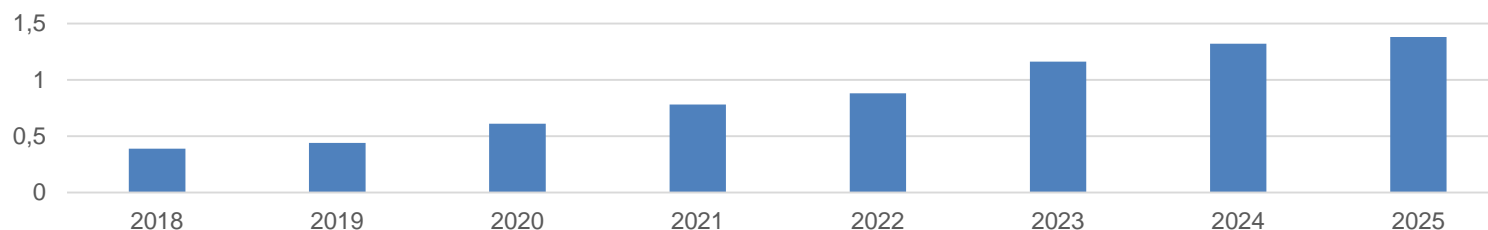## 1) A macro approach to the platform economy

**Official data on revenues, for Italy, are not available**.

A study by the University of Pavia designed a scenario («digital disruption») based on 6.7 Billion Euros of revenues from «sharing economy» activities in 2018 (0.39% of the GDP). It could increase up to 1.38% of GDP in 2025. Assumptions and projections' criteria are quite vague.

# Measurement issues
## 1) A macro approach to the platform economy
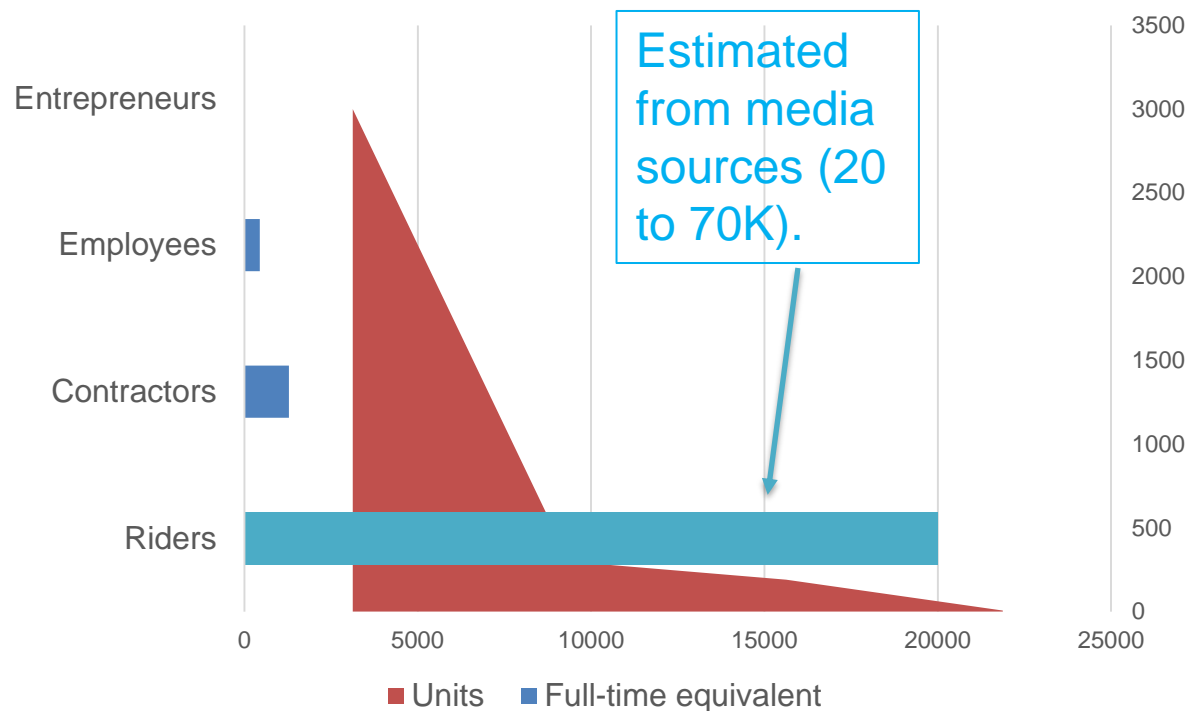
**Official data on employment, for Italy, are not available**.

A study by Fondazione De Benedetti and the Italian Social Security Institute has recently estimated an impact of the «gig economy» in terms of employement between 0.7 and 1 Million workers (1.8-2.6% of total population). Only 150-200 Thousand workers would be employed full time. Ten per cent of them are riders.

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# Measurement issues
## 2a) Case studies: **food delivery**



Estimated from media sources (20 to 70K).

Chart legend: ■ Units  ■ Full-time equivalent

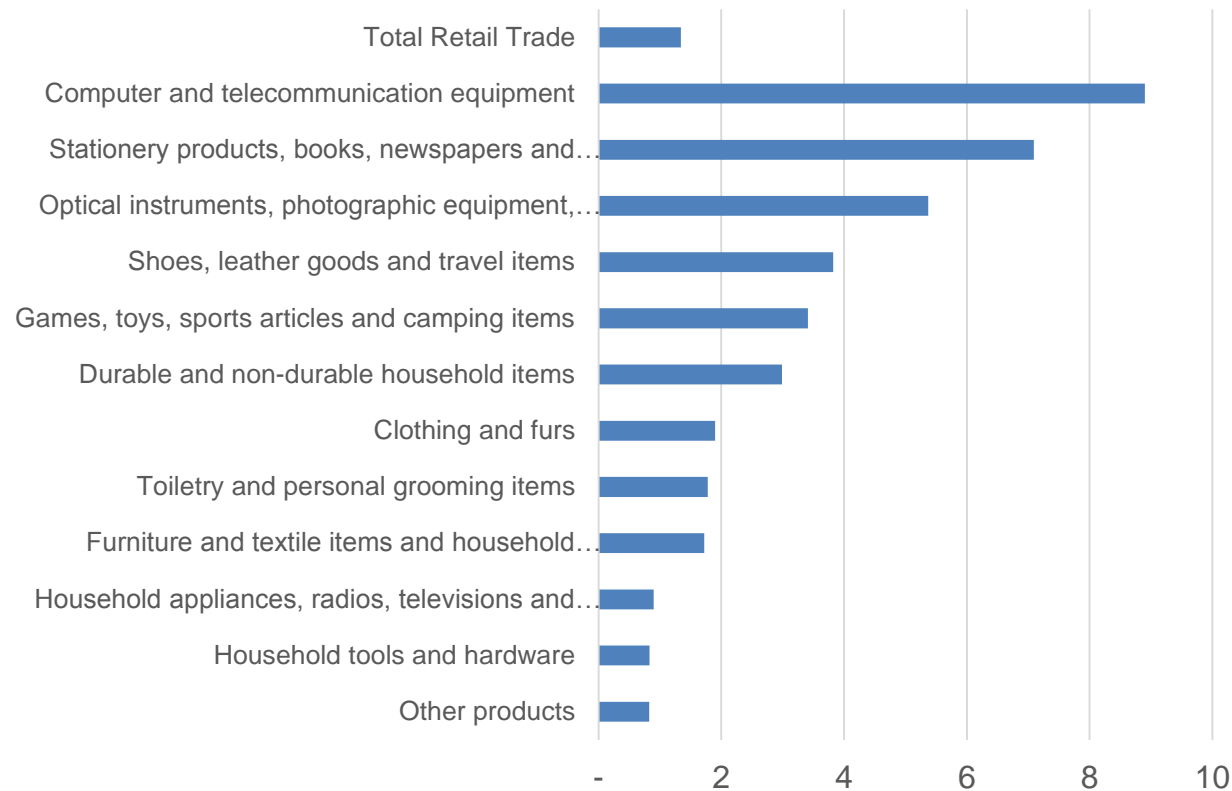Categories (top to bottom): Entrepreneurs, Employees, Contractors, Riders

The **employment pyramid**: the 12 firms operating in Italy show a common breakdown of the employment: a few employees and many «riders» employed as service providers.

# Measurement issues
## 2b) Case studies: **e-commerce**

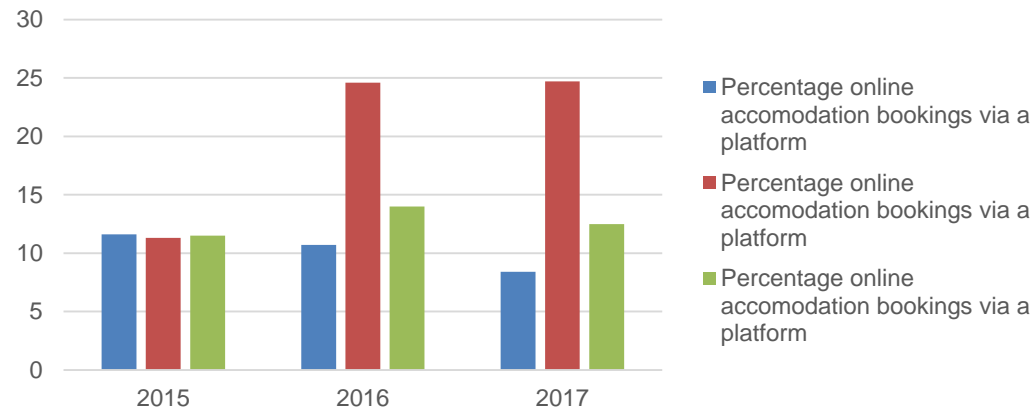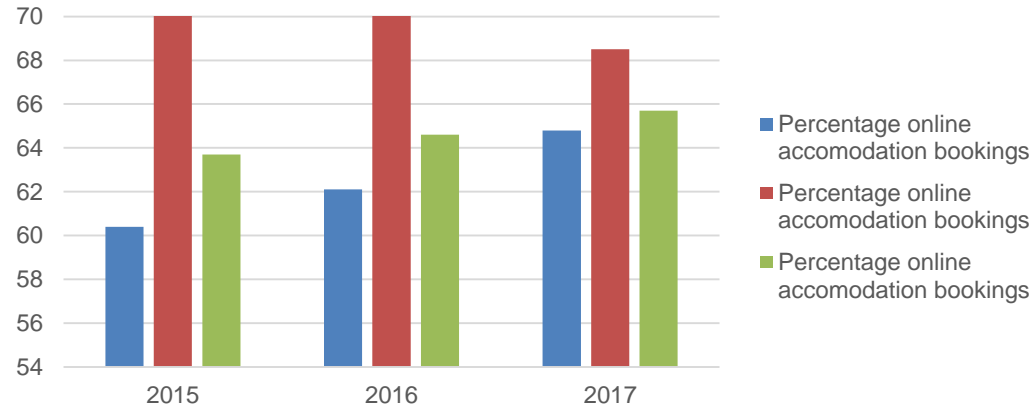| Category | Value |
|---|---|
| Total Retail Trade | ~1.3 |
| Computer and telecommunication equipment | ~8.9 |
| Stationery products, books, newspapers and… | ~7.1 |
| Optical instruments, photographic equipment,… | ~5.3 |
| Shoes, leather goods and travel items | ~3.7 |
| Games, toys, sports articles and camping items | ~3.3 |
| Durable and non-durable household items | ~2.9 |
| Clothing and furs | ~1.8 |
| Toiletry and personal grooming items | ~1.7 |
| Furniture and textile items and household… | ~1.7 |
| Household appliances, radios, televisions and… | ~0.8 |
| Household tools and hardware | ~0.8 |
| Other products | ~0.8 |

E-commerce platforms account for less than 2% of total retail trade expenditure in 2017. PCs and smartphones are the most traded online: almost 9%. **No data available for market-places only**.

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# Measurement issues
## 2c) Case studies: **accomodation booking**



Chart 1 (2015, 2016, 2017):
- Percentage online accomodation bookings
- Percentage online accomodation bookings
- Percentage online accomodation bookings

Chart 2 (2015, 2016, 2017):
- Percentage online accomodation bookings via a platform
- Percentage online accomodation bookings via a platform
- Percentage online accomodation bookings via a platform

Two-thirds of Italians use to book accomodation on-line (up to 70% for accomodation abroad). Only from 10 to 15% of them use platforms (25% for accomodation abroad).

# Measurement issues
## 2d) Case studies: **use of Internet by households**



Travel and accomodation booking
Selling goods or services on Ebay and online auctions

The percentage of Italians using online platforms for **travel booking** and **selling goods/services online** is constant over time. No increase is expected in coming years.

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# Conclusions (1)

- A systematic activity will be launched in Italy when EU countries will agree on definitions and classifications

- It is highly probable that Eurostat will be focusing on:

    - **two categories of platforms** (asset-based and labour?) and

    - **three sectors (public transport, food delivery** and **short-term accomodation).**

# Conclusions (2)

- Estimating the overall impact of the platform economy, as defined by the EU, will be possible only by:

  - Collecting economic (**transactions**) data at a higher detail than it is currently done (e.g. AirBNB payments, riders' salaries, etc.).

  - **Combining economic and social statistics** in order to be able to estimate economic data on the supply side by using information on the demand side (peers).

  - **New statistical surveys** could be needed to explore small areas of activity by platforms.

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