Development of registers for multinationals: Collaboration on GGR and ADIMA

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Outline of the presentation

- Part 1. Updates on the GGR

- Part 2. Updates on ADIMA

- Part 3. Main elements of the UNSD-OECD collaboration on a joint GGR-ADIMA product

- In 2015, the UN Statistical Commission established the UN Expert Group on International Trade and Economic Globalization Statistics to address measurement challenges emerging from globalization

- In decision 46/107, the Statistical Commission agreed with the proposed work plan of the Expert Group to promote and advance the creation of a global enterprise group register, building on and taking into account lessons learned from the EuroGroups Register project

To help statistical offices see the non-national part of the MNEs in their country

To help statistical offices see the national part of a foreign-owned MNE in their country

To facilitate data sharing among countries, using the global register as a common, public source

To help analyze globalization and global value chains

Part 1. Updates on the GGR

GGR Experimental release in December 2020

Global Group Register

The GGR is Opensource and available for download in Excel.

Click **here** to get a list of the MNE heads.

Click **here** to download GGR data.

Click **here** for the User Guide with a detailed listing of the fields, their descriptions and metadata.

A User Guide with methodology and terminology is also available.

Terminology

The GGR uses the following terminology:

> ❯ **MNE Group Head** – the ultimate controlling unit over which no other company has ownership or control.
> ❯ **Ultimate parent** – the highest-level legal entity preparing consolidated financial statements, based on the accounting definition of consolidation applying to this parent. Under IFRS accounting standards, accounting consolidation generally applies when there is control (according to IFRS standard 10). In the GGR, a parent is only identified as an Ultimate Parent if the source for the relationship is the Global Legal Entity Identifier Foundation (GLEIF), the company's Annual Report, its annual financial filing with a financial regulator (e.g., 10-K), on the company's website.

What's in the GGR

- The profiles of 135 multinational enterprise groups

- About 40,000 companies, including affiliates and subsidiaries

- The ownership structure is described with control percentages (i.e., fully-owned, majority- or minority-owned, joint venture, or unknown if exact ownership % is unknown)

- Heirarchies of the MNE groups, which can be used for profiling

- Built exclusively on publicly available information and thus avoids confidentiality constraints

- Plans to expand the coverage

- Plans to have the data validated by countries

- Continuously searching for new sources of information and new ways to connect to country information

- Average of 297 affiliates per MNE
- On average, each country has 201 affiliates (of the profiled MNEs)
- USA has the most affiliates (8,561)
- On average, MNE groups have presence in 34 unique countries (with the maximum at 119)

Development of IT tools for GGR

Developing a graph database on the Global platform (an open source version of OrientDB) which is built for storing and analyzing relationship data. The entities and relationships among them are pre-connected and do not require table joins or multiple scans across a large table.

Working on a dashboard that would allow to visualize, query and extract the data.

Developing robotic process automation (RPA) tools to automatize the profiling.
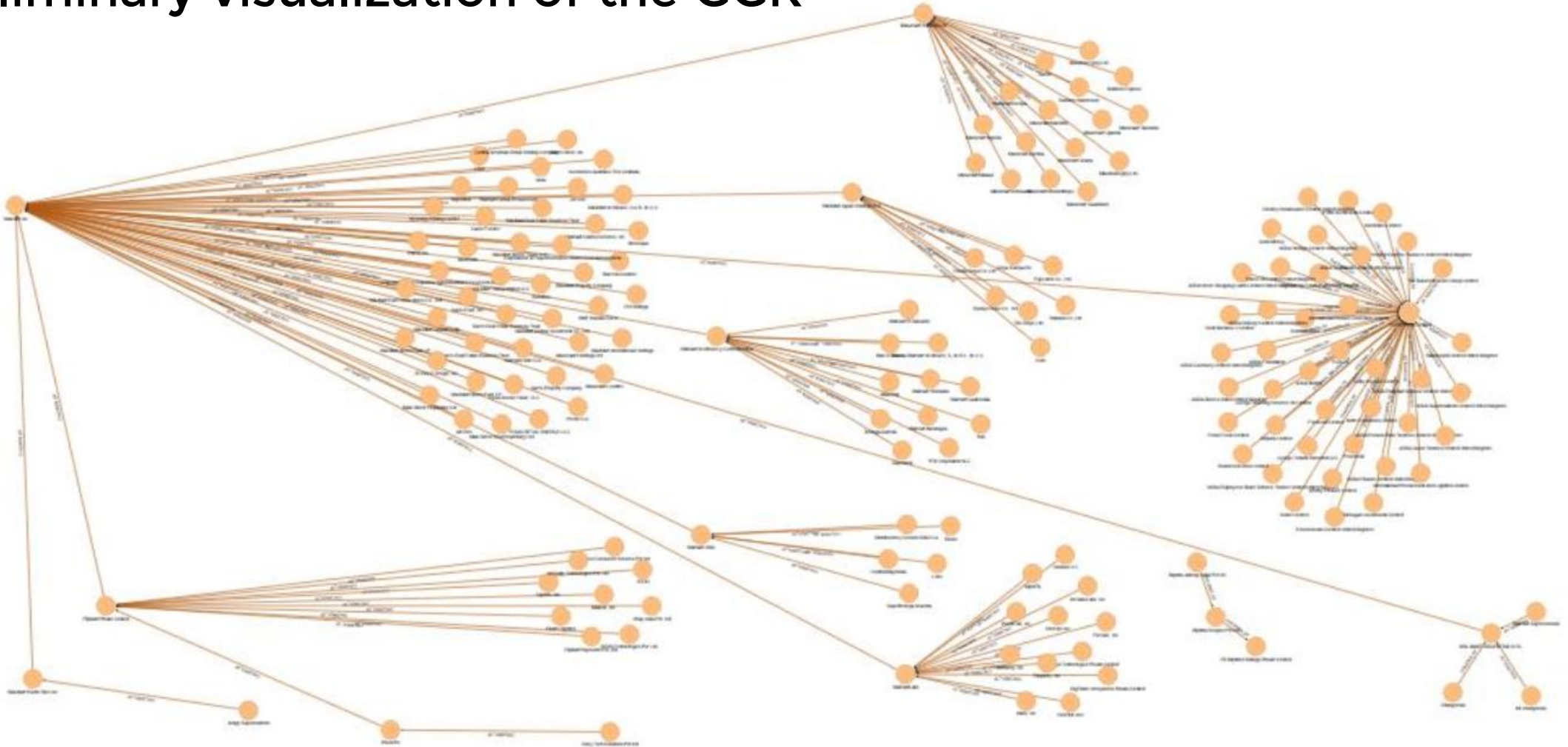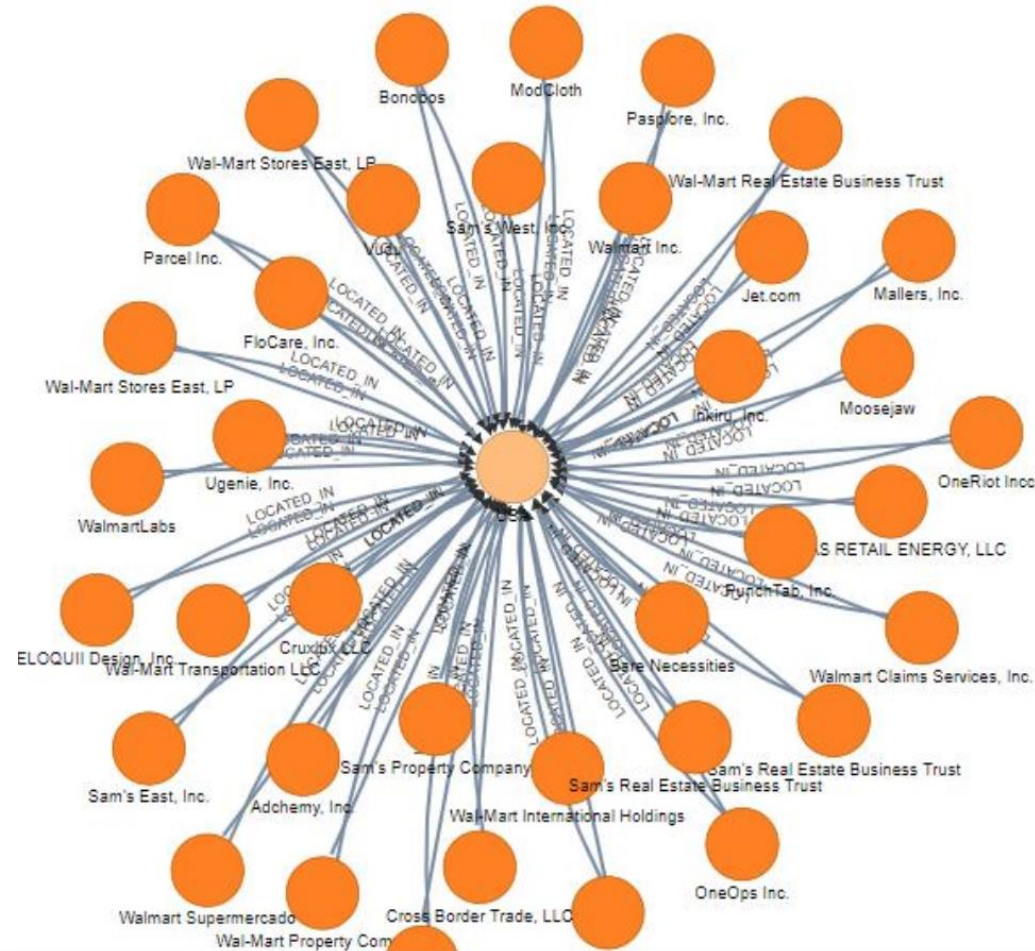
Preliminary visualization of the GGR
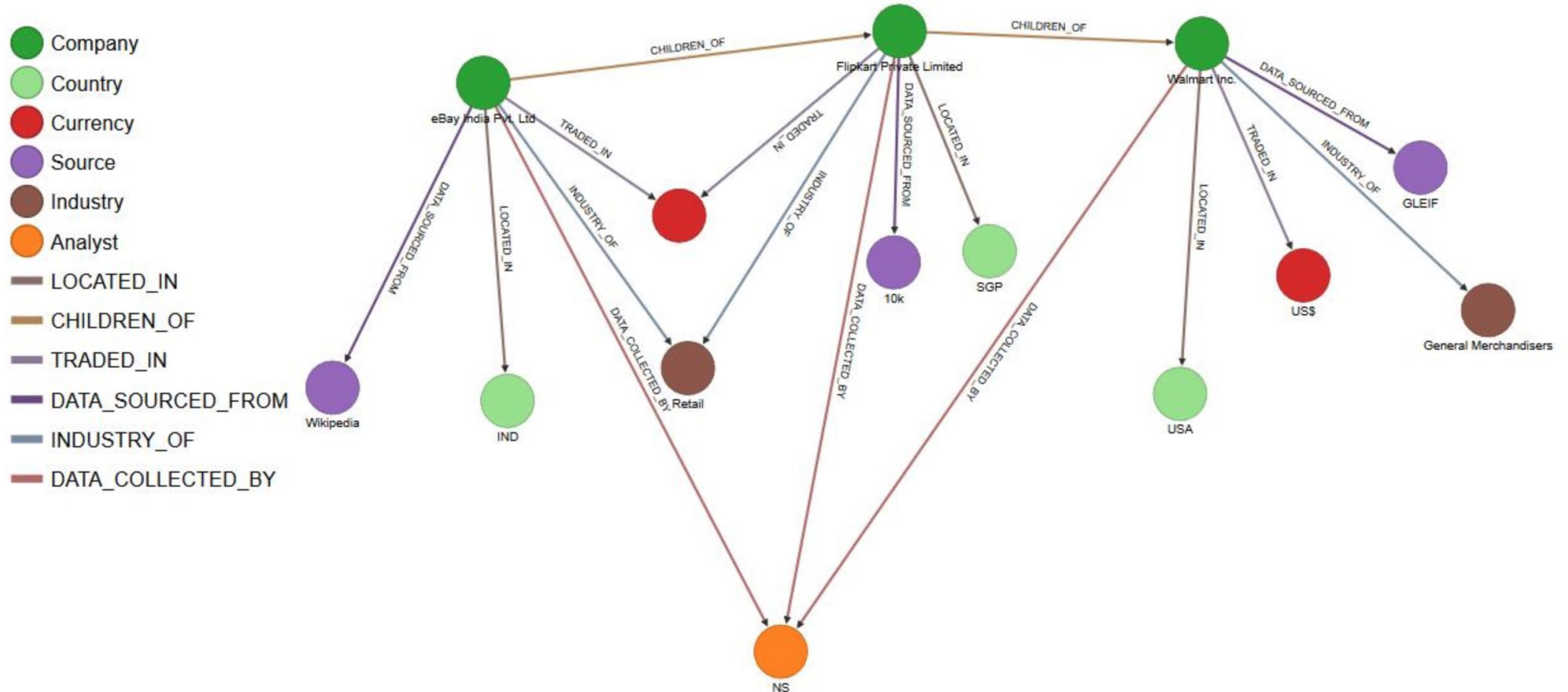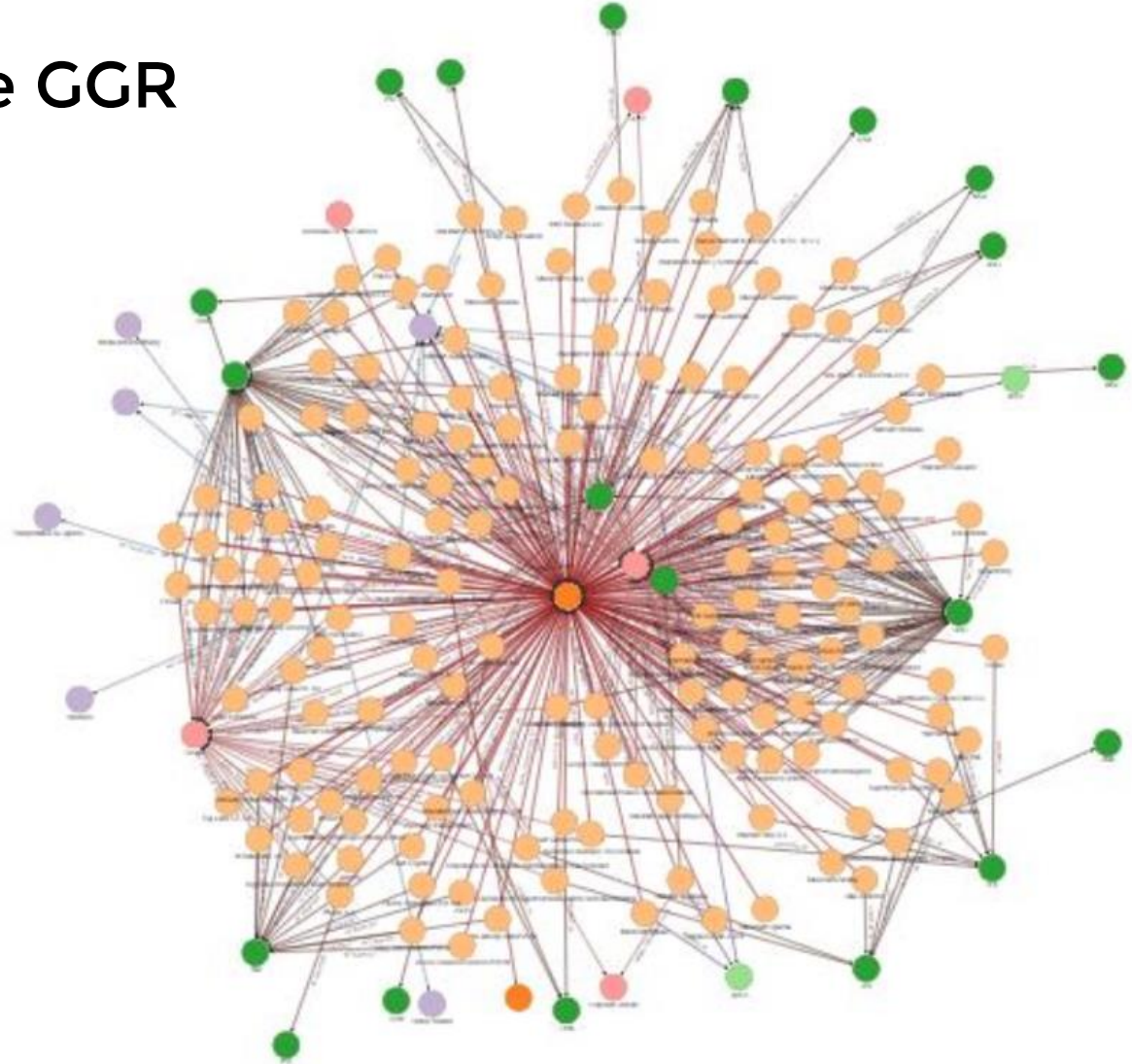
Preliminary visualization of the GGR
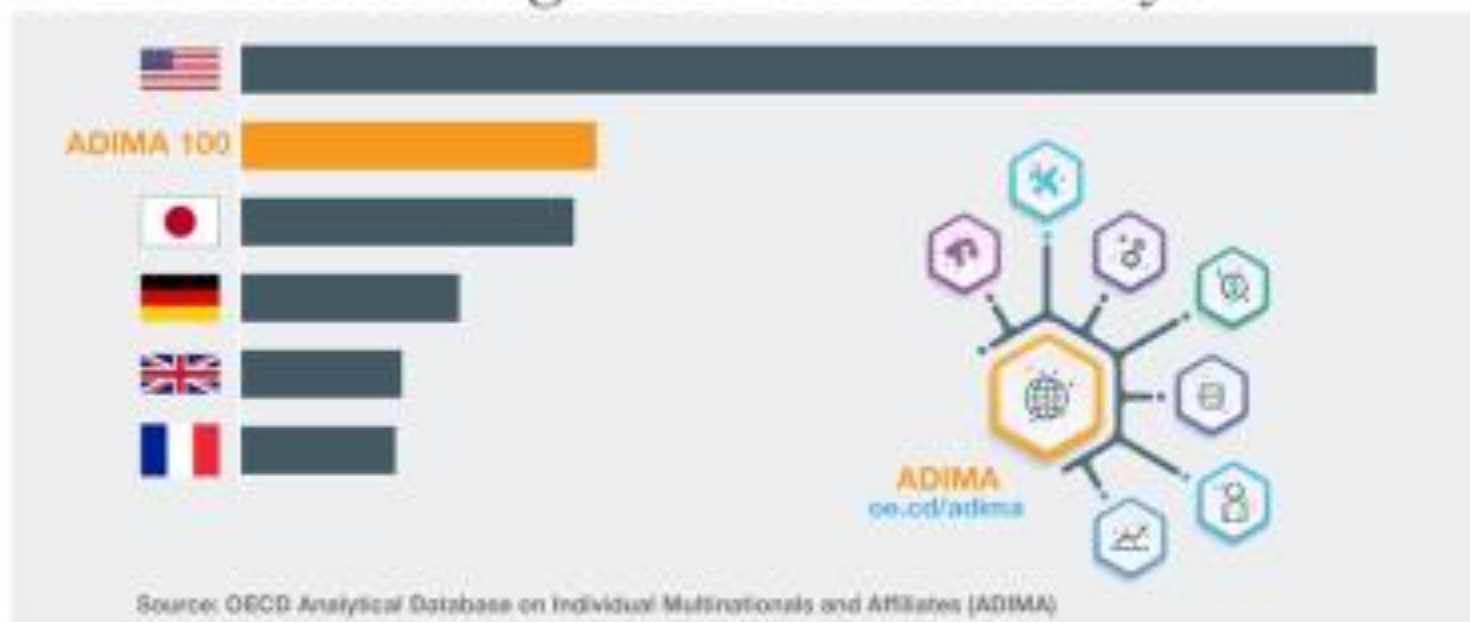
Preliminary visualization of the GGR

Part 2. Updates on ADIMA

Why is measuring MNEs of great importance?

- The revenues of the largest 100 MNEs are higher than the total output of the second largest OECD economy:

Source: OECD Analytical Database on Individual Multinationals and Affiliates (ADIMA)

- Walmart's revenues and employment numbers are comparable to those of Finland.
- There is an information asymmetry in the knowledge of Walmart in comparison to the Finnish economy.

ADIMA at a glance

- International in coverage
  - ADIMA is not bounded by jurisdiction
- Reflecting new business dynamics
  - ADIMA places digital measures and sources at the heart of the database
- Open source
  - ADIMA data can be shared without limitation, giving a platform for discussion without the danger of compromising data confidentiality restraints
- Ready for collaboration
  - ADIMA is ready to include country level data sources, implement country level validation and is looking to make system enhancements to allow users to edit data and develop a 'live' register.
- ADIMA is limited to only publically available data – some data points are therefore unavailable and full coverage cannot be assured.

Data for 500 MNEs for FY2019 includes:
- **A register of MNE affiliates:** ~145,000 Subsidiaries
  - Average of 290 per MNE (Max: >2,000; Min: 1)
  - 65% have Business Numbers, 40% have PermIDs, 20% have LEIs
- **A digital register of websites:** ~65,000 Websites
  - Average of 130 websites per MNE (Max: >1,000; Min: 0)
- **A Harmonised set of indicators**

Connections

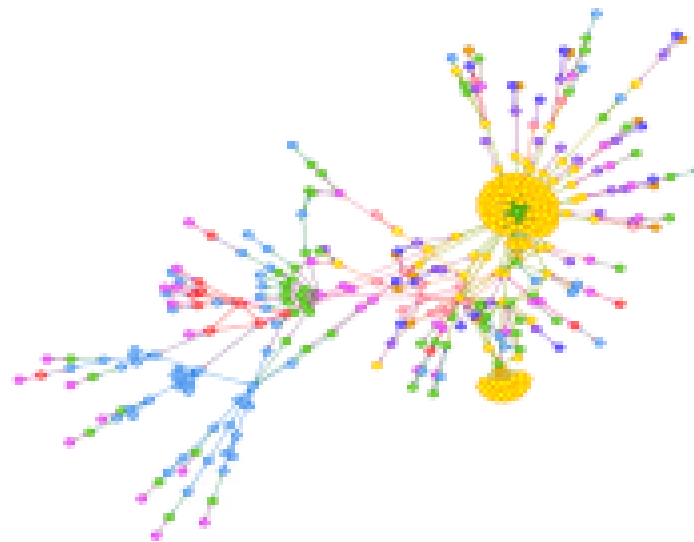Each dot in the graphic represents an identifier for the MNE and its affiliates, with different colours representing different sources. Relationships are represented by the connecting lines.
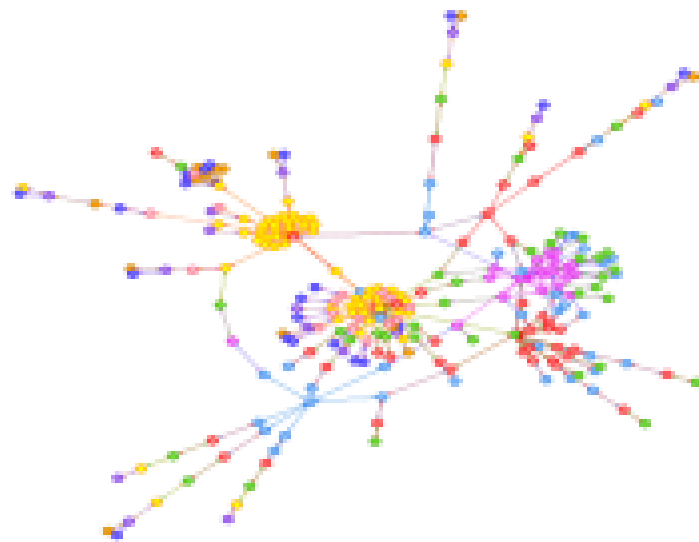
Apple Inc	Walmart Inc	Total SA
257 Identifiers	404 Identifiers	2917 Identifiers
48 Companies	91 Companies	1170 Companies
57 Websites	163 Websites	241 Websites
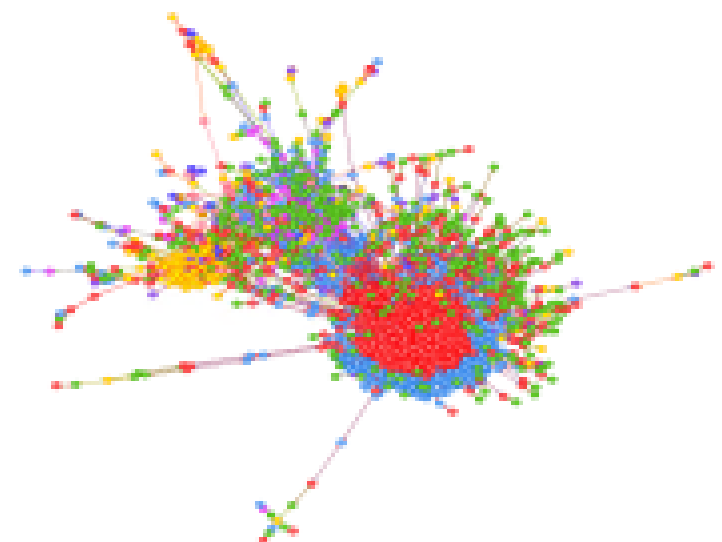
Microsoft Corp according to ADIMA 500

PHYSICAL REGISTER
80 affiliates
45 countries

DIGITAL REGISTER
172 associated websites in 41 countries
+ Measures of webpage importance

INDICATORS
61 countries
Measures of internationalisation

MONITOR
7,300 headlines analysed in 2019

Extension (1) Media Monitoring: Impacts from COVID-19

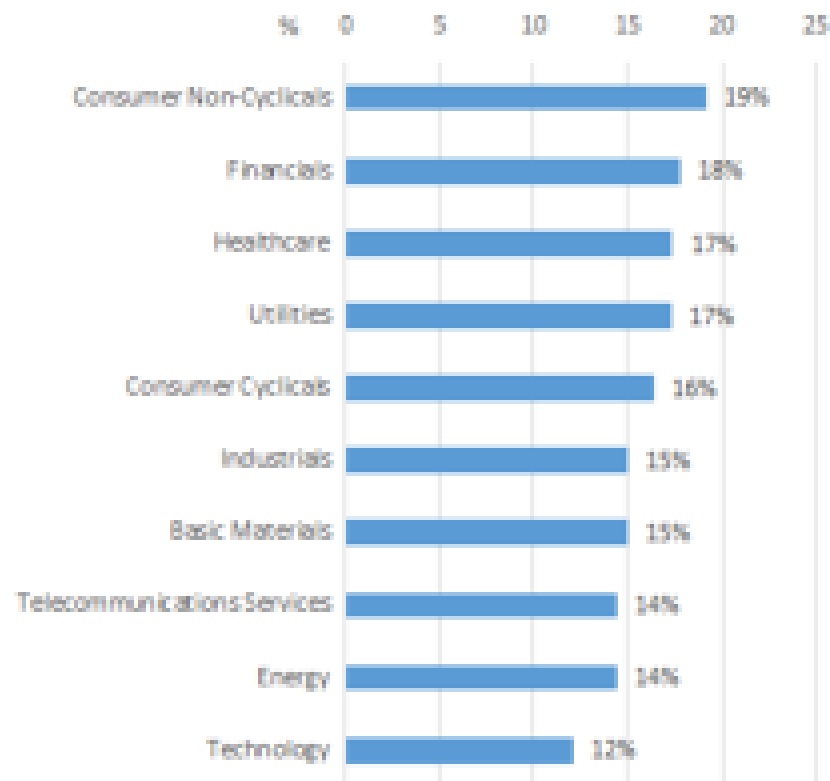- Compare Google Trends patterns per MNE to see impact of COVID-19

Extension (2) Gender Diversity

- Using additional data from PermID on individuals linked to companies can develop insights into Gender Diversity

Figure 1. Percentage of female board members by industry

Industry	%
Consumer Non-Cyclicals	19%
Financials	18%
Healthcare	17%
Utilities	17%
Consumer Cyclicals	16%
Industrials	15%
Basic Materials	15%
Telecommunications Services	14%
Energy	14%
Technology	12%

Percentage of female board members by job category

Job category	%
Independent	23%
Total	16%
Senior Leadership	7%
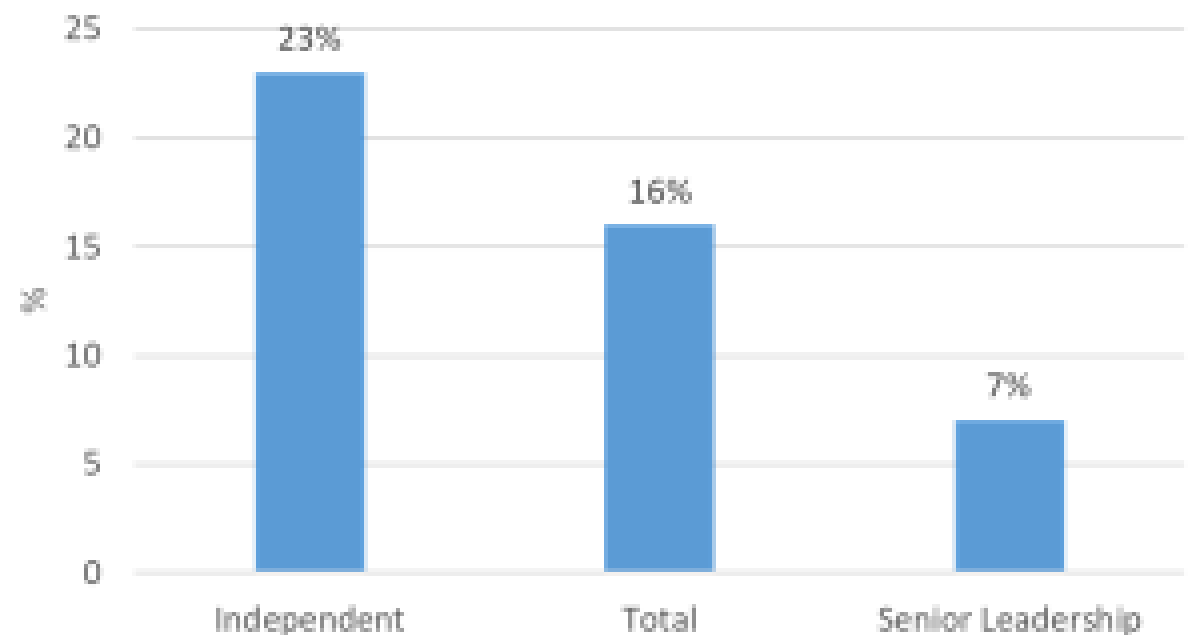
Extension (3) Geospatial

- The maps show geographic dispersion of physical retail units within Europe for two MNEs, Tesco and Carrefour. These MNEs operate in 30 and 17 countries respectively, yet only compete in Poland.
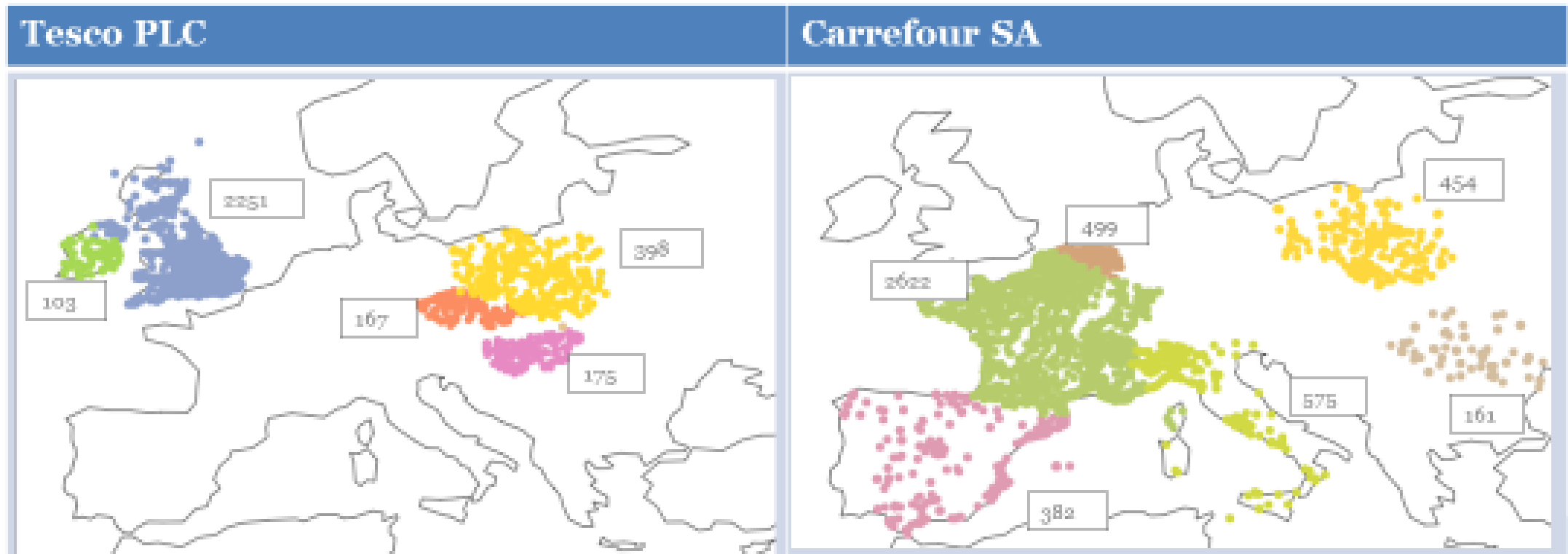
Country collaboration

- OECD encourages countries (and firms!) to validate ADIMA

- INEGI analyzed the main characteristics of the affiliates of MNE's located in Mexico according to ADIMA
  - Validate ADIMA and update national SBR.

- Use DENUE (public face of SBR) to locate MNE's affiliates according to ADIMA
  - Both products reflect the same economic units?

- INEGI was able to verify 57 of the 62 (92%) MNEs in ADIMA and 248 affiliates of the 367 affiliates (68%)
  - Data similarity tools

Collaboration with NSOs to include public data sources

- NZL Business Register
- IND Business Register
- NOR Business Register
- GBR Persons of Significant Control and Business Register
- FIN Business Register and WHOIS database of website owners
- MEX DENUE database
- BRA Business Register

Comparing GGR and ADIMA

	ADIMA	GGR
Releases	3 (FY 2017-19)	1
Coverage	500	135
Sampling method	Market capitalisation	Revenues
Average affiliates*	383	350
Average countries*	36	39
Oversight	WPTGS	UNCEBTS

* Based on 95 MNEs in both GGR and ADIMA

ADIMA Next Release:
    Nov 2021 for Financial Year 2020
    New online interface to visualise data interactively

Common Sources
Annual Reports
PermID
LEI

ADIMA
WikiData
Wikipedia
GDELT
SSL Certificates
Markup from company websites
Country business registers

GGR
Subsidiaries from Company Websites
Google

Part 3. Main elements of the UNSD-OECD collaboration on a joint GGR-ADIMA product

Similarities of GGR and ADIMA

- Similar data sources (i.e., annual reports, financial filings, GLEIF, company websites)
- Compatible methodologies in terms of identifying locations of MNE global head and affiliates
- Both can be used for profiling
- Comparable in terms of coverage, based on first assessment

Differences of GGR and ADIMA

- GGR has hierarchical relationships and detailed ownership percentages, when available
- GGR includes non-controlled affiliates
- ADIMA monitors events that could affect MNEs
- ADIMA currently has larger scope (500+ MNEs)
- ADIMA includes a Digital Register of all websites of MNEs

Lessons learned from GGR and ADIMA

- It is a **very** resource intensive exercise.

- The approaches used to build GGR and ADIMA are **similar**.

- Important to focus on a limited set of variables that are key to users

  - From initial consultation, it seems the key information is: country of location, address, relationship to the MNE group head.

  - Other relevant variables are employment, revenues, detailed addresses, digital presence, etc.

- In this respect, countries, through the UNCEBTS, can provide input into the selection of these key variables.

Collaboration between GGR and ADIMA on a joint product

- Identify same list of MNE Group Heads (i.e., determine size by revenues, market cap, global presence, composite measure)

- Agree on a common identifier for each company (in addition to the LEI when available)

- Agree on scope of the GGR (in terms of controlled/non-controlled subsidiaries, branches, state-owned enterprises)

- Agree on scope in terms of variables

- Agree on location (country of headquarters or country of legal registration)

- Continuous search for new data sources, including possibly linking to national SBRs when they are publicly available and exploring the possibility of contacting MNEs directly

- Share resources to collect and verify the data

Collaboration between GGR and ADIMA on validation

- Agree on a set of validation rules for the profiled companies

- Develop a common system for data validation by NSOs

Possible areas of future work

- UNCEBTS to provide guidance on arriving at a common global register for use by the statistical community

- Continue to explore possibilities to link to national SBRs when they are made available

- Consider linking to other datasets, such as:

  ➢ *Sustainability reporting by businesses*
  ➢ *Gender diversity of board*
  ➢ *Employment data*
  ➢ *Geospatial data*

- Explore possible collaboration with private data providers and/or MNEs

- Develop a platform on methods for profiling MNEs and training, together with UNCEBTS TTs on Exhaustive Business Registers and Capacity Building

We seek the views of the UNCEBTS of the proposed collaboration between GGR and ADIMA on a new joint product that aligns the two registers as much as possible.

We also seek the views of the UNCEBTS on the proposed future work program for further improving the global registers.

Thank you!