

Treatment of Complex Enterprises in Business Statistics

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Overview

- **What is a Complex Enterprise?**
 - Units in Business Statistics
 - Simple enterprises vs. Complex enterprises
- **How are complex enterprises created and treated?**
 - Top-down approach
 - Consolidation of internal flows
- **What are the statistical and analytical implications?**

Units in Business Statistics

1. Legal and Administrative Units

- Purpose is legal, tax, and regulatory compliance.
- Examples:
 - **Legal unit** (cvr-number in Denmark)
 - **Production unit** (p-number)
 - **Tax unit** (VAT registration)
- May not reflect actual economic activity
- Used as reporting units for statistical purposes.

2. Statistical Units

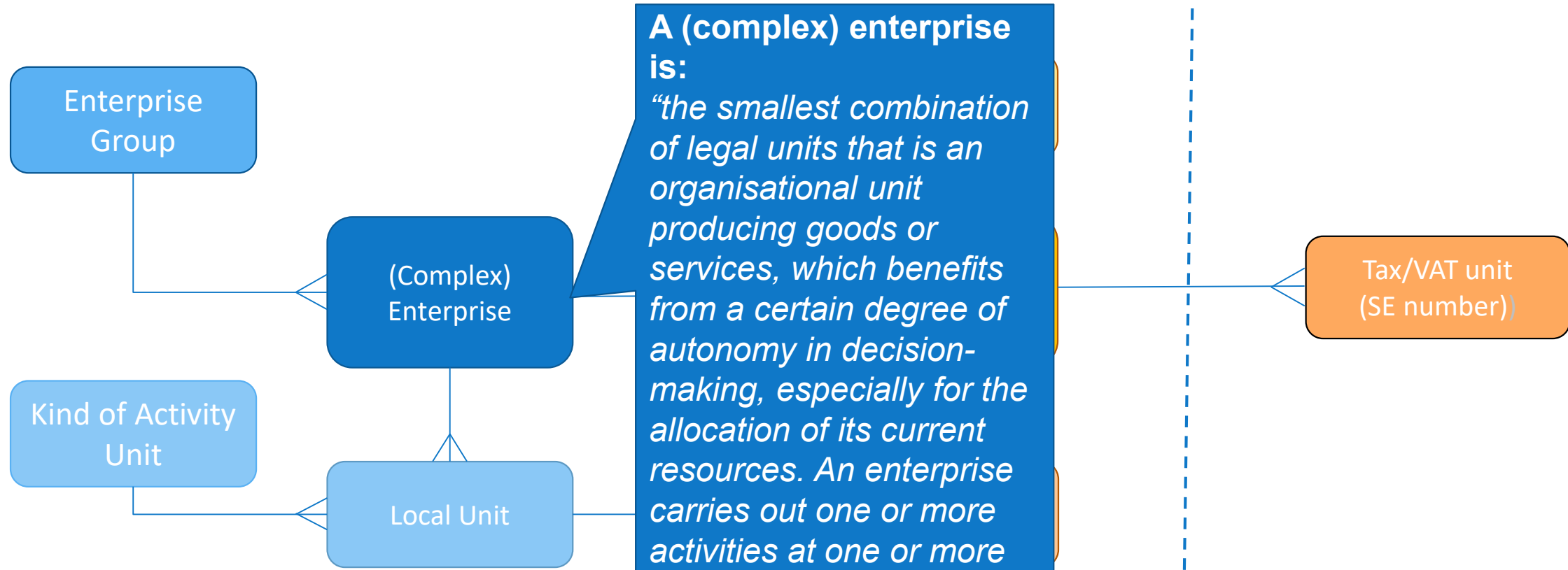
- Purpose: To measure economic activity accurately (production, employment, etc.) in official statistics.
- Four types:
 - **Enterprise group**: A set of enterprises linked by ownership and control with an ultimate owner (group head).
 - **Enterprise**: The smallest combination of legal units producing goods/services and operating as an economic entity.
 - **Local Unit**: A single location where economic activity occurs.
 - **Kind-of-Activity Unit (KAU)**: Part of an enterprise engaged in one specific activity.
- Defined by Eurostat guidelines.
- Statistical units are based on *but not equal* to legal and administrative units

The Enterprise is the backbone of Business Statistics

Table 7.1: Different types of statistical units used by domains within EBS

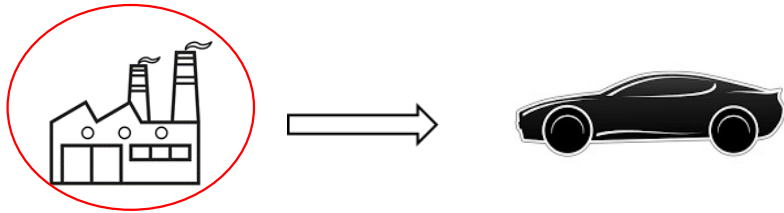
Domain	Enterprise	Enterprise group	Local unit	KAU	Legal unit
Structural business statistics	X		X		
Research and development	X				
Information and communications technology	X				
Innovation	X				
Inward and outward foreign affiliates statistics	X				
International sourcing	X				
Trade by enterprise characteristics	X				
Business demography	X				
PRODCOM				X	
Short-term statistics (except for quarterly data on bankruptcies and registrations)				X	
Short-term statistics: quarterly data on bankruptcies and registrations					X
Business registers	X	X	X	X	X

Statistical units are based on, but not equal to, administrative units

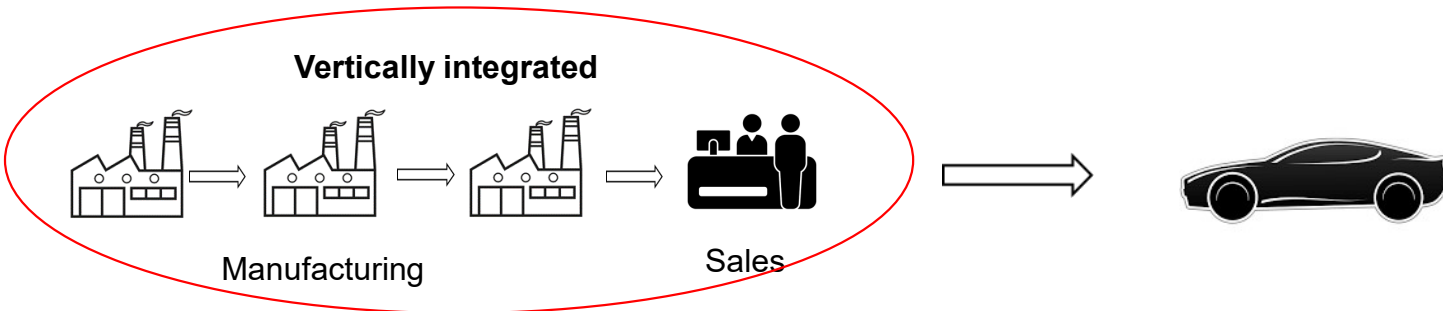
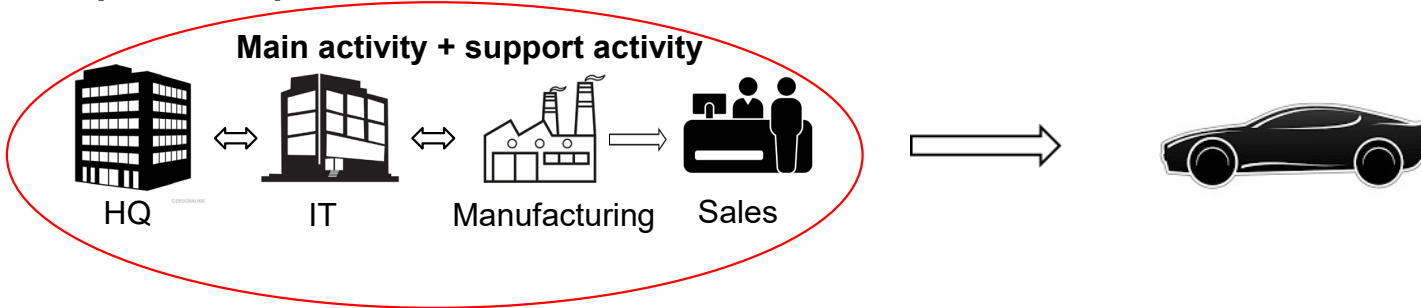


Simple enterprises vs. complex enterprises

Simple enterprise



Complex enterprises

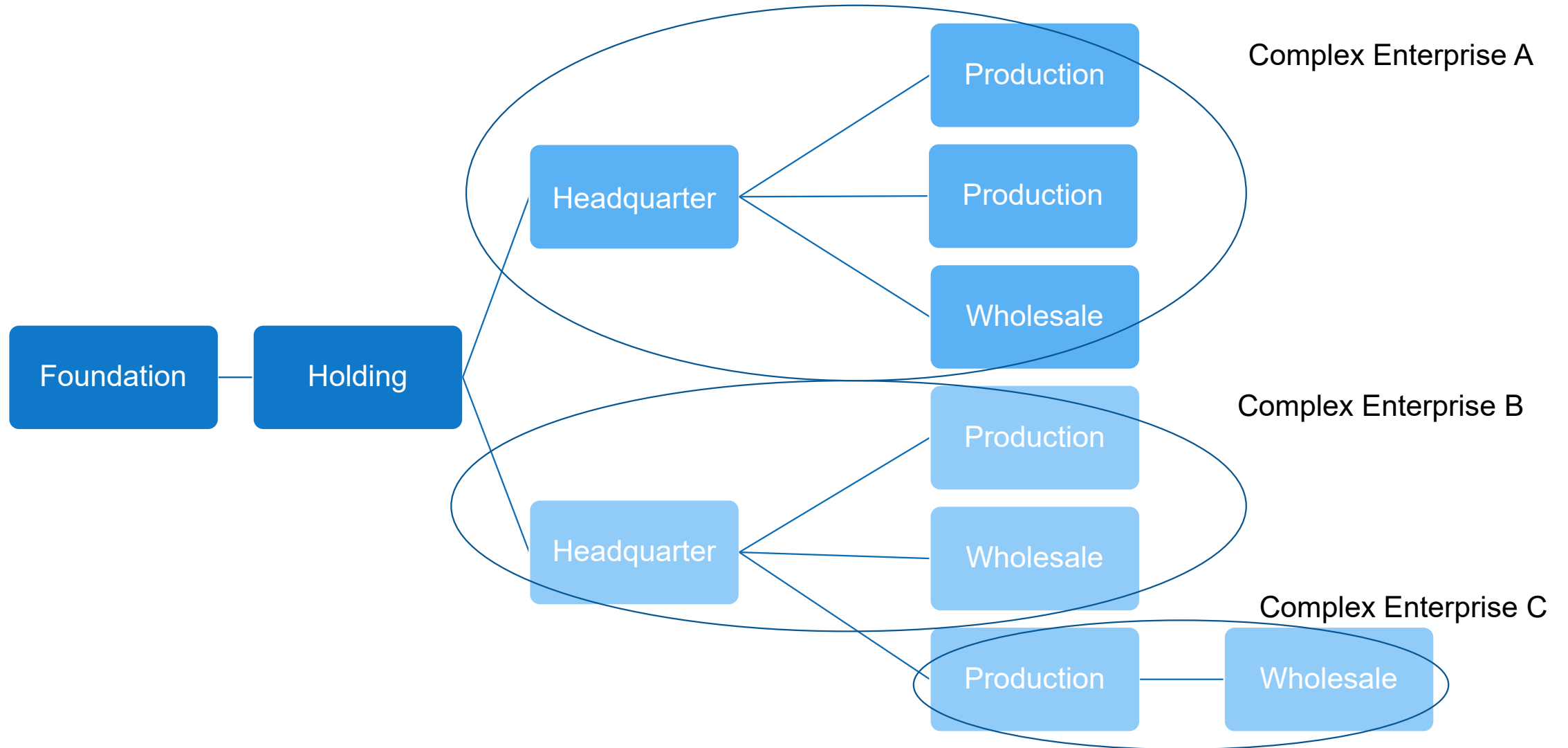


Top-down approach

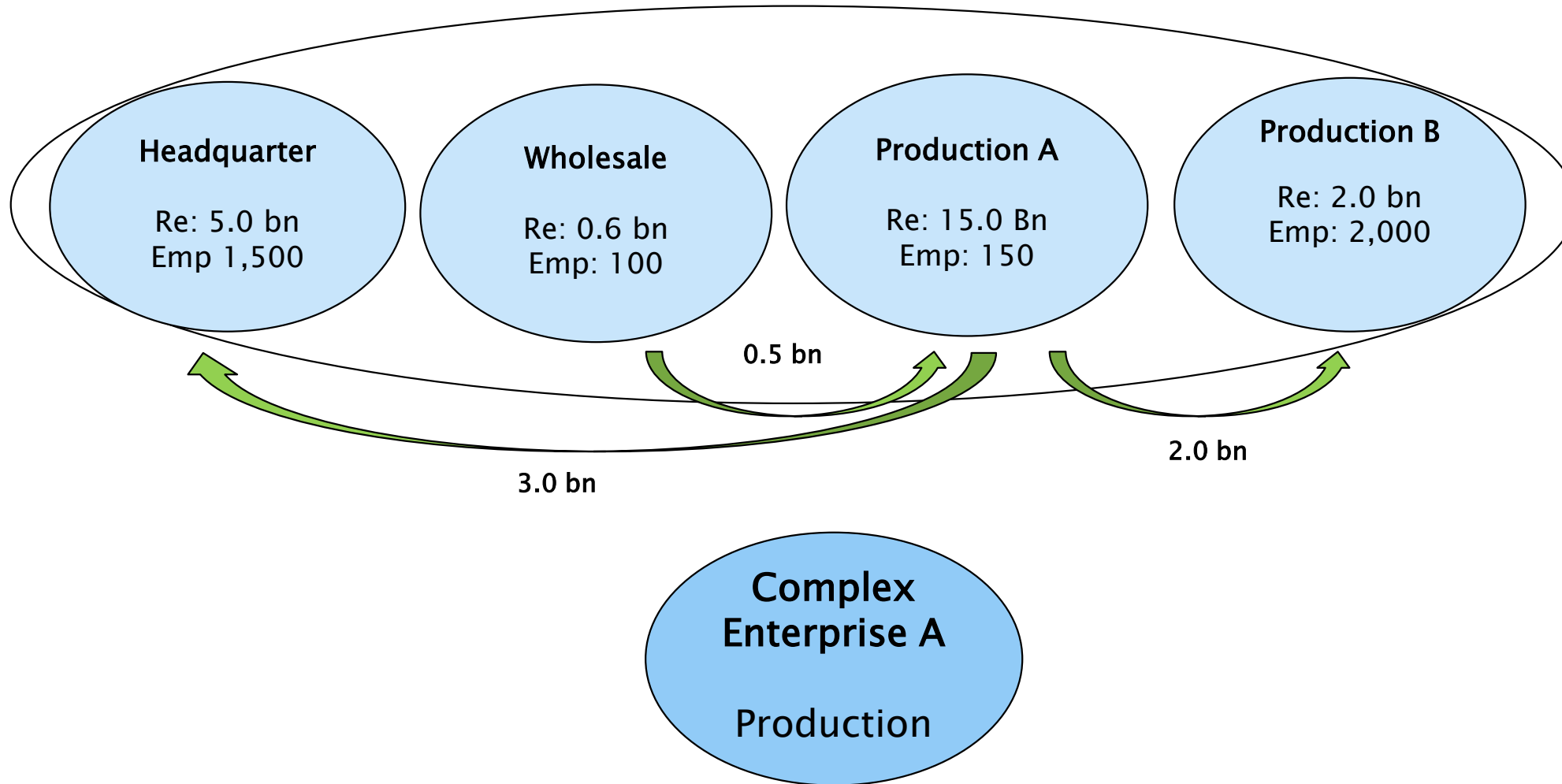
- Units with support activities cannot be considered as individual enterprises
- Their activity is consolidated into the main activity of the enterprise
- Examples of support activities:
 - Sales of own products (wholesale)
 - Transport
 - Storage and warehousing
 - IT-services
 - Administrative and management functions

Illustrative Enterprise Group

- Danish-resident legal units, control links and complex enterprises



Complex Enterprise A



Total (legal units)
Revenue: 22,6 bn
Emp: 3,750

Internal flows
Revenue: 5.5 bn

Complex enterprise
Revenue: 17.1 bn
Emp: 3,750

Complex enterprises in Danish business statistics

- Implemented in the Statistical Business Register in 2019 without back casting
- Based on the profiling of 31 large and complex enterprise groups by the Large Cases Unit (LCU)
 - That is, no automatic profiling, **only** manual “hands-on” profiling
- A total of about 40 complex enterprises consisting of about 200 legal units
 - Total population (SBS): almost 250.000 enterprises
- Total revenue of 40 complex enterprises: about DKK 1.000bn
 - Almost a fifth of total revenue in SBS
- Consolidation of revenue (elimination of internal flows): about 10%

Statistical and analytical implications

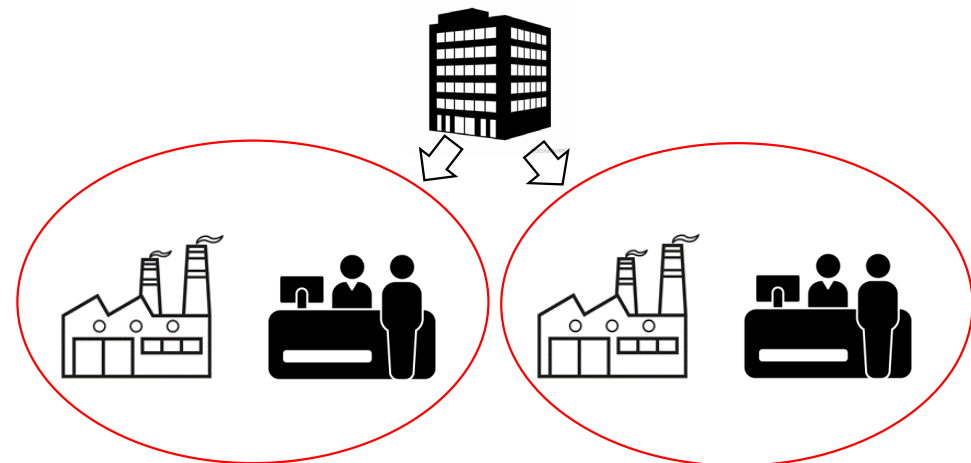
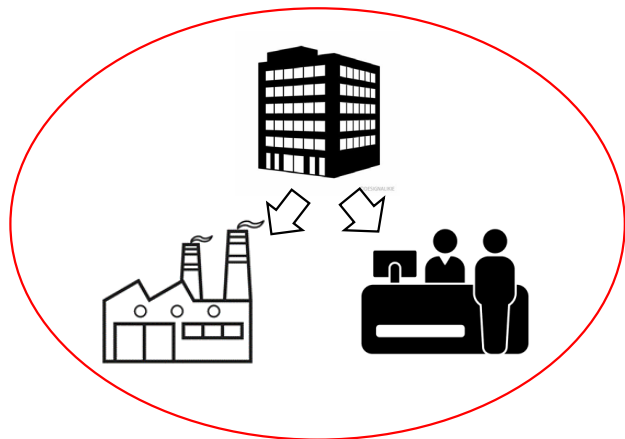
- Increases homogeneity (comparability) between complex enterprises by:
 - Consolidating support activity and units into a single statistical entity
 - Eliminating internal flows
- Thereby improving the quality of:
 - Business statistics by reflecting economic activity rather than legal complexity
 - Enterprise-level analysis (micro-data linking) by comparing “apples to apples”
- Break in time series
 - Not only caused by introduction of complex enterprises; also more active enterprises
 - Complicates time series analysis and longitudinal studies

Thank you!

What is an “enterprise”?

Enterprises and Enterprise Groups

- In an *enterprise group*, the identification of the *statistical unit enterprise* should be made on the basis of the structure and the perimeter of the enterprise group.
- Enterprise groups may organise their activities in *operating segments* with one or more legal units. These operating segments can be considered as a starting point for the identification of an enterprise inside the enterprise group.
- if an enterprise group performs its activities under a single management and operates as one organisational unit, **the Enterprise Group can be considered as one enterprise.**



Challenges from implementing the enterprise

- **Identifying an enterprise**
 - Profiling
- **Methodological Issues**
 - Data Collection
 - Data Consolidation (eliminating internal flows)
 - Breaks in time series
- **Legal Issues**
 - What is the legal framework for collecting data at unit level?
- **Technical Issues**
 - Identifiable unit in the Business Register
 - Data collection system(s)
 - Statistical Production Systems

Profiling

Definition

*“Profiling is a **method** to analyse the legal, operational and accounting **structure** of an **enterprise group** at national and world level, in order to establish the **statistical units** within that group, their links, and the most efficient structures for the collection of statistical data”*

From the Business Register Manual

Two overall types of profiling

1. Manual (Desk) Profiling

- The largest and most complex enterprise groups

2. Automatic Profiling

- Small and simple enterprise groups

Impact of Profiling and implementation of the “enterprise”

- 1. The economic structure is far more concentrated than it seemed to be with legal units**
 - Many small legal units are actually part of larger complex enterprises
- 2. Profiling changes the perception of the weight of each sector, decreasing the weight of services (including wholesaling) and increasing that of manufacturing**
 - Re-coding of ancillary (support) activities
- 3. Profiling provides a more realistic insight into how an enterprise is performing**
 - Better understanding of, for example, turnover or profit per employee

Profiling and implementation of the “enterprise” in Denmark

- Technically, the enterprise has always been a unit in the Business Register
- But almost all enterprises were equal to the legal unit, so a “fake” implementation...
- ..until 2019, when we implanted complex enterprises in the Business Register
- Why?
- Letter from Eurostat:



“...under the current SBS Regulation...Eurostat concludes that your compliance falls short of the requirements of the...legislation”

“would like ... you to ... guarantee that the correct implementation of the statistical unit "enterprise" in the domain of Structural Business Statistics is applied without any delay.”

“compliance with existing legislation is a matter of principle and the Commission is bound to take all necessary measures to ensure full compliance.”

Profiling and implementation of the “enterprise” in Denmark

- Only manual profiling of selected large enterprise groups group of large and complex enterprise groups
 - Performed by the Large Cases Unit
 - 31 Enterprise Groups are currently profiled, with
 - About 700 legal units in Denmark
 - About 7000 legal units globally
 - About 40 Complex Enterprises (consisting of about 200 legal units)

- **Units with support activities cannot be considered as individual enterprises**
- **Their activity is consolidated into the main activity**
 - **Examples of support activities:**
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Thank you!