



## Improved Consistency over Unit Types in an Integrated Business Statistics Production System

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# Outline of the Presentation

1. Finnish Business Register
  - i. A couple of necessary background facts
2. Examples of improving the consistency over unit types
  - i. Imputation of establishment level data
  - ii. Compiling local units methodologically
  - iii. Integration of enterprise group database
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# Finnish Business Register

- Main usage:
  - An important data source and a sampling frame
  - Both aggregated and micro level data is regularly delivered outside the NSI
- Main sources:
  - Effective usage of administrative data on legal unit level
  - Completed with surveys on establishment (LKAU) level
- Since 2013 Business Register is situated in an integrated platform with the central business statistics
  - Harmonised unit structures, classifications and data content
  - Main units in the production are enterprise and establishment

# Imputation of Establishment Level Data (1/2)

- To improve the quality and consistency of the establishment level data as well as to lessen the response burden on enterprises, a new imputation methodology was introduced.
  - The methodology covers Business Register, Structural Business, Financial Statement and Regional Statistics data, which serve as an input to the National Accounts.
- The idea of the method is to divide the enterprise level data to the establishments utilizing the establishment level employment as well as an industry specific co-efficient.
  - Co-efficients are compiled by a simple regression analysis utilizing information on enterprise level employment and turnover among the mono-active enterprises.

# Imputation of Establishment Level Data (2/2)

- Other information utilized in the process include e.g. the type of the establishment and in case of ancillary activities, data on ancillary NACE code.
- Variables covered by this method are e.g. turnover, the breakdown of income and expenditure as well as variables referring to current and fixed assets.
- A precondition is the establishment level employment and activity data, which are obtained from Business Register surveys.
  - In case of non-response, estimation is required
  - Establishments with zero employment; e.g. NACE 47302 *Automated retail sale of automotive fuel*

# Compiling Local Units Methodologically

- Previously a combination of manual updating and automatic procedures was utilized
  - In certain situations unnecessarily delineated local units within same address or differences in the addresses between establishments and local units existed
- Key improvements:
  - Simplification of unit structures and updating processes
  - Improved consistency over local unit population and between the establishments and local units
- Automatic delineation is based on the establishment level street address and a fixed building registry number
  - Rules need to be simple as no manual intervention is allowed
  - In practice, the street address doesn't always truly reflect or define the actual location; marginal cases not perfectly covered

# Integration of Enterprise Group Data

- Previously separately operated databases are now integrated and updating procedures harmonised
- Enterprise group data is more easily utilised as it is brought to as a part of the common software view (see below)

Tunnus	△ Tyyp	Nimi	△ Toimiala	△ Kunta	△ Toiminnan AloitusPvm	△ Toiminnan LopetusPvm	△ Osoite	△ Postinumero	△ Postitoimipaikka
▲ 1005305 (1)	Kn	KESKO EG	NACE	Municipality			Street Address	Zip	Postal location
▲ 1231672355 (1)	Yr	Kespro Oy Ent	46390						
▲ 0911917-1 (23)	Oi	Kespro Oy LeU	46390	Helsinki				00016	KESKO
502361314	Tp	TURUN TUKKU LKAU	46390	Turku			PITKÄMÄENKATU 11	20250	TURKU
502361439	Tp	LAHDEN TUKKU	46390	Lahti			ALHONKATU 4	15610	LAHTI
502361587	Tp	KUOPION TUKKU	46390	Kuopio			TEHDASKATU 14	70620	KUOPIO

- As the manual updating is still done with a separate software application, it will impose further challenges as the implementation of complex enterprise units takes place

# Publishing Data on Enterprises and Establishments (1/2)

- Previously Structural Business Statistics' and Business Register's annual publications contained partly parallel information and in certain specific situations the information was not fully consistent.
- Prior to the renewal, a total of eleven different publications according to the unit level and different industries were produced.
- In the new system, annual data on enterprises and establishments is produced and published only once
  - Two publications: i) Structural Business and Financial Statement Statistics and ii) Regional statistics on entrepreneurial activity. Both publications contain information from Business Register and SBS
- The new publication offers its users a more comprehensive and consistent picture of the enterprises and establishments population.



# Publishing Data on Enterprises and Establishments (2/2)

Establishments by region in 2013: Personnel, Turnover and Value added

Region	Establishments	Number of personnel	Turnover	Value added
01 Uusimaa	108 518	528 340	193 643	38 172
02 Varsinais-Suomi	36 819	123 380	25 976	7 229
04 Satakunta	16 910	60 260	14 540	3 887
05 Kanta-Häme	12 408	41 637	8 385	2 664
06 Pirkanmaa	33 878	131 212	29 254	7 937
07 Päijät-Häme	13 904	50 986	10 091	2 834
08 Kymenlaakso	11 455	40 423	9 295	2 602
09 South Karelia	8 992	31 414	7 811	2 393
10 Etelä-Savo	12 937	33 562	5 141	1 593
11 Pohjois-Savo	17 137	56 531	10 267	3 026
12 North Karelia	10 812	34 603	6 713	1 802
13 Central Finland	18 551	62 586	11 978	3 999
14 South Ostrobothnia	18 102	47 686	9 511	2 551
15 Ostrobothnia	14 207	50 033	12 612	3 493
16 Central Ostrobothnia	5 379	17 175	3 802	1 031
17 North Ostrobothnia	24 555	94 240	19 718	5 653
18 Kainuu	4 927	16 300	2 599	708
19 Lapland	12 312	39 677	9 986	2 713
21 Åland	2 798	9 635	2 137	616
ZZ Unknown	2 613	2 062	545	137
SS Total	387 214	1 471 743	394 003	95 041



**Thank You for Your Attention!**

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