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**THE ROLE OF THE BUSINESS REGISTER IN COORDINATING ACCOUNTING
AND OTHER ADMINISTRATIVE DATA FOR STATISTICAL USERS**

**BUSINESS REGISTER AND ADMINISTRATIVE DATA
GROUND FOR EFFECTIVE PRODUCTION OF ECONOMIC STATISTICS**

Submitted by Finland

The meeting is organised jointly with the Commission of the European Communities (Eurostat) and the Organisation for Economic Co-operation and Development (OECD)

Summary

The present paper was prepared by Statistics Finland on request from the CES Steering Group on Business Registers for presentation and discussion at the joint UNECE/Eurostat/OECD Meeting in Geneva, 18-19 June 2007. On the basis of Finnish experience, the paper brings up an issue of reusing data gathered by the public or other sectors in society in order to reduce the response burden of enterprises and to increase cost-effectiveness and coherence of statistics production.

The paper provides the basis for an in-depth discussion on identifying best practices of using various administrative data in business statistics production by integrating data collection systems.

I. INTRODUCTION

1. Finding innovative and competitive ways of reusing collected data gathered by the public or other sectors in society are essential concerns of today to reduce response burden of enterprises as well as increase cost-effectiveness and coherence of statistics production. Further important advantages from the use of register data are the possibility to offer users high quality statistics by producing detailed classifications and the ability to compile small area statistics. Register data also offers an extensive basis for revision analysis and follow-up of statistics based on directly collected data.

2. Many statistical institutes use administrative data in their statistics production. In this production model, statistical base registers form the cornerstones upon which the diversity of their statistics production rests. Statistical base registers are usually initially established with the help of administrative registers. Actual economic statistics are then produced using data from the statistical base registers, any kind of administrative sources, and from direct surveys. This model is also applied in Finland.

3. Although Business Register (BR) as a statistical base register have used administrative data since it has been grounded in 1970's, the new focus has been made on the processes: on internal use of the register as a coherent and effective ground of all economic statistics. Also the new register of enterprise respondents (founded in year 2006) uses BR as it's basic register. The new register of enterprise respondents makes it possible to gain information of different data collections. In the future this will give an opportunity to integrate some data collections, integrate data collection systems and to offer a better service of respondents taking into account all the different collection they respond to.

II. NETWORKING AND LEGISLATION - PRECONDITIONS FOR USE OF ADMINISTRATIVE DATA

4. The Statistics Act of Finland includes many constructive principles concerning the use of administrative data. First of all, the Statistics Act not only guarantees access to administrative files, but also requires that data collected in other contexts be used. The Statistics Act also stipulates that "a state authority shall be obliged to provide Statistics Finland with such data in its possession that are necessary for the production of statistics." A statistical authority is entitled to obtain the data free of charge, but data providers must be compensated in cases of releases of large volumes of diversified data. Statistics Finland compensates the direct costs of such releases. As a result, in 2005, Statistics Finland obtained 96 per cent of its data items from administrative and register sources.

5. Statistics Finland has a network of coordinators, not only for taking care of cooperation with other producers of official statistics¹, but also for looking after contacts with the most important data providers. For example, Statistics Finland organises regularly meetings with the top management of the Tax Administration and other administrative data providing bodies. The

¹ The production of official statistics is quite centralised, most of them being produced by Statistics Finland (77 per cent measured by cost). However, there are some notable partner producers of official statistics.

target of Statistics Finland is to influence quantity, coverage and quality of the data register providers collect and store in their databases.

6. Cooperation with register authorities improves the accessibility of data and the quality of statistics. Since 1997 there has been a permanent Register Board committee, which is a voluntary advisory coalition of institutions maintaining registers in Finland. It is a general committee appointed by the Ministry of the Interior for three-year period at a time and has top-level representatives from each member institution. The work of the Register Board committee focuses on the development of and cooperation between registers and prepare strategic level definitions of register policy. The target is to develop the use and usability of registers in society generally. It aims to make registers well known and uphold citizens' trust in registers. For example, once a year the Register Board has arranged a public, open doors day of registers, during which presentations of registers are given and the public have free access to check their own data.

7. The members of this coalition are register holders like Population Register Centre, the Board of Patents and Registration, the Board of Taxation, Statistics Finland, the National Land Survey of Finland, ministries, municipalities and Central Chamber of Commerce. Chief Secretary of Ministry of the Interior acts as the chair of the Board.

8. According to the Statistics Act these data obtained from administrative data providing bodies are to be used only for compilation of statistics. This is an essential element in maintaining the trust of original data suppliers. Statistics Finland settles bilateral cooperative contracts with data providers. In these bilateral contracts the exact uses of the data are specified. Statistics Finland is not entitled to transfer the administrative micro level data further to any other authorities, with certain exceptions concerning BR (see chapter VI). However Statistics Finland is entitled to use the administrative registers to different kinds of statistical studies and analysis for outside customers also.

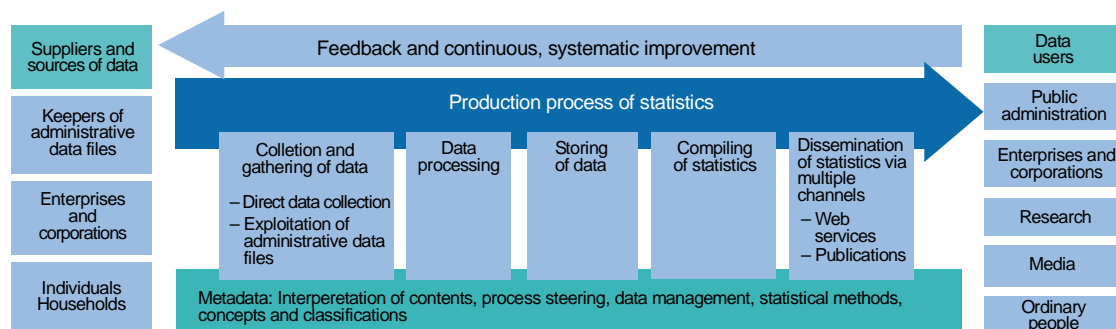
III. BUSINESS REGISTER - STATISTICAL BASE REGISTER

A. Administrative data as a part of production process of statistics in Statistics Finland

9. The production process of statistics is divided in five different phases: collection and gathering of data, data processing, storing of data, compiling of statistics and dissemination of statistics via multiple channels. Administrative data files have the main role in the collection and gathering of data, since they include 96 per cent of the data items received to Statistics Finland.

10. A fundamental concept in the use of registers is the code system, which refers to the code by which each data unit can be identified unambiguously. A general code system, such as the personal identity code and the Business ID is a key to the extensive use of administrative registers, because it enables the use of different administrative registers in an efficient way. This has also enabled many improvements in the coherence of economic statistics, for example in using the same industrial classification for individual enterprises in different statistics.

Figure 1. The production process of statistics in Statistics Finland

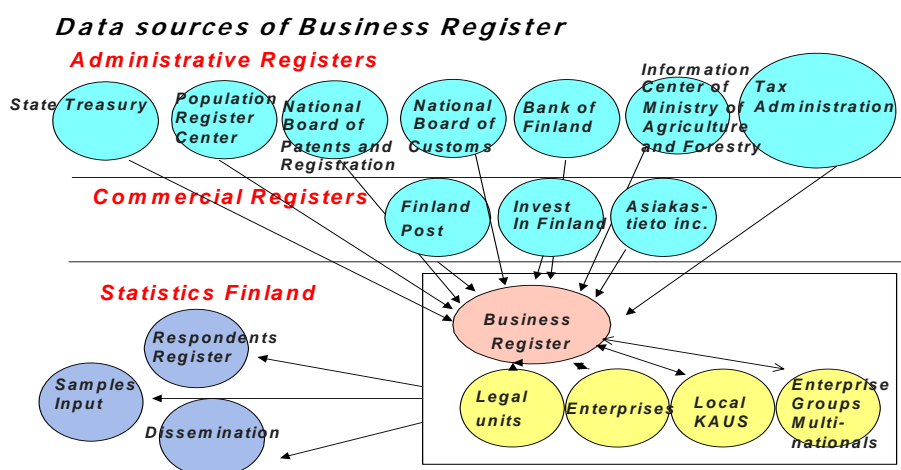


11. Statistical base registers in Finland are Population register, Register of Building and Dwellings and Business Register. In this paper the role of Business Register is researched more detailed.

B. Administrative sources of Business Register

12. Statistics Finland is responsible for statistical Business Register. It collects and combines data from many sources, as well as data concerning small business units and local kind of activity units (KAUs) and increasingly also data on enterprise groups and even multinational enterprise groups. The data sources of the Business Register are administrative, commercial and survey data. The legal register, called Business Information System takes care of registration of legal units and their business numbers. The tax administration and The National Board of Patents and Registration are jointly responsible of this legal register.

Figure 2. Register data sources of Business Register



Administrative data sources:

REGISTER PROVIDER	CONTENTS	PERIODICITY
Tax administration	Customer register of Tax administration	monthly
Tax administration	Business taxation data file (accounting data)	- data on accounting period - several updates following data accumulation
Tax administration	Primary producers taxation data file	annual
Tax administration	VAT and PAYE data ²	monthly
Tax administration	Data on annual wages (annual PAYE register)	annual
Tax administration	Data on owners and partnership members	annual
National Board of Customs	Data on foreign trade and intrastat system	annual
National Board of Patents and Registration	Trade Register, mergers, Annual reports	every second month
Population Register Centre	Register of Buildings and Dwellings	annual
Bank of Finland	Direct investments	annual
State Treasury	Employment, central government	annual
Local Government Pensions Institution	Employment, local government	annual
Information Centre of the Ministry of Agriculture and Forestry	Farm register ('sister register' for BR)	annual

Commercial data sources:

REGISTER PROVIDER	CONTENTS	PERIODICITY
Post of Finland	Address Register File of company addresses	twice a year every second month
Invest in Finland	Foreign ownership	annual
Suomen Asiakastieto	Consolidated financial statements	annual

13. Business Register should be a tool of mobilising administrative data for use in statistical production. As the above list of several different files and registers shows this principle is quite well made to reality in Finnish Business Register. BR condenses mass of data available for statistical processes.

14. A remarkable advantage here is that Business ID is widely in use in various registers and data sources, which allows effective update and connecting separate data files. A general business number has been in use in Finland already for a long time. Since the year 2001 there has been a special law on Business Information system and a unique Business ID³ in Finland.

² VAT = Value added tax; PAYE = pay as you earn.

³ The Business ID is officially given when the new legal unit registers itself first time in Business Information (BI) system. Basic data of BI-system is available to everybody in the Internet address (<http://www.ytj.fi/>).

15. The basic timeliness of BR is monthly since the starting legal units and also some size variables are updated from administrative sources into BR on monthly basis. Parallel to administrative sources BR also applies direct data collection. Business register addresses a survey annually to all enterprises with several local KAUs, while other special surveys are addressed to partly changing samples of target subgroup population. On average, 8 per cent of the enterprises and 13 per cent of the local KAUs are surveyed by the BR's own surveys every year.

16. The main target of the BR surveys of is to maintain business structures and collect data on local KAUs. Local KAU is not an administrative unit and there are no administrative sources available for data on local KAUs. Further important tasks of the surveys are to check changes of industry as well as changes of location, ownership, take-overs, etc. BR and regional employment statistics carry out a common survey among multi-local KAU enterprises, which should be reasonable, when considered the matter from respondent's side (see also chapter IV).

17. In order to ease response burden Statistics Finland has established a tool to use Internet in answering to its surveys. This tool has been planned and made as an in house application of Statistics Finland (system is called XCola). In 2006, web-based electronic responding became possible in data collections from enterprises and corporations. Also the first steps to receive automatically data from enterprise bookkeeping system has been taken. In addition, many other register keepers in administration apply also electronic data collection.

18. Recently Business Register has expanded to cover the rest of "Nomenclature générale des activités économiques dans les Communautés européennes" (NACE) sections A and B. Following that the primary producers taxation data file was included as a new data source for BR. It offers revenue data for farming enterprises. The Information Centre of the Ministry of Agriculture and Forestry has for its own use the Farm Register. It is relevant to establish a link between Farm register and BR so that the economic register of operating farmers and more production aimed farm register and their data can be jointly used when needed.

19. The new datasets are tax administrations' data files on owners and partnership members. BR receives that data for the first time spring 2007. It gives BR a good basis to improve the quality and coverage of employment variable concerning entrepreneurs.

20. Business register has gradually increased coverage on enterprise groups data. Main data source has been annual reports. Partly these data have been received electronically via private data provider, who saves them and partly by BR own manual updating work. Enterprise groups data often concerns data on multinationals and there are new challenges in the field of globalisation (Foreign Affiliates Trade Statistics (FATS), EuroGroups-register, BR regulation). There has been cooperation for data collection between BR and FATS statistics.

21. Data on owners and ownership shares of limited companies have been recorded in tax files since 2006 and we look forward to have these data very useful for updating enterprise groups and financial links between companies.

IV. LINKING ADMINISTRATIVE AND SURVEY DATA: SOME EXAMPLES

A. Structural Business Statistics (SBS)

22. SBS are produced as a combination of surveyed and administrative data, covering all branches of industry. The data sources for SBS are:

- (a) The Business Taxation File of the Tax Administration;
- (b) Direct surveys;
- (c) The Business Register.

23. The Business Register feeds the SBS database with the frame on business population, data on employment and on classifications relating to industry, legal form, ownership, Sector 2000, regional classifications, and starting and closing dates. The Business Taxation File contains standardised data following financial statement, covering items from the profit and loss accounts and balance sheets of all relevant enterprises in Finland. The SBS Direct Survey covers the largest enterprises in each branch of industry, the usual cut-off size for inclusion being 20 persons employed. The survey produces more detailed data on the variables that are missing from the tax data. To produce the final statistics these data are brought together.

24. Unit non-response imputation and item non-response imputation are used, whereby tax data are combined with Business Register data and survey data. The main method used is regression model.

25. Tax Administration and Statistics Finland cooperate in data collection, which covers:

- (a) Standardised data content;
- (b) Joint data collection and possibility to use networks.

26. For the needs of both authorities, the concepts and data contents are standardised as far as same variables are concerned. The respondents obviously benefit from this. Additionally, tax offices also post Statistics Finland's questionnaires to the large companies at the same time as they send their tax forms. The respondents return their reports direct to both authorities. Statistics Finland as well as and Tax Administration are ready to receive the data electronically via networks. The tax offices save their data and accumulated data are transferred to Statistics Finland six times a year.

27. This system benefits all participants. Response burden is reduced, modern data transfer is available for companies, data come to administrative bodies faster and Statistics Finland has found that the quality of the saved tax data has improved. Regarding the use of Business Register, the relationship of Business Register and SBS has been compressed. Work has been done to use exact same industry code for units - which means, that the industry code is used directly from Business Register. In case of different information coming from the direct data collection for the SBS, the information is passed forward to Business Register. The use of same classification in different statistics is the basis for the production of coherent statistics.

B. Short Term Business Statistics

28. The production of fast Short Term Business Statistics (STS) is primarily dependent on administrative data. However, survey data and Business Register data are also needed. The STS referred to here cover monthly statistics on turnover and gross wages and salaries in manufacturing, construction, retail and wholesale trade and other services. The data sources for the STS are:

- (a) The monthly VAT and PAYE data file of the Tax Administration;
- (b) Direct surveys;
- (c) The Business Register.

29. The monthly VAT and PAYE data originate from the companies' own monthly payments (to banks) and declarations (to tax offices) of those liable for them. The data come to Statistics Fin-land once a month and each data release covers 6 months. The delay with data on gross wages and salaries is one month and that with data on VAT on sales 2 months.

30. There is a direct data collection supplementing the monthly administrative data. The survey is addressed to the largest enterprises in each branch of industry. It is needed to follow up the development of monthly sales broken down by main activity and to confirm that the most essential data are received fast enough, including data on mergers. The preliminary figures of turnover are produced from the sample data. The VAT-data (having total coverage of units) is used as a timely estimate to the punctuality of the preliminary release. This has also given a possibility to optimise the sample size (2000 enterprises from industry, construction, trade and other services) in order to restrict the response burden without making a sacrifice in data quality.

31. The Business Register contribution covers classification variables, the most essential of these being the industry code. During the production of short-term statistics a lot of new information for example about mergers and changes in enterprises are obtained. This information received is also supplied to Business Register in order to fast update the register. A very intensive cooperation is needed among statistics in updating data both on Business Register and in other economic statistics. Cooperation improves quality and coherence in economic statistics.

C. Regional Short Term Business Statistics

32. Regional Short Term Business Statistics are based on Business Registers information on establishments. Business Register is used in Regional Short Term Business Statistics as a tool for converting data from state territory to different regions, for example municipalities and provinces. The monthly data on turnover and wages and salaries of enterprises are collected on an enterprise level. This data on enterprise level is distributed into different regions by using the newest data on turnover and employees of establishments. For example, if an enterprise has 3 establishments in 3 municipalities, and regional short-term statistics are produced of one municipality, the monthly turnover of an enterprise is distributed to the municipality in question by taking the proportion of that establishment in the municipality.

D. The Business Register and Regional Employment Statistics

33. Regional Employment Statistics is an annually produced part of Population Census Statistics. Regional Employment Statistics cover data on population, age, gender, occupation, educational degrees and qualifications, employment, unemployment, branch of industry, socio-economic group, income, family relations, dwellings, etc. Data on individual persons concerning these variables are available in administrative files and can be combined by virtue of personal ID codes. When compiling the entire statistics one needs also data on employers and enterprises. So, additional links needed are:

- (a) Employer, enterprise – employed person;
- (b) Employer, enterprise – local KAU – employed person.

34. Links between employers and individual employed persons exist in pension insurance files, as well as in tax files, namely in the PAYE data. The regional dimension (this means link between employed person and her working place) is also needed. This link is achieved by cooperation of Business Register and Regional Employment Statistics. The BR survey of enterprises with several local KAUs is a joint survey, in which the Business Register collects data on enterprises and local KAUs, and Regional Employment Statistics collect the work place of each employed person, thus forming the local KAU – employed person link.

35. The outcome of this work is valuable since linking the person data to employer data makes it possible to produce business sector statistics connecting with employed persons' characteristics and vice versa the population statistics connecting with employers background features.

V. REGISTER OF ENTERPRISE RESPONDENTS - ENLARGEMENT OF BUSINESS REGISTER

36. To diminish the burden of respondent the use of administrative data in BR and in economic statistics has been in a main focus. According to the strategy of Statistics Finland also development of relationship of enterprise respondents lays on BR. The register of enterprise respondents includes among others Business ID data, name of enterprise and name of contact person of enterprise.

37. Statistics Finland has approximately 60 separate enterprise data collections that are described in the Internet pages http://tilastokeskus.fi/keruu/yritys_en.html. Those data collections are based mainly on samples of BR. Samples are gathered by each statistical system to Register of enterprise respondents where each of the enterprises can find out their burden of response, to how many inquiries they belong and when those inquiries take place.

38. The register was established in 2006. First results from year 2006 are as follows:

- (a) Enterprise respondents covers 46 000 enterprises, which is 19 per cent of all Finnish enterprises;
- (b) 65 per cent of enterprises got one inquiry;

- (c) 98 per cent of enterprises that employ over 250 persons, got at least one inquiry;
- (d) 5 enterprises answered to more than 20 inquiries;
- (e) biggest amount of different sheets to one enterprise was nearly 300.

39. Register of enterprise respondents is located in Business Register unit and operates as inner service register of statistics. In the near future the register will give gains also to respondents when they get information in advance of the inquiries they are picked up. The new register of enterprise respondents and its' utilisation brings many challenges and is a part of a program of developing business data collection. There are strategic goals to develop respondent relations by better service and knowledge of data collection that respondent participates in. This should lead to the integration of some individual data collections and to diminishing response burden.

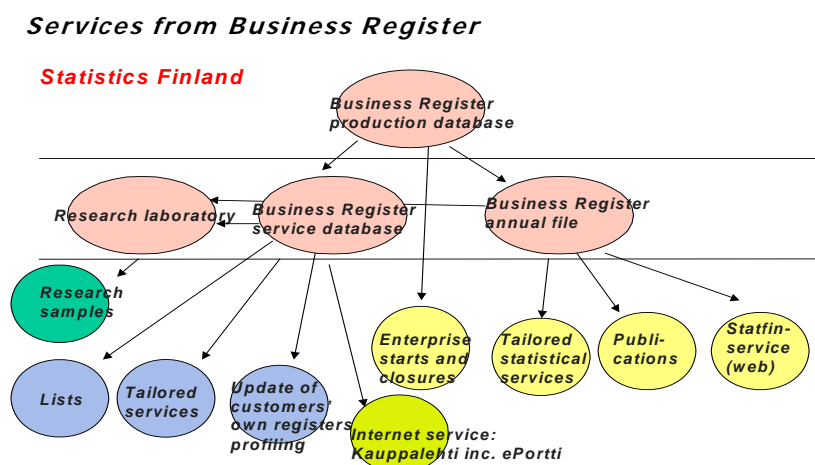
VI. DISSEMINATION

40. According to the Statistics Act (280/2004, Section 18) data concerning Business Register is public concerning the variables:

- (a) Business identity code and its validity period, legal form, name, industry, language code, municipality of domicile and public address, as well as other public contact information;
- (b) Type of owner;
- (c) Location and establishments of activity;
- (d) Size category of turnover;
- (e) Total number of personnel and number of personnel by municipality;
- (f) Engagement in foreign trade;
- (g) Liability to pay value added tax, activity as employer and registration in preliminary tax withholding register;
- (h) In respect of enterprise groups, group relationships.

41. The dissemination comprises the provision of both fee-based and non-fee-based statistical products, the analysis of customer information needs and guidance to customers in how to find the right sources of information. In respect of establishments, the data on establishment code, duration of operation, name, industry, location, public address and other public contact information as well as the size category of personnel are also public.

Figure 3. Services from Business Register



42. Analysis of customers' and other end-users' information needs is of major significance both at the stage of planning data collection and in marketing aimed at promoting the use of end-products. Compiled business surveys are available for researchers after written procedure from Research laboratory and special compilations are offered to the users.

43. Services that are based on Business Register or administrative data used in economic statistics are diversified and very demanded. In 2006 Business Register was the biggest chargeable product measured in Euro in Statistics Finland.

VII. STRATEGIC GOALS OF BUSINESS REGISTER - GROUND FOR EFFECTIVE PRODUCTION OF ECONOMIC STATISTICS

44. Business Register faces many strategic challenges brought by globalisation: its statistical description and processing of the effects of globalisation. The international cooperation around multinational corporations is needed. By battling the problems of globalisation in Business Register, some of the work in other economic statistics will be saved.

45. In Statistics Finland Business Register is seen as one of the strategic means in improving coherence. In formulating the new strategy for economic statistics, it will be proposed that the role and use of Business Register be strengthened further by increasing the compatibility of the production systems of all enterprise statistics. The use of Business Register as a frame will be a necessity in every enterprise statistics. By using the same classification for same units, the problems of coherence will diminish. This includes also the need to improve the collection and processing of data on the largest enterprises, which is another great means to improve coherence.

46. The strengthening of Business Register as a frame in every business statistics, will increase efficiency of production. It is more obvious that Business Register is a solid ground for effective production of economic statistics. It should be the direct source of basic information on enterprises and establishments. It's main advantages lay on processes and quality questions. Inside Statistics Finland common frame of BR brings coherence to statistics, gains in costs (smaller samples, workflow synergy) and makes processes more effective. Cooperation with administrative data providers brings quality control of administrative sources as well as decrease of response burden of enterprises.

47. One of the strategic goals is to enlarge the scope of Business Register, by introducing new industrial sectors and also by introducing possible new variables needed in economic statistics. These new variables may come from databases of other business statistics or to supplement direct data collection from other business statistics. There may be a need to increase the amount of basic information on enterprises in BR for example to the use of regional statistics.

48. The more further strategic goal is to create a more real time Business Register with interactive nature inside Statistics Finland. Interactivity means that, new procedures in updating Business Register with the newest information from the production of other economic statistics are needed and some have already been made in recent years. Many achievements have been made during last few years in updating Business Register almost in real time. Infra-annual updates of administrative registers have been increased, which serves the efficiency of production of all enterprise statistics.

VIII. CONCLUSIONS

49. Administrative data has several advantages in the production of BR and economic statistics. It improves production processes and quality of statistics, increases cost-effectiveness, also in inner processes and as it enhances coverage of data at the same time it decreases response burden of enterprises. It has been also significant that the use of administrative data in BR has given a solid ground for development of new statistical needs and improvement of respondent service and dissemination.

50. Enlargement of Business Register towards extensive, up-to-date and more detailed register is based on administrative data. Growing interaction between economic statistics in updating and using Business Register also enhances the effects of administrative data. Also international data exchange concerning BR and international consolidated corporation presumes administrative data sources and is essential for the quality of all economic statistics facing globalisation.

51. A solid, high-level cooperation is needed to ensure development on this area. This development work has direct effects in response burden. In Statistics Finland Business Register is seen as one of the major means in improving coherence and efficiency.

52. Since the users of economic statistics claim that almost most important use of economic statistics is the international comparison of countries also among national users of statistics, the challenge of cooperation is very much international.

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