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National working papers

on

pilot applications (DCPS) in eight European countries

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National Working Paper

AUSTRIA

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1.1 Fab4minds – BioStockManager® (BSM)

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fab4minds Informationtechnology GmbH is a private consulting and information technology company which specialises in developing software systems in the area of traceability and quality assurance for agricultural products. Since its foundation in 2000 fab4minds has developed different traceability and quality assurance systems such as BioStockManger®, FoodRessourceManager® and AgrarCertification-Manager®. The idea behind the different systems is to provide very flexible and easily manageable software tools for market partners along the whole supply chain with the aim of achieving a traceable analysis of the flow of goods as well as quality. Although the company has no specific competence in the collection of statistical data itself (only in the development of software tools for easier data collection), the development of traceability systems implies automatically looking into the use of the collected data for statistical purposes. In this respect the company has developed strong relationships with producers, certification bodies (as the main suppliers of data), administrative offices (Agrarmarkt Austria, Österreichische Agentur für Bio Getreide), depositories, manufacturers and, last but not least, retailers. The data collected at the moment are used for (company) internal documentation and TQM rather than for (publicly available) statistical purposes.

BioStockManger® is a fully web-based traceability system used for the organic grain market in Austria. The system is designed to combine two different data collection approaches, namely traceability data on the one hand and data on quality assurance on the other. The idea behind this is to get a more detailed picture of the flow of goods along the whole supply chain. The system, which has been in use since the year 2000, is fed with information from various market partners along the supply chain, so to say from farm to fork, by using customised software tools for data input and analysis. Over 130,000 tons of organic grain was traded through the system with more than 2500 producers and 100 partners (in Austria, Germany, Italy and Switzerland).

For statistical purposes quality assurance control data (consistent certification process, integration of laboratory results, etc,) are not primarily relevant; the main focus from a statistical perspective is the traceability of the flow of goods from the producer to the consumer.

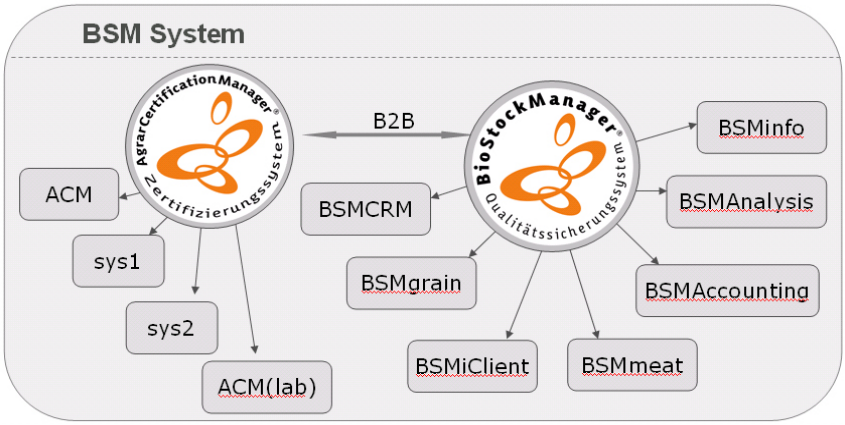
For the organic grain market in Austria first of all it was seen necessary to develop a central certification database, in order to enable different certification bodies to transfer certification data into and out of the system. At the moment, Agrar-CertificationManager® (ACM) offers an open web-service based interface within the major certification bodies, which enables them to provide their data for the BSM as

well as for other authorised institutions. For those inspection bodies, unable to provide an IT interface to the AgrarCertificationManager® (ACM), a B2C solution (low cost version) is available. This B2C solution enables the transmission of the necessary data over the internet. The information fed into the BSM enables automatic calculation of the maximum amount of corn the farmer can sell, which is necessary to prohibit some fraud at the outset. During harvest time the corn is transported to the depository warehouse, where the delivered amount is directly communicated into the BSM system through interfaces with the weighing platforms. Each single delivery (farmer, product group and amount/weight) is exactly allocated to the respective farmer by coding it with a special charge number and an EAN Barcode. After quality analysis in the laboratory the respective charge is released for transport and processing. Stock removal at the warehouse and rolling in at the processors is also documented via EAN Barcodes and automatically communicated to the BSM system. The same procedure is used for every step within the supply chain, up to when the final product reaches the consumer. At the end of the process the consumer (as well as authorised administrative offices or certification bodies) have the opportunity to get a detailed overview of the product along the supply chain. As the first real "traceability" web portal, consumers of "jaNatürlich" products (www.janatuerlich.at) are able to trace back the origin of the product from "farm to fork" by using the EAN Code of the product.

The fundamental new approach to data collection in this system is that data are available exactly from transmission into the system, which means in "real time". The data collection is also combined and/or integrated with recording which is already necessary and functions almost automatically, which reduces the additional administrative workload for data collection and reporting activities enormously.

For data analysis (on the production and processing level) this means, that collection, processing and publication of data are done at the same time. Therefore, for example, a special website was installed (www.biostockmanager.at), where it is possible to have a look at different corn stocks of various warehouses and processors.

Figure 1. Functioning of BioStockManager® (BSM)



In respect to the data quality, in general the DCPS shows very detailed and structured data on farm level, processor level, import and export level and to some extent for the wholesaler or retailer level. The data collection methodology provides a permanent full census in real time via online registration of certification data, delivered quantities, warehouse stocks as well as imports and exports. Although the system at the moment is only in use for the Austrian grain market, in theory it can be made available for other product groups.

The following rough expert estimation of the data quality of the DCPS (as defined by Eurostat 2003) was made by the interviewed partners.

Table 1: Data quality

Relevance	Accuracy	Timeliness and punctuality	Accessibility and clarity	Comparability	Coherence
The DCPS meets the current user needs satisfactory; statistical concepts and methods are sufficient.	Due to the full census methodology data collected show excellent accuracy	Due to "real time" collection and processing data quality in this case is excellent.	Accessibility of data is restricted to authorised persons and institutions. As for clarity the DCPS is adequate.	Regarding official statistics the DCPS has to improve its comparability e.g. in the nomenclature.	So far there is too little experience to make an assessment.

SWOT Analysis

	Strengths	**Weaknesses**
Facilitation of data collection and processing	- **"**Real time" acquisition of data: concurrence of data input and data analysis - Improvement of an already existing data collection processes not implementation of a new system - Automatic data input in line with (anyway necessary) administrative recordings - Standardised data input mask - User-friendliness and simple usability concerning data input	Experience shows, that the harmonisation of certification standards (e.g. nomenclature of products in different countries) is a drawn-out process
Data quality	<u>Product Flow Traceability:</u> Data from "farm to fork" <u>Timeliness and Punctuality</u>: Immediate availability of data	<u>Comparability:</u> different Nomenclature in relation to (national or international) other DCPS .
Legislative issues	clearly defined data access rights	no clear (legal) conditions for data usage for statistical purposes
Administrative issues	▪ Reduction of (anyway necessary) administrative workload ▪ Simplification through automatic, IT-supported electronic recording of data.	Costs for training of staff Costs for additional hardware and software

Cooperation with data providers	Active cooperation with administrative offices (Agrarmarkt Austria) and other authorised authorities	At the moment there is no (public) statistical usage of the data.
Cooperation with national / international statistical offices		None
Costs	Savings through the reduction of administrative workload exceed additional costs for e.g. software licence and staff training	Costs for data collection processing as well as making data available for statistical purposes have to be covered by the public (respectively public authorities and other users)
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Technical solutions for dealing with different nomenclatures; there already exist technical solutions for handling different certification standards in one DCPS although agreement in principle has still to be aimed at by the certification bodies themselves supported by clear legal frameworks. ▪ "Real time" data collection and processing as well as exact assessment of the respective volumes provide excellent accuracy and timeliness of the data ▪ Certification bodies can combine administrative data collection and statistical data collection – reduced costs for data collection	
What is new in comparison to systems used so far?	▪ " real time" data collection and processing ▪ one system is used for data collection along the whole supply chain (covering different data levels e.g. farm level, processor level, import-expert level	
Can the system be used for data harmonisation?	The DCPS is already harmonising data input from certification bodies (farm level, import, export) as well as from processors, but only for one product group (organic grain). For national harmonisation of the DCPS all control bodies as well as all processors would have to be integrated, which, without an adequate legal framework seems to be quite difficult. With reference to the weaknesses identified above, from a technical perspective the system can be used for national and international harmonisation of data.	
Relevance / applicability for international implementation	According to the European Action plan for organic farming, where it is clearly stated that the current DCPS on organic farming have to be improved, the case study provides a low cost possibility to combine a Total Quality Management approach with the collection of statistical data.	
	Threads	
Identification of critical points, barriers,	▪ National/International unification of product nomenclature ▪ Increasing volume of data ▪ Administration of access authority	

problems	▪ Publication of data (data security) ▪ Costs for implementation ▪ Willingness of market partners to implement a total quality management system (data security, company secrets)
Proposed Solutions	▪ Professional IT infrastructure (powerful database, know how in database optimisation, etc.) ▪ Complete security concept ▪ Awareness of quality assurance and traceability & advantages of DCPS (better risk management, more transparency, etc.)
Relevance / applicability for international implementation	As already mentioned, at the moment the BSM system is in use for the Austrian grain market. However it could be extended to other product groups. The market calls for quality assurance and traceability data. Thus it makes sense to implement an international DCPS.

1.2 INTACT- E-cert

Detailed description of the case study

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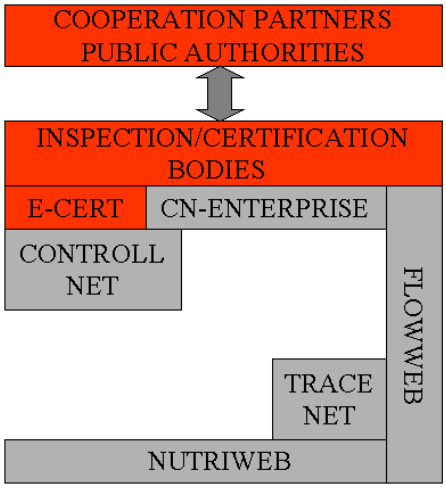
E-cert IT GMBH consists of three international certification bodies (Austria Bio Garantie (Austria), bio.inspecta (Switzerland) and Naturland e.V. (Germany) and a private consulting and information technology company (Intact Consult (Austria)) which specialises in developing software systems in the area of traceability and quality assurance for agricultural products. The consortium aims to provide useful software tools which will reduce the administrative workload for the respective certification bodies as well as improve traceability and security of the certification process. The software tools developed can not only be applied to organic production, but also in the certification of conventional standards like e.g. EUREPGAP. The idea behind the e-cert tool is to provide a facility for inspection bodies which enables them (in the best case) to conduct the whole inspection and certification process in a digital and paperless way.

Although the main aim of e-cert IT GMBH is not primarily data collection for statistical purposes, the tool offers good potential for improvement in the data collection process as well as data quality, especially on farm level and to some extent also on the processor level. At the moment the data gathered are not used for any (public) statistical purposes, although they already sent to the respective “supervising” authorities. Besides various contacts with inspection and certification bodies e-cert in Austria also works closely with the Agrar Markt Austria (AMA), which is mainly responsible for the administrative execution of agricultural grants. With regard to professional consultancy, e-cert also has strong ties with the FiBL in Switzerland.

The DCPS – e-cert

The main function of the e-cert system is to facilitate the inspection and certification process by using digital data collection, processing and storage, as well as to improve the traceability of the certification process for actors along the supply chain and for public authorities. The main advantage of the system is its multilingualism (the system can be used in German, English, Spanish, Italian, Hungarian and French simultaneously) and its flexibility with regard to different inspection and certification standards (EU-VO 2092, organic farmers' associations). Additionally the system fulfils the requirements of EN 45011 as well as ISO 65 for accredited institutions.



In principle the DCPS is based on different modules:

e-cert Basic

- Administration of master data

The master data management administrates the comprehensive data of farmers, processors, employees, inspectors and certifiers as well as of relevant organisations. Additionally, surface areas and numbers of animals are integrated. The documentation of the data is managed within several worksheets related to the respective classification e.g. person, inspection, field number, animal, organisation etc.

- Administration of inspection relevant master data

In this case, data concerning the inspection process in particular are handled. With regard to crop production, the cultivated plants, the area, the exact location of the field (field number) and as well as the expected and (ex post) the real harvest amount are documented. Concerning animal production, the species as well as the respective numbers of animals are recorded.

- Portal for inspection and certification:

This is an instrument for inspection and certification bodies to improve their internal organisational structure (and effectiveness) by providing a comprehensive description of the expertise, preferred areas, negative list as well as the performed audits of the inspector. Additionally the digital distribution of audits to the respective inspectors is possible.

e-cert Optional

- Administration of inspection service management and certification standards

This module enables the autonomous and individual creation of inspection services and guidelines. Several checklists can be created dynamically depending on requirements and made available to the inspectors. This tool is particularly interesting for inspecting and certifying bodies that conduct inspections for several label programmes or standards

- Documentation Management and Communication

Digital archive for relevant documents (certificates, manuals, records, fax) as well as for communication (e-mails, discussion protocols, etc.)

- Time and Cost recording
- Invoicing
- Offline Version

The offline version enables the paperless inspections per laptop or tablet PC on site at the customer's premises. The data is entered by the inspector in the system and upon returning to the office, or also from any internet workstation, transmitted to the central server system. The synchronisation of the data takes place automatically. In order to avoid version conflicts the data is stored by the inspector on the local hardware [laptop or tablet PC], and write-protected for the other staff. A history management provides information on the altered data.

e-Cert Optional Web Module

- Portal for Inspection and Certification

The inspection and certification portal enables the company to pass inspections and certifications to external organisations and inspectors/certifiers. The data is then entered by the external via the web and transmitted to the central data server. This tool is particularly interesting for companies with many field stations and cooperation partners**.**

- Portal for Consumers

This innovative portal gives customers and authorities the opportunity to download the desired data from companies via e-Cert in the most up-to-date version. Customers can enter and update the inspection sheets themselves via the internet and download certificates and test results. Authorities and other authorised institutions have access to defined data.

With regard to data quality, the DCPS shows very detailed data on farm level and to some extent also on processor level. The digital administration of inspection relevant to the master data can be seen especially as the connecting factor for statistical analysis. Data collection is mainly carried out during the inspection process and within a very short period of time (or even on line); data are transferred to a central database for the further certification process. Another way of data input is via the web-portal for consumers, where surface or animal data can be directly updated. For data storage, in principle each inspection/certification body operates its own database on a data server. If cooperation between different partners is needed (or designated), data exchange is done via a joint web server. For data security reasons, only authorised participants have access to confidential and sensitive data.

Table 2: Data quality

Relevance	The DCPS meets the current user needs satisfactorily; statistical concepts and methods not a major concern of the DCPS and therefore are not sufficiently applied yet.
Accuracy	Due to the full census methodology data collected show excellent accuracy
Timeliness and punctuality	Due to the fast availability of data, quality in this case is sufficient
Accessibility	Accessibility of data is restricted to authorised persons and

and clarity	institutions. The clarity of the DCPS is sufficient.
Comparability	Regarding official statistics the DCPS has to improve its comparability e.g. in the case of the nomenclature
Coherence	So far there is too little experience for an assessment.

SWOT Analysis

Table 3: SWOT Analysis - e-cert

	Strengths	**Weaknesses**
Facilitation of data collection and processing	▪ Speeding up of the inspection and certification process through on line forms ▪ Improved data availability for inspection staff as well as authorities ▪ Improvement of already existing data collection processes not implementation of a new system ▪ Flexible, multilingual data input mask ▪ User-friendliness and simple usability concerning data input	▪ Different standards for certification (e.g. different farmer associations) require flexible data input masks ▪ Experience shows, that the harmonisation of certification standards (e.g. nomenclature of products in different countries is a drawn-out process)
Data quality	▪ Relevance and Accuracy: DCPS provides exact figures on farm level and processor level. ▪ Timeliness and Punctuality: Immediate availability of data	▪ Comparability: different nomenclature in relation to (national or international) other (national/international) DCPS ▪ Accessibility: Restricted use of data for (public) statistics.
Legislative issues	▪ Clearly defined rights of access to data	▪ No clear (legal) conditions for data usage for statistical purposes
Administrative issues	▪ Reduction of (anyway necessary) administrative workload ▪ Simplification of inspection/certification through automatic, IT-supported electronic recording of data. ▪ Reduced use of paper ▪ Increase in the efficiency of work process in the inspection/certification bodies.	▪ Costs for training of staff ▪ Costs for additional hardware and software equipment ▪ Relatively long conversion time (from paper based to digital data recording)
Cooperation with data providers	▪ Active cooperation with farmer associations (ERNTE, NATURLAND, BIO SUISSE), the consortium of Austrian Eco-Regions as well as with retail	▪ At the moment there is no (public) statistical usage of the data.

	chains (HOFER, REWE/BILLA)	
Cooperation with national / international statistical offices	▪ Member of IFOAM (although not for statistical purposes)	
Costs	▪ Savings through the reduction of administrative workload exceed additional costs for e.g. software licence and staff training.	▪ Costs for data collection and processing as well as making data available for statistical purposes have to be covered by the public (respectively public authorities and other users)
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Nomenclature: The DCPS provides a flexible technical approach for dealing with different nomenclatures and standards in ONE flexible data input mask. ▪ International Harmonisation: Data collection and processing can be done using different languages simultaneously ▪ Effective and fast data collection and processing as well as exact assessment of the respective volumes (number of animals) provide excellent accuracy of the data. ▪ Certification bodies can combine administrative data collection and statistical data collection – reduced costs for data collection	
What is new in comparison to systems used so far?	▪ Range, volume and depth of data ▪ International applicability of the DCPS ▪ Networking of certification bodies, consumers and public authorities working with one web based database	
Can the system be used for data harmonis-ation?	From a purely technical perspective the system can be used for national and international harmonisation of data. The DCPS is already harmonising data input from three international certification bodies (farm level, partly processor level). Especially on farm level the DCPS provides an effective tool for the collection of high quality and up-to date data. As for national harmonisation all control bodies as well as all processors would have to be integrated into the DCPS, which, without an adequate legal framework seems to be quite difficult.	
Relevance / applicability for international implement-ation	Through its multilingualism and its flexible data input masks, the DCPS provides an effective tool for certification bodies to provide harmonised data on the international level. Problems expected in implementation are listed below.	
	Threads	
Identification of critical points, barriers, problems	▪ National/International unification of product nomenclature ▪ Large and increasing amount of data ▪ Administration of access authority ▪ Publication of data (data security) ▪ Costs for implementation ▪ Willingness of inspection/certification bodies to participate	

Proposed Solutions	Creation of an adequate legal framework for the collection and processing of useful data for inspection/certification bodies with reimbursement/compensation for additional costs/expenses

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

General recommendations:

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

The DCPS provides technical tools which are already operating for the facilitation of data collection and sharing among various market partners and/or and inspection/certification bodies with the effect of ensuring data quality and timeliness. Regarding BSM, the special feature is that certification data as well as data on quality management provide the basis for statistical analysis. In the case of e-Cert, the DCPS is more focused on the facilitation of data collection and processing using digital recording as well as possibilities for cooperation between inspection/certification bodies. For the international establishment of common protocols, both case studies underline the demand from the experts interviewed for the acceptance of a common definition of organic farming in Europe, which should lead to a common definition of nomenclatures and respective standards. Secondly the case studies show that the participation of the various market actors in such DCPS is more or less on a voluntary basis, which risks the incompleteness of statistical data. In this respect it was seen necessary to establish a system of incentives and/or legal requirements to facilitate participation, although certification bodies in particular seem to be quite critical in this case.

- *Development of IT solutions to facilitate the recommendation above, including use of on line forms for data collection*

The results of the case studies show that, from a technical perspective, the use of on line forms for data collection has developed considerably during recent years, so in this context no serious problems are to be expected. One of the most critical factors is in the increasing volume/amount of data, which causes (technical) problems with regard to storage or processing. The implementation of IT-solutions by market partners along the supply chain (especially certification bodies and processors), after an obligatory start up phase, shows positive effects by reducing the administrative workload through automatic documentation. In line with some experts' opinion, at the moment the investigated IT solutions are focused on specific levels or problems (e.g. TQM, certification/inspection) and therefore there is no experience of internationally applied solutions. Specific experience in the case of expanded usage of the DCPS is still missing. It also appeared obvious that the question of resources is a key issue to enable certification bodies or (to some extent) quite small market partners to modify their existing systems. Another important point mentioned was the handling of access to the DCPS (who is authorised to use which data) as well as data privacy matters. In this case a strict legal framework for the use of data is required.

- *Facilitate easy access to and timely/rapid dissemination of available data (especially regarding online access of data)*

In principal the tested DCPS show clear approaches to facilitating easy access as well as the dissemination of data. In this context two main problems appeared during the case studies. On one hand, the handling of authorisation and access rights for potential users of the DCPS seems to be very complicated. In the case of extended usage of the tested DCPS it has to be clarified which market actor or which (public) authority gets access rights and to what extent. This seems to be necessary to secure data security of the different market partners. On the other hand, it has to be clarified how the gathered data can or should be made available to a broader public.

Supply Chain Level

- *Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on a common definition of variables, and for Member States to collate and report this data*

The case studies showed that the need, mainly from owners, users and processors of data, for a compulsory (legal) regulation of data collection and delivery for certification bodies was viewed sceptically. Certification and inspection bodies fear they will be forced to carry the financial burden of additional and/or harmonised data collection on their own, which in the end would be passed on directly to the producers. Additionally in the context of a common definition of variables it emerged that inspection/certification bodies use quite different systems for product classification or nomenclatures and therefore data collection (even with regard to EU regulation 2092/91) is not harmonised. Although technically and on a voluntary basis the problem could be solved in both the investigated DCPS, there is no evidence for an international approach. Thirdly the responsibility of Member States for collation and reporting of the respective data has to be clarified, and which organisation(s) are authorised for data access and the depth/range in which these data can be used for statistical purposes or publication.

- *Develop legal enforcement for institutions which are already obliged to collect data (e.g. slaughter houses) to distinguish between conventional and organic products*

In this respect the results of the case study signal little support for the legal enforcement of (additional) data collection and reporting on organic farming. Interviewees, in line with the expert opinion in D3, stated that this would mean too much extra (bureaucratic and administrative) burden on businesses only partly engaged in organic markets. If at all, data collection should be done during the inspection process, although also in this case some respondents had some objections in the context of data security.

- *Integrate data from third country import approvals and certification body data in trade statistics*

Although inherently data on third country imports (and partly also intra-European trade) are integrated in the investigated DCPS, the applicability of this data for statistical purposes is quite unclear. Besides legal impediments/lack of clarity of data processing, the main obstacle in this case seems to be data security, which reduces the possibility of publication. Interviewees were not able to put forward clear statements or solutions for this problem.

2 Denmark

National Working Paper

DENMARK

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Foreign trade in organic products, 2003

Detailed description of the case study

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The institution, Statistics Denmark (DS):
Statistics Denmark was established as a governmental institution in 1850 and its activities are founded on the *Act on Statistics Denmark,* adopted in 1966. This Act gives an independent Board of Governors the responsibility to determine the institution's work programme, and it allows Statistics Denmark access to data from all public administrative registers in Denmark. Compared to many other countries the production of statistics in Denmark is highly centralised, but there are other national suppliers of statistics than Statistics Denmark, such as municipal authorities and other government departments. However, Statistics Denmark is responsible for ensuring that the overall statistical picture is complete and coherent regardless of the source.

Statistics Denmark takes part in the joint European Statistical programme within the framework of the European Union. It is also involved in other international activities, e.g. in co-operation with the Nordic countries, as well as with the UN and UN organisations. Moreover Statistics Denmark participates in statistical co-operation within other international organisations such as the OECD, IMF, ILO, etc.

Statistics Denmark is organised into four departments: Social Statistics, Business Statistics, Economic Statistics and User Services. The Department of Statistics on Agriculture and Transport is part of Business Statistics.

Statistics Denmark is financed by the government, but specific studies may be funded by other public institutions. The study "Foreign trade in organic products 2003", which was carried out in 2003/4 was funded by the Directorate for Food, Fisheries and Agri-Business under the Ministry of Food, Agriculture and Fisheries.
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Experience of DS in collecting data on organic farming:
Statistics Denmark has collected information on organic agriculture since 2001. The data collected annually comprise information on

- Number of organic farms according to size and type of production
- Size of organic farming area according to type of plant production and according to regional distribution
- Numbers and types of animal units and livestock farms according to farm size and regional distribution

- Number of dairy farms and amount of milk delivered to dairies
- Number of organic eggs produced for direct consumption
- Operating income of in-conversion farms and organic farms

National/international cooperation of DS on collection of data on organic production

As concerns collection of data on organic farming, processing, consumption and trade, the main collaborators of Statistics Denmark are the following public and private institutions:

- Danish Veterinary and Food Administration (responsible for the inspection of organic processors, wholesalers and retailers) www.fvst.dk
- The Plant Directorate (responsible for the inspection of organic farms and farming input processors and trade companies (feed, seed, fertilisers, etc.) www.pdir.dk
- Danish Research Institute of Food Economics www.foi.dk
- Directorate for Food, Fisheries and Agri-Business www.dffe.dk
- Danish Agricultural Advisory Service www.lr.dk

On the international level, DS co-operates with Eurostat http://epp.eurostat.cec.eu.int on statistics on organic production.

In connection with the Danish survey "Foreign Trade in Organic Products 2003" which he carried out in 2003, Mr. Poul Henning Larsen has prepared a report, partly financed by Eurostat under theme 66: Agri-industrial statistics. The title of this study is "Implementation of Statistics on Products with Distinctive Marks – Foreign trade statistics in organic products with special focus on methodological aspects". The report is due to be published in June 2005.

The DCPS: Foreign Trade in Organic Products

Background, mode and method of data collection

In the reports from 2003, "Organic Statistics, Needs Assessment and Possibilities for an Enlarged Coverage of the Organic Sector", Phase 1 and 2 (in Danish) by Poul Henning Larsen, Statistics Denmark, foreign trade in organic products was one of two domains selected for a test survey. (The other was turnover of organic food products in retail shops).

Statistics Denmark collects monthly statistical information on the trade between Denmark and other countries based on two data collection systems, trade with EU Member States and trade with third party countries, but in these surveys there is no discrimination between organic and conventional products.

By combining the information in the two data sources mentioned above on foreign trade with the information on farms, factories, processors, wholesalers and other enterprises registered by the two national organic certification and control institutions, the Plant Directorate and the Veterinary and Food Administration, it should be possible to develop a statistical model for foreign trade in organic products for Denmark.

Sources on foreign trade
The trade statistics for the trade with other EU countries, which have been kept since 1993, are based on the monthly reporting of data from about 10,000 companies in Denmark with a total annual import of minimum 1.5 (0.2) and/or export of minimum 2.5 (0.33) million DKK (€) each.

For each goods transaction (import or export) the following statistical information is collected:

- Product code in accordance with the Combined Nomenclature (NC)
- Partner country (import = country of origin; export = country of destination
- Kind of transaction
- Invoiced value in DKK
- Net weight in kilos and/or supplementary unit, e.g. litre, piece, etc.

The trade between Denmark and third countries is calculated using reports to the Danish Customs and Tax Administration. Every third party country trade transaction must be reported, so the statistics cover all trade with third party countries. The data are collected on a monthly basis. For minor transactions below 7500 DKK ~ 1000 € and 1000 kg, simplified reporting is accepted. For each import/export transaction, the following statistical information is collected:

- Product code in accordance with the EU Combined Nomenclature (CN-8) or TARIC - only for import (Integrated tariff of the European Communities (TARIC), Official Journal C103/1 of 30.04.2003).
- Partner country (import = country of origin; export = country of destination
- Code for procedure
- Statistic value in DKK
- Net weight in kilos and perhaps supplementary unit, e.g. litre, piece, etc.
- Form of transport when passing the frontier.

Sources on enterprises, which may have foreign trade in organic products
The Plant Directorate is the only certifier and controller of organic farms, feed companies and other enterprises (fertilisers, seed etc.) dealing with inputs to organic farmers and output other than food products, while the Veterinary and Food Administration is the only certifier and controller of food processors and enterprises packaging and marking organic food products plus wholesalers and retailers (http://www.uk.foedevarestyrelsen.dk/Food/Organic_Foods/forside.htm).

The in-conversion and certified organic farms and farm input enterprises controlled by the Plant Directorate must report annually on their activities and for each product category state whether the organic products are processed, stored, sold on the national market or imported and/or exported. The list of enterprises dealing with inputs (i.e. fertilisers, seed, feed etc) can be found on http://www.pdir.dk/Files/Filer/Oekologi/Virk/Aut_virk/Virksomheder.pdf. The list is updated whenever there are changes reported. The food processors, wholesalers and retailers are registered according to their VAT number and branch of trade (NACE code) in the Veterinary and Food Administration, and they are controlled by the eleven regional Veterinary and Food Administration offices. The Veterinary and Food Administration keeps a register of certified enterprises, but no registration of amounts or value of the produced/processed products takes place. The list of enterprises dealing with certified organic products can be found on

http://www.foedevarestyrelsen.dk/sdata/Oekologikontrollerede.pdf. The list is updated on a weekly basis.

Registration of importers/exporters of organic products
Enterprises must be approved before they can trade in organic products. There is a distinction made between import from EU Member States plus the EFTA countries, Iceland, Norway, Switzerland and Lichtenstein and import from third countries. For imports from EU and EFTA countries, documentation is needed which proves that the vendor is controlled by a certified inspection body in their home country plus an original invoice from the vendor proving the organic status of the lot. The import is not reported to the Plant Directorate, while import of organic food products from the EFTA countries must be reported to the Veterinary and Food Administration. For imports from third countries, all lots of organic products must be reported to the Plant Directorate before being imported into Denmark. Since 2002 the Plant Directorate has kept copies of the export certificates which contain information on product kind and amount. The Food and Veterinary Administration does not collect information on amounts imported from third countries, but registers only the approvals given for import of organic food products directly into Denmark.

Danish enterprises authorised for organic production and/or sale may export their products without reporting anything.

By the end of 2003 about 3400 farms/enterprises (legal units) were registered with the Plant Directorate and almost 500 enterprises (legal units) with the Veterinary and Food Administration. Matching this information with the information in the foreign trade register of Danish Statistics, it turned out that 226 of the enterprises could have been involved in foreign trade in organic products and thus the population for the survey was reduced from 3900 to 226 enterprises.

The 226 enterprises received a questionnaire with the information they had reported to the foreign trade statistics registers and were asked to report the proportion of the turnover in DKK and kg coming from import/export of organic products and which countries had been involved in the transactions. Of the 226 enterprises, 121 had been involved in foreign trade.

The period covered by the questionnaire investigation was 2003. The survey has not been repeated since then.

Dissemination of results:
The values in DKK of imported/exported organic products classified according to 14 commodity groups have been published together with information on import and export to and from the EU-15, the most important EU countries as regards foreign trade with Denmark, the rest of Europe, Africa, North and South America, Asia and Oceania. The data were published in the Survey on Foreign Trade in Organic Products 2003 by Poul Henning Larsen, Statistics Denmark, (in Danish) in Statistiske Efterretninger 2004:25 of November 29, 2004.

Quality of the data according to Eurostat, 2003:

Relevance	The DCPS is very relevant for market and policy stakeholders, organic certifiers, companies involved in foreign trade in organic products, ministries administrating trade in agricultural products, market researchers and news media as well as for the European Commission and Eurostat, the UN and OECD. Statistics on foreign trade in organic products had not been elaborated before in Denmark.
Accuracy	Foreign trade with the other EU-15 Member States is probably underestimated because the statistical data collection only comprises enterprises in Denmark with a total annual product import of a minimum of 1.5 million DKK (0.2 million €) and/or a product export of minimum 2.5 million DKK (0.33 million €). These limits have been set by Denmark in accordance with the Commission Regulation EC no. 1901/2000 dealing with intra-trade statistics. Estimates of the volume of intra-trade below the threshold and non-response are based upon the use of fiscal information. In the survey on foreign trade in organic products the figures have been supplemented with information based on estimates using the VAT return, which covers all transactions of goods between Denmark and the EU countries. The accuracy of the data on foreign trade with third countries is very high because all transactions are covered unless below 1000 € or 1000 kg. The statistics on third countries are regulated by the Commission Regulation EC no. 1917/2000 on extra-trade statistics. However, the accuracy of the survey on foreign trade in organic products 2003 was subject to considerable uncertainty, as 15 – 20% of the data material was either missing or the quantity of imperfect data was so high that the figures could not be included in the survey. To make up for this, supplementary estimates were made based on VAT figures. Therefore the final total figures are considered very reliable, but the detailed figures are not reliable. It is estimated that the uncertainty with respect to the detailed figures distributed by commodity and country is in the order of approximately 10 % on average, corresponding to the supplement made to the reports from the VAT figures.
Timeliness and punctuality	According to EC No. 1917/2000 the extra-trade monthly statistics shall be transmitted to the Commission (Eurostat) no later than 6 weeks after the end of the reference period. For intra-trade statistics the production of data takes longer. According to EC No. 1901/2000 the monthly statistics on intra-trade shall be submitted to the Commission (Eurostat) no later than 8 weeks for overall results and no later than 10 weeks for detailed results. It is not necessary to publish data on foreign trade in organic products on a monthly basis - an annual data collection is more realistic. The preliminary results of the annual foreign trade statistics are available in May in the following year. The processing and quality checking of the data reported by the enterprises involved in export/import of organic products takes considerable time. Therefore Statistics Denmark cannot publish the results until October/November of the following year.
Accessibility and clarity	The statistics on foreign trade are published in the monthly publication “Nyt fra Danmarks Statistik” (News from Statistics Denmark), in the monthly series, “Statistiske Efterretninger” (Statistical News), in the quarterly series “Statistikservice” (Statistics Service) and in the monthly “Konjunkturstatistik” (Main Indicators). These publications are available to the public, but they are not free of charge. Statistics on foreign trade are also available in English from StatBank Denmark www.statbank.dk free of charge. The 12-page Survey on Foreign Trade in Organic Products 2003 has been published (in Danish) in Statistiske Efterretninger 2004:25 of November 29, 2004, and it can be bought in the bookshop of Danish Statistics for 37 DKK ~ 5 €.

Comparability	Comparability over time: Any gaps in the time series as a result of changed collection methods etc. is adjusted for by estimation in order to make the foreign trade figures comparable over time. Data comparability does not apply at the most detailed commodity level because the content of many product codes has changed over time. Comparability with other statistics: The foreign trade figures are comparable with several other sources: • The partner country's recording of the same transaction (the mirror transaction). The comparison is hampered by differences in definitions and in the level of value for the recording of imports and exports. Payments in connection with foreign trade in products. Different basis of accrual and differences in valuation hinder comparison • Reports on EU purchases and sales of products on the VAT return. These statistics are not published but are used in the continuous control of the reports to Intrastat. The nomenclature used in the survey on foreign trade with organic products 2003 is the combined EU Nomenclature (CN-8). To improve comparability with international statistical surveys the information has been published according to the UN International Trade Classification (SITC)
Coherence	Apart from the foreign trade statistics information on external trade can be found in: • The national accounts • The business statistics • The balance of payments which must all relate to one another. The share of estimated figures is in the order of 15 – 20 % when the statistics are published for the first time. There are some deviations between the first and the final publication of foreign trade figures for any given month because the inaccurate data are checked and adjusted by means of information from VAT registrations and other sources in the final publication.

For further information on the quality of foreign trade statistics in the EU and Denmark, please consult

- Foreign Trade Statistics – Quality Report: Foreign trade, European Commission Working Papers and Studies, Theme 6. 2003 edition)
  http://epp.eurostat.cec.eu.int/cache/ITY_OFFPUB/KS-AS-03-001/EN/KS-AS-03-001-EN.PDF

- Danish external trade statistics 2003
  http://www.dst.dk/asp2xml/external/external.asp?title=Danish%20External%20Trade%20Statistics%202003&hreflang=da&path=/Vejviser/Portal/Udenrigshandel/METODE/omudenrigshandelsstatistik.aspx&ancestor=Statistik&file=/upload/danish_external_trade_statistics_2003.pdf

- The quality of foreign trade figures, prepared by Danish Statistics' External Trade Division, July 1, 2001
  http://www.dst.dk/asp2xml/external/external.asp?title=QualityReport&hreflang=da&path=/Vejviser/Portal/Udenrigshandel/METODE/kvalitetsrapporter.aspx&ancestor=Statistik&file=/upload/qualityreport.pdf

SWOT Analysis of the DCPS

	Strengths	Weaknesses
Facilitation of data collection and processing	• It is only necessary to ask the enterprises certified for foreign trade with organic products (i.e. 3.900 enterprises are reduced to 226 enterprises by matching the foreign trade registers with the registers on enterprises certified for foreign trade in organic products. • The data on foreign trade in organic products are already included in the foreign trade statistics. It is just a matter of separating these data from the data on similar conventional products	• The response burden for the enterprises involved in foreign trade is high due to the monthly reporting to the two foreign trade registers. In 2001 the response burden was 157.1 man years in total in Denmark. The extra response burden for the enterprises involved in foreign trade in organic products is about 0.3 man years. • It will probably only be possible for national statistical offices to carry out the collection of data on foreign trade in organic products since it involves the matching of data from several public data registers. Besides, it is mandatory for the enterprises to report the requested data to Statistics Denmark, which is not the case in other EU countries.
Data quality	• The data quality of the foreign trade registers and the registers on enterprises certified for production, processing and trade with organic products is high.	• The foreign trade in organic products is probably underestimated due to the fact that many enterprises involved in processing and trade with organic products are relatively small and therefore below the threshold for reporting of EU intra-trade data to Statistics Denmark. • Many of the enterprises involved in foreign trade with both conventional and organic products have difficulties in discriminating between organic and conventional products in their accountancy system.
Legislative issues	• Act on Statistics Denmark makes it possible for Statistics Denmark to make mandatory requests to private enterprises for reporting of statistical data and to match information from various public data registers. • Certification and control of farms and enterprises involved in organic production and trade is carried out by two national institutions and therefore their registers are available to Statistics Denmark (and to the public). • The Commission (Eurostat) has	• In other EU Member States there is no similar legislation which makes it possible for the statistical offices to make mandatory requests for information from private enterprises and organisations. • In most of the other EU Member States the certification of farms and enterprises is carried out by several private and/or public certification bodies, which makes it difficult to identify enterprises involved in foreign trade in organic products.

	already harmonised the nomenclature for reporting on foreign trade within the EU and with third countries	
Administrative issues	• If the organic products are marked, it will be simple for the enterprises to separate the data on foreign trade in organic products in the accounts. This will reduce the response burden of the enterprises of 0.3 man years per year considerably.	• If the organic products which are traded over the frontiers are not marked so they can be distinguished in the accounts, the response burden and the risk of inaccuracies may be considerable. • The processing of the data and the quality checking by Statistics Denmark is time consuming, about 0.6 man years/year
Cooperation with data providers	• Statistics Denmark co-operates with the Plant Directorate and the Veterinary and Food Administration, which are responsible for keeping the registers on enterprises certified for production, processing and trading with organic products updated. • The collection of data for foreign trade statistics is carried out by Statistics Denmark. • The data on foreign trade in organic products are collected by means of questionnaires directly from the enterprises involved.	• In other countries it may be necessary to involve several private certification and control bodies to get information on enterprises involved in foreign trade in organic products. • The private certification and control bodies may not be interested in giving such information due to the extra workload, and they will have to ask permission from their customers. • To avoid counting transactions more than once, it is necessary for all enterprises have one common code number (business register number or VAT number) which may be used for identification of the enterprises in the registers of the certifiers and in other business, tax and trade registers. This is the case in Denmark but not in most other EU Member States.
Cooperation with national / international statistical offices	• No co-operation with national /international statistical offices has been necessary	
Costs	• The total costs to Statistics Denmark for the planning, processing and reporting of the survey is estimated to be 600.000 DKK (~ 80.000 €) /year or 0.6 man years	
	Opportunities	
Possibilities to overcome weaknesses identified	• One major reason for inaccuracies is the lower threshold limit for reporting of EU intra-trade, and in Denmark it is the intention to increase this limit even further. The question of where to set the lower limit may be a subject for discussion in Eurostat. • Another reason for inaccuracies and a heavy workload is the separation of	

	organic products and conventional products in the accounting system. Some enterprises already discriminate between organic and conventional products in their accounting system. If such surveys are carried out on a regular basis, the other enterprises will probably also adjust their accounting systems to distinguish between organic and conventional products. • For the enterprises below the threshold a benchmark survey of their foreign trade in organic products could be carried out every 5 years in order to adjust the results reported on an annual basis.
What is new in comparison to systems used so far?	• It is new to match the registers on enterprises certified for production, processing and trade with the two foreign statistics registers to find the reduced population of enterprises which may have been involved in foreign trade in organic products.
Can the system be used for data harmonisation?	• The system is already harmonised, as the nomenclature used is the CN-8 and the TARIC nomenclature of the European Commission plus the SITC of the UN International Trade Classification.
Relevance / applicability for international implementation	• The survey is very relevant on an international scale. However, it may be a challenge to transfer the method of matching the registers on enterprises involved in foreign trade in organic products with the foreign statistics registers of the statistics offices because the certification and control may be carried out by several private companies. Besides, it is not known whether the certifiers easily can identify the enterprises involved in foreign trade in organic products.
	Threads
Identification of critical points, barriers, problems	• In other countries, where the reporting of statistical information requested by the national statistical office is not mandatory, the response burden of the enterprises will probably be the greatest barrier for collection of the data, as they will probably not be interested in participating in such statistical surveys. • In many countries another barrier may be the private certification system, partly because there may be many data sources on enterprises certified for foreign trade in organic products, and partly because there may be unwillingness to report such data due to extra response burden and protection of customers.
Proposed Solutions	• More knowledge is needed about how to make enterprises co-operate in data collection when reporting is not mandatory. • More knowledge is needed about how certification systems and registers are built up in the EU countries to find the best way to collect information on the foreign trade in organic products in each country.

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

Note: the following section relates the case study to the recommendations generated in WP2/3 and WP4 which have already been validated by experts. The main question, therefore, is how the results of the investigation here support or conflict with the previous recommendations and how they might contribute to a general improvement in data quality.

General recommendations:

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

A prerequisite for the matching of the information on enterprises involved in foreign trade with enterprises certified for organic trade in Denmark has been the common business enterprise number (CVR), which is also the VAT number.

It is important to use internationally harmonised nomenclatures, so the statistics can be compared with statistics for conventional products or statistics on import/export of organic products from other EU countries

- *Development of IT solutions to facilitate the recommendation above, including use of on-line forms for data collection*

The questionnaire, which was sent out to the enterprises certified for trade in organic products was made in an Excel spreadsheet on a CD-Rom as well as in a paper version. The questionnaire was sent out together with an introductory letter and guidelines on how to fill it in, a country code list and a copy of the Combined Nomenclature (CN-8).

It turned out that a little more than 50% of the respondents used the paper version to report, while about 25% used the electronic version of the Excel spreadsheet and reported the data via e-mail. If the survey were carried out regularly, electronic reporting would probably be used even more.

- *Establish mechanisms to facilitate statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives.*

It may be possible to improve the data quality and reduce the response burden by means of stakeholder communication on possibilities for marking of the organic products in the accounting systems and by development of the questionnaires and the electronic tools from Statistics Denmark in co-operation with the enterprises.

- *Facilitate easy access to and timely/rapid dissemination of available data (especially regarding online access of data)*

The data may be published on the STATBANK webpage, which may be accessed free of charge. However, a 10- or 11-month delay in the publication of the annual statistics on foreign trade in organic products is realistic.

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- *Establish common operator identification number to enable linking of administrative and statistical data.*

This has already been done long ago in Denmark, and it has been extremely helpful for the collecting, checking and reporting of statistics.

Supply Chain Level and import/export level

- *Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on common definition of variables, and for Member States to collate and report these data*

If the supply of specific administrative data is a legal requirement, financial compensation for the certification bodies will not be necessary. If there is no legal requirement, it is hardly realistic that the statistics offices or the public authorities will compensate the certification bodies for such work. However, it should be possible for the public authorities supervising the certification bodies according to the EC 2092/91 Regulation to request information on which enterprises have been involved in foreign trade with organic product, without compensating the certification bodies.

The definitions and nomenclatures used on product types in foreign trade statistics are already harmonised.

- *Integrate data from third country import approvals and certification body data in trade statistics*

The Danish case study showed that the amounts of organic products imported from third countries was very low compared to the EU intra-trade. However, most of the imports from third countries are probably coming indirectly via some of the other EU countries with big 'organic' import companies, such as Germany, the Netherlands and Sweden. Therefore it is probably that Danish imports from third countries are considerably underestimated. However, this may not be the case in the countries with big 'organic' import companies. In the first place it is therefore advised to concentrate on how to collect and report reliable statistical information on the intra-EU trade. The volume of the direct trade with third countries should be investigated in comparison with indirect trade via other EU countries before a data collection strategy is decided upon.

- *Make selective adjustments to official nomenclature to achieve appropriate balance between data requirements and administrative costs.*

The discrimination between organic and conventional products should be done in the accountancy systems of the relatively few enterprises involved in foreign trade in organic products.

- *Conduct regular EU-wide survey of operators and experts (soft data) to meet specific data requirements.*

For Denmark the main operators and amounts of imports are already identified, so surveys like this are not necessary.

- *Extend the existing data collection on intra- and extra EU-trade to a differentiation between organic and conventional, which may provide the basis for organic market data, which market actors and policy makers will require.*

It is the opinion of Statistics Denmark that the discrimination between organic and conventional products should be done in the accountancy systems of the relatively few enterprises involved in foreign trade in organic products.

New DCPS on turn over of organic food products in retail shops

Detailed description of the case study

Interview partners:	Contact details:
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The institution, Statistics Denmark (DS):
Statistics Denmark was established as a governmental institution in 1850 and its activities are founded on the *Act on Statistics Denmark,* adopted in 1966. This Act gives an independent Board of Governors the responsibility to determine the institution's work programme, and it allows Statistics Denmark access to data from all public administrative registers in Denmark. Compared to many other countries the production of statistics in Denmark is highly centralised, but there are other national suppliers of statistics than Statistics Denmark, such as municipal authorities and other government departments. However, Statistics Denmark is responsible for ensuring that the overall statistical picture is complete and coherent regardless of the source.

Statistics Denmark takes part in the joint European Statistical programme within the framework of the European Union. It is also involved in other international activities, e.g. in co-operation with the Nordic countries, as well as with the UN and UN organisations. Moreover Statistics Denmark participates in statistical co-operation within other international organisations such as the OECD, IMF, ILO etc.

Statistics Denmark is organised into four departments: Social Statistics, Business Statistics, Economic Statistics and User Services. The Department of Statistics on Agriculture and Transport is part of Business Statistics.

Statistics Denmark is financed by the government, but specific studies may be funded by other public institutions. The Study, "Turnover of organic foods in retail shops", which was carried out in 2003/4 was funded by the Directorate for Food, Fisheries and Agri Business under the Ministry of Food, Agriculture and Fisheries.

Experience of DS in collecting data on organic farming:
Statistics Denmark has collected information on Organic Agriculture since 2001. The annually collected data comprise information on

- Number of organic farms according to size and type of production
- Size of organic farming area according to type of plant production and according to regional distribution
- Numbers and types of animal units and livestock farms according to farm size and regional distribution
- Number of dairy farms and amount of milk delivered to dairies
- Number of organic eggs produced for direct consumption

- Operating income of in-conversion farms and organic farms

National/international cooperation of DS on collection of data on organic production
As concerns collection of data on organic farming, processing, consumption and trade, the main collaborators of Statistics Denmark are the following public and private institutions:

- Danish Veterinary and Food Administration (responsible for the inspection of organic processors, wholesalers and retailers) www.fvst.dk
- The Plant Directorate (responsible for the inspection of organic farms and farming input processors and trade companies (feed, seed, fertilisers, etc.) www.pdir.dk
- Danish Research Institute of Food Economics www.foi.dk
- Directorate for Food, Fisheries and Agri Business www.dffe.dk
- Danish Agricultural Advisory Service www.lr.dk

On international level DS co-operates with Eurostat http://epp.eurostat.cec.eu.int on statistics on organic production.

The DCPS: Survey on organic food turnover in retail shops

Background, mode and method of data collection
Since 1939 Statistics Denmark has collected and calculated an index for the turnover in retail shops, and today the index is calculated for 49 product categories. These surveys cover all retailers with an annual turnover of more than 10 million DKK including VAT plus a stratified sample of retailers with an annual turnover of 2.5 – 10 million DKK including VAT. Statistics Denmark estimates that the reporting from the retailers in the group "Foods and other daily commodities" accounts for 85 % of the total turnover in this group. This survey is carried out six times a year but there is no discrimination between organic and conventional products.

According to the OMIaRD report, Analysis of the European Market for Organic Food (2002) about 86 % of the turnover of organic food products in Denmark takes place via three supermarket chains, grouped into seven sub-chains, plus some chains of general stores and independent general stores organised in the Federation of General Stores (FGS) www.d-s-k.dk . FGS has about 1500 member stores and they get their supply from three wholesalers. This means that it should be possible to collect information on magnitude, composition and price of the turnover of organic foods in retail shops by means of stratified sample collection from a few aggregated data sources (the three supermarket chains and the three wholesalers). However, such data were not collected until Poul Henning Larsen, Danish Statistics, made a test survey in 2003/4.

An important condition for the survey is the Danish Act on Statistics, Article 8, which says that all Danish enterprises must deliver information of statistical importance if requested to do so by Statistics Denmark. Accordingly the seven sub-chains of the three supermarket chains were requested to deliver information on the total turnover in kg (net weight) and DKK (including VAT) of organic products according to a questionnaire classifying the organic foods into 13 different product categories according to COICOP (Classification of individual consumption by purpose). The three wholesalers were requested to deliver the same information on their sales to retailers excluding their sales to the three supermarket chains mentioned above. In

order to estimate the turnover in the FGS general stores, the wholesale prices have been recalculated into retail prices by means of the price per kilo for the various food product groups, which was estimated on the basis of the total turnover in kg and DKK for this product group in the supermarket chains. This price was then multiplied by the total turnover in kilos reported by each wholesaler. Finally the total turnover of each wholesaler in DKK was compared with the actual turnover in order to check the applicability of the method for all product groups. When in doubt, the wholesaler was contacted by phone.

The period covered by the questionnaire investigation was 2003. In 2004 the survey was repeated, but this time only two wholesalers were included because two of the wholesalers had merged.

Dissemination of results:
The survey on turnover of organic foods in retail shops in 2003 by Poul Henning Larsen, Danish Statistics, has been published (in Danish) in Statistiske Efterretninger 2004:19 of September 14, 2004. The data for 2004 will be published in the first half of 2005 on www.statbank.dk which can be accessed free of charge. The report for 2004 will be published in Statistiske Efterretninger in May 2005.

Quality of the data according to Eurostat, 2003:

Relevance	The DCPS is relevant for various market and policy stakeholders in the organic sector as such information has not been open to the public before. GfK has made investigations on turnover of organic food products in Denmark before by means of consumer enquiries of 2000 households. However these surveys do not give a full picture of the sale of organic food products, and they are not available to the public. AC Nielsen has collected coded scanned-in data (barcodes) from various supermarket chains, which makes it possible to discriminate between organic and conventional products. These surveys should give a reliable estimate of the turnover of organic products in the retail shops, but since 2003 several of the big supermarket chains have declined to participate in these surveys.
Accuracy	There is a minor inaccuracy due to the conversion of wholesaler sales into retail sales. However, no measure of accuracy has been calculated. The survey is estimated to cover about 80% of the retail trade. It is estimated that the retailers buy about 50% of the organic fruit and vegetables from the wholesalers, and for this reason the amounts registered by the wholesalers have been doubled in the survey. Besides, some general stores, which are members of the Federation of General Stores, get their milk products directly from dairies instead of through the wholesalers. Therefore the sales of dairy products may be underestimated. To calculate the total retail turnover, direct sales of organic food products from farm shops, box subscription schemes and special shops should also be included in the survey, but this would increase the response burden considerably.
Timeliness and punctuality	The survey is published six months after the end of the period which is covered by the data collection. The next publication (for 2004) will be published in May 2005. It is not yet known whether such surveys will be carried out regularly in the future.
Accessibility and clarity	The 12-page survey on the turnover of organic foods in retail shops in 2003 has been published (in Danish) in Statistiske Efterretninger 2004:19 of September 14, 2004, which can be bought in the bookshop of Danish

	Statistics for 37 DKK ~ 5 €. A 2-page press release has been published (in Danish) in "Nyt fra Danmarks Statistik" No. 391, Subject group: Agriculture, September 14, 2004 and can be downloaded free of charge from http://www.dst.dk/TilSalg/Boghandel/Publikation.aspx?cid=8247
Comparability	The data are comparable with household budget surveys, because the nomenclature used in the survey, COICOP, is almost identical with the nomenclature used by Danish Statistics in the household budget surveys.
Coherence	The coherence is good, because the classification is similar to the household budget surveys.

SWOT Analysis of the DCPS

	Strengths	**Weaknesses**
Facilitation of data collection and processing	• Low response burden, (data can be obtained from the central administration of a small number of supermarket chains and wholesalers instead of many retail shops) • Organic products can be marked electronically (bar codes) making it easy to report the data. • The data are easy to analyse (Excel spreadsheet).	Not all retail sales of organic food products are covered
Data quality	The data quality is high	There may be minor inaccuracies due to the conversion of wholesale turnover to retail turnover. Another inaccuracy is the waste of organic food products in the general stores supplied by the wholesalers, which may give rise to a small overestimate.
Legislative issues	Act on Statistics Denmark makes it mandatory to report statistical information of interest to Statistics Denmark	In the other EU Member States there is no similar legislation.
Administrative issues	In most cases the data are directly available from the bookkeeping, because the organic food products have separate bar codes. The total administrative burden for the supermarket chains and wholesalers for reporting of the data is estimated to about 0.1 man year.	It is still an extra administrative burden for the bookkeeping departments of the supermarket chains and wholesalers
Cooperation with data providers	User groups have been established by Statistics Denmark on the issue of turnover of organic products in retail shops. Data are treated as strictly confidential by Statistics Denmark and the results are presented in such a way that the business interests of the data providers are protected.	

Cooperation with national / international statistical offices	The survey does not necessitate any cooperation with national or international statistical offices. Being a test survey, no cooperation with other statistical offices has been initiated.	
Costs	The total cost to Statistics Denmark for the planning, processing and reporting of the survey is estimated to be 400,000 DKK (~ 54,000 €) /year.	
	Opportunities	
Possibilities to overcome weaknesses identified	The survey could be supplemented by a small benchmark survey on direct farm sale and organic box schemes to get a better estimate for the total turnover of organic food products.	
What is new in comparison to systems used so far?	The system is new in the sense that all the supermarket chains and the independent general stores are included in the survey and the data are available to the public. The surveys carried out by AC Nielsen and the consumer enquiries by GfK covered a much smaller part of the population and the data were not public.	
Can the system be used for data harmonisation?	Yes, the data collected are harmonised with the data collected in the household budget surveys.	
Relevance / applicability for international implementation	The turnover of organic products in supermarket chains and wholesalers and the number of supermarket chains and wholesalers may be very different from one country to the other. None of the other EU Member States have such a high turnover of organic products in the supermarket chains as Denmark. Also the phenomenon that the general store chains and independent general stores get almost all their food products from such a limited number of wholesalers may not apply in the other European countries. Besides, it will be difficult to implement the survey in other countries where the reporting of statistical information by respondents is not mandatory.	
	Threads	
Identification of critical points, barriers, problems and proposed solutions	A market distribution analysis on the sale of organic food products in the whole retail sector is a prerequisite for the evaluation of the applicability of the data collection method used in the Danish survey on turnover of organic food products. If the reporting of statistical information is not mandatory when requested by the statistical offices, the response burden should be compensated in some way. The respondents may be reluctant to give such information due to market interests, so great care has to be taken to guarantee confidentiality and anonymity of the data presented.	

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

Note: the following section relates the case study to the recommendations generated in WP2/3 and WP4 which have already been validated by experts. The main question, therefore, is how the results of the investigation here support or conflict with the previous recommendations and how they might contribute to a general improvement in data quality.

General recommendations:

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

The survey is based on the COICOP classification system. Therefore the DCPS is harmonised with the already existing DCPS on household budget surveys

- *Development of IT solutions to facilitate the recommendation above, including use of on-line forms for data collection.*

The use of separate marks for organic food products and the electronic scanning in of the bar codes in the supermarkets and wholesalers makes it simple to identify the sale of organic food products classified according to the COICOP classification system in the accounting system.

The reporting of the data to Statistics Denmark is carried out by means of Excel spreadsheets, which can be filled in on the computer online.

- *Establish mechanisms to facilitate statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives.*

In connection with the collection of data on turnover of organic food products in retail shops Statistics Denmark has established national user groups with key stakeholders for the development of initiatives and improvement of the quality of the data collection. Similar user groups may be established in other countries.

International virtual experts' networks for public and private statistical agencies collecting such data may also be established to develop initiatives to harmonise data collection and improve the data quality.

- *Facilitate easy access to and timely/rapid dissemination of available data (especially regarding online access of data)*

The data may be put on the website of the Statistical agency with online access free of charge. At the same time the information could be supplied to an international webpage for relevant statistical experts by means of links. The international webpage might be hosted by Eurostat or the international virtual experts' network proposed above.

- *Establish common operator identification number to enable linking of administrative and statistical data.*

All operators with a turnover of more than 50,000 DKK ~ 6,700 € are registered in the Danish central VAT register. The VAT number is used as common operator identification number in all reporting systems required by various public authorities.

In the survey on turnover of organic food products in retail shops the common identification system, COICOP has been introduced for linking of the administrative

and statistical data on organic food products turnover and the household budget survey.

Consumer/retailer and supply balance level

- *Obtain relevant retailer/consumer data directly from commercial providers working to a common European standard to ensure a) relevant variables covered and b) time series data generated.*

The case study shows that in Denmark it is possible to get a reasonable estimate of the turnover of organic food products with the involvement of a few commercial respondents (the supermarket chains and the wholesalers) without involving commercial data providers. This is possible because the reporting of statistical data in Denmark is mandatory when requested by Statistics Denmark.

A similar approach involving payment of the respondents may be relevant in other EU Member States with a more or less similar market structure. However, a market survey is needed to get more information on the marketing channels for organic food products in the various EU countries before it can be established in which way the data on the turnover in organic food products in the retail shops can be collected in the simplest and cheapest way for respondents as well as for data processors, whilst at the same time guaranteeing high data quality.

The COICOP classification system is already harmonised in Europe, so relevant variables should be covered.

3 Germany

National Working Paper

GERMANY

Prepared by:

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Case study: ZMP- Price reporting

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The ZMP producer and wholesale market price reporting covers most of the important agricultural product groups. For conventional products, collection is carried out by separate departments (fruit and vegetables; animals and meat; poultry, milk and milk products; arable crops). Only prices are collected for most products, but for some quantities are collected as well (e.g. of processed products or of storage). Different marketing levels are involved, depending on the market structure. Besides wholesale markets there are systems collecting prices from the producer (direct selling, sales to retailer and wholesaler), producer organisations, packaging stations, slaughterhouses, mills and dairies. Data are collected according to spatial criteria, i.e. federal states, on the marketing level (consumer, retailer, processor, wholesaler), product quality, varieties, product size or packaging units and origin. Data for most product groups on conventional markets are gathered weekly.

Usually, organic data are not integrated into traditional DCPS, nor are they distinguishable from total data. For most product groups, a separate system exists in the organic department of the ZMP. There are some exceptions where data on organic markets are gathered by conventional systems as well (apples, carrots, chicken, milk price survey and pig price survey). Reasons for not integrating organic data collection into total data collection were:

- A very low market share of organic products (< 2 %).
- Organic products are not traded in traditional wholesale markets / producer organisations. Usually, organic markets have their own distribution structure.
- Conventional market participants are not interested in organic market data.
- Not enough human resources in the conventional departments.
- Organic market participants are not interested in providing data to the conventional market. They fear a price decline when having to compete with conventional markets.

The frequency of data collection for organic products depends on the market situation: fruit, vegetable, herb and potato prices are collected weekly, cereal and milk prices monthly and meat prices quarterly. In most product groups it is possible to compare conventional and organic data.

Wholesale price reporting for fruit and vegetables

Due to the limited time left for describing the ZMP market reporting on organic markets, the case study report concentrates on data gathered for the market for fruit and vegetables. Within the organic market reporting, this reporting is the most time-consuming.

Price reporting on fruit and vegetables, the “wholesale price analysis”, was established at the beginning of the 1990s. Today’s price reporting on fruit and vegetables is based on the reports from 150 fruit and 190 vegetable registration posts indicating their prices. However, this figure clearly relates to more producers than the number of registration posts would imply at first sight. Many registration posts report prices for several farms. Organic farms, producer cooperatives as well as purchasing wholesalers are involved in these registration posts. The organic farms forward their sales prices to the (purchasing) wholesalers on a weekly basis. The prices from purchasing wholesalers (wholesale cost prices) which are also reported weekly, are also integrated into this report. In the case of producer cooperatives the registration posts often represent several individual farms. In order to allow the differential scale structure of the reporting enterprises, the prices of the producing farms are weighted on the basis of the cultivated area or the processors are weighted on the basis of the processed quantities. Based on the estimated sales the wholesale cost prices of the wholesalers are weighted.

The product range comprises the entire domestic assortment of fruit and vegetables. Not only products like “lettuce” are being registered, the differentiation for products such as lettuce extends to the level of iceberg lettuce, Batavia lettuce, etc. Depending on the product, differentiation is made by the size (e.g. size of package), however this is not as comprehensive as in the reporting on conventional fruit and vegetables. Based on the structure of the reporting persons this is not feasible. Reporting is representative for most products and seasonal terms. Approximately 1,500 hectares of a total organic vegetable growing area of approx. 8,200 hectares and approximately 1,350 hectares of the total organic fruit growing area of approx. 4,600 hectares are registered by the system.

Publication is carried out by means of a weekly market report, the “ÖKOMARKT-Forum“, and via an on line service allowing access to the price database for compiling time series. This reporting only allows a limited comparison between conventional and organic products since conventional reporting collects data on another market level (wholesale cost prices versus wholesale sales prices).

Special software was developed for collecting data for organic price reporting and is continuously being refined. This software is based on an SQL database with interfaces to Access and VBA programmes, thus allowing manifold analysis. This database is to be refined and simplified over the next 5 to 10 years. Data from other systems (e.g. conventional reporting for the wholesale price comparison) can be loaded without any manual effort. Data processing mostly happens automatically. Thus all the results will be put into standardised data input masks which will be published directly on the internet without any manual effort. Next to an extensive acquisition module the software supports the computer-aided plausibility check. In addition to this, an expert check will be carried out by staff members of ZMP. Moreover, the data will also be collated with the data from other sources.

One module for the data exchange will be the “supermarket sales price comparison” for fruit and vegetables of conventional and organic origin which was set up at the end of the 1990s. Wholesale prices for the entire domestic supply of fruit and vegetables from organic farming are collected at the most essential German fruit and vegetable markets. The data are differentiated product-specifically according to the region of origin, size and weight. Data are provided by wholesalers represented at the supermarkets. However, sales of organic products via supermarkets are not as significant as for conventional products. This data collection rather serves as a means of direct price comparison between organic and conventional products since other price surveys do not allow a direct comparison with the conventional market. On the other hand, the wholesale price comparison based on data provided by almost all the organic wholesalers is more representative for the wholesale trade.

Further market reporting exists for imported fruit and vegetables as well as apple storage capacities.

According to the data quality of the DCPS (as defined by Eurostat 2003) the following rough expert estimation was made by the interviewed partners.

Table 1: Data quality

Relevance	The DCPS meets the current needs of most users about prices satisfactorily; statistical concepts and methods are sufficient. Number of data providers should in some cases be improved. Information about volumes is scarce and would need improvement but this would require more human resources.
Accuracy	Data are provided at both sides of the transaction – the selling producers and the purchasing trade. Since traditionally the selling producers have a tendency to report prices which are rather too prices which are rather too low, this will increase the accuracy and the truthfulness of the data.
Timeliness and Punctuality	Weekly up-to-date prices, for the participating group of users updated daily, for readers with a delay of three days. Situation is fine.
Accessibility and Clarity	Aggregated data are fully accessible, for the group of users even one day earlier.
Comparability	
Coherence	Data are comparable to conventional market data for potatoes, cereals, meat, milk and eggs. Because data are collected on a different market level, this does not always apply to vegetables and fruit. With regard to product definition, more and more product describing standards of the conventional sector are being adopted.

Table 2: SWOT – Analysis whole sale market price reporting

	Strengths	**Weaknesses**
Facilitation of data collection and processing	▪ Standardised data input mask ▪ All the results / evaluations will be put into standardised data input masks which can be published directly on the internet or processed for the printed report without any	▪ The census form is quite extensive for the product range of fruit and vegetables. Most enterprises use it only as an “impulse” for providing data. This is why the sequence of products via sales lists / sales

	manual effort. ▪ Manual processing of the conventional prices will not be applicable for comparing conventional and organic. The prices can be transmitted digitally.	faxes is often quite different from the data input mask. ▪ The cost of adjusting the provided data to the structure of the census form / the data input mask are high. ▪ One of the reasons is the fact that the prices partially originate from different trade levels resp. different sources. Accordingly, prices will have to be converted; the respective experts will have to decide which prices are not to be adopted. ▪ Based on these facts electronic data acquisition will not be possible.
Data quality	In most of the product groups the reporting persons' structure is representative for German organic production.	
Legislative issues	The German Agricultural Marketing Fund Act (Absatzfondsgesetz) will ensure support by the agricultural sector.	
Administrative issues		High manual effort when preparing data acquisition; this cannot be automated.
Cooperation with data providers	Cooperation exists with consulting organisations in some regions (Hesse, Bavaria) which provide data. Complementary data procurement by these two federal states amount to 10,000 EURO per year. For this purpose they contact, amongst others, the reporting persons. Active cooperation with whole sale markets and ZMP representatives	
Cooperation with national / international statistical offices	Data from the national statistical office derived from a national census deliver additional information about production structure every 4 years.	Census is not fully harmonised with information needs of the organic sector, thus several problems are inherent.
Costs	The German Agricultural Marketing Fund (Absatzfonds) will finance the basic operation; the marketing will cover the expenses for printing, and postage;	Because of a market share of less than 3 % the corresponding ZMP-budget for the organic department is not sufficient to observe and analyse the whole organic market

	administration and invoicing.	in the necessary range and depth, as it is done in the conventional areas.
	Opportunities	
Possibilities to overcome identified weaknesses	In view of the quite heterogeneous nature of the reporting persons, automation of the data collection, e.g. by means of on line recording, will not be feasible. Any attempt to have them use a given structure will result in a decreasing number of reporting persons and quality of data.	
What is new in comparison to systems used so far?	There is no other country with a comparable system.	
Can the system be used for data harmonisation?	With reference to the weaknesses identified above, the system can be used for national and international harmonisation of data.	
Relevance / applicability for international implementation	Provided that there is sufficient budget available, the German system could be transferred to other countries and applied to the specific situation there.	
	Threats	
Identification of critical points, barriers, problems	The number of participating enterprises should be kept at a high level and be constant. For example, the question will arise whether wholesalers – in view of increasing mutual competition – will be continue to be willing to report prices. This should be a problem especially in smaller countries with a limited number of wholesalers (e.g. NL, BE, DK etc.).	
Proposed Solutions	?	

Continued reporting on organic products

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The objective of the project “Quantification of the demand for organic products in Germany including the results from research project 02OE367” is to illustrate the development in the demand for products of organic farming. The project is part of the government’s “Organic farming” programme which is intended to improve the basic conditions for increasing organic farming. This is to be implemented particularly by intensifying the projects focusing on markets, sales promotion and marketing. The project ends in December 2006.

Within the project a reporting system on consumer behaviour regarding organic products is to be established to consider the most important products and types of shops. Panel data from retail panels as well as consumer panels will be integrated. AC Nielsen, GfK and bioVista will be the partners in this project. ZMP will be in charge of the coordination and will bring together the data from the different sources. CMA will support the project financially. According to the findings of the special panel on organic food (BÖL-Projekt 02OE367) this combined approach is supposed to cover about two thirds of the demand for organic products. The project life is limited to three years.

Project partners

ZMP
ZMP is a company financed by compulsory fees from farmers collected through the Absatzfonds (German Agricultural Marketing Fund). Objectives of the company are the permanent collection and distribution of information on agricultural, food, forestry and timber markets in order to enhance the transparency of the markets. Using modern editorial and communication techniques, ZMP has to provide neutral and up-to-date information services to all target groups of the agricultural marketing chains. ZMP monitors the market and prices of arable crops and livestock production.

ZMP has a special department for organic products. Organic price reporting started in 1991 and today covers most of the important product groups and most sales levels: fruit and vegetables; animals/meat; milk and eggs (only direct sales); cereals and potatoes. For these product groups, data on the amounts produced are also collected. For further information, see part II of the German case study.

AC Nielsen
AC Nielsen is a market research company which operates worldwide. In Germany, AC Nielsen collects over its Market*Track retail scanning panel data from a sample of about 750 outlets and offers producers and retailers a detailed insight into the sales of products. Information is collected from retail channels like supermarkets, hypermarkets and discounters. Usually AC Nielsen retail panel reports are confined to packaged goods at multiple retailers and drug discounters. Beverage shops are included when necessary. AC Nielsen offers information about all kinds of development in retail by area, type of supermarket, size of supermarket. For many product characteristics AC Nielsen delivers information on volumes, sales, prices and distribution level.

AC Nielsen has no database with EANs of all organic products. In order to generate such organic product information, AC Nielsen analyses trade texts and price lists of manufacturers. In addition, AC Nielsen's field service examines all products in a particular category in a sample of shops and divides them into organic or non organic. When the organic product identification is put into effect for Market*Track, the information is also available in Homescan, AC Nielsen's consumer panel. In May 2004, shop audits took place for milk, yoghurt, butter and curds. In 2005, AC Nielsen intends to cover about 10 further product categories in cooperation with ZMP and CMA.

GfK Panelservice
GfK is a market research company which operates worldwide. Amongst other things, it conducts a consumer panel with 13,000 households in Germany. These households continuously register data about their product purchase behaviour for fast moving consumer goods using in-home scanners. In order to register products without EAN (like fresh vegetables), GfK provides their households with a detailed code book where codes for many fresh products are available. GfK split for fresh food is much more detailed than AC Nielsen's Homescan. After scanning a fresh food item in the code book, the panellists are conducted to a scanner dialogue in order to record further product characteristics like country of origin, package type and organic / non organic classification. The purchase data of the households are collected by GfK via modem once a week. GfK offers information about all kind of development in retail by area and shop types. For many product characteristics GfK is able to deliver information on volumes, sales, prices and penetration, purchase frequencies, loyalty, buyer demographics and attitudes, etc.

GfK has no database with EANs of all organic products. Thus they have to analyse trade texts and price lists of manufacturers in order to generate organic product information for EAN products. For fresh food without an EAN, the scanner dialogue asks the panellist to classify between organic and other food products.

bioVista
bioVista is a private company which specialises in consultancy for the specialised organic sector. It operates a DCPS gathering organic data on retail sales, retail volumes by product group, retail volumes by market type, consumption frequencies, market share of single product groups, national consumer prices. The panel covers only organic sector data. It focuses on organic retail shops (Naturkostwarenhandel). Even though the number of retail shops participating is still low, the data provided by bioVista show a high correlation to the wholesale sales of the German organisation of organic wholesalers and manufacturers (BNN). Data are related to brands and are collected for bread and cereals, fruit, vegetables, beef incl. veal, sheep and goat, pork, poultry, fish and fishery products, milk, milk products, cheese, eggs, edible fat and oil, sugar, jam, honey, chocolate and sweets, sauces, salt, herbs, soups, coffee, tea, cocoa, water, lemonade, juice, baby foods, alcoholic beverages, wine, beer. Data collection started in 2003. Differentiation according AC Nielsen regions is planned to start in 2006. AC Nielsen has divided Germany into 8 main regions.

Detailed description of the case study

The project covers the following product groups:

1) vegetables (fresh)
2) fruit (fresh)
3) bread
4) eggs
5) potatoes
6) meat
7) sausage
8) poultry
9) cheese
10) milk
11) yoghurt
12) curd cheese
13) butter
14) cereals, muesli (excluding oat flakes)
15) spreads, spicy
16) spreads, sweet (excluding honey)
17) honey
18) biscuits
19) other sweet pastry

20) pasta (non refrigerated)
21) fruit juices
22) vegetable juices
23) baby foods
24) flour and cake mixes
25) frozen vegetables
26) frozen fruit
27) frozen ready-to-serve meals
28) canned vegetables

For economic reasons only the fresh products 1) to 9) and the dairy products 10) to 13) will be included during the starting year.

GfK consumer panel

The product groups bread, meat, poultry, vegetables, fruit, potatoes, eggs, cheese, sausage will be presented in the project **"Continued reporting on organic products"** via the GfK household panel, namely in all types of shops (food retail supermarkets, trade shops, organic food shops, organic supermarkets, health food shops, producers). The distribution of the shops will be validated and adjusted by means of the special panel (BÖL-Projekt 02OE367). In view of the great demand for these products the figures obtained from the household panel will suffice in order to illustrate the development. Following the first inquiry the purchases of organic products will have to be examined intensively at the premises of GfK. With regard to loose products recorded by means of a codebook (diaries) it must be ensured that the purchases erroneously reported as organic products by households will be processed as conventional ones. In this case the price can be an important indication. Regarding EAN goods, GfK will have to find out by means of information obtained from co-operating trading companies, price lists and internet research which EANs cover organic products and which cover conventional products. This will require extensive preliminary studies in the categories of bread, vegetables, fruit, potatoes, cheese and sausage. For these categories GfK will add the identification for organic products to the crude data of the household panel available to ZMP via the internet. ZMP will validate the data by means of the special survey (BÖL-Projekt 02OE367) and other sources and will prepare these for an integrated report.

AC Nielsen retail panel for the food retail trade (LEH)

A certain quantity of the product groups (10-28) mentioned above will be studied by AC Nielsen on the basis of a trade panel in the food retail trade. Within the range of these product groups organic food shops, organic supermarkets and the food retail trade together have a market share of 70 to 80 %. Identification of packaged organic products in the food retail trade will be a significant expense factor in this project. The bar code on these products (EAN) will not allow differentiation in advance between organic and conventional. Consequently the organic products will have to be identified by product group. For this purpose the AC Nielsen field service, in addition to price lists and trade information, visits approximately 80 random shops once a year and classifies all products of the studied product groups as organic and conventional products. AC Nielsen reports quarterly on quantities, expenses, prices and distribution of the respective product groups and their segments with respect to regions and shops. AC Nielsen is not supplying any new product groups under these circumstances but is limited to sectors in which there are surveys already carried out for conventional customers.

bioVista – retail panel for specialised organic food stores

The final piece of the puzzle is the bioVista retail panel. Methodologically it corresponds broadly to the AC Nielsen approach. The product database of

Ökoinform, one bioVista's associates, is an important element which means that identifying the products will not be a problem here. However, since for the time being only shops using scanners are inspected, it is not yet be possible to make a projection on the total market.

ZMP will organise the process of combining the data and will develop methods of identifying organic products by means of pricing. The customers of organic food shops not sufficiently represented in the GfK panel will be projected to a realistic level by ZMP. The results will be published and put on the website of the German internet portal www.oekolandbau.de and provided for further analysis.

After the project financing by the government's "Organic farming" programme comes to an end, the greatest challenge will be to ensure continued funding for the system. Therefore following the promotion of the project by the government's "Organic farming" programme, in co-operation with the companies involved, (CMA, GfK, AC Nielsen and bioVista) ZMP will determine the prerequisites and partners which will allow the financial continuation of the project. Based on today's views, ZMP and CMA will continue studying the fresh categories 1) to 9) and a few other product code groups in the future and provide the results to the market participants by means of publications and presentations. As soon as the identification of organic products of a product group has been accomplished, there will be a facility available for the producers and the trade to have trademark and product specific analyses carried out at their own expense through market research institutions without having to pay set-up costs. This way they will have available the most important mechanisms for planning and directing their marketing and sales which are used by the producers of conventional products. Furthermore, the data from this project will subsequently be provided to universities for research projects.

According to the data quality of the DCPS (as defined by Eurostat 2003) the following rough expert estimation was made by the interviewed partners.

Table 1 Quality dimensions and selected indicators

Quality dimension	Judgement for case study
Relevance	The project will be a great improvement in comparison to the existing situation.
Accuracy	The current data situation on demand level is bad. The project will improve this situation significantly. Data accuracy depends essentially on the correct identification of organic data. This is especially true for the GfK diary approach. Mistakes may occur when the reporting households try to classify organic and conventional products. In AC Nielsen retail panel some important retail chains are missing (e.g. Aldi). They are estimated via AC Nielsen Homescan, which does not represent as many purchase acts as the AC Nielsen retail panel. The data base of bioVista is still rather weak, but steadily growing. ZMP will improve data quality significantly using different data sources. After having established a more satisfactory data quality, producers and retailers can benchmark category by category for their own business with the total market or certain adjustment to the total market (shop types, regions). In addition, it is possible to order specific brand information. For the administration it will be possible to have good estimates for product specific developments in demand. Thus, it is possible to consult farms with respect to successful future production opportunities.
Timeliness and punctuality	Parts of the data are available two to four weeks after the end of the data collection period. Others are only provided twice a year.
Accessibility and clarity	Aggregated – analytical - data will be available online. Other data will be disseminated via presentations and publications of ZMP. Universities will have access to the data.
Comparability	No comparable system exists worldwide.
Coherence	Until now there is not enough experience for an assessment

Table 2: Project overview

	Cooperation project: continuous reporting on organic product demand			
Institution	ZMP Zentrale Markt- und Preisberichtstelle für Erzeugnisse der Land-, Forst- und Ernährungswirtschaft GmbH Rochusstraße 2 D-53123 Bonn E-mail: info@zmp.de Tel.: ++49-(0)228/9777-0 Fax: ++49-(0)228/9777-300	AC Nielsen Ludwig-Landmann-Str. 405 60486 Frankfurt/Main Tel.: ++49-(0)69/79385-23	GfK Panelservice Nordwestring 101 90319 Nürnberg Tel.: ++49-(0)911/395-3363 Fax: ++49-(0)911/395-4009	bioVista bioVista GbR– Handelspanel Erdmannsdörferstrasse 6 D-81247 München E-mail: spahn@bio-vista.com Tel.: ++49-(0)89/811-8009 Fax: ++49-(0)89/811-8009
Responsible:	Dr. Paul Michels	Wolf Hemmelmann	Helmut Hübsch	Christoph Spahn
Type	Semi-governmental	Non-corporate	Non-corporate	Non-corporate
Experience / competence on organic markets	First projects in 1990	Only by projects with ZMP	Only by projects with ZMP	Several years of consulting experience
Funding				
of the institution in general	compulsory fees of farmers / own revenues	Information is sold	Information is sold	Information is sold
of the project	In the first year, data collection funded by ZMP/CMA, only fresh products. 2005 and 2006: data collection partially funded by German government / BLE. Project assistant at ZMP funded by BLE. project duration: 2 years			
		Packaged goods		
Mode and method of data collection	Analysis and adjustment of data generated by three co-operation partners; ZMP-raw data analysis	Representative retail panel on scanner basis / field service visits for product classification in 80 retail shops / random sample	Analysis of representative, consumer panel data (13,000 consumers equipped with home scanners)	Retail panel on scanner basis; presently, no calculation of the total market is possible
Product ranges covered	2004: Vegetables / fruit / bread / eggs / potatoes / meat / sausage / poultry / cheese / milk / butter / yoghurt / curd cheese	Milk / butter / yoghurt / curd cheese / a selection of packaged goods categories	Vegetables / fruit / bread / eggs / potatoes / meat / sausage / poultry / cheese	see AC Nielsen
Data coding		EAN based for packaged goods: EAN codes – have to be identified by field services (in 80 test shops)	EAN based codebook for “loose” goods, important: examine classification of organic products, one option: price level as indicator.	Product identification based on the product data base owned by Ökoinform, one of the associates of bioVista. Identifying the products will

			EAN coding for packaged goods, classification based on data provided by retailers, price lists and internet research	therefore not be a problem.
Type of outlet		750 multiple retailers and drug discounters	All types of outlets	75 organic retail shops
Period of data collection	2004-2006	Weekly analysis of scanning data organic coding: ongoing for new products	Weekly data gathering	monthly
Dissemination of results	General data will be published by ZMP/CMA via Ökolandportal; presentations and other publications; data will be made available to universities and others; usable in all kind of projects e.g. with CMA	detailed product related information to be sold privately; aggregated data provided via ZMP	detailed product related information to be sold privately; aggregated data provided via ZMP	detailed product related information to be sold privately; aggregated data provided via ZMP

SWOT Analysis

Table 3: SWOT Analysis BSM

	Strength	**Weaknesses**
Facilitation of data collection and processing	ZMP organises the whole process including the aggregation of data, based on knowledge from previous projects. Methods to identify organic products will be developed. The market share of organic retail shops will be adjusted to a realistic rate.	Product identification by private consumers is still a weakness.
Improvement of data quality	Coordination of data of different panels helps to overcome weaknesses of individual systems: 1) market coverage (66% of organic consumption) 2) all type of retail outlets covered	Data accuracy depends essentially on the correct identification of organic products. There is still a risk of misclassification of organic products, especially for unpackaged goods. This is especially true for the GfK diary approach. A lot of mistakes occur when the reporting household fills in the diary / codes his purchases. High costs for identification of organic products. Even by applying price frames, errors cannot be eliminated completely and only for some products is this method applicable. In the AC Nielsen retail panel some retail chains are missing (not only Aldi). The data base of bioVista is still rather weak.
Cooperation with data providers	Coordinated via ZMP; project is a good example for working with private company competitors. Usually, AC Nielsen and GfK are competitors on conventional markets. In addition, bioVista is a competitor on organic markets. Co-operation is possible due to the involvement of ZMP as “neutral” co-ordinator.	
Cooperation with national / international statistical offices	ZMP is constantly in contact with the German Statistical Office, the BLE and Eurostat. Furthermore, ZMP aims at involving cooperation with research institutions as the Bundesforschungsanstalt für Ernährung und Lebensmittel (Kiel) or the University of Kassel.	
Costs	The project is funded by CMA/ZMP as well as the German government, represented by BLE. Together with CMA and bioVista, ZMP aims at conducting further projects with private partners. What happens, when the project ends? Can the project be installed permanently?	
	Opportunities	
Possibilities to overcome weaknesses identified	Cross checking data by ZMP to overcome misclassification of organic products. In order to generate funds, selling of detailed, product specific data to private companies in the organic sector will be important. Good contacts of bioVista help in addressing potential customers.	
What is new in comparison to systems used so far?	So far, no valid data on all types of retail channels are available. Now, both the classical FMCG retail as well as organic retail shops will be covered. Based on special assumptions, total market estimation will be possible.	

Can the system be used for data harmonisation?	This system offers an approach to data harmonisation of all existing market data.
Relevance / applicability for international implementation	Project will give valuable hints on how to proceed in other countries. This type of project will function in a country, where an organisation similar to ZMP / CMA exists e.g. in Austria, The Netherlands or Italy. In Switzerland, FiBL could take over the mediator role.
	Threats
Identification of critical points	Funding after project ends. ZMP/CMA plan to fund fresh food and milk after the end of the project and distribute this information. For the other categories, private companies can buy the data of other product groups directly at AC Nielsen or bioVista. If possible, research co-operations can be established to lower the costs for the single companies.
Description of barriers, problems … / solutions	**Problem**: When using the scanner data organic products will have to be identified by means of the European Article Number (EAN). **Solution**: This information can only be acquired through extensive research via price lists, the internet, visits to shops or questioning manufacturers. **Problem**: In the case of loose products such as bread, meat, cheese, sausage, eggs, fruit, vegetables and potatoes the demand can only be registered by the end consumer, the problem being that the consumer will take conventional products for organic especially when purchasing from direct marketing (sold at the farm, weekly market). **Solution**: It will be necessary to find methods of identifying and correcting false registrations. The price paid will be an appropriate criterion. **Problem**: An adequate representation of the specialised organic food shops with regard to loose products is also scientifically challenging. **Solution**: A comparison with the structural data from the completed project 02 OE 367 which are estimated to be valid will be particularly helpful.
Relevance / applicability for international implementation	If there is no institution which takes over the mediator role / coordination, it will be very unlikely that similar projects will be conducted. In countries, where there are institutions like ZMP, the necessary budget is a challenge as well as the market know-how / market competence and / or the experience to start with similar activities.

Assessment of DCPS with regard to recommendations generated in WP2/3 and WP4

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

Organic product identification

Within the process of data collection, data processing and exchange, the most important issue on the consumer / retailer level with regard to quality management is the identification of organic products. Each product / product group has its own problems with regard to identification. This is true for the various retail chains, too. Between countries, differences in product definition, market and market structure increase the difficulties. In particular, the identification of organic products which are not standardised, packaged or sold individually packaged without an EAN code (e.g. many vegetables, fresh meat or cheese) is very difficult and / or cost intensive.

Situation in Germany: In order to optimise data quality for each product group, an approach involving all major data providers (AC Nielsen, GfK and bioVista) has been chosen. ZMP coordinates the data processing and puts together the global market data. For packaged products (sold in “classical” food stores) a classical retail panel has been chosen. Thus, packaged organic goods, bought in “normal” supermarkets and labelled with an EAN code, are collected by AC Nielsen. Once a year AC Nielsen checks the product lists in the supermarkets and classifies products into “organic” or “conventional”. Since this panel does not cover Naturkostläden, bioVista has been involved in covering this part of the market. Since 100 % of the products sold in these shops are organic products, no classification problem occurs here.

Most problems will arise in the data collected in the GfK Consumer panel, since consumers have to identify organic products without an EAN code by scanning bar codes in a GfK codebook using a handheld scanner. After scanning the code, the scanner dialogue asks for a classification of organic products. The most problematic product groups are vegetables, fruit, meat, bread, cheese and processed meat. To ensure data quality for these product groups, the GfK and ZMP will check the data based on a price range approach.

Product group definition

Another problem occurs in the definition of product groups. Each market research company defines its own product groups. For example: does ESL milk belong to the fresh milk group? Are mushrooms classified as vegetables or processed fresh salads? Does the product group meat also contain cooked meat? To which product group does soya milk belong? As in most data collection systems on the retail level, if the organic data collection has little market relevance to the data collector, it will be very difficult to convince the companies to change their overall national classification systems to a common protocol adapted for organic market needs – as long as the organic market does not have a bigger market share – or there is no demand for organic market data.

Situation in Germany: Since they have access to the GfK raw data, ZMP can accumulate its product group partly by itself. Nevertheless, a satisfactory (if not perfect) solution of common product definitions should be attainable.

Recommendation

As long as there is no demand for a standardisation of classification systems on the European level, the private market research companies will not establish common protocols. Thus, in order to promote activities towards the development of a common protocol, an IT solution, or other general recommendations, a model project should be started by EISfOM.

This project should

- *involve the countries where national systems already exist*
- *(The Netherlands, Germany, Switzerland, Austria ?).*
- *bring together the market research institutes (GfK, AC Nielsen and others) from various countries*
- *be established for important product groups (milk, vegetables)*
- *imply the option for the establishment of further systems in other countries*
- *be enlarged step by step in regard to product groups, products, countries*

In order to start that project, a preparatory working group meeting should take place (e.g. in Bonn). The need for such a meeting has already been discussed in Berlin in 2004.

This preparatory meeting should involve ZMP/CMA, FiBL, LEI, AMA and others from the retailer / consumer workshop. The goal would be to develop a draft of a European pilot project for the consumer / retailer level.

The draft should define:

- *relevant products / product groups.*
- *relevant retail shops to survey.*
- *a cost frame for the realisation.*
- *a realistic time frame for the establishment of the project.*
- *the partners involved in such a project.*
- *the function of each partner in the project.*
- *financing issues such as support by the EU / Eurostat.*

The meeting should take place in the spring or early summer of 2005.

The concept of a European pilot system for organic data collection on consumer / retailer level should be formulated as a briefing for the various market research companies. They should make a proposal which will be discussed during the Brussels workshop 2005.

- *Development of IT solutions to facilitate the recommendation above including use of on line forms for data collection*

Initially, the most important issues are product identification and product group definition. To some extent these issues could be addressed by an expert information / decision support system developed especially to support the consumer panel data identification by improving the price checks for GfK diary-based data collection on the consumer level. GfK has some experience in the use of expert decision systems for the evaluation of data from first projects in the 1990s.

- *Establish mechanisms to facilitate statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives*

If a pilot project is carried out, mechanisms can be developed e.g. by creating an extranet and having regular meetings of the partners involved in the project.

- *Facilitate easy access to and timely/rapid dissemination of available data (especially regarding on line access to data)*

In regard to easy access, it has to be clarified who can sell which data. Alongside the technical questions, this is the most important issue since panel data are usually very expensive.

- *Establish a low cost quality management system as a basis for the development of a complete TQM system on the European level as an important factor for data harmonisation in an enlarged Europe*

If a pilot project is carried out, a quality management system can be developed.

- *Establish a special leadership group for the development and implementation of an internationally harmonised quality management system, similar to the leadership group on quality in the ESS.*

The participants in the pilot project can form a leadership group. In that leadership group, organisations as ZMP, AMA, LEI, ISMEA or Eurostat as well as representatives of AC Nielsen, GfK, bioVista could be involved.

- *Aim to establish a coherent, durable system to avoid frequent changes to requirements with consequent (software, labour, data quality) costs for providers.*

By involving all major data providers as well as organisations such as ZMP, AMA, LEI, ISMEA and Eurostat as well as the private companies AC Nielsen and GfK in the process, it will be much easier to establish coherent, durable systems. Nevertheless, as long as the organic sector has little market relevance, data quality / structure / definitions of organic data bases will always depend on decisions taken for the conventional sector.

- *Ensure sufficient resources available for implementation of proposals, based on coherent justification of needs and benefits.*

Based on funds from public stakeholders (the EU, individual governments, Eurostat) and the parties involved (ZMP, LEI, etc.) a basic system could be developed. Based on this “pre-funding”, stakeholders from organic trade and producing companies could buy data for “reasonable” prices. Scientific institutions could receive data in exchange with scientific support, e.g. in assisting in the development of quality management systems.

- *Integrate organic food consumption issues in household budget or food expenditure surveys (levels 5, 6).*

In Germany, the general food market data provided by the household budget survey have higher market coverage than GfK data. Due to the fact that they are provided about 2 years after their collection, the data are of little relevance to market participants / stakeholders for short term as well as for strategic decisions. Therefore, the integration of organic market data is of little meaning for stakeholders needing data for short and medium term decisions.

National Working Paper

ITALY

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Prezzibio

Detailed description of the case study

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Azienda Romana Mercati (ARM) is a Special Agency of the Chamber of Commerce of Rome established to develop and promote the agri-food sector and to manage the Commodities Exchange and other related markets.

The objective of ARM is to promote and increase the value of the agri-food sector in the province of Rome and to provide specific development services. Furthermore, ARM undertakes initiatives, research and studies to develop the agricultural sector, supplies services to farms, organises and manages the Commodities Exchange of Rome and collaborates with other public and private organisations towards the realisation of projects within the sectors.

The projects managed by Azienda Romana Mercati, including the Observatory Prezzibio which is the object of our case study, are mainly financed by the Chamber of Commerce of Rome.

The Observatory of organic product prices was created in September 2001 by a joint initiative between ARM (Azienda Romana Mercati) and AIAB (Associazione Italiana per l'Agricoltura Biologica - Italian Association for Organic Farming). Its aim is to guarantee more price openness in market transactions among dealers and between dealers and consumers. Even if ARM and AIAB do not have specific experience and competences in the field of statistics, they have defined the framework of the observatory with the objective of managing economic information on agri-food chains in the Italian organic sector.

The DCPS - Prezzibio

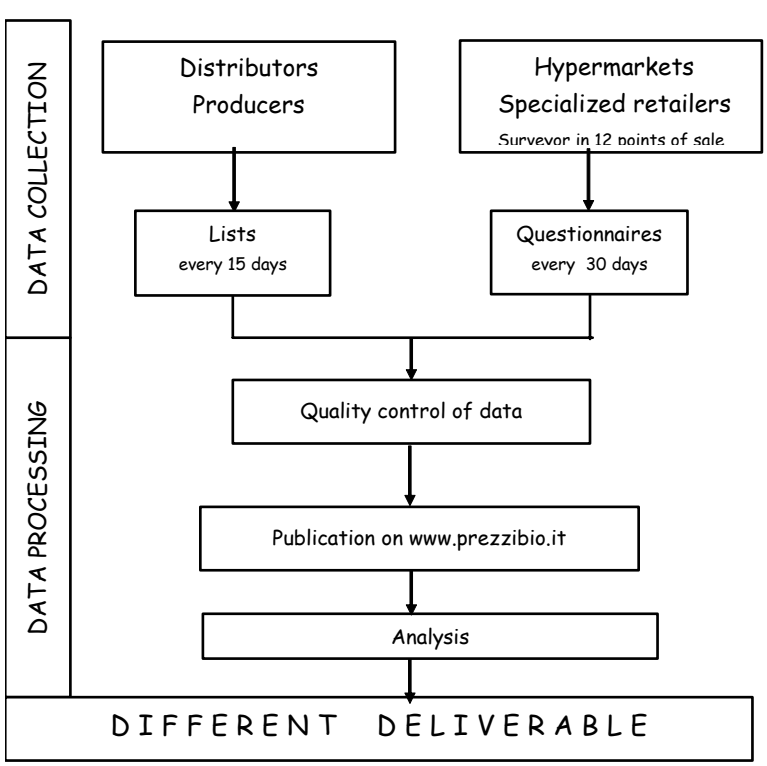
The National Observatory of organic product prices creates a series of price lists at the production and distribution level for the organic fruit and vegetable sector and at the consumer level for the following categories: milk, cheese, eggs, cereals, pulses, flours, pasta, oils and other dressings, beverages and fruit juice, tea and coffee. In every price list and for each product, the minimum, average and maximum prices are quoted as well as the market trend.

Price monitoring is carried out by the Observatory by consulting the main organic operators (distributors, co-operatives, producers, specialised retailers, supermarkets) located throughout Italy which are representative of their sector. Producers and distributors give their price lists and quotations, which are compared to establish a final price list that is published every fifteen days. The price that is published depends on whether it is present for the same product in at least three price lists.

The lack of common protocols for data collection at the production and distribution levels creates problems regarding the price definition of product categories that are not included in every producer and distributor list; therefore, data processors can use only the information related to the main product of the group under study, losing much data for many products.

Price lists at the consumer level are produced using specific surveys run in 12 points of sale, each representative of its sector in the major Italian cities. The questionnaires for data collection are the same for different points of sale and obtain the minimum, average and maximum prices for each type of product. The points of sale examined include both specialised retail and supermarkets. In fact, every month the Observatory publishes two types of lists, one for specialised retail sales and one for supermarkets.

Data collected and processed are disseminated and available free of charge on the project website at www.prezzibio.it where different market analyses are published defining:



- price comparison between organic and conventional products sold in supermarkets;
- index of market instability derived from the difference between minimum and maximum prices at various stages
- price increases along the food chain as an index of added value in the various commercial stages
- price trends over time for every single product;
- price comparisons between supermarkets and specialised retailers.

Regarding data quality, this DCPS in general provides extremely structured and detailed data, within certain limits. According to the 6 quality dimensions used by EUROSTAT (2003), an analysis of Prezzibio data quality was conducted following the advice of the partners interviewed.

Table 1: Data quality

Relevance	Data collected in the DCPS are useful and appropriate for final user requirements. Moreover, Prezzibio represents a source for many scientific studies and analyses by project partners, universities and research institutes.
Accuracy	Data do not appear particularly accurate if we consider that representativeness of the production and consumer volumes and location is not used as a defining criterion for collecting data.
Timeliness and punctuality	Although the partners in this project are not statistical agencies, data are collected and published regularly every fifteen days for production and distribution lists and every month for consumer lists.
Accessibility and clarity	Prezzibio data are clear and easily accessible; they are available free of charge on the project web site.
Comparability	Data are easily comparable in terms of time, using historic data, and in terms of space, given that the surveys are carried out in the same points of sale and for the same products. Data are also comparable to the data supplied by other international organisations since the reference points are generally the same (euro/kg, production, wholesale market and consumption).
Coherence	Problems of coherence exist with other official statistics sources, such as Commodities Exchanges.

SWOT Analysis

Table 2: SWOT- Analysis

	Strengths	Weaknesses
The facilitation of data collection and processing	• Innovation of the DCPS. No other similar Observatory existed previously. • The ability of the Observatory to represent one point of data collection available in disaggregated ways in other sources. • Data collection at the production level not available from other statistical sources • Availability of historic data	• Problems exist in relation to the standardisation and harmonisation of data nomenclature, thus the DCPS has to create unnecessarily large categories of products.
The improvement of data quality	• Relevance: data collected in the DCPS are useful and appropriate for final user requirements. To this end, a questionnaire on customer satisfaction has been distributed. • Accessibility and clarity: data are easily accessible on the website, including data for the previous six months. Previous data are available by making a simple request to ARM. • Comparability: comparable in time and space. • Timeliness: the data are collected regularly and published every fifteen days. • Prezzibio data contain information about all the chains, thus the data can be considered complete. Data in the consumer lists produced by this DCPS, contrary to what emerged from D3, relate equally to specialised retailers and hypermarkets.	• Accuracy: data do not appear particularly accurate if we consider that the representativeness of production and consumer volumes and location is not used as a defining criterion for collecting data. This is due to the difficulties in collecting data at the production and distribution levels. • Timeliness**:** data are collected and published regularly: every fifteen days for production and distribution lists and every month for consumer lists. This timing creates problems mostly for fresh fruit and vegetable products for which prices fluctuate, even on a weekly basis, for climatic reasons.
Legislative issues	• Clear and easy access and use of data	
Administrative issues		• At the beginning there were administrative problems related to the different forms of surveyors' contracts.
Cooperation with relevant data providers	• Good cooperative relationships exist with some data providers, also because they are not paid for their services.	
Cooperation with national/international statistical agencies	• There are cooperative relationships with other statistical and market organisations, although in many cases they are not formalised.	

Funding and financing issues	• Some funding and financing problems have been overcome through partnerships with other projects such as “Biomonitor” and “Biomonitor paesi terzi” promoted by AIAB and financed by the UE.	• There is a lack of funding stability in the project; it is funded on an annual basis according to the financial position of the Chamber of Commerce. Consumer surveys are very expensive; this problem hinders the project from achieving the aims of improved accuracy and timeliness of data
Opportunities		
Possibilities to overcome weaknesses identified	• Cooperation with other organisations also to overcome financing problems • To achieve financing stability for further project developments	
What is new in comparison to systems used so far?	• No other DCPSs before Prezzibio collected data on organic product prices for the entire chains from production to consumption	
Can the system be used for data harmonisation on national level?	• The Prezzibio DCPS could represent an example of data harmonisation	
Relevance/applicability for international implementation?	• The Prezzibio DCPS could have relevance and applicability at the international level if it could overcome the limits of data accuracy.	
Threats		
Identification and description of critical points	• The entrance of heavily funded national statistical agencies into the collection of data and processing of organic product prices could be a threat for the Prezzibio project. • There are difficulties in achieving data at the production level because farms that do not direct their sales to distribution but give their product to cooperatives and farmer associations are not able to define the product price • Lack of financing stability	
Suggestions for solutions	• Building cooperative relationships with other organisations is the solution for the various problems identified.	

Assessment of DCPS in regard to recommendations generated in WP2/3

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

From the case study results, a strong interest from the partners emerged regarding data harmonisation issues; however, much work needs to be done towards goal improvement. The main problems identified concern data collection at the production and distribution levels using data provider lists instead of common protocols. This complicates defining the price of some minor product categories. However, the Observatory data are harmonised with respect to other projects, such as Biomonitor, with which a cooperative rapport has been established.

- *Development of IT solutions to facilitate the recommendation above, including use of on line forms for data collection*

The software utilised by the project provides on line forms of data collection but IT solutions are almost never used to improve the quality control of data.

- *Establish mechanisms to facilitate statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives*

Project partners are particularly active in establishing cooperative relationships and communication with other organisations and experts. As mentioned above, the project partners maintain both formal and informal relationships with other project agencies. For example, Biomonitor is a project that collects data on organic product prices for countries like France, Portugal, Spain, Germany, Belgium and Switzerland. In Italy the Ministry of Agriculture has just approved a project to implement an Economic National Observatory on Organic Agriculture in which various statistics and scientific organisations participate. The Prezzibio project could play a fundamental role in the National Observatory WP on prices as an instrument of data harmonisation at the national level.

- *Facilitate easy access to and timely/rapid dissemination of available data (especially regarding on line access to data)*

One of the main strengths of this case study is the easy access to data through the publication of price lists on the web site. This is very important to achieve the principal aim of the project, i.e. to guarantee more price openness in market transactions amongst dealers and between dealers and consumers

- *Establish a low cost quality management system as a basis for the development of a complete TQM system on the European level as an important factor for data harmonisation in an enlarged Europe*

Prezzibio is certified ISO9001 but has developed a TQS which is more formal than substantial.

- *Ensure sufficient resources available for implementation of proposals, based on coherent justification of needs and benefits*

One of the main problems evinced by the partners interviewed has been the financial instability of the project. It is financed every year by the Chamber of Commerce on the basis of financial availability. This in turn, however, limits obtaining the goals of accuracy and timeliness of the project.

Supply chain level and import/export level

- *Integrate data from third country import approvals and certification body data in trade statistics (level 3, 4, 6*

Prezzibio does not provide for data from third country imports; the partners consider this data introduction interesting for the project, even if currently the most important goal is to obtain greater accuracy and representativeness of data through linking product prices to product volume and flow.

Further recommendations:

- *Establishment of national/international observatories*

  As reported above, an Economic National Observatory on Organic Agriculture has been approved in Italy, for which the Prezzibio experience could be of fundamental importance.

- *Development of national and international yearbooks*

  Prezzibio does not provide yearbooks, which could be an interesting initiative; however, the costs and lack of funds render it difficult.

5 The Netherlands

National Working Paper

THE NETHERLANDS

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Skal pilot study.

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Skal is the inspection body for organic production in the Netherlands. As an independent control agency, Skal focuses on organic production through inspection and certification. Skal controls whether a company can produce according to the prescribed conditions. Under the authority of the Ministry of Agriculture, Nature and Food Safety, Skal audits organic agricultural farms, manufacturers and importers (from outside the European Union).

Since 2002 Skal has been part of Foundation Skal International. The Foundation has an executive committee of independent people and representatives of the organic sector. The board controls the functions of Skal and the form and content of the certification programmes for organic production. This is done by order of the legal instructions of the Ministry of Agriculture, Nature and Food Safety and under the supervision of the Dutch Accreditation Council (RvA).

Skal International carries out, for the Skal Foundation, the physical audits of organic production in the Netherlands. Furthermore, Skal International certifies sustainable forest, wood and textile production as well an organic production abroad, as for Bio-Suisse in Switzerland.

Skal receives no subsidies and is self-supporting. The farms and companies pay for the Skal inspections in order to receive the organic certificates.

Improvement of the quality and certification process and improvement of the information transfer to farms and companies were two major achievements in 2003.

Skal Data Collection and Processing System

Skal surveys organic production by means of inspection and certification. Inspections can be farm visits, examination of samples taken from the soil, crops or products and administrative assessments. When the production process fully meets the requirements, certification can take place. Skal inspection takes place in accordance with certain regulations that have been approved by the Dutch Ministry of Agriculture and the Council for Accreditation and is carried out by Skal International. Every farm or company registered with Skal received at least two visits last year.

The major aim of the Skal data collection and processing is to support the inspection and certification process. Furthermore, the contribution of the farms and companies to Skal is based on data obtained from inspection and certification audits.

In 2003 Skal began to develop a new system to control the data of the affiliated farms and companies. Before 2003 information about the affiliated companies was obtained by sending statement letters to the companies, whereas during 2003 and 2004 SKAL used data gathered by the inspectors to obtain this information. If affiliated companies have not been visited before August, the companies still receive a statement letter to be completed and sent back to SKAL. The aim of this development is to deliver useful management information, to improve the settlements with the farms and companies and to provide better insight into individual farms and companies. The data obtained from the inspection are not published; only the names and addresses of the affiliated farms and companies are published on the Skal website and are updated regularly. However, once a year Skal send detailed data to LEI to be analysed and processed. LEI publishes the results of these analyses annually in the Ekomonitor. This annual report (also available on www.platformbiologica.nl) contains information about the number of organic farms by farm type, crop areas and numbers of animal (heads) and the number of processing and importing (from outside the EU) companies.

The Skal DCPS contains the following types of information:

- Primary production
    - Number of farms, area of organic land and in conversion land divided into categories corresponding to the Skal tariff system. Appendix 1 shows the characterisation of that tariff system. The Skal inspectors gather information about land use and activities and store this information in an Excel spreadsheet model. Skal use the information to send invoices for the annual contribution to Skal. The current DCPS contains no harmonised system for the registration of land areas of specific crops.
    - Number of processing and importing companies and annual turnover divided into categories and sub-categories as presented in appendix 2.

Quality of the Skal DCPS

As defined by Eurostat 2003, the data quality of the DCPS can be described as follows.

Table 1: Data quality

Relevance	The data meet Skal's internal needs in terms of determining the contribution of the affiliated farms and also of farm structure. For external users the data do not, at the moment, provide a complete overview compared to the classifications and definitions of EU regulation 2092/91.
Accuracy	The Skal DCPS provides a complete overview of the activities of the affiliated companies, areas, groups of crops and animals, which are fully converted, in conversion, etc.
Timeliness and punctuality	For their financial accounting Skal aims to have a complete overview around August/September. LEI receives the information at the end of that year. At every point, information is available about the number of affiliated companies and the number of certificates issued.
Accessibility and clarity	The information is sent to LEI as Excel spreadsheets containing the raw data from the farms. LEI process these data to be published in the annual Ekomonitor. Skal data about the number

	of affiliated companies and the number of certificates is available for other users from their website.
Comparability	Skal statistics are useful to compare the developments over (Dutch) space and time. They are at the moment less useful for comparison with other European statistics because of differences in definitions and classifications. On the higher aggregation level, data is comparable on the European level.
Coherence	Reports, both annually and quarterly, are based on data from the same source and collected in the same way.

Through the continuous improvements made by Skal, the quality of data collection and processing is also improving. One example of these improvements is the development of a new information system, called PIM (Program Inspection Module). PIM is an Excel-like application in a Windows environment and will be used in the near future by the inspectors instead of the current Excel spreadsheet model. The advantages of this new system are that it is more user-friendly, offers a direct overview of the farms involved, and the system is more versatile. Inspectors complete the data in PIM. Skal employees can possibly adapt some changes, like withdrawal of parcels or registration of extra parcels. With this system the inspectors can visit the farms with up-to-date information. Skal is now testing the system and the expectations are that the system will be launched end 2005/beginning 2006. At the moment PIM contains the same information as the current DCPS (in Excel format, see chapter 1.2). A possible next step in the development of PIM is the inclusion of the registration of individual crops.

SWOT analysis of Skal data collection and processing system

This chapter presents a short SWOT analysis of the data collection and processing system of Skal. Interviews with representatives of Skal and analysis of the DCPS provided the information necessary for this SWOT analysis.

	Strengths	**Weaknesses**
Facilitation of data collection and processing	▪ Early availability of data, through regular inspections of farms and companies. ▪ Complete overview of organic sector. Including 'smaller' farms and rented land ▪ Clear distinction between converted farms and farms that are in conversion. ▪ Improvement of an existing data collection process rather than implementation of a new system ▪ With information about the postal codes of the affiliated farms, the DCPS offers possibilities for a regional breakdown.	▪ Data are not publicly available ▪ Not very user-friendly or simple to input data. ▪ The DCPS contains almost no information about produced amounts or prices of organic products. ▪ Because the data collection is also used to determine the annual contribution of farms to Skal and, for example, the tariff for all type of grains is the same, only aggregated information about the product group grains is provided. Information on a lower level is available, but because of lack of harmonisation in nomenclature (winter grain or w.grain or w-grain etc. depending on the 'choice' of the inspectors), this is difficult and very laborious to extract. ▪ The DCPS at the moment is not harmonised with EC 2092/91 and the Farm Structure Survey. Main cause for the non-harmonisation with EC 2092/91 is the difference in definitions and allocations. Also harmonisation or communication with the Farm Structure Survey is lacking, perhaps because of the differing aims of the two systems. Also there is little communication between the institutes running the DCPSs.
Data quality	▪ Data collected by independent inspectors.	▪ There is no written quality protocol. Since

	▪ Although there is no well-defined quality control system, some quality steps in the data collection and processing system can be identified. For example, registered areas are controlled with the total area as reported on the organic certificates of the farms. ▪ Development of software for data collection PIM. This software development also contributes to a higher quality level of the data, e.g. the programme can identify gross errors in input (factor of 10)). ▪ Skal has joined the Dutch Council for Accreditation (RvA). This means that RvA supervises Skal for the judgement of organic agriculture and organic food processing. RvA investigates Skal on the basis of predetermined criteria..	inspectors mainly collect the data, the data quality is checked visually. ▪ Comparability: different nomenclature in relation to other (national or international) DCPS .
Legislative issues	▪ Legal act concerning data collection.	
Administrative issues	▪ Reduction of administrative workload of farmers and Skal ▪ Simplification through automatic, IT-supported electronic recording of data.	▪ Costs for training of staff ▪ Costs for additional hardware and software
Cooperation with data providers		▪ None.
Cooperation with national / international statistical offices		▪ There is no harmonisation within Europe. However Skal and other certification bodies now have more contact with each other about standard procedures. Reasons for this more difficult cooperation between the several certification bodies are according to Skal: sometimes the certification bodies are part of the government, the large number of certification bodies in one country

		(like Germany), and competition between the certification bodies (some certification bodies are active in other countries). ▪ Less active cooperation with Statistics Netherlands
Costs		▪ Data is provided on more or less voluntary basis ▪ Extra data is available, however there are additional costs involved in extra data collection or processing.
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Technical solutions for dealing with different nomenclatures; technical solutions already exist for handling different DCPS (e.g. CBS)). ▪ **Harmonisation with Farm Structure Survey (FSS**). At the moment the Skal DCPS differs from the FSS DCPS for several reasons. The most important are: definition of product groups (see also above), exclusion of small farms (< 2 NGE) and rented natural ground. It is interesting to compare the data collected by Skal with the data collected by Statistics Netherlands for the FSS. **Both DCPSs could use the same unique identification number**. The FSS number is known for some of the organic farms. Skal is willing to gear their data collection system to FSS. However, a first impression based on the data from 2004 showed some differences as well as some similarities. Differences occur because of different definitions, inclusion of rented agricultural areas etc. Harmonisation with FSS would have some advantages. It would be interesting to include the FSS unique identification number in the Skal DCPS. The results of the Skal DCPS can be compared to FSS. Skal could use a more harmonised system for their financial management, the Dutch Ministry of Agriculture to complete the EC 2092/91 regulation about organic agriculture and a more reliable comparison between organic and conventional agriculture in FSS could be provided. LEI/Skal and CBS are willing to compare their databases in order to harmonise the data about organic farming from the certification body with FSS and regulation 2092/91. ▪ **Breakdown of products groups**. The Skal DCPS until now had not included a breakdown into product groups. Skal use a more 'sectoral' breakdown (see appendix 1 for this). Through the absence of such a breakdown it is difficult to carry out some international comparisons. Although the inspectors collect the information about individual crops and/or animals, for Skal there is no need to store the information by crop/animal. The tariffs of crops and animals are determined per category of crops or animals and consequently only the various product and animal groups are coded in the Skal DCPS. The individual crops or animal are stored in the DCPS, but these are not coded. However, with the information from the	

	inspectors on the level of crops and animals it should be possible to compare the results on these levels with the result of FSS. At the end of 2005 LEI plans to compare the (first) results of the Farm Structure Survey 2005 and the results of the Skal inspections. With this comparison we will try to generate a more output related harmonisation. With the Skal data about organic production we tried to complete the survey, according to regulation 2092/91. A first impression showed that all the necessary information is available at Skal, so output harmonisation should be possible. Based on the results of such an output harmonisation, it is interesting to look at the possibilities for input harmonisation. For the affiliated farmers a more harmonised system could result in less administrative procedures. If this type of harmonisation is possible in the Netherlands, it is very interesting to look for possibilities for international application. ▪ The Skal DCPS offers possibilities to generate overviews on the level of product groups and in due course could help to provide more (Dutch) information for EC 2092/91.
What is new in comparison to systems used so far?	▪ Development of new software for data collection PIM, that aims to replace the current (Excel-based) DCPS. This software development also contributes to a higher quality level of the data, e.g. the programme can identify big mistakes in input (factor 10)). The development of PIM also contributes to a higher quality of the data, through the fact that it contains always up-to-data information.
Can the system be used for data harmonisation?	▪ With a further development of PIM, including information on the level of crops, together with a unique identification number, the system can be used for data harmonisation, at least for the Netherlands
Relevance / applicability for international implementation	When CBS and Skal succeed in harmonising their systems (Skal DCPS and FSS/regulation 2092/91) it must be possible to apply the method internationally
	Threads
Identification of critical points, barriers, problems	• **Breakdown in products groups**. Coding of each individual crop or animal would result in an extensive list of product codes and would take a lot of time to complete. The DCPS spreadsheet has “free space” for these aspects. A consequence is that each inspector uses his own coding, resulting in different coding for each crop or animal. With different coding for a typical product group, the number of codes can be enormous. In summary: the *clear definition* of individual crops and/or animal is necessary to create a breakdown in product groups. The development of a smart system with once-only coding could contribute to generating annual overviews per production type. Another threat is that collecting more information per product group needs more time from Skal and the Skal inspectors; additional financial

	resources have to be found for this. • **Harmonisation with Farm Structure Survey (FSS**). Critical points here are the inclusion of small farms and rented land. It is important to indicate and publish the differences in organic statistics between the Skal DCPS and FSS. A first short comparison between some Skal and FSS 2004 data showed differences, with major differences related to land rented from environment and nature organisations used for organic agriculture. Another factor that could result in differences is the timing of the data collection, which takes place in May for FSS and is year round for Skal. Differences are also caused by different aims of the two DCPS. For Skal the main objective is to generate information to be used for sending invoices for the annual contribution to Skal. Statistics Netherlands uses the FSS information to provide annual overviews of national agricultural production. Through the fact that Skal uses the information for annual contributions and they only handle tariffs for product groups (e.g. arable farming), no clear guidelines exist for crop specific registration. Each inspector defines his/her type of registration on the crop level. Another threat is the moment when the information is available and when the information is needed. Skal needs the information for their annual invoices somewhere at the end of the summer of the particular year. The information from Statistics Netherlands, however, is only available in the summer of the following year. ▪ National/international standardisation of product nomenclature ▪ Increasing volume of data and workload ▪ Publication of data (data security) ▪ Costs for implementation
Proposed Solutions	Output related harmonisation: detailed analyses of Skal annual data could be used to harmonise output with the FSS format and EU regulation 2091/92. At the end of 2005 we hope to produce the first preliminary comparison between Skal and data from Statistics Netherlands.

Recommendations for data about 'organic production' and 'farm incomes'

D2 presents the following recommendations for the further development and improvement of DCPS on farm level, partly based on the Skal DCPS. This chapter discuss these recommendations for 'production' and farm incomes.

Production

Establish common operator identification number to enable linking of administrative and statistical data.

Both organic and conventional farms in the Netherlands have a unique identification number in the annual Farm Structure Survey. Skal could also use this number in their registration. In some case they already have this unique FSS number, but it is not part of the regular information registration. Furthermore, several other legal requirements use that number to identify the farms. The use of a common identification number for different legal requirements could contribute to lower administrative handling costs for the farmers.

Harmonise Farm Structure Survey (FSS) and administrative EC 2092/91 regulation and additional requirements for certification bodies to supply administrative 2092/91 information.

A very simple first step for harmonisation is to make sure that the certification bodies know and/or have access to the annual registration forms of EC 2092/91. Another very important aspect that could be very helpful is the use of a similar unique identification number (see above and in chapter 2). An interview with Skal showed that they use totally different classifications for organic processing and importing companies. The Skal classifications are more extensive than the classification of EC2092/91. The use of EC 2092/91 classification for these companies could result in a simplified administration system and would have no major impacts for Skal in the financial contribution of those companies to Skal. So, the classifications for processing and importing companies have been sent to Skal and Skal is investigating the possibilities for how to use those classifications.

Farm incomes

Ensure organic samples in the Farm Accountancy Data Network (FADN) are correctly identified and representative.

The Farm Accountancy Data Network (FADN) is an instrument for evaluating the income of agricultural holdings and the impacts of the Common Agricultural Policy. FADN is a major source for the determination of farm incomes. However, this could only be done for a restricted number of countries and types of farms. The most important restriction is the limited number of farms in the FADN. Now that the number of organic farms is increasing, the number of organic farms in FADN will increase. A big improvement would occur if countries could add a separate stratum for organic farms in their sample. Another problem in FADN is the current weighting of organic farms in EU-FADN. Some recommendations for these aspects are:

- No separate stratum for organic farms in FADN on the EU level. Individual countries can choose to have a separate stratum. This requires the EU to take

these separate strata into account in their weighting procedure (post stratification[1]). Or,
- Include a separate stratum for organic in their selection plan for organic farms[2]. This would lead to an increase in organic farms and to an increase in the reliability of important farm types. DG Agri could formulate criteria, related to volume and share of organic farming in each Member State, specified in sectors, products and types of farming, to select more organic farms for the FADN sample.

The objective of the PACIOLI concerted action is to assess the need for and feasibility of projects on innovation in farm accounting and its consequences for data gathering on the European level through the Farm Accountancy Data Network (FADN). PACIOLI regularly has meetings about important issues concerning the FADN. For 2005 a workshop about 'Micro Economic Data on Farm Diversification, Rural Businesses and the Intra-generational Transfer' is planned. Farmers are reacting to rural development plans by diversifying from farming into other activities. These activities are partly farm related and partly not. The long-term sustainability, also for the next generation, of such business models is still unclear. Government policies influence diversification as well as profitability and sustainability through agricultural and rural policy, subsidies and tax breaks. Such policies have to be evaluated and therefore need micro economic data, which is a challenge for Farm Accountancy Data Networks. This will be the topic of the 13th PACIOLI workshop. This workshop is open to all interested researchers and data collectors and offers possibilities to organise a meeting about organic agriculture. It is therefore interesting to present some findings about the results of organic farms in several European countries and then to discuss some relevant recommendations from the EISfOM project.

Supply chain, a chain information system for organic production

The project 'A chain information system for organic production' is a joint action by private organic companies and research institutes and provides information that could be used in subsequent EISfOM activities. The companies involved are:

- Skal, the Dutch certifying body for organic production
- VBP – Dutch association of organic production and commerce companies
- Biologica, the umbrella organisation for organic farming and nutrition
- LTO Nederland (the Dutch Organisation for Agriculture and Horticulture), department of organic agriculture. LTO is the umbrella organisation for five regional and sixteen sectoral organisations in agriculture and horticulture. LTO has a particular focus on political activities
- The research institute involved is Wageningen University and Research Centre.

The main reasons for the partners to start this project were:

- Future requirements on tracking and tracing in connection with the EU General Food Law;

[1] Weights per farm are recalculated afterwards by a comparison between the farms included in the sample and the farms included in FSS.
[2] This could result in a) extra costs though the need of extra farms or b) lower reliability of the common farms (less 'common' farms in stratum).

- Recent scandals that cost a lot of money in the short term but, even more importantly, had a negative long term effect on the image of organic production;
- To obtain more profit in relation to marketing and communication using more efficient information exchange in the organic food chain.

The aim of this project was to develop a supply chain information system that is considered to provide solutions with respect to these topics. However, in the course of the project it appeared that there was no shared understanding among the parties involved about what type of information system was actually needed. It was not clear what information was actually really necessary and - moreover – who was responsible for providing certain information and who was going to pay for the additional transaction costs involved. It was concluded that the joint support for an information system was not sufficient and that there was a lack of a shared vision. Therefore, it was decided to work on this shared vision first before actually developing an information system.

In summary, this vision is as follows. Sustainability has always played a central role in organic production. Certification standards, for the Dutch situation labelled as EKO, are of vital importance; they provide transparency with respect to the origin and circumstances of production and processing. Product quality is regarded as a strong point. Currently, three major points of concern can be identified:

- Image vulnerability with respect to environment- and animal-friendly production
- A high administrative burden, especially for primary producers
- Communication, especially towards consumers

It is believed that optimising information flows in organic production enabled by state of the art ICT can change these concerns in a positive direction and improve the position of organic production in order to guarantee growth and continuity. A sound and efficient information exchange can provide:

- Better product quality assurance
- Increased confidence in the organic nature of products
- Reduced administrative burden
- Highlight corporate social responsibility
- Knowledge exchange between entrepreneurs, stimulating innovation
- Stimulation of consumers' engagement in organic production
- Rapid tracing of bottlenecks in the chain in case of calamities
- Proper knowledge of regulations and their application

Based on the role of optimising information flows mentioned above, four goals were formulated:

- Efficient information supply and assurance of product quality
- Relief of administrative burden
- Enhancement of (farm or chain) management
- Improvement of marketing and image

These goals are related both to public functions (assurance and control) and to private needs (creating added value). At the moment this vision and these goals are

being further formalised and the idea is to set up a project organisation for step-by-step implementation.

General recommendations on harmonised information systems

The overall aim of the project is to develop a framework for the collection and processing of relevant, timely and comprehensive data on organic production and markets. The project integrates research, officials and commercial companies and stakeholders, in order to meet the data needs of policy makers, regulators, farmers, processors, traders and other interested parties. The aim of EISfOM shows similarities with the aim of the Dutch project 'a chain information system for organic production'. During that project, however, it emerged that there was no shared understanding among the various actors about the type of information that is actually needed and who will carry the additional transaction costs.

In the light of the development of proposals in the EISfOM project for the harmonisation of data collection and processing systems in organic production chains, the following important requirements can be identified from this Dutch project:

- A shared and broadly based vision, ambitions and commitment are an essential pre-condition for setting up a collective information system;
- Public and private functions of such an information system should be clearly identified;
- An organisational structure of relevant stakeholders should be developed to set up and maintain the information system; this implies that financial matters should be properly arranged;
- Funding opportunities should be identified to carry out harmonisation projects.

Appendix 1. Skal characterisation of company types in the agricultural sector

Categories	Sub-categories
Animal husbandry	
Dairy	Cows
	Sheep
	Goats
	Horses
Meat	Cows
	Sheep
	Pigs (breeding)
	Pigs (meat)
	Pigs (closed)
	Horses
Poultry	Layers
	Broilers
	Others
Breeding	Cows
	Sheep
	Goats
	Poultry
5.1.1.1.a.1 Crop production	
Arable farming	Arable crops
	Cereals
	Root crops
Horticulture	Arable vegetables
	Greenhouse vegetables
	Stock material
Fruit culture	Large fruit
	Small fruit
	Nuts
Propagation	Vegetable seeds
	Flower seeds
	Seed grain
	Stock material
Ornamental crops	Arable cut flowers
	Greenhouse cut flowers
	Pot plants
	Flower bulbs
	Perennials
Herb culture	Arable herbs
	Pot herbs
Mushrooms	
Arboriculture	Trees/shrubs
Collecting	
Plant material	Horticulture
	Floriculture
	Arboriculture
	Fruit culture
Animal fodder	

Appendix 2. Skal characterisation of processing and importing company types in agricultural sector

Category	**Sub-category**
Meat and meat products	Butchery
	Slaughter house
	Meat processor
Dairy products and eggs	Milk and milk products
	Ice cream
	Pudding
	Butter
	Cheese
	Eggs and egg products
Oils and fats	Oils and fats
	Margarine
	Etheric oils for human nutrition only
Cereals, seeds, nuts, citrus fruit and legumes	Cereals
	Seeds
	Nuts
	Citrus fruits
	Legumes
Potatoes, vegetables and fruits	Potatoes
	Vegetables
	Fruits
	Fruit concentrates
	Mushrooms
Aromatic products	Vinegar
	Sugar, derivates
	Syrup, candy, sweets
	Honey
	Cocoa, chocolate, carob
	Herbs, spices, dried foodstuffs, dried broth
	Jam, preserves, sandwich spreads
Beverages	Coffee
	Tea
	Soft drinks/fruit juices
	Alcoholic drinks
Bread and pastry	
Pet food	
Flowers and bulbs	Flowers and bouquets
	Flower bulbs
Snack and meat substitutes	
Animal fodder	Animal foodstuff
	Rough fodder
	Dried grass/alfalfa
Medicinal products for human nutrition only	
Preserves	Sauces
	Soups, broth
	Vegetable preserves
	Fruit preserves
Trade	
Packing, labelling and filling only	
Others	

6 Poland

National Working Paper

POLAND

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Description of case study

The Agricultural and Food Quality Inspection, the supervision agency for certification bodies in Poland, will be analysed with respect to the development of an administrative data collection system on organic farming according to EU regulation 2092/91. The main task of the case study was the development of a database called 'Computer system for organic production, registration, inspection and certification' which will be operational in 2005. Particular attention was also paid to the links with other data sources on organic farming at production level – FSS run by The Central Statistical Office and FADN, for which the Institute of Agriculture and Food Economics is responsible. There also exist plans to set up a common identification number to link various data sources and make them comparable. Therefore one task was to evaluate how the institutions involved in administrative and statistical data collection proceed with discussions on a common identification number.

Interview partners:

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Agricultural and Food Quality Inspection

Data collecting and processing system

The Agricultural and Food Quality Inspection was established by virtue of the act of 21 December 2000 on the commercial quality of agri-food products and is responsible to the Minister of Agriculture and Rural Development.

On the day Poland became a member of the European Union, the act of 20 April 2004 on organic farming (O.J. No. 93, item 898) defining tasks and competencies of official bodies and organisational units in respect to organic farming entered into force. The tasks of the Inspection include, among others:

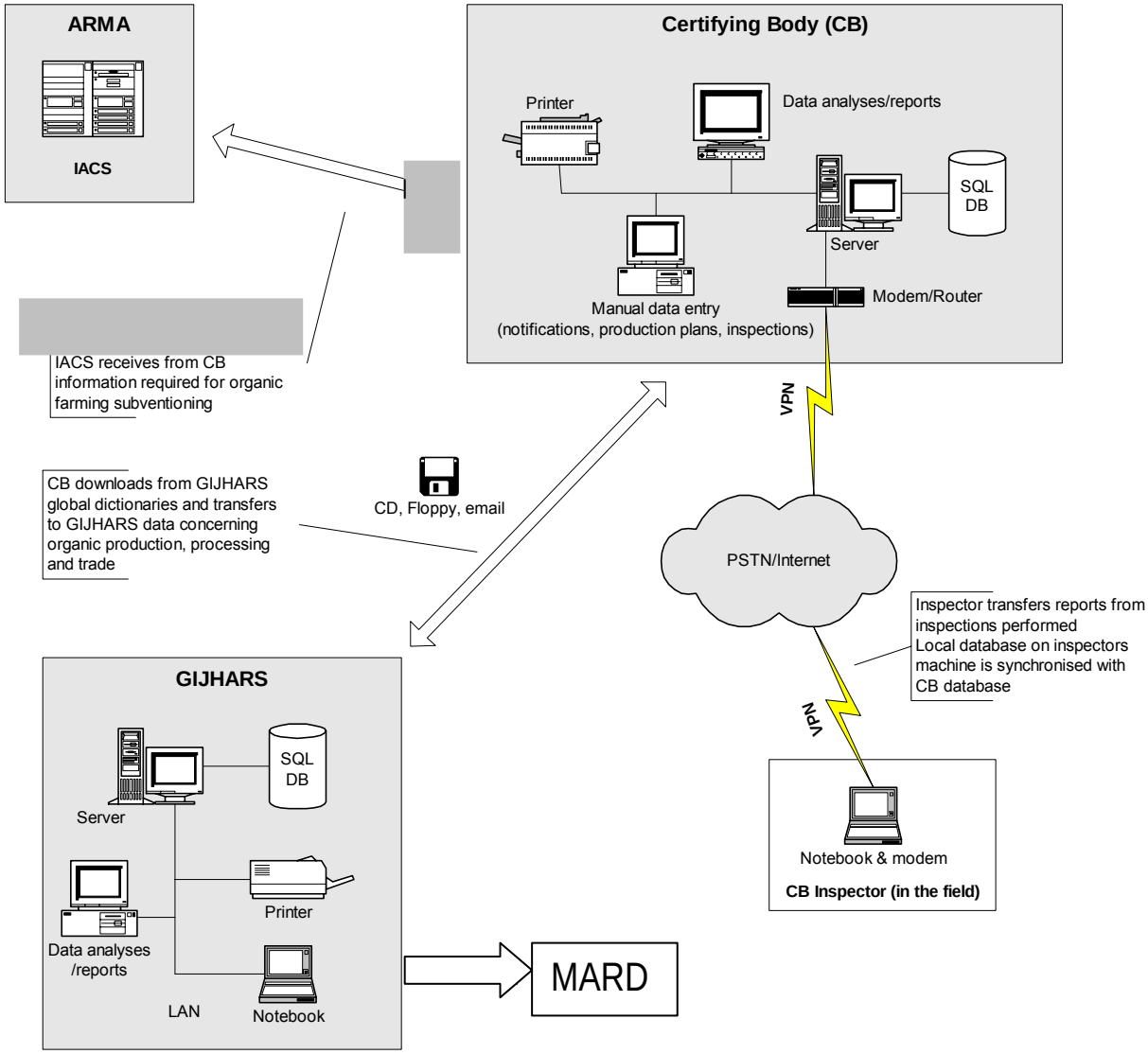
- supervision of the commercial quality of agri-food products in production and marketing including exported and imported goods,
- making evaluations and issuing certificates relating to the commercial quality of agri-food products,
- control of storage and transport conditions of agri-food products,
- collection and processing of data on agricultural markets,

- cooperation with organisational units acting as paying agencies as part of the Common Agricultural Policy,
- conducting training on regulations and requirements related to the commercial quality or determination of quality classes as well as on examination methods of agri-food products,
- performing tasks resulting from the act on organic farming.

The system of control and certification of organic farming introduced by Polish law is a state and private system. According to the law, the following institutions are responsible for its enforcement:

1. The Minister of Agriculture and Rural Development authorises certifying bodies to perform inspections, and subsequently to issue and withdraw certificates of compliance.
2. The Main Inspectorate of the Agricultural and Food Quality Inspection (GIJHARS) is the supervisory institution over the certifying bodies which are responsible for the certification of organic production.
3. Certification bodies (CB) keep records of the organic farms and processing plants, issue certificates of compliance and carry out inspections. They can also enforce sanctions.

Figure 1. Means of data transfer and participant bodies



GIJHARS – The Main Inspectorate of the Agricultural and Food Quality Inspection
ARMA – Agency for the Restructuring and Modernisation of Agriculture
IACS – Integrated Administration and Control System
CB – certification bodies
MARD – Ministry of Agriculture and Rural Development

Within supervision activities, the GIJHARS chief inspector:

- performs an analysis of the data provided by the certification bodies,
- controls the certification bodies,
- may require from the certification bodies any additional information necessary for the effective supervision of organic producers,
- may control organic producers.

By 31 January each year all certification bodies must send to the chief inspector:

- a list of producers subject to their inspection as of 31 December of the previous year,

- a report on their inspection activities.

The Main Inspectorate of the Agricultural and Food Quality Inspection (GIJHARS) participated in the PHARE project PL 01.04.04 “Organic Farming”. Within the project a *Computer system of recording, certification and inspection for organic farming* was developed. The main aim in creating this system was to:

- enable the recording of organic farms and companies with the following types of activity: plant and animal production; processing; import of organic products; collection of wild plants; marketing of organic products;
- support the process of issuing and recording of certificates of compliance;
- register (by the certifying bodies) annual plans of production in the field of plant and animal production, processing, collecting, import;
- support the planning and carrying out of the inspection of farms and organic companies as well as the recording of inspection results;
- enable the transfer of information required for realising the programme of payments for organic farming from the certification bodies to the Agency for the Restructuring and Modernisation of Agriculture (ARMA) ;
- enable the transfer from the certification bodies to GIJHARS of the data necessary for the preparation of different kinds of reports.

The database developed by GIJHARS will cover all operators in the organic food chain, from producers to retailers (e.g. canteens).

Table 1. Data quality

Relevance	Range of data to be stored in the database is rather wide; certifying bodies were consulted and reacted positively.
Accuracy	It is hard to verify the accuracy of data as it depends on what farmers provide the certifying body with. The system, however, was designed in such a way as to reject errors automatically.
Timeliness and punctuality	Timeliness and punctuality will depend to a great extent on the employees of the certifying body; data will be transferred once a year by 31 January for the previous year.
Accessibility and Clarity	Access to data is granted only to authorised employees of the GIJHARS (who have the access code); other interested persons can be granted access on request to the Chief Inspector of the GIJHARS. Clarity is not yet fully specified; special dictionaries with definitions related to individual types of activity are being developed.
Comparability	The system significantly broadens the range of data collected about organic farming, therefore, it would be hard to compare data – this kind of data is going to be collected for the first time.
Coherence	So far there is not enough experience for an assessment

SWOT – Analysis

	Strengths	***Weaknesses***
Facilitation of data collection and processing	▪ Comprehensiveness of the system – the system covers 100% of producers (on-the-spot data verification by certifying bodies) ▪ Possibility for certifying bodies to obtain computer equipment with software as part of the Phare PL010404 Project – Organic Farming on the basis of an agreement concluded in advance ▪ Frequency of data transfer – once a year all data reach GIJHARS and provide a basis for drawing up a comprehensive annual report ▪ The possibility of carrying out a variety of analyses, generating reports and listings on the basis of the data provided by the certifying bodies ▪ Introduction of dictionaries and definitions common to all data users ▪ Compilation of a system manual ▪ Preparation of form-filling instructions ▪ Compatibility of the data collection system (data will be transferred in one of commonly used standard formats: text files (CSV, 'tab delimited' and other), XML standard	▪ At present, unified methods and common definitions are still missing ▪ Frequency of data transfer – data submitted to the database only once a year ▪ Because of equipment shortages (lap-top computers) data will not be recorded electronically directly on a farm ▪ Failure frequency of the equipment
Data quality	▪ 'Cross control' of data – the quality of data forwarded by the certifying bodies can be verified against the data obtained from notifications about starting up an activity in organic farming	▪ Lack of reliability and timeliness in data submission and their forwarding to the central server (on the farmer and certifying body level)

Legislative issues	▪ The Council regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs and the national act of 20 April 2004 on organic farming set the framework of the data collection system ▪ Possibility of controlling the work of certifying bodies by the GIJHARS Inspectors who perform actions verifying the work of the bodies at producers ▪ Possibility of obtaining additional information about organic farming – the Chief Inspector, on the basis of the act on organic farming, can require the certifying bodies to provide 'all additional information' and data, including production data ▪ Planned publication of a regulation concerning the scope of data collected about organic farms	▪ Lack of a straightforward provision concerning the reporting obligation in respect of production data in the national act of 20 April 2004 on organic farming ▪ Necessity of modifications adapting the system to the actual legal state of affairs – the project was created before adoption of the legal acts
Administrative issues	▪ GIJHARS is the system owner ▪ Professionalism and appropriate training of the staff involved in the collection of data about organic farming ▪ Personnel training delivered by the company that developed the software	▪ Personnel fluctuations – people are employed on the basis of temporary contracts. Permanent personnel is missing ▪ The number of staff is not sufficient
Funding	▪ Financing of the system from the Phare PL 01.04.04 project and from the state budget	▪ High maintenance cost of the data collection system ▪ No specification of the party supposed to shoulder the cost of potential changes in the system
Co-operation with data providers	▪ GIJHARS initiative of cooperation with certifying bodies in the form of a work group	
Co-operation with national / international statistical offices	▪ Since 2003 – cooperation with the Central Statistical Office aimed at harmonising two data collection system ▪ Establishment of cooperation with Eurostat and heading towards harmonisation	▪ Data submission form developed by Eurostat is not legally binding

	Opportunities
Possibilities to overcome weaknesses identified	▪ The legal basis concerning collection of data about organic farming in force in the EU should be improved and made more specific ▪ There should be an obligatory data submission form introduced for all Member States
What is new in comparison with systems used so far?	▪ GIJHARS is the creator of the first computer system collecting data about organic farming
Can the system be used for data harmonisation?	▪ The data collection system is being developed on the basis of the EU law in force (Regulation No 2092/91) and in line with the Eurostat requirements
Relevance / applicability for international implementation	▪ The proposed range of data to be collected goes beyond production data and could be used in the work on organic DCPS
	Threats
Identification of critical points, barriers, problems	▪ Unreliability of interpretation and entering data in control reports ▪ Lack of unambiguous legal requirement that could oblige certifying bodies to forward production data – the act provides for "*forwarding all additional information*"
Proposed solutions	▪ Providing inspectors collecting data in portable computer equipment with direct connection to the database in their unit. The possibility of direct data downloading to the central server would allow for timely forwarding of data to the headquarters ▪ Introduction of a provision concerning the requirement of collecting production data in the authorisation for certifying bodies issued by the Minister of Agriculture and Rural Affairs ▪ Introduction of uniform ways of data acquisition in the whole of the EU by adoption of appropriate laws ▪ Securing financial resources in the EU budget for data collection

The Institute of Agriculture and Food Economics

Description of the data collection system

The Institute of Agriculture and Food Economics is an independent scientific establishment created in 1983. It conducts mainly empirical research related to analysis and development forecasts of the food economy and its segments, markets for agri-food products and production means, influence of the accession to the European Union, economics of agricultural holdings as well as companies and trades of the food industry, effects of ownership transformation, spatial aspects of food economy, social change occurring among rural and agricultural population.

Cooperation of the system participants, beginning with the Liaison Agency (the Institute), through accountancy offices, accountancy advisors and farmers will be on the basis of agreements concluded annually. It was preliminarily assumed that the Manager of the accountancy office at the regional (voivodeship) level would conclude a collective agreement with the Liaison Agency to collect data from randomly selected farms according to their location. The act of 29 November 2000 on collection and use of accountancy data from agricultural holdings specifies that the accountancy office with which the agreement to collect data is concluded must guarantee objective and reliable transfer of accountancy data.

It is initially assumed that the institutions currently cooperating with farmers can take on the function of accountancy offices on the regional level; they include:

- Regional Advisory Centres of Agriculture and Rural Development – responsible to the Minister of Agriculture and Rural Development;
- Agricultural Advisory Centres – responsible to the Voivode;
- Regional Agricultural Chambers – independent institutions.

In line with the act, agreements concluded between the system participants will specify the range of accountancy data and the time limits for their supply, protection conditions concerning accountancy data from agricultural holdings and protection conditions of personal data of the owners of agricultural holdings according to the rules laid down in the regulations on personal data protection.

This act specifies in detail the tasks of the central level of the System – comprising the National Committee and the Institute. The tasks of the Institute – in the role of the Liaison Agency – include conclusion of agreements to collect accountancy data from representative agricultural holdings indicated in the attached lists.

In order to obtain high quality data, Liaison Agencies will apply their own data quality control applications developed specifically for that purpose. Independently, on the European Commission level there are tests applied to each agricultural holding that is entered into the database and they include: computation errors, missing data, unacceptable values. Data containing absolute or probable errors are returned to a Liaison Agency for verification. On the basis of data accepted to the collective database, the team responsible for the FADN draws up reports containing: standard results and special analyses. The procedures applied provide for the use of resultant values calculated according to unified formulas regardless of the ones applied in individual Member States.

Organisational structure of the farm accountancy data collection system in Poland

European Communities Commission	Brussels Directorate-General for Agriculture (Farm Accountancy Data Network FADN - VI/A-3)
FADN National Committee	Warsaw Ministry of Agriculture and Rural Development
FADN Liaison Agency	Warsaw The Institute of Agriculture and Food Economics
Regional Accountancy Office	26 agricultural advisory centres
Local Accountancy Office	C. 2400 advisors specialising in accountancy (employees of regional accountancy offices and persons from outside those institutions)
Agricultural Holding	12,000 agricultural holdings

Table 2. Data quality

Relevance	Data standards were defined in the regulation addressing the FADN issues (Regulation 79/65/EEC of 15 June 1965); relevance is good
Accuracy	Data are precise, controlled by special computer systems and, before that, also by an advisor who verifies the data just after the control on a farm
Timeliness and punctuality	Timeliness and punctuality are satisfactory; all issues are specifically determined in laws and regulations
Accessibility and clarity	Accessibility of data is restricted to authorised persons. The clarity of data is good, intelligible definitions and terms are used defined in the annex to the regulation
Comparability	Data are fully comparable as they derive from a permanent survey that has been conducted for many years in the same accounting period
Coherence	Coherence is sufficient

SWOT analysis

	Strengths	**Weaknesses**
Facilitation of data collection and processing	▪ Firm legal basis which defines the principles of agricultural accountancy data collection and processing ▪ Third parties have limited access to data (only the farmer and advisor during an inspection activity can access source data which prevents any danger of possible manipulation and distortion)	▪ Voluntary participation in the survey – there is a need to convince a farmer to take part in the survey which is not an easy task
Data quality	▪ Control of the data collection process and record keeping on the level of the accountancy office ▪ Application of control verification tests with special software	▪ Data distortion – can appear at the farmer level (the advisor relies during a survey on verbal declarations made by the farmer – subsequently the farmer's answers are verified)
Legislative issues	▪ The legal basis defining issues related to the FADN system data collection and processing (Regulation 79/65/EEC of 15 June 1965 and other EU regulations as well as the national act of 29 November 2000 on collecting and processing of accountancy data from)	▪ Lack of legal basis supporting collection of data related to organic farming. For the time being, no FADN requirement for that type of data has appeared.
Administrative issues	▪ Creation of a educational portal http://www.fadn.pl/ ▪ Frequency and regularity of staff training – in 2004 a two-day training course for all involved in the FADN system data collection; on average, 2 training sessions/year for people in the field and additional local training courses; coordinators meet once a month in headquarters	▪ Lack of a separate group of people focusing on organic farming
Cooperation with data providers	▪ Good cooperation with accountancy offices which provide data to the system	▪ Lack of cooperation with other institutions – only a debate on cooperation is going on

Funding	▪ System financed by the European Commission and by the state budget ▪ Funding must be secured to conduct the survey	▪ Lack of additional resources for inclusion of a representative sample of organic farms in the FADN
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Convincing farmers to take part in the survey ▪ Securing financial resources for surveying organic farms in the FADN ▪ Creation of a legal basis facilitating collection of data about organic farms ▪ Use of the targeted selection method for selecting the sample of farms will allow for inclusion of an appropriate number of organic farms in the sample	
Can the system be used for data harmonisation?	▪ The FADN system is harmonised throughout the EU and provides a good basis for harmonisation of data related to organic farming	
Relevance / applicability for international implementation	▪ The FADN system has been operating successfully in the EU Member States for several years	
	Threats	
Identification of critical points, barriers, problems	▪ The biggest problem it is to persuade farmers – beneficiaries of the programme – to cooperate; without their consent the survey cannot take place since participation is voluntary ▪ There is no data allowing for selection of a representative sample of organic farms for the FADN survey (no targeted selection)	
Proposed solution	▪ None	

The Central Statistical Office

Description of the data collection system

The Central Statistical Office is a state institution financed from the state budget. The Department of Agriculture and Environment Statistics is responsible for conducting statistical surveys on agriculture, environmental protection, forestry and hunting.

The Polish national statistics got involved in developing an organic data collection in 2003. The Central Statistical Office (CSO), in co-operation with the Agricultural and Food Quality Inspection (GIJHARS) and scientists from the Warsaw Agricultural University, have made efforts towards building an information system on the Polish market for organic products as an integral element of the European system. The CSO and GIJHARS have also attempted to use the same identifiers / keys for organic farms in their systems, which significantly facilitates further co-operation in building an organic farming information system.

Table 3. Data quality

Relevance	The range of data in the FSS survey complies with the Eurostat requirements
Accuracy	Due to the full census methodology, data collected show good accuracy
Timeliness and punctuality	Timeliness and punctuality is sufficient
Accessibility and clarity	Access to data complies with the rule of equivalence, simultaneity and equal rights. Clarity is sufficient
Comparability	There is no possibility for making comparisons as the survey will be conducted for the first time; data can only be compared to information from the GIJHARS
Coherence	So far there is too little experience for an assessment to be made

SWOT Analysis

	Strengths	***Weaknesses***
Facilitation of data collection and processing	▪ Comprehensive information about organic farming and organic farms (complete survey) ▪ The range of features in the survey of farm structure is broader than in other systems, e.g. in the AFQI database ▪ High percentage of response in agricultural surveys	
Data quality	▪ Data quality is good, data are collected by trained pollsters ▪ Possibility of data quality control by the inspector as well as the logical and calculation control in the computer system	

Legislative issues	▪ Legal provisions define the rules of data collection - Commission Regulation (EC) No 1444/2002 of 24 July 2002	
Administrative issues	▪ Professionalism of the personnel – data are collected by well trained and experienced pollsters	▪ Lack of separate staff for collecting data about organic farming, it is dealt with by the same people who are responsible for the entire FSS survey
Funding	▪ Co-financing of the survey from own budget and from the EU resources	▪ Financial resources from the EU are received only after the data have been received and approved by Eurostat which may influence a tendency to reduce the range of data collected and limit the size of the sample which, in turn, may influence the detail of data and their subsequent use
Co-operation with data providers	▪ Co-operation between CSO and GIJHARS - to match the data from various systems in order to achieve a full description of different features of organic farms. Currently, cooperation with the AFQI which will provide the CSO with address details of organic farms	
Co-operation with national / international statistical offices	▪ Cooperation with Eurostat to whom the CSO will transfer individual data from the survey of the structure of agricultural holdings	
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Resolution of potential problems that may arise during the survey will only be possible after its finalisation	
What is new in comparison to systems used so far?	▪ The survey of the structure of agricultural holdings will be conducted for the first time in Poland in 2005	
Can the system be used for data harmonisation?	▪ The data collection system was developed on the basis of the EU laws in force and, therefore, it is harmonised on the European level	

	Threats
Identification of critical points, barriers, problems	▪ At present, it is hardly possible to assess the existing dangers to the survey of farm structure. It will only be possible after the survey have been conducted and the results analysed
Proposed solutions	▪ None

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

General recommendations

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

The systems will provide technical tools – currently under construction – that will facilitate data collection and divide the responsibility for data quality and timeliness among numerous market partners and certifying bodies. The data collection and processing system focuses on facilitation of data collection and processing by using digital recording and exploring possibilities for cooperation between units for that purpose. Moreover, the case study revealed that the participants in the data collection and processing system act on voluntary basis, which may lead to incompleteness of data. Therefore, a system of encouragement or legal conditions will be needed to facilitate cooperation in the system. This is crucial from the point of view of certifying bodies. Also, the issue of financial resources that could be used to finance the recommendation was raised.

- *Development of IT solutions to facilitate the recommendation above , including use of on line forms for data collection*

The case study results show that this issue is vital. The DCPS assumed quite far-fetched solutions like, for example, equipping inspectors collecting data in the field in portable computer equipment connected directly to the database. The problem here is the cost involved and, for the time being, the proposal was not put into practice. During the case study, another idea emerged of opening data warehouses that would read specific structures of individual databases. Handling of individual databases by means of data warehouses could mean significant facilitation considering the fact that all harmonisation efforts have been inhibited because of the large number of countries in the European Union. However, the modification of existing data collection and processing systems by the certifying bodies and other market partners remains the key issue.

- *Facilitate easy access to and timely/ rapid dissemination of available data (especially regarding on line access to data)*

The case study did not allow for data access assessment. Data will be published on paper in reports which will also be available on line.

- *Establish a common operator identification number to enable linking of administrative and statistical data*

One of the tasks in the Polish case study was to attempt to create or indicate an identification number which could connect various systems of data collection and processing. From the talks which took place is appears that this would be a very

difficult task. According to all the institutions asked, this should be a number which already exists, e.g. an identification number in a system or a number from a statistical register. However, each of the institutions had a different idea of what the number should be. The GIJHARS proposed a producer number assigned by a certifying body, a number from its own system or the identification number from the Agency for Restructuring and Modernisation of Agriculture (ARMA). The CSO proposed, for example, a number from the statistical registry, while the IAFE was completely against the creation of a common number. The requirement to preserve the confidentiality of individual data and forward data in clusters comprising at least 15 elements was raised at that point.

It seems that the best idea it would be to create a brand new identification number and include it in all data collection and processing systems. There still remains the question of a legal and technical solution to that problem and the issue of financing that project.

- *Establish procedures to use expert yield estimates as a basis for estimating outputs from production areas and livestock numbers*

The case study indicated that, at present, there is no need to apply estimates with these data collection methods. In the two systems of data collection and processing, we observe a complete survey of organic farms and, therefore, we will know the entire animal and plant production on the farm. It will be possible to cross-check data between the administrative and statistical systems. The data, hence, will be reliable and accurate.

- *Establish mechanisms to facilitate statistical agency, external experts and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert group/networks and observatories, with key individuals given responsibility to promote/ develop initiatives*

The respondent agreed that it is necessary to analyse the situation on the food products market, including organic products, with respect to traceability. It is necessary to create workgroups that would facilitate the diagnosis of needs and information exchange between various stakeholders.

- *Aim to establish a coherent, durable system to avoid frequent changes to requirements with consequent (software, labour, data quality) costs for providers*

From the case study it appears that the creation of a coherent and durable data collection and processing system will be difficult to achieve. It would be necessary to adopt a regulation that would lay down a framework for the system and prescribe relations between all the system participants. As the system developed, it would be impossible to avoid changes altogether, so the question remains of how to minimise changes and who will pay for them.

Respondents did not agree about whether stability will be paid for with a high level of generality of data and lack of detail or whether, conversely, the high level of data detail would contribute to data stability (making it possible for their free aggregation).

Special requirements for farm level (production, farm incomes)

- *Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on common definition of variables, and for Member States to collate and report this data*

The case study attested to the need for creating a legal instrument that would encourage certifying bodies to forward data. One solution could be to pay the certifying bodies for data received from them. At present a proposal like that has to be defined as preliminary and requires numerous specifications, e.g. determination of the party supposed to shoulder to costs of data collection. The basis for such legal regulations in Poland could be found in the act on organic farming which obliges the certifying bodies to forward "all additional information" and data to the Chief Inspector.

- *Harmonise Farm Structure Survey (FSS) and administrative (2092/91) data collection and reporting, including more accurate identification of organic activities in FSS*

The CSO does not collect data about organic farms; it obtains information about them from the GIJHARS.

Since Poland's accession to the EU, the CSO is obliged to conduct a survey of the structure of agricultural holdings in line with the calendar and requirements of Eurostat. The list of features for structural survey includes information about organic farms. Therefore, the CSO has established cooperation with the GIJHARS to determine the possibilities of using the data owned by the GIJHARS in the farm structure survey (replacing the statistical data with the administrative data).

Since the range of data owned by the GIJHARS is narrower than the one required by the FSS, a decision was taken to collect data about organic farms in the 2005 survey. The FSS 2005 study is representative and, as there are few organic farms in Poland (c. 2 thousand), a decision was made that all of them would be included in the sample (complete survey). The CSO will obtain the list of farms from GIJHARS.

This solution will allow for simultaneous control of data obtained in both systems and verification of the administrative data. The survey results will constitute a basis for further discussions about the range of data to be collected about organic farms, and by whom this will be done. We are inclined towards a solution in which, as part of the simplification of the FSS surveys and to avoid disturbing farmers repeatedly with questions, the Inspection collects data about organic farms.

- *Ensure organic samples in existing surveys (e.g. FADN, FSS) are correctly identified and representative*

All organic farms will be surveyed in the survey of the structure of agricultural holdings in Poland in 2005. There are not many organic farms in Poland which makes it possible for a complete survey. If the European Commission does not change the list of attributes to be surveyed in 2007 then either all farms will be surveyed again or only a sample of them will be selected. A lot depends on the financial resources available for the survey as well as on the results that the FSS 2005 will bring about.

It is not the objective of the FADN to collect data about organic farming. The FADN surveys all agricultural holdings regardless of their conventional or organic character. There is one question in the survey questionnaire which asks whether the agricultural holding was awarded a certificate or whether it is in the transition period, but it should be emphasised that the FADN does not produce a full picture of the economic situation of organic farms and covers only a certain fraction. In the FADN, the sample agricultural holdings to be surveyed is selected at random (it is 12,100 agricultural holdings). If there are organic farms among them, they will be identified on the basis of this particular question and surveyed in the same manner as other farms. Institutions interested in data specifically referring only to organic farms can – as part of the order lodged with the Accountancy Division of the Institute of Agriculture and Food Economics – receive data on organic farms that are in the possession of the IAFE. This will, however, be only fragmentary information that does not offer a full picture of the economic situation on organic farms.

7 Switzerland

National Working Paper

SWITZERLAND

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IHA-GfK Group – Consumer and Retailer Panel

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Detailed description of the case study

The "IHA-GfK AG", a subsidiary of the international GfK (Growth from Knowledge) Group, is the leading market research company in Switzerland. The GfK Group is a leader in market research worldwide, established over 70 years ago as Germany's first market research institute, with more than 120 subsidiaries and a presence in 57 countries. The company provides clients from industry, retail, the service and the media sectors with management information for their market analyses decision-making.

The business activity of the IHA-GfK AG is divided broadly into three types of market intelligence:

- Market research: producing information,
- Information systems: managing and developing software systems for fast access to the data collected and processed,
- Consultancy.

In this case study, the company collects information using both a retailer and a consumer panel with separate data collection for organic retail and consumption. Using a particular methodology, on the basis of the two DCPSs IHA-GfK is able to calculate the volume and value of organic consumption in Switzerland as well as the organic share in volume and value.

The consumer panel is comprised of 2550 private households which are, for statistical relevance, divided into socio-demographic parameters (single-, couple-, family households, age groups, income groups, spatial groups). The retail panel data collection uses scanner based sales figures. Additionally for companies like COOP and Migros which are not able to provide scanner data, delivery data are used.

IHA-GfK is able to merge data from the retailer and consumer panels in order to calculate the total organic consumption for Switzerland. This method was developed, adapted and checked for plausibility over the last two years and is now able to present relatively exact figures about organic consumption, including for distribution channels which were not able to use scanner data.

IHA-GfK Panels

The **consumer panel** is comprised of 2550 households. The selection in the sample aligns with the socio-demographic ratios in the Swiss population and statistical

representativeness is guaranteed. The segmentation of the households is based on socio-demographic criteria such as age group, household and family structure and income classes. The consumer panel has an identical profile to the Swiss population structure and thus consumer behaviour for conventional and organic products within the socio-demographic groups can be analysed.

The panel data allow statistics to be produced concerning penetration rates, consumption values and volumes and annual development rates. A direct comparison between the organic and the total consumption is possible.

One problem in all published data before 2004 is that until then panel recruitment was based on Swiss population statistics from 1990. These statistics described areas around the larger cities as rural when in fact they should be described as urban areas as in the 2000 census. Recruitment of panel participants with regard to where they lived was therefore biased in favour of urban areas.

Another problem is the “panel effect”, which means that panel participants tend to adapt their buying behaviour as their knowledge increases of the buying behaviour of their own and reference groups. Recruited households remain in the panel for approximately 10 years.

Last but not least, it is difficult achieve a representative sample for all household types. Mainly young consumer households (under 24 years old) and families with many children tend to be reluctant to participate in the consumer panel. Another source for incomplete data sets is the fact that it is normally women who are mainly responsible for the buying activities of a family and report to the household diary whilst sometimes their male partner may buy products spontaneously which are often not reported in the household diary.

The **retailer panel** data come from the six most important retailers in Switzerland: Migros, Coop, Denner, Carrefour, Spar, Volg. Data is recorded by the retailer using scanner based sales records or purchase data/amounts from the retailer. A problem occurs because the different data sources are not directly comparable. This means that sales figure are often based on estimates. However since 2004 data from COOP and Migros have also been based on scanners and therefore the accuracy of sales data will increase.

Basically the data processing of both panels is structured in the same way. The data which are available for organic consumption are divided into 13 product groups (milk, butter, yoghurt/curdled milk, curd, hard cheese, soft cheese, cream cheese, eggs, bread, vegetables, fruits, meat, poultry). In each group organic, conventional and total consumption are recorded separately in terms of volume and value. The results can be reported for French- and German-speaking regions of Switzerland.

One difficult is the number of product groups, which has increased annually. For this reason at present there are some weaknesses in the comparability of the results.

Table 1: Data quality

Relevance	The DCPS meets the current user needs satisfactorily; statistical concepts and methods are still in development. The methods used by IHA-GfK are tailored to the needs of the major retailers in Switzerland. For public users it may be difficult to analyse the actual organic consumption on this basis.

Accuracy	Basically the method of panel recruitment used provides a representative sample. However errors in the 1990 Swiss population census used as the basis for recruitment led to a certain bias between rural and urban populations in the consumer panel. Additionally for certain private household types there are some difficulties in recruitment (young households, big families).
Timeliness and punctuality	Data quality is excellent. Users get the results monthly with a time lag of 30 days.
Accessibility and clarity	Accessibility of data and data quality is restricted to authorised persons and institutions and depends on the price which is paid.
Coherence	Basically coherence is good but there are small differences in the data from one year to the next based on structural changes in the panel recruitment.

SWOT Analysis of the Panels

Table 2: SWOT Analysis

	Strengths	**Weaknesses**
Facilitation of data collection and processing	▪ Central data acquisition and processing ▪ User-friendliness ▪ Fast accessibility	▪ Possible panel effect on the households ▪ Changes in consumer panel structure and retailer panel data sources
Data quality	▪ High quality standards, which constantly checked and improved ▪ Comparability of monthly results	▪ Comparability: partly annual differences based on panel changes ▪ Partly big differences in the same product group between retailer and consumer panel in relation to the volume and value of consumption
Legislative issues	▪ Clearly defined right of access to data: purchase of the data package at IHA-GfK AG	▪ High prices have to be paid for data access
Administrative issues	▪ Low administrative workload	
Cooperation with data provider	▪ Active cooperation between provider and user	▪ User and provider are mutually dependent
Cooperation with national / international statistical offices	▪ International network with other European GfK panels	▪ Data from national GfK panels are not yet comparable. However, it is planned that methods will be unified.
Cost	▪ Depends on level of detail required in the data analyses	▪ In general high costs compared to farm level data.
	Opportunities	
Possibility to overcome weaknesses identified	▪ Closer international network of European GfK groups to produce data about organic consumption which are directly comparable ▪ Permanent improvement of consumer panel representativeness and retailer panel data sources access	
What is new in comparison to systems used so far	▪ In comparison with consumption data collection by the Swiss Federal Statistical Office, organic data are collected separately and analysed specifically	
Can the system be used for data harmonisation?	▪ In the case of the consumer panel, a Europe-wide harmonised system would be possible	

Relevance and applicability for international implementation	▪ In the case of the consumer panel, GfK would be able to manage data collection in the same way in all European countries and could take over the data collection for Eurostat with regard to organic, GMO and PDO products
	Threats
Identification of critical points, barriers, problems	▪ International unification of data collection and providing ▪ In case of the retailer panel, the retailer chooses whether to join data collection ▪ Competition between various market research companies
Proposed solutions	▪ Eurostat contracts GfK for harmonised data collection and reporting system to deliver harmonised data on organic consumption at the European level. This probably would be a cheaper solution than to establish a new public data collection system for organic consumption data. GfK would also be able to cover consumption statistics for products with distinctive marks (e.g. GMO, PDO products), which are relevant for Eurostat.

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

- *Compulsory (legal) requirement, with appropriate financial compensation, for GfK to supply specified consumption data, based on common definition of variables, and for Member States to collate and report this data*

It would be a great opportunity to obtain standardised data on organic consumption volume and value across Europe if an international company like GfK were contracted by Eurostat to collect and compile organic consumption data for the Member States. A Eurostat initiative to calculate the cost benefit ratio of their own data collection system versus data purchase from commercial providers, like GfK, should soon lead to a decision on how harmonised collection of organic consumption data could be guaranteed in near future.

- *Obtain relevant retailer/consumer data directly from commercial providers working to a common European standard to ensure a) relevant variables are covered and b) time series data are generated*

This recommendation represents recognition of the role which commercial market research companies are already playing in obtaining data about the organic sector. The use of commercial providers might also provide a mechanism for improving the availability of price data at the retail level. But current activities are limited in some cases by poor data quality and by the high cost of results which prevent wider distribution and use of the information – only large companies can afford to buy the data collected.

Eurostat has already asked Member States to start collecting more consumer data from 2005 and is in the process of defining the scope of this work. Although Eurostat would be unlikely to commission work from commercial organisations directly, it

would be open to national authorities to do so, and Eurostat is currently reviewing the data collected by these organisations to identify options for future work. It is, however, considered important that organic data should be reported in the same way as for conventional farming in order to guarantee quality.

The main advantage in using commercial market research companies is that they already have well established procedures for collecting retailer and consumer data through the use of retail/consumer panels and barcode databases.

Subject to appropriate contractual arrangements, market research companies would permit data to be placed in the public domain, although if the firms can also resell some of the data then this might reduce the requirement for public funds. In such cases, there may need to be some agreement on delays in publication to permit commercial value to be extracted.

EUROSTAT

7.1 Detailed description of the case study

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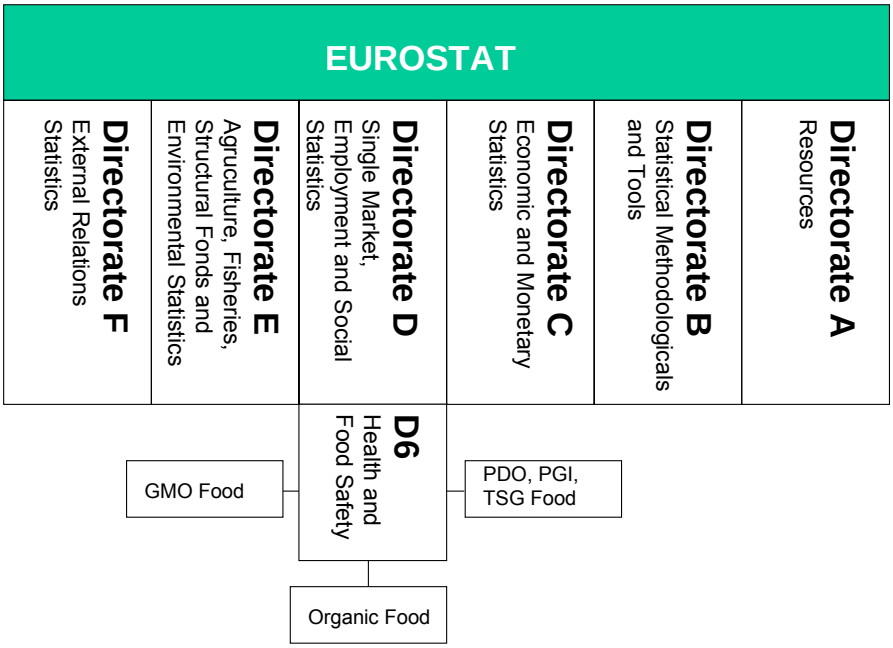
Eurostat is the Statistical Office of the European Communities situated in Luxembourg. Its task is to provide the European Union with statistics at the European level which enable comparisons between countries and regions.

Eurostat is divided in six directorates. Nowadays the organic farming sector is part of Directorate D6 (Health and Food Safety), having been removed from Directorate E (Agriculture, Fisheries, Structural Funds and Environmental Statistics) (see figure 1). The organic sector statistics are covered by D6 together with other food supply chains with distinctive labels (supply chains for GMO, PDO, PGI and TSG food).

Figure 1: Organisation of organic farming statistics within the Eurostat directorates



Consumer and market interest in organic products is obvious. Labels and organic farming are also of great importance for rural development and farm economics through the maintenance of sustainable agriculture and of employment in rural areas. Consequently the European Action Plan for Organic Farming adopted by the Council clearly states the need for statistics on organic farming. Data on production and trade are very important for DG Agri, together with consumption and prices all along the chain. Also there is a strong demand among politicians and market actors in Member States for data on the organic farming sector.

The current data collection situation in the organic farming sector indicates some challenges which will have to be addressed within the next few years:

- absence of figures from the EU database which exist in Member States,
- an appropriate terminology and use of nomenclature,
- differences in data collection and storage between administrative data and results of surveys,
- complexity of information flow.

According to the information which is available, the main types of surveys covering the organic farming sector in the various EU Member States are as follows:

⇒ general census of agriculture;

⇒ survey of the structure and production of agricultural holdings or administrative data.

At present the data available on organic operators, area and livestock (farm structure data) is collected by DG Agri from the ministries of agriculture on the basis of information reported by the certification bodies. The data should be provided annually by 1 July but there are still many gaps for many Member States.

The Eurostat DCPSs

The information given below mainly comes from the report of the Eurostat task force: 'data on organic farming' (ADUA, 2004).

Farm level

General census of agriculture

The 2000 general census of agriculture collected data on every single agricultural holding which reported that it was involved in organic farming. Given the lack of correspondence between the official list of organic farmers, who are supervised by inspection bodies and placed on lists approved by the regional authorities, and the self declarations of farm operators concerning the use of organic methods of farming, there is a risk that data may be collected on organic holdings which, according to current Community legislation, are not in fact organic. Nevertheless, the census remains the best source of information on the sector, provided that it is possible to correctly identify the holdings which are actually involved in organic farming.

Survey of the structure and production of agricultural holdings

The two-yearly Community Farm Structure Survey (FSS) of the structure and production of agricultural holdings may reveal features of organic farming. The problem which arises concerns the methodological difficulty of proper extension to the data universe, given the low rate of representative data of organic holdings among the units sampled in each individual region. Further problems occurred:

- it is not known whether the whole farm or a part of the farm is managed organically;
- Member States gave different interpretations to what had to be collected under the heading 'organic farming'.

Surveys of administrative data (EEC No. 2092/91)

Community legislation provides for appropriate checks to be conducted on the production process and on products obtained using organic farming methods. The questionnaire asks for information at the national level on organic operators, (producers, processors, importers), crop areas/yields, livestock production and products and economic activity (NACE). These operations are generally carried out either directly by the national ministries of agriculture or more often by suitable inspection bodies which, in accordance with the inspection duties they perform, collect and pass on administrative data on each agricultural holding involved in organic farming to their respective ministries of agriculture. These data are disseminated as such or processed as official statistical data. However the degree of questionnaire completion varies country by country.

The problems relating to this method of investigation concern the precise identification of the features to be surveyed because of the different definitions, classifications and nomenclatures which are used. Furthermore, no regulations exist to impose more detailed data collection.

On the basis of the information which is available, it seems possible to improve the methodology on the use of administrative data which is required to obtain accurate

and detailed annual information at NUTS-2 (regional) and NUTS-3 (provincial) levels with regard to:

⇒ organic holdings, areas under specific crops, potential or gross organic production, certified organic products;

⇒ organic livestock, numbers per species and category of animal, potential or gross organic production, certified organic products.

Processor/wholesaler/retailer level
Potential or gross organic production derived from crops grown or livestock reared in accordance with organic farming methods may be processed and distributed as ordinary products or certified by the relevant inspection bodies and sent for processing and distribution as certified organic products in accordance with current Community legislation. For the processing and distribution sector, the information which is available is very scarce, not standardised, and is often collected by private bodies in only some Member States.

In the light of experience and available information, it is considered necessary to improve the statistical knowledge of the scale and value of processing and distribution. In particular, it is felt that it would be useful to look into two possible paths of research:

- conduct a suitable annual sample survey of production and processing undertakings, and among these only those which are involved in the processing and/or distribution of organic products;
- conduct a suitable annual sample survey of wholesale and retail distribution of organic products to end consumers.

At present only the number of processors must be reported according to regulation EEC No. 2092/91.

Trade level
No data are available concerning the volume and value of internal and external trade in organic products. With regard to information on imports and exports of organic products by individual Member States, the difficulty concerns the possibility of including suitable codes for such products. One solution might be to have new codes for at least the main individual items or some of the more important groups of products. At present only the number of external traders and the countries of origin have to be reported according to regulation EEC No. 2092/91.

Consumer level
No data are available. It is considered important to examine this sector more thoroughly, possibly by using the survey of household consumption. In this case it is necessary to look at the public and private statistical surveys carried out in some Member States. A European task force ‘consumption of food with distinctive marks’ (including organic food) is planned by Eurostat, beginning in 2005.

Prices of organic products
There is generally little information about the production and selling prices of organic products. Few prices are held on Member States, and data collection is not

standardised. In this case, it is necessary to look at the public and private statistical surveys carried out in some Member States.

Furthermore it could be possible to survey the prices of organic products as part of the price surveys which many Member States have been conducting in recent years. This proposal would involve surveying the production and selling prices of a small number of significant products.

Data quality
Information concerning the data quality of Eurostat DCPSs refers only to farm level data because of the lack of comprehensive data sets on the other levels of data collection.

Table 1: Data quality

Relevance	At present there are two different sources for organic farm structure data (FSS and EEC 2092/91). Using different methods of data collection and nomenclature as well as differing national interpretations of FSS guidelines data, only a very rough overview about organic farming in Europe is available which does not fully satisfy user needs.
Accuracy	FSS: it is not known whether farmers give information correctly with regard to their production method (organic farming); nor is it known how many of the farms are certified organic farms or just produce under organic regulations in accordance with the national agri-environment program. Likewise, the percentage of the plant and animal production of reporting farms which is organically managed (whole farm, part of the farm) is also unknown. EEC 2092/91: reported data in many countries do not cover the whole structure data sets of the certified organic farms. National questionnaires often are not filled in completely due to missing information on the national level.
Timeliness and punctuality	Data from the DG Agri OFIS information system are available online. However the timeliness for many Member States is unsatisfactory.
Accessibility and clarity	Data is easily and freely accessible for all potential data users. Data clarity is not sufficient because there are no guides to interpretation which report specific national aspects in the process of data collection, processing and reporting.
Comparability	Comparability between countries and between time periods is not yet possible.
Coherence	There is no coherence concerning the two sources of data (EEC No. 2092/91 and FSS) with regard to nomenclature and definition.

SWOT Analysis

Table 2: SWOT analysis of Eurostat farm level data

	Strengths	Weaknesses
Facilitation of data collection and processing	▪ Data are gathered in all EU Member States and collected and processed centrally by Eurostat ▪ Standardised questionnaire is sent to responsible statisticians in Member States	▪ Different standards of data collection in Member States and timeliness of data reporting to Eurostat together reduce data comparability. ▪ There is no harmonisation of the heterogeneous raw data output which is delivered to Eurostat ▪ There are different levels of expertise and experience amongst national statisticians responsible for organic data which must be delivered to Eurostat ▪ In Member States statisticians use and merge different sources and nomenclatures to report data to Eurostat
Data quality	▪ **Access**: easy access to the Eurostat data.	▪ **Relevance:** data collection is not yet tailored to user needs ▪ **Accuracy:** available data do not reveal the exact structure of organic farming in Europe. ▪ **Timeliness and punctuality**: Due to delays in reporting data in some Member States, the European overview is provided late. ▪ **Coherence**: there is less coherence between national data collection/reporting and no output harmonisation at Eurostat level.
Legislative issues	▪ Legislative basis for FSS and EEC 2092/91	▪ No legislative basis for comprehensive farm structure data reporting of certifying bodies in accordance with EEC 2092/91 (no obligation)
Administrative issues	▪ Eurostat coordinates national activities	▪ High additional efforts/costs if certifying bodies had to enlarge

	▪ Working group on food safety deals explicitly with the organic farming data collection process and methodology	their data collection to improve data accuracy ▪ Working group on food safety' with different expertise regarding specific issues in organic data collection ▪ Working group on food safety would prefer to use farm structure data from certification bodies. On the other hand members do not wish to change EU regulations to oblige certification bodies to enlarge their data reporting ▪ Eurostat itself has no power to oblige Member States to improve data collection. Eurostat lies in between the different interests of DG Agri, DG Sanco and Member States.
Cooperation with data providers	▪ Active cooperation and information exchange with Member States	
Cooperation with national / international statistical offices	▪ Active cooperation and information exchange with Member States	
Costs		▪ For an improved data set based on data from national certification bodies, those companies would have to be obliged to collect data using standardised methods and nomenclatures. This would lead to high additional costs. It is not clear who should pay these additional costs in the context of budget reductions in national statistic offices

	Opportunities
Possibilities to overcome weaknesses identified	▪ Obligation of certification bodies to deliver statistical data in additional to the administrative data which are reported now. To achieve this it would be necessary to change EU regulations and / or to fund the statistical function of certification bodies. ▪ If certification bodies took over the data collection and reporting input and nomenclature would have to be harmonised with FSS.

	▪ Merging administrative data and statistical data collection could reduce costs for national certification bodies. ▪ Input harmonisation of FSS data seems at first not to be the best solution because of problems with the timeliness of reported data which do not satisfy user needs. Additionally there is no opportunity at present to standardise FSS procedures in Member States.
What is new in comparison to systems used so far?	▪ Nothing – the system is in use.
Can the system be used for data harmonisation?	For international harmonisation of the DCPS, all control and certification bodies would have to deliver data on a standardised input level. Without an adequate legal framework this would seem to be quite difficult to achieve.
Relevance / applicability for international implementation	According to the European Action plan for organic farming, the current DCPS on organic farming must be improved. The most effective way of doing this would be to oblige national certification bodies to enhance data collection and processing for certified organic farms.
	Threats
Identification of critical points, barriers, problems	▪ National/International unification of product nomenclature ▪ Increasing volume of data leads to additional costs for Member States ▪ Missing legislative frame for an enhanced data collection ▪ Problems in the decision making hierarchy between EU and Member States as well as between interests of Eurostat and DG Agri and DG Sanco. It is not clear who can active lead the process to improve data collection at national level and input and output harmonisation at international level.
Proposed Solutions	With respect to organic farming and based on the work of the Eurostat Task Force on products with distinctive marks, Eurostat's working programme for 2005 is to improve the methodology to integrate organic farming data within the general statistical framework, and to fill in the gaps for organic production. In the mid term all data on food with so called distinctive marks (organic products, GMO products, PDO-, PGI-, TSG-products) shall be collected along the supply chain and stored in a new database "from farm to fork statistics". In order to use this data source, certification bodies would have to use standardised data collection sheets and unified nomenclatures.

Assessment of DCPS in regard to recommendations generated in WP2/3 and WP4

- *Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness*

In this context it seems to be necessary to establish a system of incentives and/or legal requirements to facilitate the participation of certification bodies in order to enhance and harmonise their data collection and reporting to Eurostat in accordance with statistical user needs.

- *Development of IT solutions to facilitate the recommendation above, including use of on line forms for data collection*

The underlying consideration for this recommendation was that the best solution for data collection on organic farming structure would lie with the inspection/control bodies. At present data are stored partly in paper files but with a well-developed IT framework, the data could be captured electronically and their use for statistical purposes could be greatly facilitated. It could be an incentive for certification bodies to report statistical data about certified farms if they were provided with a sophisticated IT framework for easy data collection and compilation.

- *Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on common definition of variables, and for Member States to collate and report this data*

The view of the Eurostat task force 'organic farming' is that the inspection/certification bodies should be the source for organic farm structure data. However this could probably only be achieved by introducing a legal obligation. In discussing how to improve organic farming sector statistics, some Member States in the Eurostat food safety working group worry about the possible associated costs of additional surveys. DG Agri, however, pointed out the fundamental importance of this information. Furthermore they are not in favour of changing the legal framework to oblige certification bodies to collect and report data. The system used in France of paying inspection/certification bodies a specific amount per record of defined data would be one solution, but in some countries certification bodies are not willing to deliver statistical data about their farms even with financial incentives. In other countries it seems to be difficult for statistical offices to fund certification bodies in the context of general budget restrictions. However, the combination of legal obligation and compensation to the certification bodies would seem to be the only effective way to improve organic farming structure data at the European level.

Although the improvement of organic data collection and availability is a key element of the EU organic action plan, it is not clear how the various countries would be able to achieve this. In some this type of data gathering remains a sensitive issue and may be harder to implement. A voluntary approach might help address the problem, but whether all countries would be willing to allocate sufficient priority and resources to organic farming data under a voluntary system remains in doubt.

To support certification bodies in data collection, common guidelines for completion of the Eurostat/DG Agri 2092/91 returns should be developed. The current absence of such guidelines is a significant factor contributing to poor returns in some countries. The development of guidelines should be done using a participatory approach to ensure that they are clear and appropriate to those organisations. The

guidelines should clearly define the data required, as well as the minimum requirements that certification bodies are expected to meet in terms of data collection and using of Eurostat nomenclatures.

- *Harmonise Farm Structure Survey (FSS) and administrative (2092/91) data collection and reporting, including more accurate identification of organic activities in FSS*

It seems to be worth pursuing the idea of harmonising/integrating FSS and 2092/91 data, in particular to avoid having to ask producers to provide similar data twice using different nomenclatures and to ensure that the FSS data is as accurate as possible. A further benefit would be to be able to obtain standardised regional data (at NUTS 2/3 level) rather than the current NUTS 0 reporting of 2092/91 data to the Commission.

8 United Kingdom

National Working Paper

UNITED KINGDOM

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Introduction

The aim of the national case studies is mainly to test the proposals for new and /or improved DCPS for organic markets generated in the first phase of the EISfOM project (see www.eisfom.org). This involves the documenting of barriers and problems encountered during the test phase and additionally the inclusion of substantial information on:

- Possibilities for standardising data collection
- Improved methods to generate more reliable data
- How to overcome barriers in regard to the implementation of improvements
- The role of national core institutions in future DCPS.

The Statistics Division of DEFRA, currently represented by Michael Rowlands and a new appointee to replace John Gorner, is trying to improve and expand the data collection on organic farming in the UK on a broad range of actor levels, including producers, importers, retailers and consumers. In this document, progress made on these different levels is evaluated.

Detailed description of the case study

The Department of Environment Food and Rural Affairs (DEFRA) is the government ministry responsible for agriculture and agricultural statistics in England, with some functions also at a UK level. Since 2002, following the publication of the English Action Plan for Organic Food and Farming, DEFRA has become more actively involved in collection and publication of organic farming statistics at different levels. It works with private sector organisations, in particular organic certification bodies and the Soil Association charity to collect data, with information published on its website (http://www.defra.gov.uk/farm/organic/introduction/), although there is limited direct funding for this work (ca. 0.75 FTE staff time is resourced within the statistics division). Some work is also carried out through DEFRA commissioned research, in particular horticultural market research by HDRA (Firth *et al.*, 2005) and organic farm business data surveys by the University of Wales, Aberystwyth (Jackson *et al.* 2005)

The data generated by DEFRA is published via their website (see above) as well as in their annual *Agriculture in the United Kingdom* publication. It is also utilised in the Soil Association's annual *Organic Food and Farming Report* and the UWA/EFRC *Organic Farm Management Handbook* (published every 1-2 years). Tailored responses are also made to ca. 100 ad hoc requests for information each year.

In addition to the direct support for staff time in the Statistics Division and the commissioned research, payments are also made by DEFRA to certification bodies in return for the provision of data, among other activities. These payments are part of a general grant to the organisations based on the number of registered operators, for services to support DEFRA's work. In the past, actual amounts for specific tasks

such as data provision were not specified, with the result that pressure to deliver could only be applied indirectly through the policy division. This could impact on the efficiency with which data can be collected. From the financial year 2005/06 the agreements covering these payments do clearly state what information certification bodies are required to provide and also state that "If performance of the Certification Body does not meet requirements of this Agreement it will result in non-payment of Grant".

Production data

DEFRA's Statistics Division works with the 10 main UK certification bodies to obtain comprehensive production data directly, rather than through the Farm Structure Survey (Agricultural Census). Data are collected from the certification bodies annually relating to the situation at the first of January each year. The selection of crop and livestock areas are governed firstly by DG Agri/Eurostat reporting requirements, but are also influenced by the different data categories and IT systems operated by the data providers. DEFRA has attempted to increase the level of standardisation between data providers, but resource issues relating to modifying IT systems have restricted progress and a degree of standardisation and validation needs to be undertaken centrally to obtain a consistent data set. Despite this, reliance on administrative data obtained from certification bodies is seen as more accurate than survey approaches such as the Farm Structure Survey/Annual Census. The following Table provides an assessment of data quality (as defined by Eurostat 2003) based on the interviewees options and expert assessment.

Production level data quality assessment

Relevance	High as primary data collected directly from holdings, although useful information such as production quantities are still not available and complete information on livestock numbers only becoming available for the first time from 2004. Some estimates were published relating to 2003, but these required raising to account for missing data and restricted the possibility of producing regional breakdowns.
Accuracy	High but entirely dependent on certification bodies and the quality of their procedures – there is no direct control on the accuracy of data collection by inspectors, and the categorisation of data can be insufficiently specific (e.g. 'veg' or 'other crops'). While DEFRA has been working with them to improve this, changes to categories are imposed by policy division and there can be significant time lags before a full picture of new items is obtained. There were some problems with the accuracy of the 2003 livestock data published in 2004, due to the missing data problems indicated above.
Timeliness and punctuality	Timeliness is influenced by the annual inspection cycle, so that some data may be up to one year old at the time it is requested, but this is unavoidable with this approach. Punctuality can also be affected by delays receiving date from certification bodies, and by the amount of modification needed to reconcile the different formats provided and clarify data uncertainties, so that the process may take six months to complete.
Accessibility	There is good accessibility to raw data, but disclosure rules mean

and clarity	that data can be released or published only if a minimum of five cases are available.
Comparability	Comparability is high – the fact that this is administrative not survey data is not seen as a problem. Harmonisation with the FSS has been planned but not implemented due to staff changes. This would permit linking of additional data (e.g. labour, non-farming activities) and comparisons with conventional data. The main problem has been the lack of CP holding numbers for some returns from certification bodies as well as some issues relating to data confidentiality.
Coherence	This is improving as the systems become established, but the procedures are too recent to ensure a high level of data coherence and consistency over time.

The following table provides a SWOT analysis of DEFRA's production level data:

	Strengths	**Weaknesses**
Ease of data collection and processing	▪ Collected by certification bodies ▪ Limited number of agencies to deal with	▪ Slow response at times ▪ Uncertainties concerning data quality ▪ Need to standardise data categories
Data quality	▪ See above	▪ In many DCPS it is possible to make clear distinctions between converted and in conversion farms, but not possible here?
Legislative issues	▪ Organic regulations and perceived legal requirement for certification bodies to supply	▪ New items added with little consultation at EU level.
Administrative issues	▪ Only 10 organisations to contact	▪ Slow response ▪ Variable IT systems
Cooperation with data providers	▪ Generally good	▪ No specific issues raised
Cooperation with national/ international statistical offices	▪ Potentially close link with FSS (census group) which also gets IACS data – DEFRA looking at better integration of all databases e.g. cattle passports – a 'whole farm appraisal' is planned.	▪ Need for staff time to bridge departments ▪ Organic Farming Scheme data is incomplete therefore used only to back up information, but does provide route for CP holding number identification.
Costs	▪ Low direct cost	▪ Lack of incentive and control (unlike French payment per record system)
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Direct financial incentives to certification bodies are being introduced in 2005/06. This needs to be maintained in order to allow certification bodies to invest in staff and IT resources to deliver the required data. ▪ Needs personal relationships building to communicate value of	

	data ▪ Policy side of DEFRA needs to be tougher in demanding information ▪ Need to develop approaches to estimate production levels - could do with more information on regional yields, which might be available from Organic farm business survey reports.
What is new in comparison to systems used so far?	▪ Previous data collection relied on reporting to UKROFS based on submission of paper copies ▪ The UKROFS database was not able to provide time series data – under the new system it is now possible to do cohort tracking
Can the system be used for data harmonisation?	▪ FSS integration is the main opportunity (otherwise this is most internationally defined area of data)
Relevance / applicability for international implementation	▪ The DEFRA whole farm appraisal approach, currently under development, might provide a model for use elsewhere, also in the context of current discussions at EU level.
	Threats
Identification of critical points, barriers, problems	▪ Failure of certification bodies to supply data or of suitable quality
Proposed Solutions	▪ Improved carrot and stick incentives – a stronger legal requirement to provide data combined with the financial resources to deliver. However, certification bodies also need feedback on their delivery so communications in both directions also need to be strengthened.

Assessment of DCPS in regard to the recommendations generated in WP2/3 and WP4 – production data

- Establish common protocols for data processing and exchange to ensure harmonised quality management and improved timeliness

  In seeking to integrate FSS and 2092/91 certifiers' data, particularly through the encouragement of use of official holding numbers by certifiers, DEFRA is taking positive steps towards this recommendation. However, the problem of exclusion of small holdings from FSS, and the non-separation of data on mixed status holdings in the FSS still remains.

- Development of IT solutions to facilitate the recommendation above, including use of on-line forms for data collection.

  Some discussions have taken place with certifiers to explore potential for IT solutions.

- Establish mechanisms to facilitate statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives.

  No actions have been taken in this context due to lack of resources,

although contacts between certifiers and DEFRA statistics division have been increased.

- Facilitate easy access to and timely/rapid dissemination of available data (especially regarding online access of data)

  Online dissemination now well established.

- Establish a low cost quality management system as a basis for the development of a complete TQM-system on European level as an important factor for data harmonisation in an enlarged Europe

  not applied

- Establish a special leadership group for the development and implementation of an internationally harmonised quality management system, similar to the leadership group on quality in the ESS

  not applied

- Aim to establish coherent, durable system to avoid frequent changes to requirements with consequential (software, labour, data quality) costs for providers

  Difficult to achieve in early stages of establishing the system.

- Ensure sufficient resources available for implementation of proposals, based on coherent justification of needs and benefits

  Lack of resources still a major problem

- Establish common operator identification number to enable linking of administrative and statistical data

  UK official holding number offers some potential for improvement, but only applies to agricultural holdings.

- Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on common definition of variables, and for Member States to collate and report this data (levels 1, 3, 4, 6)

  DEFRA is seeking to achieve results through voluntary agreement, persuasion and more targeted use of existing financial incentives.

- Harmonise Farm Structure Survey (FSS) and administrative (2092/91) data collection and reporting, including more accurate identification of organic activities in FSS (level 1)

  See above

- Ensure organic samples in existing surveys (e.g. FADN, FSS) are correctly identified and representative (levels 1, 2)

  Further action is needed to address this problem.

- Establish procedures to use expert yield estimates as basis for estimating outputs from production areas and livestock numbers (levels 1 and 6) Further action is needed to address this question – potential for collaborative initiative with Soil Association and UWA (FADN data)

Farm Incomes (FADN)

DEFRA Economics Division is normally responsible for this area of activity, but has not been actively involved in the analysis of organic farming incomes. P1 (UWA) is currently contracted to collect supplementary data and to analyse the combined organic farming data set, but the contract is due to expire in early 2006. The intention is that the data collection work will be fully integrated with Farm Business Survey activities from 2006, but this requires a review of the identification and composition of the organic sample within FBS to ensure representative data is obtained.

Data is being collected directly by the IRS (P1) Farm Business Survey team from ca. 70 holdings across England and Wales for the 2001/02 to 2003/04 period, with an extension to cover 2004/05 likely. Previous work (separate projects) has covered the periods 1994/5 to 2000/01. The aim is to ensure that for each of the main holding types, a minimum sample size of 10-12 holdings is achieved. For pigs, poultry and some horticultural holdings, only enterprise data (gross margins) is being collected as very few organic specialist holdings of this type exist.
Data collected by other FBS Centres (as part of the normal FADN sample) are supplied to IRS by DEFRA for inclusion in the analysis. This is helping to significantly increase the number of holdings that can be analysed, but there are also some limitations to this data.
Comparative data for the combined samples of data collected directly by IRS and by other FBS Centres are extracted from the data supplied to IRS by DEFRA, using a modified (non-Euclidean) clustering procedure. This procedure is described in detail in the annual project reports.
Until now, results have been published on the Organic Centre Wales website (www.organic.aber.ac.uk) as downloadable pdf files. However, agreement in principle has now been reached with DEFRA that all reports will be published on the DEFRA website (organic farming statistics section) and it is hoped that this will take place by end July 2005 (These reports will also go on organic E-prints)

The following Table provides an assessment of data quality (as defined by Eurostat 2003) based on a review of current issues by the P1 team carrying out the surveys.

Relevance	High – financial data is important both for producer decision-making and for determining support levels under the organic farming scheme.
Accuracy	The detailed survey procedure involves direct access to farmers' accounts and bank statements, so that there is a high degree of accuracy involved.
Timeliness and Punctuality	At present, timeliness and punctuality are both poor, with 2002/03 being the latest data set completed and 2003/04 data expected in autumn 2005. One factor is that in the UK most farmers' accounting years end in the period January to March, so that their accounts are available only during the peak work periods. Secondly, the team collecting the organic farming accounts has to prioritise the main FADN work first. There have also been internal delays in the project which are now resolved.

	Procedures are being implemented which will allow earlier collection and reporting of the organic farm data, with 2004/5 data available in June 2006, but in the long term the main solution would be full integration of data collection in the main Farm Business Survey
Accessibility and Clarity	Data are published according to clear definitions and with publication on the DEFRA website accessibility will also be high.
Comparability	Because Farm Business Survey/FADN procedures are adopted for the survey, the data are fully comparable with other FADN results. The methods developed to select comparable conventional holdings have also helped to improve the level of comparability between groups of organic and other farms.
Coherence	This is currently low because of the different projects which have supported data collection in the past. However, as the current project progresses, the situation will be improved.

The following table provides a SWOT analysis of DEFRA's production level data:

	Strengths	**Weaknesses**
Ease of data collection and processing	• Direct collection of data by UWA permits a high degree of control of recruitment and clarification of data issues • Data relatively easy to extract from DEFRA database once macros developed	▪ Direct data collection by UWA is expensive due to the distances to be travelled to collect data across England and Wales.
Data quality	▪ High due to the detailed survey procedures implemented and the specific sampling of organic farms. ▪ Procedures for selection of comparable conventional farms	▪ Small sample size, lack of representativity, and discontinuity between periods, ▪ Problem of correct identification of organic holdings in main FBS(FADN) sample. ▪ Main FBS has not collected individual enterprise data (e.g. beef, milk) to enable calculation of gross and net margins ▪ Individual crop and livestock yield and price data is limited
Legislative issues	▪ The existence of the Farm Business Survey with its legislative basis makes the establishment of an organic farm survey much easier	▪ Main FBS does not have to focus on organic farms or ensure representative samples are collected
Administrative issues	▪ None identified	▪ None identified
Cooperation with data providers	▪ Data-providers (farmers) are normally very supportive once	▪ There can be difficulties recruiting and retaining

	they have agreed to participate	producers ▪ The lack of a clear incentive system to encourage participation
Cooperation with national / international statistical offices	▪ Support from DEFRA Statistics division in identifying holdings for recruitment	▪ Lack of direct collaboration between Economics Division and Science Division responsible for organic farming research ▪ Additional organic farms collected are not submitted to FADN
Costs	▪ Use of data from organic farms collected from other studies and as part of main FBS reduces costs	▪ High cost of direct data collection across England and Wales
	Opportunities	
Possibilities to overcome weaknesses identified	▪ Move to situation where all organic farm data is collected as part of main FBS, but this will require improved procedures for identifying organic element of holdings which are part conventional and part organic. Ca. 25% of holdings currently identified as having some organic land within the FBS sample are mixed conventional/organic holdings. A discussion document on possible improvements was submitted to the FBS technical committee working group in June 2005, which recommended moving from the current system of only identifying a limited number of wholly organic enterprises on mixed holdings, to identifying all organic enterprises with a two letter supplementary code which could also be used to identify conversion status. However, this proposal was not accepted; a more limited analysis of gross margins for specified key enterprises was approved. ▪ From 2004/05 main FBS will be collecting more data on enterprise gross and net margins – this could include scope to collect organic and conventional enterprise data separately on mixed holdings. ▪ DEFRA Statistics Division has been keen to establish a new initiative to obtain price data, linking to existing initiatives from the Soil Association and others, subject to resources being made available. A working group to develop this initiative was planned. These initiatives have not yet been progressed due to lack of resources. A new pilot initiative from the Soil Association and P1 working together to encourage producer in Wales and Northwest England to contribute to a price monitoring service may provide a model for future action.	
What is new in comparison to systems used so far?	▪ The sample size for organic farm groups has been increased, helped by an increased number of organic farms captured centrally, and easy access to the data for analysis. The move to more information being collected on individual production enterprises is also important as a source for financial/benchmarking information.	

Can the system be used for data harmonisation ?	▪ The current FBS system for identifying organic enterprises on mixed status holdings still has limitations and therefore cannot be recommended for wider adoption, also because conversion status is not identified. However, if the proposal for a 2 digit organic status identifier for all production enterprises would be adopted, this could be more widely considered.
Relevance / applicability for international implementation	▪ The two digit approach for enterprise identification has also been suggested at international level (Offermann and Lampkin presentation to Pacioli meeting, June 2005).
	Threats
Identification of critical points, barriers, problems	▪ The view that organic farming is still insufficiently important and the number of cases that would be affected by change is too small may prevent further changes being adopted. However, given the lead-time needed for changes, it is necessary to consider now what might be needed in 3-5 years time assuming the organic sector expands. ▪ There are still no proposals to increase and ensure the organic sample is selected in an appropriate way, and that relevant weightings are implemented.
Proposed Solutions	▪ The FBS project board would be willing to consider proposals for modifying the sampling and weighting procedures. This may be influenced by recommendations to come from EU FADN following the Pacioli meeting.

Assessment of DCPS in regard to the recommendations generated in WP2/3 and WP4 – farm income data

FADN systems are generally well defined with respect to common protocols for data processing and exchange, including development of IT solutions. This is also maintained in the context of this 'supplementary data collection approach'.

- Establish mechanisms to facilitate is statistical agency, external expert and stakeholder communication and involvement in data collection and processing, e.g. via specialist expert groups/networks and observatories, with key individuals given responsibility to promote/develop initiatives

  Liaison with existing FBS committees is now taking place.
- Facilitate easy access to and timely/rapid dissemination of available data (especially regarding online access of data)

  Improving as now published on DEFRA website.
- Ensure sufficient resources available for implementation of proposals, based on coherent justification of needs and benefits

  This work has been sufficiently resourced as an additional research programme

- Integrate available national data to strengthen EU-wide samples (e.g. FADN) where otherwise insufficient sample size or representativity would be a problem (level 2)

  This issue has not yet been addressed – the additional data collected is not supplied to EU-FADN

- Ensure organic samples in existing surveys (e.g. FADN, FSS) are correctly identified and representative (levels 1, 2)

  This is not yet adequately addressed although discussions on improvements to FADN are taking place.

Third country imports

DEFRA Statistics Division has requested and is receiving quarterly data on third country import authorisations from Port Health Authorities (covering both sea and airports). Information is collected on importer, product (comcode), country of dispatch, quantity and unit, port of entry and cost of licence. This data has been collected over the last 4 quarters, with increasing numbers of ports reporting on a regular basis, but no central analysis of the data has yet taken place, in part to be sure that reporting is as comprehensive as possible. Due to staff limitations in DEFRA, there is a need for initial work combining returns to be conducted by Customs and Excise, and this has also led to some delays.
Dissemination is planned via statistical notice published on the website as for the production data. Concerns relating to commercial confidentiality are addressed by disclosure rules which require a minimum of 5 cases (i.e. 5 different importers per product) before data can be published.

The following Table provides an assessment of data quality based on the interviewees' opinions and expert assessment.

Import level data quality assessment

Relevance	The relevance of the data is good for what is covered, i.e. imports from third countries, although the value of products imported from these countries is not covered and the restriction to third countries also affects the range of products that can be covered. The main limitation, however, is that data is not available for internal EU trade. This is discussed further in the SWOT analysis below.
Accuracy	The accuracy of the data provided is believed to be high – this is comprehensive administrative data subject to strict legal reporting requirements. But the process is still at an early stage of development, so there remains an uncertainty about validation issues and how good the data really is.
Timeliness and punctuality	Data is transferred shortly after the end of each quarter, so this aspect is good, but in practice no data has yet been analysed or reported so it is difficult to evaluate this aspect at present.
Accessibility and clarity	Good
Comparability	There is good comparability with other import data as the same procedures are used.

Coherence	The potential for coherence and consistency over time is high in the longer term provided that validation shows current procedures to be effective.

The following table provides a SWOT analysis of DEFRA's trade level data:

	Strengths	**Weaknesses**
Ease of data collection and processing	▪ Port Health Authority process is easy, formats consistent	▪ Larger number of reporting bodies
Data quality	▪ Good for what is available	▪ Limited scope
Legislative issues	▪ Clear legal framework for Port Health Authority action	▪ Lack of formal product classification distinguishing organic
Administrative issues	▪ Good administrative structures in place	▪ None identified
Cooperation with data providers	▪ Good where data is being reported	▪ Not yet certain that all port authorities are reporting or providing comprehensive returns.
Cooperation with other statistical offices	▪ Relationship with Port Health Authorities and Customs and Excise	▪ No collaboration on this with agencies in other countries
Costs	▪ No direct costs to DEFRA (costs carried by data providers)	▪ None identified
	Opportunities	
Possibilities to overcome weaknesses identified	▪ To extend the scope to cover internal EU trade and exports to third countries would require a change of codes (NACE). This has been the subject of significant international discussion (see Eurostat working group papers and EISfOM Berlin Seminar proceedings) with little progress possible. UK Customs and Excise have also decided that they are not willing to make changes to classification to achieve this. ▪ The Danish experience (see DK case study) might be helpful in this context. ▪ Certification bodies might be able to supply data on quantities purchased and sold by individual businesses, but in practice this would require improvements in information technology (see AT case study). ▪ A direct survey of operators might be required, but there is as yet no legal basis to guarantee returns.	
What is new in comparison to systems used so far?	▪ Data of this type were previously not available	
Can the system be used for data harmonisation?	▪ Yes	
Relevance / applicability for	▪ Other countries are likely to have similar procedures relating to third country imports, which might allow EU-wide import totals to	

international implementation	be estimated if the data can be co-ordinated. It would not be possible to capture EU exports in the same way.
	Threats
Identification of critical points, barriers, problems	▪ Does not cover internal trade ▪ Lack of progress on classification issues
Proposed solutions	▪ See opportunities section above

Assessment of DCPS in regard to the recommendations generated in WP2/3 and WP4 – trade data

- Compulsory (legal) requirement, with appropriate financial compensation, for certification bodies to supply specified administrative (2092/91) data, based on common definition of variables, and for Member States to collate and report this data (levels 1, 3, 4, 6)

  At present DEFRA makes no requirement on certification bodies to supply trade data and there are no proposals to change this.

- Develop legal enforcement for institutions which are already obliged to collect data (e.g. slaughter houses) to distinguish between conventional and organic products (levels 3, 4, 6?)

  This is the principle behind obtain data from Port Health Authorities.

- Integrate data from third country import approvals and certification body data in trade statistics (level 3, 4, 6)

  The first part of this is achieved, but no data is obtained from certification body data to complete process.

- Make selective adjustments to official nomenclature to achieve appropriate balance between data requirements and administrative costs (levels 3, 4, 6)

  DEFRA supported change at international level, but so far this has not been agreed by others.

- Conduct regular EU-wide survey of operators and experts (soft data) to meet specific data requirements (levels 3, 4, 6)

  Not applied by DEFRA

- Extend the existing data collection on intra- and extra –EU-trade to a differentiation between organic and conventional, which may provide the basis for organic market data, which market actors and policy makers will require.

  Not applied by DEFRA.

Other DEFRA work on organic food and farming statistics

The following areas of activity have not been evaluated in detail due to the lack of progress in their development – however, in some cases the ideas might be relevant for future work.

Expenditure on Food Survey

A diary page with questions relating to organic food purchasing and consumption by households was planned to be piloted with the intention that the questions should be included in the full Expenditure on Food Survey from April 2005. Neither the pilot nor the main survey took place due to funding issues although it might happen in 2006 with publication end 2007.

Consumer prices

Another branch of DEFRA Statistics Division was keen to establish a new initiative to obtain price data, linking to existing initiatives from the Soil Association and others, subject to resources being made available. A working group to develop this initiative was also planned. These initiatives were not progressed due to lack of resources. Instead, a more limited monitoring of supermarket internet/home delivery websites (Tesco, Waitrose, Asda, Sainsbury) has been implemented. The data have not yet been evaluated as DEFRA wants to run the process for a few months before publishing work. It is possible that internet shopping prices may be higher than in retail outlets, although it may be possible to obtain some indication of this from www.tesco.com/pricecheck.

Retailer data

The English Action Plan for organic food and farming set targets to increase the level of organic food self-sufficiency to be more comparable to the conventional sector (70% target by 2010). As part of the monitoring of this it was hoped that the British Retail Consortium (BRC) would be able to provide data on the origin of organic products sold by their members. Initially, the BRC started collating data and supplying percentages for primary products. DEFRA requested an explanation of the BRC methodology used which apparently involved a straight average of percentages from each member (i.e. not weighted by sales share), so values obtained were not very helpful. Not all retailers are members of BRC and some members did not want to contribute for confidentiality reasons. Some retailers maintained that they did not have the information but that it might be possible to get data directly from suppliers. Ministerial meetings with supermarkets did not help secure significant improvements. DEFRA's own internal evaluation of this data was also not encouraging. Organic consumption and retail data could be extracted by market research companies such as TNS quite easily from their databases, but these data are usually not publicly available and are potentially quite expensive.

Dissemination

DEFRA Statistics Division plans to extend the web-based dissemination of data and more information e.g. production and income data, is now available on line. Responses to ad-hoc requests for information are also an important dissemination mechanism. The annual DEFRA report '*Agriculture in the United Kingdom*' now has an organic chapter focusing on production data. The Soil Association is now using DEFRA production area data in their annual report as some certifiers are no longer supplying data directly to the SA. Some methodology issues remain to be resolved with SA before DEFRA can be fully confident in their data.

Assessment of DCPS in regard to the recommendations generated in WP2/3 and WP4 - further recommendations:

- Establish and disseminate widely the case for developing organic farming statistics

  The difficulties that DEFRA has experienced in securing sufficient resources is an indicator that more work is needed in this area.

- Establishment of national/international observatories

  Not considered

- Identification of organic products and development of barcode database

  Not considered

- Making fuller use of organic farming organisations and stakeholder expertise

  DEFRA liaises actively with organic organisations and retailer interests to obtain data

- Establishing an appropriate balance between data in the public domain and commercial confidentiality

  Current DEFRA systems are well able to maintain commercial confidentiality.

- Development of national and international yearbooks

  Yearbooks are published at UK level by DEFRA and the Soil Association, Yearbooks for Scotland and Wales are under development by the Soil Association and Organic Centre Wales.

References

FIRTH, C., GREEN, N. & HITCHINGS, R. (2005) The UK Organic Vegetable Market. Coventry, HDRA The Organic Organisation.

JACKSON, A. J. & LAMPKIN, N. H. (2005) Organic Farm Incomes in England and Wales 2002/03.Institute of Rural Sciences, University of Wales, Aberystwyth.

SA (2004) Organic Food and Farming Report 2004. Bristol, Soil Association.

European level evaluation of production data

To get an insight on Europe-wide activities on the producer level, P1 will also report on ongoing activities as well as on plans/proposals for data harmonisation from a European perspective. The aim will be to give an overview on what is happening on EU-level regarding the improvement of data quality on producer level. This will be additional work to the case studies and will be reported in a separate chapter (about 1-2 pages) included in the national case study report.

The development of production data initiatives by DG Agri and Eurostat have been covered in the P2 report which is integrated in the draft D4 document, so this will not be repeated here.
However, P1 has extensive experience utilising the data from these sources, in particular with respect to the OFCAP, OMIARD and EUCEEOFP research projects, and a number of issues have been identified which should be addressed.

1. The list of crop and livestock enterprises for which 2092/91 data are collected is not fully harmonised with the Eurostat lists, so some categories are missed – ZMP has made proposals for an extended list as part of the EISfOM project.
2. Countries are not consistent in how they report this data, particularly where aggregate data are published, so that data are not always comparable (particular with respect to what is included as 'horticulture' and 'grassland'. If a lowest common denominator approach is used, considerable detail is lost.
3. The data supplied by Member States to DG Agri/Eurostat are not always consistent with data published by the Member States. In some cases substantial differences exist. For countries like the Netherlands it has been possible to explain these differences as a consequence of using FSS rather than 2092/91 administrative data.
4. Farm Structure Survey are now available but in some (many?) countries there are substantial differences to the administrative data. This may be due to deficiencies in administrative data collection (for example inadequate coding by inspection/certification bodies) but is also due to the problem of mixed status holdings leading to sometimes significant over-stating of organic area and livestock numbers, or conversely under-stating due to the exclusion of small holdings.
5. Administrative data may not include policy-supported but uncertified land areas and livestock. There may be valid reasons for not requiring land to be certified if the products are not marketed as certification is only a legal requirement in such contexts. Such land may however be recorded as organic in the Farm Structure Survey.
6. Administrative data reporting to DG Agri is currently only required at Nuts 0. It would be desirable for this to be broken down to NUTS 2 or 3 level in future. Detailed regional statistical data for the period 1997-2003 is due to be published by P1 in summer 2005.