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Deliverable D6:

Synthesis and final recommendations on the development of a European Information System for Organic Markets

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Executive summary

European markets for organic products are growing rapidly, but the market information available in most European countries is woefully inadequate. Often only very basic data such as certified organic holdings and land area are reported, and sometimes not even individual crop areas or livestock numbers. Important market data, such as the amount of production, consumption, international trade or producer and consumer prices, do not exist in most European countries. In some European countries there are only rough estimates of the levels of production and consumption. There is no standardisation and data are seldom comparable. Furthermore, detailed information on specific commodities is missing. Hence, investment decisions are taken under conditions of great uncertainty. Policy evaluation, including periodic monitoring of the European Action Plan for Organic Food and Farming and RDP 2007-2013, will require many other data in addition to those regarding production structures and financial data that are already available, but obtaining this information would require a new EU-wide data collection and processing system (DCPS) to be put in place.

The European Information System for Organic Markets (EISfOM) project is an EU-funded Concerted Action which has analysed and documented the current situation and proposed ways in which organic data collection and processing systems (DCPS) can be improved by means of:

- improvement in the current situation of data collecting and processing systems for the organic sector
- innovation in data collection and processing systems for the organic sector
- integration of conventional and organic data collection and processing systems

This report summarises the most relevant findings of the EISfOM project, which are analysed in the main project reports:

Wolfert, S., Kramer, K. J., Richter, T., Hempfling, G., Lux. S. and Recke, G. (eds.) (2004). Review of data collection and processing systems for organic and conventional markets. EISfOM (QLK5-2002-02400) project deliverable submitted to European Commission. www.eisfom.org/publications.

Recke, G., Hamm, U., Lampkin, N., Zanoli, R., Vitulano, S. and Olmos, S. (eds.) (2004a) Report on proposals for the development, harmonisation and quality assurance of organic data collection and processing systems (DCPS). EISfOM (QLK5-2002-02400) project deliverable submitted to European Commission. www.eisfom.org/publications.

Recke, G., Willer, H., Lampkin, N. and Vaughan, A. (eds.) (2004b). Development of a European Information System for Organic Markets – Improving the Scope and Quality of Statistical Data. Proceedings of the 1st EISfOM European Seminar, Berlin, Germany, 26-27 April, 2004. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland. www.eisfom.org/publications.

Gleirscher, N., Schermer, M., Wroblewska, M. and Zakowska-Biemans, S. (2005) Report on the evaluation of the pilot case studies. EISfOM (QLK5-2002-02400) project deliverable submitted to European Commission. www.eisfom.org/publications.

Rippin, M. and Lampkin, N. (eds.) (2005) Framework for a European Information System for Organic Markets. Unpublished report of the project European Information System for Organic Markets (EISfOM) (QLK5-2002-02400).

Rippin, M., Willer, H., Lampkin, N., and Vaughan A. (2006). Towards a European Framework for Organic Market information, Proceedings of the 2nd EISfOM European Seminar, Brussels, November 10 and 11, 2005. Research Institute of Organic Agriculture (FiBL), Frick, Switzerland. www.eisfom.org/publications.

From the final project seminar held in Brussels at the end of 2005, attended by more than 100 stakeholders from different EU countries and various private and public market research and statistical organisations, the following recommendations were made:

Farm-level production data

1. Introduce a legal requirement for inspection/certification bodies to collect/provide data, possibly amending article 30 of the current proposal for a Council Regulation amending Regulation (EEC) No. 2092/91.
2. Provide financial compensation for the additional work to be done, in order to encourage private certification bodies to forward data and to prevent an additional financial burden being imposed on organic farmers and processors.
3. Integrate 2092/91 and FSS data as much as possible, in order to allow data validation and cross-checking and to link data from FSS not collected by certification bodies – the use of a single classification system and single holding identifier would support this harmonisation process and the linking of statistical and administrative data.
4. Include production quantities in the legal requirements for organic data collection, or at least alternative systems of estimation (e.g. surveys) should be put in place.
5. Use an integrated or network approach involving stakeholders for all recommendations.

Farm-level financial data

6. Improve recruitment and retention of farmers in samples, by means of appropriate incentives, including making data available in a form that is more immediately useful to participants, and by involving producer groups in recruitment.
7. Improve identification of organic holdings and organic products on mixed status holdings, in order to separately identify holdings that are in conversion and the management status of individual products/production enterprises.
8. Increase organic sample sizes, in order to ensure data reliability and to allow differentiation by farm type and size.
9. Increase the representativity of organic samples (this recommendation is strictly linked to the point above).
10. Calculate Standard Gross Margins for organic holdings in the same way as for conventional ones, but any proposals to change SGMs should take into consideration the specific circumstances of organic farms.
11. Define appropriate criteria for selecting comparison groups – such as a system of comparing data for individual organic holdings against clusters of

similar conventional farms where group averages are presented – in order to avoid distorted results.

12. Retain individual farms in the FADN for as long as possible to allow observation of the structural changes on particular farms and to maintain identical samples for sufficient periods, e.g. for the 5-10 year period needed for conversion studies.

Price data

13. Define an internationally harmonised product classification and nomenclature, with specific reference to Eurostat codecs, in order to allow price comparisons between regions and countries.
14. Determine the product group required at the outset, in order to prioritise data collection on the most relevant commodities at the EU level.
15. Publish implementation guidelines to assist in making decisions and overcoming start-up problems, as well as to quantify the necessary budgets and the time frame.
16. Implement a pilot harmonised system of price data collection in a few countries other than Germany, e.g. Italy where a similar system already exists, the UK or Spain.
17. Define the sales channel and priorities for data collection taking into consideration the user relevance and the ease/cost of collection. In most cases producer prices should be given priority.

Consumption data

18. Establish a Europe-wide expert network for consumption data, in order to define the most relevant set of organic consumption variables, product groups covered and nomenclature used, to describe, update and exchange available national organic consumption data and to define the pre-conditions for European harmonisation of organic consumption data.
19. Implement output harmonisation for organic consumption data by EUROPANEL, taking into consideration the future classification of food items that will be proposed by Eurostat in cooperation with the national authorities for food consumption purposes.
20. Implement a pilot study in order to test and verify the data harmonisation concept developed in recommendations 18 and 19.

International trade and supply chain data

21. Establish an adequate legislative basis for the data collection and processing system, using a unique identification of businesses, and mandatory or paid data delivery for statistical purposes on organic business.
22. Improve current foreign trade data collection, by means of a specific obligation for administrative authorities in importing countries to collect data on organic imports from third countries, as well as compulsory reporting of data on exports to third countries and, eventually, intra-EU trade.
23. Implement a pilot study to test the feasibility of transferring existing systems of data collection (e.g. Denmark) to other countries.
24. Ensure contact between national institutions and official data collectors, at both the national and the EU level, to develop data harmonisation and

integration. This recommendation can be linked with the proposal to establish a European Organic Market Statistics Expert Group (see below).

Institutional framework

In order to improve coordination and enhance current data availability and quality there is an urgent need to devise an institutional framework allowing:

- the consolidation of the network of relationships established during the EISfOM project among various stakeholders at both national and international level;
- the enlargement of this network in order to increase the quantity and quality of available statistics at the national level as well as the national coverage;
- an increase in the links between the Member State officials responsible for agricultural statistics (including organic) and those responsible for food safety statistics;
- formal integration of research institutes, universities, market research companies, independent experts/consultants, certification bodies and other stakeholders that currently own, collect or process organic data.

In order to achieve this, it is proposed that a temporary **European Organic Market Statistics Expert Group** should be established at the EU level, consisting of Commission, Member State and external experts, including researchers and stakeholders, to advise DG Agri and Eurostat in planning and devising the best organisational solution to implement the institutional network in the long term.

Finally, it is important to consider seriously the issue of the **central role of control bodies in data collection**. In order to improve the organic DCPS, data should be collected by organisations which are as close as possible to the source of the data. Since legal obligations already exist for (conventional) abattoirs to report numbers and slaughter-weights of animals, the inclusion of control bodies as official statistical data collecting units – in Eurostat terms – would not represent a dramatic change in EU statistical procedures.

Contents

List of abbreviations

AIAB .....Italian Association for Organic Farming
ARM ……..Azienda Romana Mercati
BÖL ……German Program for Organic Agriculture
BSM……..…Fab4minds BioStockManager
CA ……..Concerted Action
CAP .....Common Agricultural Policy
CB .....Certification Bodies
CBS ..... Statistics Netherlands
CMA .....Central Marketing Association for German Agriculture Industries
CN ……Combined Nomenclature
COICOP.....Classification of Individual Consumption by Purpose
CSA ……..Central Statistical Office
DCPS .....Data Collection and Processing System
Defra ……..Department of Environment Food and Rural Affairs
DKK ……..Danish Krone
DS .....……Statistics Denmark
EAN .....European Article Number
ECHP .....European Community Household Panel
ECR.....Efficient Consumer Response
EEA .....Eastern European Accession Countries
EFRC .....Elm Farm Research Centre
EFTA .....European Free Trade Association
EISfOM……European Information System for Organic Markets
ESS ……European Statistical System
EU-CEE-OFP .....Further Development of European Organic Farming Policy
FADN .....Farm Accountancy Data Network
FAO .....Food and Agriculture Organisation of the United Nations
FBS .....Farm Business Survey
FGS .....Federation of General Stores
FSS .....Farm Structure Survey
GfK .....Growth from Knowledge
GIJHARS….....Agricultural and Food Inspection Poland
GNP……Gross National Product
HBS .....Household Budget Survey
IAFE .....Institute of Agriculture and Food Economics

IFOAM…….....International Federation of Organic Agriculture Movements
ILO .....International Labour Organisation
IMF ….....International Monetary Fund
IRS ….....Institute of Rural Sciences, University of Wales, Aberystwyth
ISMEA ……Istituto di Servizi per il Mercato Agricolo Alimentare
LEG……Leadership Group
LEI .....Agricultural Economic Research Institute Wageningen
NACE .....Classification of Economic Activities in the European Community
NOP.....National Organic Program
NSI.....National Statistical Institutes
OECD ..... Organisation of Economic Co-operation and Development
OFCAP…….....Organic Farming and CAP Reform
OMIARD…….....Organic Marketing Initiatives and Rural Development
RVA .....Dutch Accreditation Council
SA .....Soil Association
SBS .....Supply Balance Sheets
SCOF .....Standing Committee on Organic Farming
SQL .....Structured Query Language
TARIC …….....Integrated Tariff of the European Communities
TNS .....Taylor Nelson Sofres
TQM ……Total Quality Management
TSG .....Traditional Speciality Guaranteed
UN .....United Nations
VAT .....Value Added Tax
VBA .....Visual Basic Application
WP .....Workpackage
ZMP.....Zentrale Markt- und Preisberichtstelle für Erzeugnisse der .....Land-, Forst- und Ernährungswirtschaft GmbH

1 Introduction

1.1 The EISfOM project

The European Information System for Organic Markets (EISfOM) project is an EU-funded Concerted Action whose aim is to develop a framework for reporting valid and reliable production and market data on the European organic sector, in order to meet the needs of policy makers, farmers, processors, wholesalers and other actors involved in organic markets.

The main tasks and objectives of EISfOM, reflected in the individual workpackages (WPs), are to:

- review current conventional and organic data collection and processing systems (WPs 1,2,3; Deliverable D2: Wolfert *et al.*, 2004)
- develop proposals for harmonising data collection and processing methods and improving data quality, including the first European seminar (WP4; Deliverables D3 and D7 (proceedings): Recke *et al.*, 2004a and b)
- co-ordinate and evaluate pilot data collection and processing systems at the national level (WP5; Deliverable D4: Gleirscher *et al.*, 2005)
- prepare and debate a framework for the development of a Europe-wide database for organic markets (WP6; Deliverables D5 (draft framework): Rippin and Lampkin, 2005; D6 (this report) and D8 (seminar proceedings): Rippin *et al.*, 2006)
- communicate and disseminate results and recommendations to the European Commission and others in order to secure an operational system for the future (WP7)

Further information about the project and the partnership can be found at the project internet site: www.eisfom.org. This site gives access to project publications, links to statistical information, e-mail news updates, a discussion forum, an intranet facility for internal communication between the core partners and project management, as well as the project ‘membernet’.

1.2 The need for improved organic market data

Organic farming is still a relatively small sector in Europe, but in absolute terms it is similar in size to the total agricultural sector of one of the smaller European countries, with more than 5 million hectares and 150,000 holdings managed organically, operating in the context of a fully-fledged regulatory system defined by Council Regulation (EEC) No. 2092/91. In economic terms, the organic sector is achieving an annual retail sales value of more than 30 billion Euros globally, nearly half of this within Europe itself. The case for an investment in statistical data similar to that made by smaller countries for their own agricultural and food sectors would not be questioned if all the activity occurred in one place. However, because the activity takes place across a wide area and has only shown rapid growth in the last decade, the case for investment in statistical data has not yet been strongly made or highly prioritised. In fact, the EISfOM review of current practice in 32 European countries (Wolfert *et al.*, 2004, see also Chapter 2) has shown that in many countries, investment in organic market data is virtually non-existent.

The organic sector has now developed to the point where the need for improvements in statistical data is becoming particularly pressing, and the consequences of failing to address this are potentially significant in financial terms. Currently in Europe:

- consumers are spending up to 15 billion Euros annually on organic food, and demand continues to grow at up to 10% annually, which is higher than in other food sectors,
- policy makers are investing up to 1 billion Euros annually in organic farming support payments and other rural development policies which benefit the organic sector,
- up to 200,000 production, processing, marketing, retailing, consultancy, inspection and certification businesses are engaged with the organic sector,
- more than 500,000 people are earning a living from organic food and farming.

Therefore the consequences of making incorrect decisions on the basis of poor information can no longer be ignored. Also, the potential for future expansion, particularly in the emerging economies of Central and Eastern Europe, must be taken into account.

Information in sufficient quantity and of appropriate quality is essential for sound decision-making. Policy makers need information to determine the appropriate levels and nature of regulation and support measures. Consumers need information to support their purchasing decisions. Businesses need information to make appropriate investment decisions, including whether or not to enter or leave the organic sector. The economic rationale for public sector investment in information and statistical data provision is based on issues of market failure. Policy interventions can be considered justifiable if they either have the effect of moving an industry more towards the perfectly competitive market model or address specific cases where markets do not operate in the way posited in this model. In particular, lack of information can lead to sub-optimal decision-making and functioning of markets through information asymmetry, absence of transparency (particularly in price setting) and increased costs and investment risks.

For example, inadequate information for producers means that they are not able to assess the business case for conversion accurately, and may decide not to convert when, in fact, it may be advantageous to do so, thereby undermining public policy goals including both the provision of public goods (environment etc.) and wider consumer choice by supporting the development of nascent markets. In the latter context, an under-supplied market may result in higher prices for consumers and/or lack of access to products for which demand exists, both of which represent a loss of consumer welfare. In addition, under-supply may result in lack of critical mass or economies of scale which would be needed to make organic businesses competitive in the wider market place. Inadequate information may also result in producers converting either where it is inappropriate to do so or when there is little understanding of the technical and business implications, leading to costly management mistakes and possible later abandonment of organic management. To the extent that a business suffers losses which are not compensated by direct payments, it can be argued that there is a loss of producer welfare arising from the government incentives, which could be avoided with better information availability. There is also a risk that public payments will be wasted when they are not repaid if a producer gives up (e.g. through bankruptcy) or does not continue with organic management after the end of the contractual period for public support.

Therefore there is a strong case for improvement of both the availability and quality of organic market information, given the size of the organic sector and its contribution to broader public policy objectives, and for a combination of public and private sector investment to achieve this. This case has been recognised in the European Action Plan for Organic Food and Farming (EC 2004), in the support for organic farming research under the framework research programmes, and the strategic priorities set for the implementation of the 2007-2013 European rural development programme (EC 2005). The key issue now is to convert policy commitments into action.

1.3 Defining a framework for a European Information System for Organic Markets

This report is the final technical deliverable of the EISfOM project. The recommendations contained in it build on the review of current activity, the analysis of limitations and needs for improvement and the evaluation of pilot studies on innovative approaches carried out in earlier parts of the project, as well as the draft recommendations (D5: Rippin and Lampkin, 2005) and the 2nd EISfOM European Seminar held in Brussels in November 2005 which was organised to discuss the draft recommendations (Rippin *et al.*, 2006).

The specific objectives of the final part of the project were to:

1) prepare a framework for the long-term establishment of a Europe-wide data collection and processing system (DCPS) including:
    - possibilities for improving the current situation with regard to the volume and quality of data collection systems, including projected costs for the improvements;
    - recommendations to implement data collection and processing systems for the organic sector in Europe;
    - recommendations for the integration of conventional and organic data collection and processing systems;
2) debate proposals at the second EISfOM European Seminar and agree final proposals with key national/international agencies, so that these agencies may undertake the implementation phase as part of their on-going activities.

In developing the final recommendations (presented in Chapter 6 of this report), the draft recommendations (Rippin and Lampkin, 2005) and the Brussels seminar discussions (Rippin *et al.*, 2006) focused on a number of key themes:

a. identifying problem areas and barriers to be addressed;

b. recommending improved classification systems (including appropriate data aggregation levels) and data collection and processing procedures;

c. identifying examples of good practice (reference systems) and opportunities to build on conventional DCPS (e.g. FSS, FADN)

d. estimating the time frame and broad cost implications for making the recommended changes, and

e. identifying the key actions required at the European level.

Chapter 6 also includes consideration of feasibility and priorities within and between the different data levels based on discussions at the seminar and subsequent consultations.

This report also provides perspectives on:

- existing national and international data sources for the organic market (Chapter 2);
- harmonisation and quality management issues needed to underpin the development of an organic DCPS (Chapters 3 and 5);
- examples of DCPS for farm-level production and financial data, trade and consumption of organic commodities, including possibilities for linking DCPS for organic and conventional products (Chapter 4);
- costs and time frames for DCPS development and optimisation (Chapter 7);
- long-term strategies for integrating participating countries and extending the system to include other countries (Chapter 8).

We recognise in presenting these final recommendations and the underpinning analysis that it is not the role of the EISfOM project, nor the individual partners in EISfOM, to take them forward. Much depends on the willingness of the European Commission to do so, and in particular Eurostat and DG Agri, in collaboration with member states and the organic sector stakeholders. The commitment to the development of organic farming statistics and market information contained in the European Action Plan for Organic Food and Farming is a hopeful sign that this will happen. This has been reinforced by the interest shown in the project by officials from the European Commission and their active engagement in the development of the recommendations. However, final responsibility for the recommendations remains with the EISfOM project partners - the views expressed are those of the authors and they do not necessarily reflect the views of the European Commission, nor do they in any way anticipate the Commission's future policy in this area.

2 Overview of national and international data sources and quality

This task was mainly carried out in the first year of the project (2003/04) by contacting and surveying all known national specialists on data for the agricultural markets in both state and private organisations. The completeness of the picture depended on the willingness of actors in European countries to provide the EISfOM team with the information requested. Further and more detailed descriptions and an overview of the results gathered in 2004 are presented in Wolfert *et al.*, 2004. Due to the time lag, this overview may not reflect the 2006 situation in some countries and/or data areas, despite the authors' efforts to keep their knowledge up to date. Further explanations on comparability and harmonisation needs are given in Chapters 3, 5 and 6.

2.1 National data collection initiatives

The overview of existing data collection and processing systems (DCPS) throughout Europe (summarised in Table 2-1) is divided into different categories: production and land use data; farm accountancy data; price data; consumption and retail data; national and international trade data; and wholesaler and processor data.

2.1.1 Production and land use data

Data on production and land use are available for some years in almost every European country. In some countries the land use data (crop production/livestock) are not official data and thus do not appear in Eurostat databases. Due to the pre-defined structure for annual reporting under Council Regulation (EEC) No. 2092/91 and the less frequent national Farm Structure Surveys (FSS) which must, by law, be provided to Eurostat, almost every European country collects and reports these data, except (at this point in time) Cyprus and Malta. The problems which occur with regard to organic production-related data are described in Chapters 3 and 4.

An annual data update is not available for all countries. Annual data are normally generated by consulting the inspection bodies that are required to inspect all organic farms every year. Some countries do not yet have an annual organic data collection system (Cyprus, Greece, Ireland, Latvia, Luxembourg, Malta).

2.1.2 Farm accountancy data

Since 2000, all EU-15 member states have been required to identify organic holdings in national FADN samples submitted to EU-FADN. Where there is a high proportion of organic holdings compared with total holdings, organic farms are generally well represented and useful data is available through EU-FADN, but in other countries sample sizes may be very small and in these situations there are significant questions about representativity. The new EU member states have also been required to identify holdings, but in countries where the number of holdings is very low such as Cyprus and Malta, there will be no or very few organic farms included. In some countries (e.g. UK, DE), data are collected separately within research projects.

2.1.3 Price data

Price data are collected regularly and systematically with a fixed product classification in only a few European countries (Germany, Italy, UK, Austria, Denmark, Lithuania, The Netherlands, Switzerland and Norway) and often this applies only to selected product categories or sales channels. For all the other

countries there was no information available about price collection systems on organic food and farming.

Table 2-1: Overview of organic data availability in European countries

	Farm accounts data	Production data (area (ha) and/or livestock (heads))	Farmer prices	Consumer data	Retailer data	Foreign trade data	No. of organisations involved
AT	✓	✓	✓	✓	❒	❒	6
BE	✓	✓	■	✓	❒	❒	5
BG	■	✓	❒	❒	❒	✓	2
CH	✓	✓	✓	✓	✓	✓	6
CY	■	✓	❒	❒	❒	❒	2
CZ	✓	✓	■	✓	✓	✓	6
DE	✓	✓	✓	✓	✓	■	11
DK	✓	✓	✓	✓	✓	✓	8
EE	✓	✓	■	■	■	■	2
ES	✓	✓	■	✓	■	❒	4
FI	✓	✓	■	■	✓	✓	5
FR	✓	✓	✓	✓	❒	✓	7
GB	✓	✓	✓	✓	✓	✓	11
GR	✓	✓	❒	❒	❒	❒	3
HU	✓	✓	■	■	■	✓	3
IE	■	✓	✓	✓	✓	❒	4
IS	■	✓	■	■	■	■	2
IT	✓	✓	✓	✓	❒	✓	6
LI	■	✓	■	■	■	■	2
LT	✓	✓	✓	■	■	■	5
LU	✓	✓	❒	❒	❒	❒	3
LV	✓	✓	❒	❒	❒	❒	3
MT	■	■	■	■	■	■	0
NL	✓	✓	✓	✓	✓	✓	7
NO	✓	✓	✓	✓	❒	❒	4
PL	✓	✓	■	■	■	■	4
PT	✓	✓	❒	❒	❒	❒	3
RO	■	✓	■	■	■	■	2
SE	✓	✓	❒	✓	❒	✓	7
SI	✓	✓	■	■	■	■	2
SK	✓	✓	■	■	■	■	4
TR	■	✓	■	■	■	✓	2
Key:	✓	**data are available**	■	**no data available**	❒		**information missing**

2.1.4 Consumption and retail data

Almost half of the European countries publish at least some data on consumption. In most cases private market research companies such as GfK, TNS or ACNielsen monitor households or trade panels, and the data are available only by purchasing them. This is true for Germany, Austria, Belgium, Spain, Finland and Sweden. In some other countries, such as Denmark, France, Italy, The Netherlands, UK, Switzerland and Norway, non-profit organisations purchase the data and publish them more widely.

2.1.5 National and international trade data

Trade data are the least widely available. Bulgaria, Czech Republic, Denmark, Finland, France, Hungary, Italy, Sweden, Switzerland, the Netherlands and Norway have either a central statistical office or private companies which systematically collect national trade data for organic products. In the UK, the port authorities have recently been instructed to record organic products separately; first results can be expected at the end of 2006.

2.1.6 Wholesaler/processor data

Data on the wholesaler and processor level are very scarce. Because of the problems involved in accessing these commercially sensitive data it is impossible to find useful data for the organic market in almost every country. Even where companies are obliged to provide data for official statistics, it is not possible to identify organic products in these data sets. The two countries known to have some organic data on the national organic market are Denmark and Norway; in future it may be possible to get access to data from Poland.

2.2 International data collection initiatives

The main statistical activities with respect to general agriculture on the global scale are initiated by the OECD and FAO. In the European context, Eurostat co-ordinates all cross-country statistical activities. Furthermore, Eurostat publications often also include comparisons with selected non-EU states such as Switzerland, the USA or Japan, and thus provide a global data view. There are interfaces between many statistical categories in OECD, FAO and Eurostat data with regard to the integration and harmonisation of variables and metadata. At present all three institutions include little or no specific data on organic agriculture, although the FAO has established a system for gathering organic farming data directly from member states, and Eurostat has data on organic production areas, livestock numbers and holdings derived from Council Regulation (EEC) No. 2092/91 reporting and from the Farm Structure Survey. Options for new initiatives in other areas continue to be investigated by Eurostat.

Given the dynamic growth in recent years of the organic sector supported by public funds, there is a strong demand for organic production and market data from policy makers, market actors, the media, the research and advisory sector, farmers, consumers and environmental associations (to name only the most demanding groups). However, currently there is a broad lack of data and information available on the organic sector. Given the lack of data availability and the demand for it, as a non-governmental organisation representing the organic sector, IFOAM and some partners have started to collect and report global data on the number of organic farms, organic land area and market size (e.g. Yussefi and Willer, 2006).

Furthermore, various public activities at the European level have begun or are about to begin to merge existing and potential organic data sources. As part of the European Commission's Action Plan for Organic Food and Farming, DG Agri is seeking to encourage improvements in organic market transparency and to introduce the regular collection of organic market information. This is supported by the Food Safety Taskforce in Eurostat, which aims to implement regular collection of organic farming data from farm (production) to fork (consumption). More and more national governments express a wish to support these European activities, or at least to collect more data on the national level to enable market and political decisions to be taken on a more informed basis in future.

With the aim of establishing a Europe-wide central source for all data on the organic market (official and non-official), the EISfOM project team has started to build a database covering the production-related data that are currently available. The data have been cross-checked by experts and will be retrievable on the EISfOM website from the end of May 2006. Widening of the data range and updating the data will depend on finding a source of funding for the human resources required.

2.3 Conclusions

Based on the information available to the EISfOM project team, the following general conclusions can be drawn.

In countries like Austria, Denmark, Finland, Germany, Italy, The Netherlands, Norway, Switzerland and the UK, organic food and farming data are available on many actor levels. Therefore, it is now possible in these countries to draw a fairly complete picture of the organic sector, at least at the start and end points of the supply chain, i.e. production and consumption. In countries with emerging organic markets, e.g. Bulgaria, Hungary, Poland, the Baltic States and some Mediterranean countries, there is generally very little data available about organic farming and the organic market. However, in some of these countries (e.g. Lithuania, Poland, Czech Republic) efforts are now being made to improve data availability.

The institutions which collect organic food and farming data at present are mainly private bodies driven by economic goals. Public data collection focuses mainly on structural data on organic farms (e.g. farm structure survey). Private institutions (mainly organic farming associations and certification bodies) also collect more detailed structural data, while commercial market research companies are interested in organic consumption and sales volumes and values. In some countries, public institutions or farm associations buy data from commercial providers and make them partly accessible to the public. In other countries these data are bought only by private companies (e.g. retailers, processors or wholesalers) and are not widely disseminated.

3 Harmonisation of classification systems

Organic data collection and processing systems have tended to be developed independently from general agriculture statistics and there is therefore a need to achieve closer integration between the two. This implies harmonising classification systems to achieve greater comparability between data sets and also between countries.

3.1 Harmonisation needs

3.1.1 Current European classification systems

The first phase of the EISfOM project (Recke *et al.*, 2004) identified several classification systems and hierarchical orders within the different member states as well as within Eurostat. To improve data comparability, the ideal would be to achieve input harmonisation, i.e. to standardise both the type and methods of data collection. This would apply especially in countries (e.g. some southern and eastern European states) where data is limited and organic DCPS are not yet well established. A uniform DCPS might be based on well-functioning reference systems from countries such as Denmark, or a new system might be developed for these countries by a group of national statisticians and external experts, preferably led by Eurostat. In countries and/or areas where systems are already well-developed, output harmonisation, i.e. defining a consistent end product but leaving the choice of the data collection and processing system to national agencies, offers a more practical and financially feasible option by building on and adapting systems which already exist.

As this is one of its central functions, the harmonisation process should start within Eurostat (as is already the case) and the results of this process should be communicated as soon as possible to member states (MS). MS should be required to identify the differences between their own systems and the new Eurostat system and try to harmonise their national system to it.

3.1.2 Harmonisation needs within the different data areas

Two major areas have been identified as the most important and prioritized in order to achieve significant results as soon as possible.

3.1.2.1 Land use and production

Most MS collect data on land use and production from the FSS and/or certification bodies. Eurostat is currently reviewing the existing classification system for 2092/91 reporting in order to align it more closely with the FSS crop production classification and achieve database harmonisation within their conventional agricultural statistics. The new revised system will be close to the current NACE classification as well as proposed revisions.

It is very important that all organic production data should use the same crop definitions, especially for subgroups, in order to get truly comparable data. Thus, Eurostat should define very precisely both single crops and the members of subgroups. This is especially true for fodder/forage, oilseeds, vegetables and fruit. Since Eurostat does not use a consistent botanical hierarchical system – for example categories such as ‘industrial crops’ include oilseeds like oilseed rape and sunflowers – it is difficult to aggregate subgroups from a botanical perspective. The aggregation of land use data for subgroups, main crop groups and totals requires a strictly

hierarchically coded system. ZMP in Germany has proposed an adaptation of the Eurostat codecs to resolve this (Annex 1)). In order to obtain comparable data and enable the exchange of data between national and Eurostat databases, a revision of the Eurostat classification system along these lines is recommended. If this is not possible, a correspondence table for every national database should be defined, to link national codecs to those of Eurostat (e.g. as in Annex 1).

In some cases where data are used for market relevant analyses, some double classifications can occur, e.g. botanical classification, production system (in the open or protected), or different marketing channels (fresh or for processing). These circumstances need to be considered when designing the database and in the calculation of totals and subtotals. As Eurostat uses a highly aggregated level of crop details (due to the lack of availability of data), member states should be free to use as many disaggregations as needed for their individual purposes. As long as a correspondence table is defined and data are recorded in a consistent structure, there should not be a problem.

3.1.2.2 Prices (farmer and consumer data)

Eurostat collects producer prices as absolute prices and calculates price indices (although with no distinction for organic farming). Eurostat is currently reviewing the classification system with respect to absolute prices.

Very few MS collect price data for organic products (e.g. Germany, Italy, France, UK, Denmark and Lithuania) – not all by official agencies. The most advanced system has been run by ZMP in Germany since 1992 and can be considered as a reference system. As for land use data, in order to get comparable data and enable the exchange of data between national and Eurostat databases, adaptation of the Eurostat classification system is recommended. If this is not possible, correspondence tables should be specified for national databases (see the ZMP example in Annex 2). The ZMP classification list is intended to provide a framework, but it is accepted that it would not be possible for most countries to adopt the whole system immediately. There needs to be a limited number of items selected from this list as priority for development. The Eurostat codecs could serve as a basis for determining which items to prioritise.

For data comparisons between European countries and the practical use of the price data collected (e.g. by market actors), the product specifications are not detailed enough and level of aggregation is too high. Thus, in some cases, even Eurostat will have to revise its classification list. Otherwise no truly comparable data will be available.

In principle, consumer prices could use same hierarchical system and codecs as farmer prices, but some categories (e.g. feed cereals, fodder, unsorted and loose raw materials and animals for slaughter) are clearly not relevant. In addition, consumer price statistics use the international COICOP classification, therefore it is unlikely that harmonisation with agricultural prices will be feasible.

3.1.3 Recommendations on classification structure, product specification and level of aggregation

3.1.3.1 Land use

- The most important recommendation is that only one classification system should be used for both the Farm Structure Survey and data obtained from Council Regulation (EEC) No. 2092/91 control bodies, with a single code

number to identify each a category. The current concept in Eurostat for a new hierarchical coding is a very promising example.

- If there is a need to summarise subgroups, groups and totals, it is recommended that a botanical hierarchy system should be used for plant products (see Annex 1). The coding system must be consistent. An exception to this rule is the group “green fodder from arable land” and “industrial crops” as these subgroups consist of mixed botanical groups according to their common end use.
- As Eurostat uses very few subgroups and detailed single product descriptions (due to lack of data from member states), it is recommended that a more detailed structure be defined for national use, but with a correspondence table in order to ensure compatibility with the Eurostat system (see Annex 1). For all data categories showing "not available" in the "crop item" column of Eurostat’s codecs, member states would be free to add and define their own codec. As long as data consistency and hierarchical structure is defined correctly there will be no problem in obtaining data harmonised to Eurostat standards.
- Production for the fresh market or processing is of great importance and should be indicated carefully.
- Data for livestock (heads) should be defined as average number during the year. Thus to calculate total production per year it will be necessary to use a conversion factor (which may be different for organic or conventional production). This is especially needed for pigs and poultry.
- Data on the structure of livestock production (species, age, usage and weight) would also be desirable (see Annex 1).

3.1.3.2 Producer prices

- In order to collect useful data for day-to-day use by market actors, the price collection systems and methodology need to be very detailed. The German ZMP approach can be considered as a reference system (see Annex 2).
- In comparison to the Eurostat classification system, it is recommended that some revisions be undertaken:
    - Vegetables: data for lettuces should be more precisely specified. As some lettuces are sold per head and others by weight it should be clearly defined i.e. cabbage lettuce, Euro/head size 8-12, and/or lamb’s lettuce, Euro/kg.
    - Vegetables: data for tomatoes should be more precisely specified: As there are several varieties with large price differences, it is recommended to specify round tomatoes of normal size sold per kg and as well cherry tomatoes sold per kg. Differentiation between those grown in the open or under glass does not really determine differences in price level, which are more due to the season.
    - In case of eating potatoes, the varieties on the organic market do differ significantly in prices paid to the farmer with respect to quality characteristics. Firm cooking potatoes achieve higher prices than nearly firm or soft cooking ones. These circumstances should be considered when setting up a revised coding list in Eurostat.

- Pack/consignment sizes: prices usually differ significantly according to the pack or consignment size. For potatoes and cereals in particular it is very important to specify whether they are are sold per single kg, per 12.5 kg or loose and delivered on a truck or in bulk containers.
- End use: prices normally are very different according to the end use. Thus specifying whether the product is sold on the market for fresh products, for processing or for industrial use is very important.
- Quality parameters: for some products, not only the product specification but also some detailed quality standards (supplementary to the normal "Class 1 or Class 2" standards) are needed in order to achieve market relevant and comparable data between markets or countries. Normally Class 2 standard is used for organic products if not explained separately, and this has to be taken into consideration as the conventional product standard is normally Class 1. Detailed quality descriptions are necessary, e.g. for bread cereals. In the case of cereals some quality parameters to be addressed are, for example, crude protein content, Hagberg falling number, sedimentation value, gluten content, hectolitre weight, as prices for farmer do differ significantly according to these quality indicators.

4 Examples of improved DCPS for the organic market (country reports/case studies)

One of the EISfOM project objectives was to coordinate pilot studies in key European countries (UK, DE, AT, CH, DK, IT, NL, PL) and at the international level (Eurostat, FAO), and to evaluate the results with respect to the recommendations generated from previous work.

Pilot studies were conducted to test new and/or improved DCPS for organic markets on various levels and in various countries to try to identify improved methods of generating reliable data and/or overcoming barriers to implementation of such improvements.

To ensure the quality and significance of the pilot study results, the reviews of the pilot applications were conducted by partners working closely with national key players, such as inspection bodies, statistical offices, consumer institutions, and international organisations such as Eurostat. Within the studies the main data levels - production, consumer, retailer, trade, prices and supply chain - were tackled and analysed. Complementary results from current and recent Framework 5 research projects (OMIaRD, EU-CEE-OFP) were integrated into the analysis.

The selection of pilot applications took into consideration partners' particular involvement and expertise as well as the need to ensure that all relevant data levels were represented in the survey. The DCPS was first described according to the data level, practical implementation and data quality. Then the DCPS was analysed with regard to the problems and barriers identified by actor level.

This section summarises the results of the evaluation of the pilot studies, classified by the level of data collection and processing, which are described and analysed in more detail by Gleirscher *et al.* (2005).

4.1 Farm level (production)

Both the Farm Structure Survey (FSS) and the member state reporting in accordance with Council Regulation (EEC) No. 2092/91 (based on data from control bodies) are relevant data collection and processing systems for organic production in Europe.

Due to differences in organic farming definitions, product classification and survey methods, the two different data sets produced by the FSS and by 2092/91 reporting cannot be fully reconciled and the FSS data are less appropriate for continuous observation of organic production, due to the existence of 'self-identified' as well as policy-supported but not certified holdings, and to the inability to differentiate data from mixed status organic/conventional holdings. The data collected by control bodies therefore represent the highest quality data available, i.e. most extensive, precise and up-to-date, and this system is recommended as a starting point, supplemented by FSS data where appropriate and where classification systems are compatible (see section 3).

The national and international production level pilot study results have identified various critical points in the implementation of harmonised DCPS. One major problem is the lack of a standardised nomenclature for correct product identification, which is reflected in various national interpretations and definitions, e.g. of crop types in the administrative data provided under 2091/92 and imprecise differentiation of organic or conventional status in the Farm Structure Survey. Thus, guidelines explaining the hierarchical structure and a self-explanatory layout would be very helpful. These discrepancies in nomenclature may explain the substantial differences

between administrative and FSS data results for organic farming in some countries. However, discussions on the introduction of a new or improved nomenclature and the modifications to established national DCPS that would be required are viewed with concern by some of the institutions involved (statistical offices, administrative offices, control bodies) because of the work that would be required to implement changes.

4.1.1 Pilot studies

4.1.1.1 Defra – United Kingdom

The Department of Environment Food and Rural Affairs (Defra) is the government ministry responsible for agriculture and agricultural statistics in England. It works with private sector organisations, in particular organic certification bodies and the Soil Association charity, to collect data and publishes the information on its website (http://www.defra.gov.uk/farm/organic/introduction). Data collected annually from the certification bodies relate to the situation at the first of January each year. The selection of crop and livestock areas is governed primarily by DG Agri/Eurostat reporting requirements, but is also influenced by the different data categories and IT systems operated by the data providers.

4.1.1.2 Skal – Netherlands

Skal is the main inspection and certification body for organic production in the Netherlands. Under the authority of the Ministry of Agriculture, Nature and Food Safety, Skal audits organic farms, processors and importers (from outside the European Union). In 2003 Skal began to develop a new system to collect data on organic farms and companies aiming primarily to facilitate the inspection and certification process. At the farm production level, the Skal DCPS contains information on the number of organic farms and the surface of organic and in conversion land as well as various data divided into categories according to the Skal tariff system. The DCPS also holds information on the number of processing and importing companies as well as on annual turnover divided into specific categories and sub-categories

4.1.1.3 Agricultural and Food Quality Inspection – Poland

Agricultural and Food Quality Inspection, the supervision agency for control bodies in Poland, is involved in the development a DCPS gathering administrative data according to Council Regulation (EEC) No. 2092/91. The main task of the DCPS is the development of a specific database named “Computer system for organic production, registration, inspection and certification”. Particular attention is also paid to the links with other data sources on organic farming at the production level, especially the FSS conducted by the Central Statistical Office and the FADN, for which the Institute of Agriculture and Food Economics is responsible.

4.2 Farm level (financial data)

For some time organic farm financial data has been collected in the context of specific research studies, national surveys, and since 2000 as part of EU-FADN which requires all member states to identify organic holdings in the survey data they submit. The results from these studies, and the need for improvements in data collection and processing systems, have been the subject of several reviews which reach clear conclusions about the changes needed.

Although the Farm Accountancy Data Network (FADN) is one of the key instruments for evaluating the income of agricultural holdings at present, it has some major

limitations, particularly for the analysis of organic farms. As well as problems with the correct identification of organic farms in FADN, the current weighting and representativity of organic farms could be greatly improved.

From the pilot applications it also emerged that some statistical offices are not in favour of data collection specifically on organic farming via FADN because it is seen an instrument for surveying all agricultural holdings, organic or not.

4.2.1 Pilot studies

4.2.1.1 Defra – United Kingdom

DEFRA Economics Division is normally responsible for this area of activity, but has not been actively involved in the analysis of organic farming incomes. At the moment data is being collected directly by the IRS Farm Business Survey team from ca. 70 holdings across England and Wales for the periods 2001/02 to 2003/04, with an extension to cover 2004/05 likely. Previous work (separate projects) has covered the periods 1994/5 to 2000/01.

4.2.1.2 Institute of Agriculture and Food Economics (IAFE) - Poland

The Institute of Agriculture and Food Economics is an independent scientific body created in 1983. The establishment of a DCPS on farm incomes is coordinated by the IAFE, integrating accountancy offices, accountancy advisors and farmers on the basis of annual agreements.

4.3 Retailer/consumer level

Consumer and/or retailer panels on organic food data are already established in many countries in Europe (AT, CH, DE, DK, ES, IT, NL, UK, etc.). Also, individual European researchers collect data concerning sales of organic food as part of publicly funded projects or private initiatives. However, there are many inconsistencies in the data collection methods used and this limits international comparisons.

The collection and processing of data on organic consumption and retail activities is mainly carried out by commercial market research companies (such as GfK, TNS, ACNielsen). As a result, the establishment of a harmonised DCPS on the European level is in its infancy. The involvement of private companies means that the identification of organic products on the national level demonstrates some substantial differences, especially for products without EAN codes (such as vegetables, fresh meat and cheese). It was also observed that the different market research institutes involved use different product group definitions, which inevitably causes problems in the comparison of data. On the European level, the different product definitions and nomenclatures used by market research companies cause a number of problems in the comparability of the consumer/retailer data.

4.3.1 Pilot studies

4.3.1.1 Statistics Denmark – Denmark

Statistics Denmark has collected data and calculated an index for the turnover in retail shops since 1939. This is now available for 49 product categories and covers 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 between 2.5 and 10 million

DKK including VAT. The survey is carried out six times a year, with organic and conventional products recorded separately.

4.3.1.2 'Quantification of the demand for organic products in Germany' Project – Germany

The objective of this project is to illustrate the development of demand for organic products. It is part of the government's support programme for organic farming. Within the project a reporting system on consumer behaviour with regard to organic products has been established, including the most important products and types of shops. Since AC Nielsen, GfK and bioVista will be partners in this project, panel data from retail panels as well as consumer panels will be integrated. ZMP will be in charge of the coordination and will check, collate and publish the data from different sources together.

4.3.1.3 IHA-GfK Group – Consumer and Retailer Panel - Switzerland

IHA-GfK AG, a subsidiary of the international GfK (Growth from Knowledge) Group, is one of leading companies in the field of market research in Switzerland. The company provides detailed market analysis to clients from industry, retail chains, and the service and media sectors to facilitate their strategic decisions. In this study the company collects information using a retailer and a consumer panel which include organic retail/consumption data. On the basis of the two DCPS and using a specific method, 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.

4.4 Trade level

Currently, there is no organic DCPS on the international trade level that can be recommended, although a couple of models were examined as part of the EISfOM project.

One of the main drawbacks of collecting data on organic trade is the lack of common protocols for data collection, processing and exchange. The main constraints identified are the failure to distinguish between organic and conventional products within the NACE classification and the willingness of the institutions involved to make changes to existing systems, mainly because of the increased workload (for trading enterprises and statistical agencies) and the associated costs. The Danish DCPS is very a special case because of the unique Danish statistical legal and reporting framework. The first steps taken by Defra in the UK to record third country import data may be relevant but cannot be fully evaluated as no data have been published yet.

4.4.1 Pilot studies

4.4.1.1 Defra – United Kingdom

Defra Statistics Division has requested and is now receiving quarterly data on third country import authorisations from Port Health Authorities (covering both air and sea ports). Information is collected on importer, product, country of dispatch, quantity and unit, port of entry and cost of licence. This data has been collected since 2004, with increasing numbers of ports reporting on a regular basis, but central analysis of the data is not expected before 2006 in order, in part, to be sure that reporting is as comprehensive as possible.

4.4.1.2 Statistics Denmark – Denmark

The data collected annually by Statistics Denmark include 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 regional distribution;
- number 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 and organic farms.

The statistics for trade with other EU countries have been collected since 1993 and the system is based on monthly reporting of data from about 10,000 companies in Denmark.

4.5 Price level

A price collection system for farmer and trade prices, including all important local products, was established by ZMP in Germany in 1992 and provides useful data for farmers, wholesalers, retailers, processors, administration and consumers. In Italy, the collection of fruit and vegetable prices at farmer and wholesale level is being established. For further detailed description of the methodology see Gleirscher *et al.*, 2005. The case studies demonstrate successful approaches to improving the availability and quality of organic price data. However, some critical points identified are the lack of (internationally) harmonised product nomenclatures as well as insufficient financial resources to maintain the initiatives.

4.5.1 Pilot studies

4.5.1.1 ZMP- Germany

The ZMP producer and wholesale market price reporting covers most of the important agricultural product groups, with data normally gathered weekly or monthly. For conventional products, data collection is carried out by separate departments (for fruit and vegetables; animals and meat; poultry, milk and milk products; arable crops) and whereas for most only prices are collected, for some products quantities are also recorded (e.g. for processed products). Data on organic product prices are not usually integrated into the conventional price DCPS, nor are they distinguishable from total data. Instead, for most product groups a separate DCPS is run by the Department of Organic Farming in the ZMP. There are a few exceptions where data on organic markets are gathered by conventional systems as well (e.g. for apples, carrots, chicken, milk and pig prices). Most of the organic prices can be compared to the conventional ones and this is done in special reports. ZMP also publishes consumer prices for a selected organic food basket. The prices are derived from private household panel data produced by GfK.

4.5.1.2 Prezzibio – Italy

The Azienda Romana Mercati (ARM) is a special agency of the Chamber of Commerce of Rome established to develop and promote the agri-food sector. The Prezzibio initiative (www.prezzibio.it) collects data on organic product prices; it began

in September 2001 as a joint initiative between ARM (Azienda Romana Mercati) and AIAB (Associazione Italiana per l'Agricoltura Biologica - Italian Association for Organic Farming). The Prezzibio initiative creates various price lists, including production and distribution level prices for the organic fruit and vegetable sector and consumer level prices for milk, cheese, eggs, cereals, pulses, flour, pasta, oils and other dressings, beverages and fruit juice, tea and coffee. Data collection at the production level is mostly via the involvement of and consultation with the main organic operators throughout Italy (distributors, cooperatives, producers, specialised retailers, supermarkets).

4.6 Supply chain level

This is the least developed and most problematic level, but one which is also highly important both for policy making and for investment decision-making.

In the absence of any European DCPS supply chains, the findings of the pilot applications have to be taken as examples of best practice rather than general recommendations for the implementation of a harmonised DCPS on the European level. The main problem identified is the absence of a DCPS on the supply chain level. Data are not comparable, mainly because of the different nomenclatures used, although from a technical perspective the development of such systems has progressed. The systems investigated have been developed for certain specific tasks, e.g. to increase product transparency or reduce the administrative burden of inspection and certification, and not for statistical purposes.

4.6.1 Pilot studies

4.6.1.1 Fab4minds BioStockManager® (BSM) – Austria

Fab4minds Information Technology GmbH is a private consulting and IT company which specialises in developing software systems in the area of traceability and quality assurance for agricultural products. BioStockManager® is a fully web-based traceability system used for the organic grain market in Austria. The system, which has been in use since the year 2000, is fed information from various market partners along the supply chain, from farm to fork, using customised software tools for data input and analysis. Using this system, more than 130,000 tonnes of organic grain have been traded by more than 2500 producers and 100 partners (in Austria, Germany, Italy and Switzerland).

4.6.1.2 INTACT- e-cert – Austria/Germany/Switzerland

e-cert IT GMBH consists of three international certification bodies (Austria Bio Garantie, 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 reduce the administrative workload for the certification bodies and also improve traceability and security of the certification process. The software tools can be applied not only to organic production but also to the certification of conventional standards like, for example, EUREPGAP. The idea behind the e-cert tool is to provide a means for inspection bodies (in the best case) to conduct the whole inspection and certification process in a paperless electronic manner.

4.6.1.3 Project ‘A chain information system for organic production in the Netherlands’- Netherlands

This project is a joint venture by private organic companies and research institutes in the Netherlands involving several different companies (Skal, VBP, Biologica, LTO Nederland). The aim of the project is to develop a supply chain information system that would provide solutions to the problems identified.

4.7 Eurostat

Eurostat is the Statistical Office of the European Communities, situated in Luxembourg, which aims to provide the European Union with statistics at the European level to enable comparisons between countries and regions. Eurostat is divided into seven directorates. Currently the organic farming sector is the responsibility of Unit F5 (Health and Food Safety Statistics), having been moved from Directorate E (Agriculture, Fisheries, Structural Funds and Environmental Statistics). Organic sector statistics are dealt with by F5 (Food Safety), together with other products with distinctive marks (such as GMO, PDO, PGI and TSG foods).

The data processed and stored by Eurostat are collected under regulation 2092/91 on a voluntary basis. This means that MS are not obliged to supply the Commission with these data. Despite this, Eurostat has managed to build a database with some data on numbers of operators, crop areas, livestock and production estimates.

DG Agri receives all the administrative (mainly collected by control bodies) and statistical data (including FSS in some cases) from MS and forwards the relevant data to Unit F5. This unit is responsible for data validation and for correcting inconsistencies, and publishes the data on the Eurostat website. Recently Eurostat has concentrated on harmonising definitions of the variables collected in order to make them comparable among MS. Directorate E also collects some statistical data on organic farming area as part of the FSS, covering all holdings in the census years (2000, 2010 etc.) and sample surveys in intervening years (2003, 2005, 2007).

The main points to be noted are:

- The absence of data in the Eurostat database which may be available in the member states. The reason for this is that data are provided on a voluntary basis or are not requested (e.g. regional breakdowns). There are also concerns about the quality of administrative data obtained from control bodies.
- The need for administrative data and survey results to be reconciled. Some MS statistical agencies also collect organic farming data and some discrepancies have emerged. The resolution of these problems is one of the main issues to be addressed.

The purpose of conducting the pilot studies was to test new and/or improved data collection and processing systems (DCPS) for organic markets on various levels and in various countries to identify improved methods of generating reliable data and/or overcoming barriers to implementation of such improvements. The pilots have shown the need to increase networking and develop relationships between the various institutional actors involved in DCPS, as well as the importance of developing IT solutions that allow data inter-operability at both the national and EU levels.

5 Improving volume and quality of data

High quality statistical information is the primary aim for national statistical agencies and for other data collectors. Nowadays, information is a matter of primary importance and its independence, correctness and transparency – in brief, its quality – must be guaranteed. Over the last 20 years, interest in the quality of data has grown continuously in all sectors and, at the same time, there have been many attempts both to define data quality and to find ways to improve it.

National statistical agencies are showing increased interest in the problem of the quality of statistical data. More effort is required to apply the concept of quality not only to data collection, but also to the entire measurement system. The concept of quality is vague and assumes different connotations in different contexts. For a long time, quality was considered only in terms of reducing sampling and other measurement errors. In the past ten years the situation has changed and the concept of data quality has become progressively broader and more differentiated. Recently, quality in statistics has been interpreted as a continuous improvement of the data production process, introducing the concept of C*urrent Best Method* (Filippucci *et al.*, 2000).

In 1999, Statistics Sweden proposed the formation of a Leadership Group on Quality (LEG) to improve quality in the European Statistical System (ESS). Two issues were explicitly mentioned in the proposal: Total Quality Management (TQM) philosophies and Current Best Methods (CBM). The analytic identification of quality dimensions helps to define the reference context to control and evaluate the quality of a statistical system and of a source. These have been defined as: *relevance; accuracy; timeliness and punctuality*; a*ccessibility and clarity; comparability; coherence* (Eurostat, 2003).

The aim of this section is to present the main findings of the EISfOM project on the quality of European organic DCPS, the need for harmonisation, and the existing problems and barriers to improving both the volume and the quality of data. This section is based on Recke *et al.* (2004a), which provides a combined analysis of the results of the *status quo* research carried out in 32 countries (Wolfert *et al.*, 2004), the first EISfOM European Seminar in Berlin in April 2004 (Recke *et al.,* 2004b), and interviews with experts and stakeholders within the organic market. It presents conclusions and recommendations on how the general aims can be attained.

The main findings of the analysis of data quality can be summarised as follows.

1. For the European organic sector there is a strong need for more detailed market information on all levels from production to consumption. This was not only stated by almost all the participants in the first European seminar in Berlin but it is also highlighted as one of the main topics in the European Action Plan for Organic Food and Farming (CEC 2004).
2. The supply of data on the organic market is very different in the 32 countries investigated. In some countries, e.g. in Austria, Denmark, Germany and Switzerland, some data are available from different national institutions but they are often not comparable with data from other countries. Therefore, comparisons between countries and an overall European view are not possible. For countries already collecting and processing data, an *output* harmonisation strategy is necessary to produce comparable data sets about the organic market. In most of the European countries investigated (especially in Southern and Eastern Europe) there are no data on the organic market

other than the number of organic farms, their acreage and, in some cases, crop areas and livestock numbers. For these countries, an *input* harmonisation strategy is necessary, i.e. a standard collection and processing system (DCPS) should be introduced. A uniform DCPS could be based on an existing national system which works well (such as the tried and tested system developed in Denmark), or a new system could be developed for these countries by a group of experts, preferably under Eurostat's leadership.

3. Detailed analysis of existing data on the various actor levels showed that the situation is best at farm level, where the main problem is harmonisation of raw data: data from national statistical institutions are not easy to compare because no input harmonisation strategy is used. At the supply chain level, the main weakness is that organic data cannot be distinguished from total data. Consumer and retailer data are of high quality but are not accessible for public users because they are mostly collected by private companies and there is almost no harmonisation between them. At the supply balance sheet level, no organic data from official institutions are available.
4. At the production level, most of the experts interviewed stated that the harmonisation and integration of existing data collection systems, such as the Farm Structure Survey (FSS) and data collection according to Council Regulation (EEC) No. 2092/91, would be of great importance to prevent duplication. In addition, problems relating to the number of farms investigated and the representativity of national Farm Accountancy Data Network (FADN) samples must be resolved, if the FADN data are also to be an important source of information. At the consumer and retailer, supply chain level and intra-EU trade levels, a key problem will be that, for reasons of commercial confidentially, firms will refuse to make their data public. Household Budget Surveys (HBS) or food expenditure surveys were not seen as a solution for gathering data on the consumer level because the costs of obtaining a representative sample for the organic market would be very high. A solution might be to use data from commercial market research companies.
5. Analysis of the methodological issues shows that quality assurance concepts are key for improving the quality of data collection, processing and dissemination. In many statistical institutions, such as Eurostat, quality assurance concepts are used to improve the overall quality of the services they provide. Total Quality Management (TQM) and other concepts are an integral part of quality management. Furthermore, harmonisation within a quality management approach on the international level will be important. The appropriate approach to harmonisation will be selected on the basis of the particular situation. The experience of Statistics Denmark in using common operator identification numbers should be a basis for discussion. The Danish results show that low cost, simple and robust quality controls can be used to obtain reliable and accurate data.
6. Finally, it became clear that much effort has to be made to convince key persons in the European Commission (DG Agri and Eurostat) and the national institutions of the European countries that collecting data on organic markets should become high priority, and additional resources should be made available so that organic farming statistical systems can be developed to meet the needs of policy makers and market actors.
7. As the human and financial resources to create a new statistical system for organic markets are very limited, low cost solutions must be found, using

information technology to introduce and improve data collection, data processing and information dissemination. Bearing in mind that Council Regulation (EEC) No. 2092/91 data on organic products (on the production and processing level, and in future on the wholesale and catering level) are already being collected, most of the experts who took part in the EISfOM European seminar in Berlin and most of those interviewed agreed that certification bodies should be obliged to collect and process their data in a uniform way and deliver their information to a central national agency. However, the majority of experts also considered that the certification bodies should be funded for their extra workload. A voluntary approach will not lead to a harmonised system with a defined minimum standard of data quality. It was also agreed that leadership from the EU Commission is needed for implementation. As part of the ongoing development of these issues, the importance of expert and stakeholder involvement was highlighted.

From our analysis of European data collection it is possible to summarise the main strengths and weaknesses of organic DCPSs at all levels as follows:

- Organic DCPSs are most highly developed at farm level because of more substantial and detailed demand for farming data (often for non-statistical purposes, e.g. inspection) which influences the complexity and structure of the data supply.
- At the same time, the main problem at farm level seems to be the harmonisation of raw data. There are often many different sources of information (in most cases not the NSIs) which provide data, but they are not easily comparable given the different methodologies used in data collection. This is true at the national level and even more so at the EU level.
- At supply chain level, the main weakness that it is not possible to separate organic data from the total. In general, at this level the need is more to develop DCPSs than to harmonise existing data sets.
- Consumer and retailer data are often high quality but are not easily available for public users. Most data are collected by various private companies and therefore there is little harmonisation.
- At supply balance sheet level, the problem is that there are no data in any of the countries studied.

In general, the major cause of the weaknesses identified is the low overall importance of the organic sector in terms of contribution to Gross National Product (GNP). However, GNP is not a very good measure of socio-economic welfare, and it has been demonstrated that organic farming and its related supply chains provide public goods which are not given a value in GNP calculations (Dabbert *et al.*, 2004). Therefore, the relevance of the organic sector greatly exceeds its actual size and weight in the European economy.

6 Recommendations

The organic sector has now developed to the point where the need for improvements in statistical data is particularly pressing, and the consequences of failing to address this are potentially significant in financial terms, both for private and public expenditure. In addition, the potential for future expansion must be taken into account, particularly in the emerging economies of Central and Eastern Europe. Organic farming accounts for 10% of the agricultural sector in some countries, markets and production are continuing to grow across Europe, and some countries are setting targets as high as 20% of agricultural land area to be managed organically. The current size of the organic sector does not reflect its full potential, nor are we close to seeing the organic sector as a stable and mature market.

The aim of this part of the report is to set out the detailed recommendations for significant improvements in the availability and quality of statistical data and market information on organic food and farming. The recommendations are based on earlier EISfOM results and the 2nd EISfOM European seminar in Brussels in November 2005 (Rippin *et al.*, 2006) organised to discuss the draft recommendation (Rippin and Lampkin, 2005) with national/international agencies and stakeholders.

On the basis of the results from each working group in the Brussels seminar, this report provides a summary of our main conclusions focusing particularly on:

- identifying problem areas and barriers to be addressed;
- recommending improved classification systems and data collection and processing procedures;
- estimating the time frame and broad cost implications for making the recommended changes.

The recommendations are described in terms of their rank (priority level), the objective, the responsible organisations, the resources required, timing and the organisations addressed. Three types of objective are identified to classify the recommendations for the organic sector:

1. improvements to the current data collection and processing systems;
2. innovation in data collection and processing systems;
3. integration of conventional and organic data collection and processing systems.

6.1 Farm level production data

6.1.1 Problem areas and barriers

Currently there are two main sets of organic structural and production data (Farm Structure Survey and Council Regulation (EEC) No. 2092/91), operating on both the European and the national level, which provide different results using different definitions and methodologies. One weakness at present is that there is no common classification system (see section 3 below), but others relate to the different purposes for which the data are collected.

6.1.1.1 Farm Structure Survey (FSS)

The FSS collects data on all holdings every ten years (2000, 2010 etc.) and on samples in the intervening periods (2003, 2005, 2007). Since 2000 the FSS has included a question (C/5 (a)) on whether the holding is managed organically (it should also be noted that FSS does not collect data on production quantities):

(i) The utilised agricultural area of the holding on which organic farming production methods are applied according to European Community rules (ha)

(ii) The utilised agricultural area of the holding under conversion to organic farming production methods (ha)

(iii) Is the holding also applying organic production methods to animal production? (totally, partly, not at all)

There are some key problems with this approach:

- The wording of the question does not specify that the area must be *certified* according to EC rules (or make specific reference to Regulation 2092/91). This leaves open the possibility of self-identification by some producers. It also includes policy-supported but not certified holdings in countries such as Sweden (although this may be appropriate in some contexts).
- In the case of mixed status holdings (organic, in-conversion and/or conventional), the identification of only the total areas under different management does not permit the identification of which specific crops or livestock are managed organically or are in conversion, leading in some cases to substantial over-reporting of ‘organic’ crop areas or livestock numbers.
- In some countries, the information collected as part of the FSS does not make a clear distinction between in-conversion and fully converted farms (although in principle the questions should achieve this).
- In some countries, small farms (usually less than two hectares) are not taken into account. This means that a substantial amount of organic farming activity (particularly horticulture) may be excluded from the data. (It has been estimated that in Germany 16% of organic holdings are excluded on this basis.)
- In the sample surveys, holdings are selected using a sampling frame for agriculture as a whole (there is no separate organic stratum), and the organic farms thus selected do not necessarily reflect the composition of the organic sector with respect to farm types and size, leading to problems with using the results to produce estimates for the overall population, a problem shared by FADN (see section 6.2).

However the FSS is an important means for generating more information about the organic sector, particularly where accurate administrative data is absent, in particular because of its ability to link data on labour use and other activities (e.g. processing, tourism) to organic status, i.e. data which is not available from certification bodies.

6.1.1.2 Council Regulation (EEC) No. 2092/91

Member states are required to submit annual returns to the Commission on the number and area of organic holdings, but the submission of more detailed statistical information, although co-ordinated by the Commission, depends on voluntary agreement. As a result there are a number of gaps and inconsistencies in the data submitted. In particular:

- Each member state uses different approaches to collecting the data. Some countries use information from the FSS whilst others use data from the certification bodies. Since detailed reporting is not compulsory, the definition of variables and the degree of detail in the data varies from country to country, and data is therefore not comparable between countries except at a highly aggregated level.
- There are important gaps within the database as regards the data requested, mainly for crops and products of animal origin. In recent years integration within the general statistical framework has been pursued, but there is still some way to go before the definitions and classification systems will be completely comparable with conventional agriculture and other statistics. There are some problems of comparison because, in many cases, statistics and administrative sources use different reference periods and different concepts and definitions.
- In some cases, there is a need for clearer identification of the national agency with responsibility for collating and submitting data to DG Agri.

However, in general, these administrative data provide a more frequent and more accurate representation of the organic land area, and increasingly of livestock numbers, than the Farm Structure Survey, due to the problems with the FSS outlined above.

6.1.1.3 Other potential data sources

There are a number of additional data sources which could be used to provide data on organic production, although they have not been widely used for this purpose so far. In particular, the systems now in place for monitoring agricultural policy support, including the single farm payment and agri-environmental organic farming support contain significant data, although not all organic producers are necessarily covered. The livestock movement monitoring systems could also be utilised, if an appropriate identifier were introduced.

6.1.2 Specific recommendations

6.1.2.1 Legal requirement for inspection/certification bodies to collect/provide data

Data from the inspection /certification bodies provide the most extensive and highest quality information currently available. In order to achieve comparable data between the member states, it is recommended that on the European level the European Commission should seek to introduce legislation which would require organic control bodies to deliver data to an agreed classification system. There are two alternatives for this: administrative legislation linked to Council Regulation (EEC) No. 2092/91 (DG Agri) or statistical legislation (Eurostat). Within Eurostat, legislation for organic statistics has a low priority. Therefore, the revision of Regulation 2092/91 on organic farming seems the better option.

The application of the recommendation needs clarification of the type of data to collect and process, which should include: numbers of holdings; areas of crops and other land uses; numbers of animals and production quantities, distinguishing between in-conversion, fully converted and conventional. Consideration should also be given to including quantities used or produced by other certified businesses (e.g. processors, traders) in supply chains. In the latter case the NACE system (Classification of Economic Activities in the European Community) would be a more appropriate basis for classification.

The above recommendation can be implemented with the following actions:

- Extend Council Regulation (EEC) No. 2092/91 to include an annex covering statistical reporting. Article 30 of the current revision proposal [COM(2005) 671 final] imposes a requirement on member states to deliver statistical data consistent with the requests of Community statistical services, but places no obligation on control bodies to provide the data, leaving member states to address this individually. It is recommended that this should be reconsidered to ensure a greater level of input as well as output harmonisation.
- Discuss and develop guidelines with control bodies on how this regulation should be implemented and executed. French and Dutch examples could be used as references.
- Before the application of this recommendation it is better to facilitate and improve the inspection bodies' work, first setting up the inspection systems, then data collection. This would be possible by identifying a list of authorised control bodies and making sure that they use a system in which data are stored appropriately, making it possible to verify their task (as required by the EU regulation). The basic idea is that the main recommendation will only make sense if the bodies are able to carry out their primary control task. However to achieve these tasks, the data must be stored in a good system for verification and transparency purposes, so that governments can ensure that they work according to the EU regulation.

Rank: Very high
Objective(s): Improvement in the current situation of data collection and processing systems for the organic sector.
Responsible organisation(s): DG Agri, national governments
Resources: n.a. (not available)
Addressees: National governments and certifying/inspection bodies
Timing (months): 24 months

6.1.2.2 Provide financial compensation for the additional work to be done

To ensure the long-term sustainability and completeness of data collection, there was a call for appropriate financial compensation to support the proposed legal requirement for control bodies to supply the specified administrative (2092/91) data. Financial compensation would recognise the additional workload for certification bodies while avoiding an additional financial burden being imposed on organic farmers and processors. Whatever happens to the legal framework, it is essential to determine which party will meet the costs of data collection. Whilst in Poland the solution is seen to be the establishment of a legal framework, Defra in the UK is seeking to achieve results through voluntary agreement, persuasion and more targeted use of existing financial incentives. One of the solutions could consist of paying control bodies a specific amount per data record, as already happens in France and Germany.

The combination of a compulsory (legal) requirement and compensation to the control bodies was strongly supported by various stakeholders and experts, although it was also questioned whether the quality of the data would be good enough if it were paid for – data providers should be really committed and be aware of the benefits to themselves from the process, so there must be some kind of useful feedback. The various pilot studies showed that the implementation of a legal requirement on the European level will meet resistance in some countries, where this type of data gathering is still a fairly sensitive issue - in some countries control bodies are not willing to deliver statistical data on their farms even with financial incentives. While the legal requirement may be imposed on an EU-wide basis, implementation would therefore have to be at MS level and financial compensation should also be organised at a national level.

Implementation of this recommendation would require:

- Agreement on the objectives, methods and level of compensation
- Development of a system for payment and control

Rank: High
Objective(s): Improvement in the current situation of data collection and processing systems for the organic sector
Responsible organisation(s): National governments
Resources: 1-4 Euros/farm as remuneration for control bodies, additional costs n.a.
Addressees: Certifying/inspection bodies
Timing (months): n.a.

6.1.2.3 Integrate 2092/91 and FSS data using harmonised classification systems and holding identifiers

It would be useful to integrate inspection /certification body data with FSS data for validation and cross-checking purposes and for the inclusion of data from the FSS that is not collected by certification bodies, e.g. information on labour use. The Netherlands is an example where data provided by the certification body Skal are compared with the results of the FSS, for which Statistics Netherlands (CBS) controls the full database. A similar initiative has also been proposed by Defra in the UK.

For this to work, the approach to identifying organic holdings in the FSS would need to be reviewed to make specific reference to certification according Council Regulation (EEC) No. 2092/91. Small production units would have to be included, particularly if they are certified organic or benefit from single farm payment or rural development support. In the intermediate survey years, consideration would need to be given to ensuring a representative sample, potentially drawn from the control body lists. If the development of a separate code for organic production activities is not an option, as appears to be the case at present, the problem of not being able to identify the status of individual production activities on mixed status holdings could also be addressed by the integration of control body data. However, all these linkages would require the use of a common holding or operator identifier. Similar issues exist with FADN (see below) and a common approach to solving them would be desirable.

The idea of a single operator identifier is that it should be used for all interactions with the various government bodies, statistical agencies and certification/inspection bodies, with the aim of being able to combine and therefore analyse different administrative and statistical data sources. Such a system already operates in Denmark. In the Polish pilot study there was an attempt to create a single identification number, but the task proved quite difficult. All the institutions involved felt that it should be an existing number, e.g. an identification number in a particular system or a number from a statistical register, but each institution had a different idea of what the number should be. Furthermore, several other legal requirements make use of this number to identify the farms. The use of a common identification number for different legal requirements could contribute to lower administrative costs for the farmers. However, there was some scepticism over the possible implementation of such a system on the international level since it is unlikely that all member states would be willing to change their national statistical systems, and this view accords with expert opinions reported in Recke *et al*. (2004b). The group discussion in the Brussels seminar suggested that the preferred common ID would be the FSS census holding number, although an alternative option would be to use the geo-reference of the holding, an option which Eurostat is considering for the FSS from 2010. This would require liaison at the national level between the relevant data collection bodies (statistical agencies and organic control bodies) and formal agreements on the use of the unique number.

The integration of data would also be supported by the development of a single classification system. The issue of the classification system and possible solutions is discussed in detail in Chapter 3 of this report and illustrated in Annex 1.

Rank: Very high
Objective(s): Integration with conventional and innovation in organic data collection and processing systems
Responsible organisation(s): Eurostat, DG Agri, Member States
Addressees: National statistical offices

6.1.2.4 Production quantities must be included

In some countries data from control bodies and FADN could be used to estimate organic production quantities on the basis of average yields, but only after the system is set up to provide area data. The next step should be the direct recording of production data. If these data are not available from the control bodies, additional surveys like the one conducted by the Information Centre in Finland could be an alternative. Using the Finnish survey (about 10,000 farmers) it is possible to publish annual yield figures and to estimate total organic production. However, to carry out such a survey every year in all European countries would be both time-consuming and very expensive.

Rank: Average
Objective(s): Improvement in the current situation of data collecting and processing systems for the organic sector
Responsible organisation(s): DG Agri, national governments
Resources: n.a
Addressees: National governments and certifying/inspection bodies
Timing (months): n.a.

6.1.2.5 Use an integrated or network approach involving stakeholders for all recommendations

A general agreement was reached concerning the need to establish mechanisms to facilitate communication between statistical agencies, external experts and stakeholders and their involvement in data collection and processing. The establishment of special working groups involving the main key actors would facilitate identification of needs and exchange of information between various stakeholders. This process requires a step-by-step approach. The potential contribution of the IFOAM EU Group for co-ordinating their involvement at EU level should be considered.

In a very general way, the Dutch case study provides an interesting approach to how to integrate various stakeholders into the establishment of an improved DCPS on organic farming. The project 'A supply chain information system for organic production' aims to develop a framework for the collection and processing of relevant, timely and comprehensive data on organic production and markets. In the light of the development of proposals in the EISfOM project for the harmonisation of data collection and processing systems in organic production supply chains, the following important aspects can be identified from the Dutch project:

- a shared vision, ambitions and commitment are essential preconditions for setting up a collective information system;
- the public and private functions of such an information system should be clearly identified;
- an organisational structure showing the relevant stakeholders should be developed in order to set up and maintain the information system, and this also implies that financial matters should be properly arranged;
- funding opportunities should be explored in order to carry out harmonisation projects.

This recommendation is closely related to the previous ones. Indeed, most of the recommendations are very much connected with each other, since most of the responsible organisations and addressees mentioned are the same actors. Stakeholder involvement was regularly identified as a critical success factor.

Rank: Very high
Objective(s): Improvement in the current situation of data collection and processing systems for the organic sector
Responsible organisation(s): Government agencies
Resources: n.a.
Addressees: Government agencies and stakeholders
Timing (months): n.a.

6.2 Farm-level financial data

Farm financial data are important for decision-making by policy makers (in terms of setting support levels and simulating responses of farmers to policy changes), by producers (in terms of deciding whether to convert, or whether to modify existing organic systems and improve performance of farms, through benchmarking), and for the market place (as costs of production are a contributory factor in transparent price setting). There is a strong history of production of farm accounts data for agriculture in general, at both the national and EU level, on which initiatives for organic farming could be based, although historically most organic data collection has taken place as part of individual research projects or advisory initiatives. Since 2000, member states have been required to identify organic holdings in the data submitted to the EU Farm Accountancy Data Network (EU-FADN) and this is progressively becoming a useful resource – however, the EU-FADN database does not currently contain all the organic holdings for which data are currently available at national level.

6.2.1 Problem areas and barriers

The key problem areas that have been identified with respect to existing data collection and processing systems are:

a) recruitment of organic producers for special surveys;

b) comparability of definitions between countries when using special surveys or national FADNs;

c) correct identification of organic producers in national and EU-FADN samples, in particular in situations where holdings have mixed conventional and organic management;

d) small sample size and non-representative organic samples in national and EU-FADN samples which are focused on agriculture in general and not specifically on organic farming;

e) farm size and type definitions based on conventional standard gross margins;

f) appropriate comparisons with results from conventional farms;

g) limited availability of time series data;

h) accounting for income from other activities (e.g. on farm retailing, processing, tourism, etc.) which may be more significant on organic holdings (some indication for this is available from Farm Structure Survey data).

6.2.2 Recommendations

6.2.2.1 Improve recruitment and retention of farmers in samples

In some countries organic producers, particularly horticultural producers, have been reluctant to participate in farm accounts surveys due to a perceived lack of benefits – very limited financial support from government and long time lags before results are available are key issues, together with a traditional assumption that producers are not paid for participation. This affects both the representativity of data and the potential for maintaining samples over time. The issue of appropriate incentives, or at least making data available in a form that is more immediately useful to participants, needs to be addressed. There is also a role for producer groups in identifying and encouraging participation by their producers.

The EISfOM Seminar group discussions concluded that non-financial incentives are preferable, which could be achieved by including access to data and advice within the appropriate incentives.

Therefore the main recommendations are that farmers should be provided with:

- access to data (treat the farmer as the main beneficiary of surveys, include comparisons with other regions, minimise time lags)
- access to information/advice (e.g. private section of results website, provision of FACE-IT or spreadsheet tools to enable comparisons)

Rank: High
Objective(s): Improvement in the current situation of data collecting and processing systems for the organic sector
Responsible organisation(s): National FADN collection agencies
Resources: Will vary depending on current national practice, but relatively low cost options possible
Addressees: Participating producers
Timing (months): 12-24

6.2.2.2 Improved identification of organic holdings and of organic products on mixed status holdings

Since 2000 EU-FADN has required all member states to identify organic holdings included in the data submitted, which has led to the identification of all organic holdings in national surveys. Where organic holdings are 100% organic, and an appropriate definition such as certified according to Regulation 2092/91 is used, there is no major problem. However, there is still a need to separately identify holdings that are in-conversion – particularly in situations where there has been a rapid growth in the organic sector which means in-conversion holdings, with their very specific financial circumstances, may dominate the samples. More serious problems arise where holdings have mixed organic, conventional and in-conversion management, and simply identifying the holding does not indicate the management status of individual products/production enterprises.

Coding in the FADN to identify organic and in-conversion status of products would be very useful, but the way in which the coding is presented must be appropriate to the situation, since the issue of organic status would be irrelevant to most of the farmers involved. (In Germany, this is not such a problem as mixed status holdings are not usually permitted under national standards.)

Therefore it is recommended that a coding system should be implemented to identify the management status of individual products in addition to the land area under different management. An extra digit in the product code to identify an organic or in-conversion product would be one option, but there are concerns about the number of additional codes that would be required. The FADN working group needs to develop a manageable approach, perhaps focusing on codes for a limited range of specific products (e.g. milk, potatoes, cereals) where it would be desirable to have data on a pan-European basis. Another alternative could be the current UK FBS single organic product identifier representing the sum of individual product codes (derived from the exponential series 1, 2, 4, 8, etc.) which permits later disaggregation of the identifier using an appropriate algorithm. Whichever coding system is selected it would be desirable if it could be harmonised with the Farm Structure Survey where a similar identification problem exists.

Rank: High
Objective(s) Improvement in the current situation of data collecting and processing systems for the organic sector
Responsible organisation(s):EU FADN
Resources: Part of a meeting to consider and agree an approach, plus costs of modifications to forms and computing software
Addressees: National FADN
Timing (months): Decision by end 2006 for implementation from 2008

6.2.2.3 Increasing organic sample sizes

NB this recommendation is linked to 6.2.2.4

Because organic farms are not selected specifically to be representative but occur in national surveys and EU-FADN by virtue of their proportion in relation to agriculture as a whole, it is not possible to be confident that the organic samples present in these surveys are representative, and it is often the case that the sample size is too small to ensure data reliability and to allow differentiation by farm type and size. This precludes the more detailed analyses possible for agricultural holdings in general, which would provide more useful information for producers and policy makers. There is therefore a need to increase the number of organic holdings surveyed (except perhaps in countries such as Austria or Switzerland where nearly 10% of holdings are organic). In some countries the number of organic farmers is too small to derive representative samples, and although small samples may still provide an estimate, reliability may not be high.

Therefore it is recommended that the number of organic farms in FADN samples should be increased, particularly in countries where the number of organic holdings is currently very small, by:

- over-sampling to achieve sufficiently large samples (min. 10-15 farms per type/size group – with a focus on priority farm types);
- fully integrating the samples in national FADNs; although there is also the option of supplementary (satellite) samples, this is not the preferred route;
- reducing non-organic sample sizes in order to reduce costs.

Weighting and sample size go together: if the sample size is increased, weighting must be taken into account at the outset so as not to distort the overall FADN results.

Rank: Very High
Objective(s): Improvement in the current situation of data collection and processing systems for the organic sector
Responsible organisation(s): National FADN
Resources: Marginal costs of additional farm data collection, which could be reduced by reducing size of conventional samples
Addressees: National FADN
Timing (months): Implement from 2006/7

6.2.2.4 Increasing representativity of organic samples

There is a need to ensure that organic holdings are sampled on a representative basis. The over-sampling of organic farms recommended in 6.2.2.3 will, however, impact on the overall national and EU-FADN samples, which means that the use of appropriate weightings needs to be made possible so that data for all available holdings can be retained in key databases for specialist analyses. This may be easier to implement at the national level, taking into account the specific circumstances of the organic samples in individual countries.

From the group discussion in the Brussels EISfOM seminar it was proposed that appropriate national weightings should be used so that every country can decide how to include organic farming in their FADN, e.g. farm types, specific strata. Therefore, each country should use national weights and should decide on their own strata, sampling from the organic population. Where resource constraints or the limited number of holdings prevent all farm types being represented in organic strata, priority can be given to separate representation of only a couple of types of organic farms, with other types still having the chance of being represented in the main FADN strata.

Post-stratification and calibration weighting are the proposed alternatives discussed during the EISfOM seminar. DG Agri now applies post-stratification but should have more data from Eurostat to improve results. The weighting procedure could be improved by using individual data from FSS census and from selection plans in MS, or aggregated data from these. Calibration is not recommended across the board but should be applied for specific (research) purposes.

The main findings of this recommendation are:

- over-sampling is recommended, but requires appropriate national weightings for use at national and EU level;
- the need to have a specific organic stratum (at least for priority farm types) defined at national level with sampling from the organic population (non-priority farm types would still occur in the general FADN);
- control bodies need to use the farm census (FSS) identification number to help random selection and recruitment within the stratum;
- if it is not possible to use national weights, then weighting of EU-FADN could be improved by using individual data from FSS and extra information from selection plans/aggregate data of member states;
- calibration techniques could be used to further improve representativity but further is discussion needed.

Rank: High
Objective(s): Improvement in the current situation of data collection and processing systems for the organic sector
Responsible organisation(s): EU and National FADN
Resources: Staff time to calculate appropriate weighting factors
Addressees: EU and National FADN
Timing (months): Implement with sample size recommendation from 2006/7

6.2.2.5 Standard Gross Margins

Currently farm type and size classifications are based on European Size Units derived from standard gross margins for agriculture in general. It can be argued that for organic agriculture, with different prices and gross margins and possibly a greater prevalence of mixed farms, this basis for classification is inaccurate and may lead in particular to smaller organic holdings being excluded because they fall below the inclusion thresholds. However, it is not clear that defining a separate classification system with organic standard gross margins is the solution. Given that classification systems are currently under review in the wake of CAP reform, it is probably preferable that the organic holdings issue should be considered specifically as part of this review.

No-one in the discussion group during the last EISfOM seminar was in favour of calculating SGMs for all organic products and it is therefore recommended not to make specific calculations for organic farming. SGMs are not 'true' for any individual farm, and therefore organic SGMs would not lead to sufficient improvements to justify the additional costs that extra complexity would bring. The group also believed that it is already agreed that SGMs will change to specific standard output for all farms.

Rank: Low
Objective(s): Improvement in the current situation of data collecting and processing systems for the organic sector
Responsible organisation(s): EU and FADN
Resources: none required
Addressees: National FADN
Timing (months): immediate

6.2.2.6 Definition of appropriate criteria for selecting comparison groups

For both policy making and producer decision-making with respect to conversion, it is important that any comparisons with conventional (or general agricultural) farm data are reliable. Comparisons need to reflect the differences in the management systems adopted, but not be distorted by differences in resource endowment typically independent of the management system. A system of comparing data for individual organic holdings against clusters of similar conventional farms where group averages are presented is recommended. This approach is preferable to paired farm comparisons, where differences in management ability may distort the results.

Therefore, there is a need for a standardised approach for policy evaluation purposes and for a clustering approach comparing individual organic farms with groups of similar conventional farms.

The seminar group discussion was generally in favour of matching organic farms with a cluster of conventional farms rather than pairing them. Given that we are dealing with small samples, the bias produced by quirks amongst the conventional farms can be reduced by using clustering, but the main problem is that this approach is not used in other comparisons and therefore there will be inconsistencies between standard and clustering results. The difficulties experienced in comparing the UK large-scale organic farms where similar conventional farms could not be found illustrates the difficulty of working with a fixed set of criteria for this type of comparison.

It was felt that whole group average comparisons may be valuable if group size and definition are both reasonable. When comparing conventional and organic groups, the aim of the comparison should be considered and the means adjusted appropriately. The clustering approach would offer a single farm income figure across the EU for policy evaluation and this could be attractive to the Commission, although it may prove very difficult to find well matched groups in FADN at the EU level. Finally no real agreement was reached about the methodology – it was felt that there was an argument for keeping methodologies the same for organic and for conventional farms, though clustering would provide a better comparison in the right context.

Rank: Average
Objective(s):

- Improvement in the current situation of data collection and processing systems for the organic sector
- Integration of conventional and organic data collection and processing systems

Responsible organisation(s): DG Agri
Resources: none required
Addressees: National FADN
Timing (year): 2006

6.2.2.7 Time series data

It is desirable to be able to look at trends over time, also for identical samples. This is difficult at present due in part to the problems above, but also due to rapid changes in the organic sector in many countries. In addition, special studies, or one-off research projects, are often time limited and the results rapidly become out-of-date. As the growth in organic farming stabilises, and if the recommendations above are implemented, it should become easier to access reliable time series data, but there is a need to ensure that surveys implemented are on-going and not just for a limited time frame. There is a need for continuity of data collection that would be achieved with full integration in FADN and a need to maintain identical samples for sufficient periods, e.g. 5-10 years needed for conversion studies.

The general recommendation is to keep individual farms in the FADN for as long as possible to be able to observe the structural changes on particular farms. The Commission is particularly interested in the number of organic farms which revert back to conventional agriculture.

Rank: Average
Objective(s) Improvement in the current situation of data collection and processing systems for the organic sector
Responsible organisation(s): EU and FADN
Resources: none required
Addressees: National FADN
Timing (months): immediate

6.2.2.8 Other recommendations

Further lower priority recommendations were made which are not set out in detail here, including the need to:

- acknowledge and account for the greater role of non-farming activities (e.g. processing, tourism) on organic farms
- know when farms converted, so that the effects of changing management can be traced with time series data
- promote/enable the linking of FSS, FADN and control body databases
- utilise the FADN data to gain information on prices, yields and input use in support of the data needs for other levels covered by this report.

6.3 Price data

There are currently no Europe-wide DCPSs for organic prices, whether at farm, market intermediary or retail levels. Eurostat price data do not distinguish organic products specifically. At the national level, only a few countries have comprehensive organic price monitoring systems in place, the key examples being ZMP in Germany and Prezzibio in Italy. Therefore the focus of the recommendations here is on establishing new systems rather than the refinement of existing systems as in other sections.

6.3.1 Problem areas and barriers

The most critical issue is how to motivate farmers, processors, wholesalers, farmer associations and other possible data providers to report their own prices on a regular basis. A system of adequate remuneration is needed for this. Preferably there should be a weekly report on the market situation and results of price collection, but it must also be borne in mind that those companies who have the highest importance and market share often need to be contacted regularly by phone in order to exchange information live. In order to establish a sound partnership, both partners should have information to share. Sometimes it is necessary to start with a closed user group in order to exchange data and results only within the participating group. Once the system is established and working well, publication of a market report is normally accepted. Weighting of prices in different market channels and for different products is problematic as data about volumes sold are very scarce. Farmers do not monitor the volumes sold, especially in relation to the high number of different vegetable varieties. Exact volumes can be obtained when receiving original invoices, as is usual for collecting prices for livestock and milk. Otherwise, as in the case of ZMP in Germany, a system of weighting prices by area cultivated for the different product groups and the corresponding share of individual data providers within the whole group can be used. Problems are likely to arise if only a few companies supply a major share of the market. These companies would try to keep transparency about the market only for themselves. The more diversified the market structure, the higher the chances of support from companies, as all players in the market need more market information. Due to varying varieties, especially in the fruit and vegetable market, comparison of data between different countries will be difficult in some cases and the breakdown of products and specifications limited.

6.3.2 Recommendations

6.3.2.1 Definition of an internationally harmonised product classification and nomenclature

ZMP in Germany has proposed an appropriate classification list and nomenclature (see detailed discussion in Chapter 3 and Annex 2). Those products currently included in the ZMP price monitoring system appear in this list. Levels of aggregation, specification of varieties, quality standards, packaging parameters and further specifications are the result of 14 years' experience in Germany. This level of detail is needed in order to get price data which is useful for market partners.

At the European level and for purposes of comparison, it might be necessary to increase the level of aggregation and reduce specification parameters. In order to start a price collection and monitoring system, it might be advisable to begin with a small part of the recommended production list and increase the number of products observed gradually.

Not all products listed occur in all market channels. Some fit only in one channel, as in the case of "animals for slaughter". Where a conventional price collection and processing system already exists in a country, it would be possible to use the established structure to also collect price data for organic products. This is especially the case for "animals for slaughter", "milk delivered to dairies", "potatoes at packing stations" and for all other products traded at central or wholesale market places. This method would generate useful data for some core products at very low cost.

The internationally harmonised nomenclature should cover the following aspects:

a) variety/species in sufficient detail

b) quality parameters

c) origin (if possible)

d) end use (e.g. final consumption vs. industry)

e) method of production (open field vs. greenhouses)

Rank: Very High
Objective(s): Integration of conventional and organic DCPS
Reference organisation(s): Eurostat
Resources: 1 person month
Addressees: Member states and statistical agencies
Timing (months): Immediate

6.3.2.2 Determine the product group to start with

In order to determine the product group to start with, priority should be given to:

a) vegetables and fruit (data should be weekly)

b) potatoes and cereals (data could be monthly)

c) milk and eggs (milk products only yoghurt, butter) (data can be monthly)

Meat and livestock could be given a lower priority at the moment as the marketing of meat and meat products is at an early stage of development in many European countries, although even this area is growing rapidly in importance as traditional supermarkets and discounters show more intense interest.

In some countries, the priorities might be different according to the specific market situation. Indeed it should be kept in mind that the priorities mentioned above are derived from experience of the special situation of the German market.

Rank: Very high
Objective(s) Innovation in data collection and processing system for the organic sector
Responsible organisation(s): National institutions involved
Resources: 12 person months per product group
Addressees: n.a.
Timing (months): n.a.

6.3.2.3 Publication of implementation guidelines

Experts who already have substantial experience in establishing DCPSs for the organic market could be given the task of writing guidelines on how to start, establish and optimise data collection and processing systems. This could help in making decisions and overcoming start-up problems, as well as enabling necessary budgets and time frames to be established. The guidelines should at least cover the following aspects:

1) frequency of collection and dissemination (if you collect data daily but publish them once a year, then this may of be of use to researchers but not to farmers)
2) common IT and database solutions
3) common and harmonised input masks, questionnaires and forms
4) description of reference systems
5) minimum standards of data collection: mandatory data and minimum frequencies
6) budget and time requirements

Rank: High
Objective(s): Innovation in data collection and processing system for the organic sector
Reference organisation(s): Eurostat - ZMP - EU observatory
Resources: 4 person months + 1-2 international meetings
Addressees: National institutions
Timing (months): 12 months

6.3.2.4 Pilot implementation

Currently, ZMP in Germany has the sole established system covering almost the whole product range and all marketing channels. In Italy, PrezziBio is a pioneer system for fruit and vegetables that has been in place for three years with limited resources. Experiences on price collection were available at various levels in the UK (HDRA), Norway, Lithuania, Denmark and France.

Implementation could be further piloted in some countries where conditions are favourable, for example:

- UK, where organic demand is high and the supply is increasing;
- Spain, which is mainly an exporting country for organic products.

Rank: Average
Objective(s) Innovation in data collection and processing system for the organic sector
Reference organisation(s): Eurostat - ZMP - EU observatory
Resources: 4 person months + 1-2 international meetings
Addressees: National institutions
Timing (months): 12 months

6.3.2.5 Definition of sales channel and priorities

In order to prioritise sales channels and commodities, five types of prices should be considered according to point of sale:

1. farmer prices: direct sales - farmer to final consumer (only by surveys)
2. farmer prices: retail sales - farmer to final retailer (only by surveys)
3. farmer prices: wholesale - first handler or buyer (processor/re-seller)
4. consumer prices: possibly collected via retailer (more reliable data than using household panel approaches).
5. import/export prices (problems for intra-EU trade).

Producer prices should be collected as wholesale (first handler/re-seller) input prices (easier and cheaper to collect) using a continuous panel of wholesalers, and should be given priority. Where they exist, raw material stock exchange data can be also used. Direct sales (1 and 2) can be collected by periodic sample surveys of farmers. Consumer prices should be collected at the retail level (retail selling price) using scanner data where possible and/or panel of retailers. It must be mentioned that these data need to be purchased mainly from private companies and therefore require a substantial budget.

Import/export prices are NOT a priority at the moment due to difficulties in collecting them.

Rank: Low
Objective(s) Innovation in data collection and processing system for the organic sector
Reference organisation(s): National institutions- DG Agri - Eurostat
Resources: 1 national and 1 international meeting
Addressees: agencies responsible for data collection
Timing (months): 6 months

6.4 Consumption data

6.4.1 Problem areas and barriers

In several European countries organic consumption data are already being collected, mostly on the basis of private household panels. Because of the national specifications of household panels, data cannot be compared directly at a transnational level.

Eurostat has signalled that an approach to collecting and publishing national organic consumption data, driven by national authorities in the European network of statistical offices, could be a starting point for obtaining more quantitative consumption data for Europe in the future. This call is open to all kinds of statistical sources (household budget surveys, supply balance sheets, dietary surveys, retailer and consumer panel data, etc.) and could include private organic food consumption in terms of volume and expenditure.

However, most countries are in the process of cutting public resources for existing statistics. Therefore, existing methods such as private household panels and non public sources such as market research companies as well as key data users, for example institutions like ZMP, LEI or FiBL, could be targeted as service partners for members of the European Statistical System. So far, there been contact between members of the European network of statistic offices and private market research companies in only in a few countries. However, there are already a few examples such as the Spanish Ministry of Agriculture or the Italian ISMEA, which collect their (organic) consumption data via TNS household panels.

From a methodological point of view, two alternative approaches need to be considered when collecting data on consumption volume. Retail panel based data, such as those offered by ACNielsen, are more exact than consumer panel based data, but the costs of obtaining the data are much higher. Furthermore retailer panel based data cover only certain parts of the whole market (the larger retail chains) and do not include data from specialised organic shops, direct sales, or items which do not carry a barcode. Regardless of budget constraints, approaches like those adopted in Germany and Switzerland, where both consumer and retail panels are operated in parallel and partly merged, would represent the most sophisticated attempt to measure organic consumption by volume and turnover/expenditure.

In the light of restricted public budgets, the method of consumer panel data seems to provide a more feasible means to obtain a complete picture of organic food consumption in the medium term.

6.4.2 Recommendations

6.4.2.1 Establishment of a Europe-wide expert network for data and information exchange with regard to organic consumption data.

The main recommendation aims to establish a Europe-wide expert network for data and information exchange with regard to organic consumption data. The expert network should be steered by DG Agri and would recruit national members of the European Statistical System (national ministries of agriculture or statistic offices), the pan-European market research company EUROPANEL, national organic market experts from institutions like LEI, FiBL or ZMP, as well as Eurostat.

The expert network would aim to:

a. define the most relevant set of organic consumption variables, product groups covered and nomenclature used,
b. describe, update and exchange available national organic consumption data,
c. define the pre-conditions for a European harmonisation of organic consumption data as well as elaborate a financial concept on how to fund data collection and harmonisation expenditure in the long term.

The expert network would meet twice a year.

Rank: Very high
Objective(s): Data exchange, definition of pre-conditions of data collection and harmonisation for private consumption data in terms of volume and expenditure
Responsible organisation(s): DG Agri
Resources: Approximately € 25,000 per year
Addressees: DG Agri
Timing (months): n.a.

6.4.2.2 Implementation of output harmonisation for organic consumption data by EUROPANEL.

Published national consumption data should not be compared on a transnational level without any central (European) output harmonisation. A common definition of variables, product groups covered and nomenclatures used to measure and publish organic consumption data would be a minimum requirement to improve the existing data availability situation.

As an international market research company, EUROPANEL would be able to create a harmonised reporting database for organic food consumption in all European countries where organic food penetration is relevant, which would take into consideration the direct comparability of variables. This could be implemented in 6-12 months. It is important that European harmonisation of household panel data should take into consideration the future classification of food items that will be proposed by Eurostat, in cooperation with the national authorities, for food consumption purposes. It is also important that the definition of organic food matches the official EU regulation.

Rank: High
Objective(s): Output harmonisation of organic food consumption data in terms of volume and expenditures.
Responsible organisation(s): DG Agri, EUROPANEL
Resources: Approximately € 15,000 for output harmonisation per participating country. The costs do not include the purchase of raw data for each country.
Addressees: DG Agri
Timing (months): 12 months

6.4.2.3 Pilot implementation

In order to test and verify the data harmonisation concept, a pilot data collection and compilation project should be implemented for those countries where private household panels already cover organic food items. The structure and volume of the pilot would depend on the involvement of DG Agri or DG Research as project initiator. The pilot project team would be recruited by members of the European expert network (see 6.4.2.1) and EUROPANEL (see 6.4.2.2).

The pilot project should have the following structure:

1. first year national organic consumption data collection, compiling and processing
2. organising horizontal and vertical data exchange between all national and European participants
3. workshops to exchange information and data collection and compilation strategies.
4. evaluating first year activities / adapting measures.

The structure and size of the pilot project would depend on the involvement of DG Agri or Eurostat as project coordinator.

Rank: High
Objective(s): Pilot test of data harmonisation concept
Responsible organisation(s): DG Agri or DG Research
Resources: Approximately € 150,000
Addressees: DG Agri
Timing (months): 18 months

6.5 International trade and supply balances

6.5.1 Problem areas and barriers

6.5.1.1 International trade

The only serious approach to addressing this issue so far is that developed by Statistics Denmark (see Gleirscher *et al*., 2005; Rippin *et al*., 2006), but the following weaknesses have been identified in this system:

- the response burden for enterprises involved in foreign trade is high due to monthly reporting to two foreign trade registers,
- foreign trade in organic products is probably underestimated due to the fact that many enterprises are relatively small and therefore below the threshold for reporting of intra-EU trade data to Statistics Denmark,
- difficulties in discriminating between organic and conventional products,
- processing of data and quality checking by Statistics Denmark is time-consuming.

For intra-EU and export trade, there is also the general problem of the thresholds under which no data need be delivered by private companies. This is a particular problem for the small organic sector since a large proportion of organic trade will not be registered and therefore trade may be significantly underestimated. Private certification bodies which may have some data on extra- and intra-EU trade may not be interested in providing information to statistical offices because of the extra workload involved.

On the basis of the earlier EISfOM work, it is clear that:

- more knowledge is needed about how to make enterprises cooperate in data collection when reporting is not mandatory,
- more knowledge is needed about how certification systems and registers are built up in EU countries to find the best way to collect information on foreign trade in organic products in each country,
- in the case of enterprises below the threshold, a benchmark survey of their foreign trade in organic products could be carried out every 5 years to adjust the results reported on an annual basis.

Currently only a system in which conventional and organic products are linked together exists. During the Brussels seminar the possibility of extending the system to enable differentiation between organic and conventional products was discussed.

6.5.1.2 Supply balances

The methodological problems concerning the development of an organic supply balance DCPS are explained in detail in earlier EISfOM reports (Recke *et al.* 2004b) and in the EISfOM discussion forum (see www.eisfom.org). After efforts within the project to review and improve data collection and processing systems for organic markets, the most developed element is production quantity. Imports and exports remain problematic as discussed above. For consumption, only data on amounts for human consumption have been discussed so far within the EISfOM project and the existing proposals to generate data on human consumption through panel data deal only with consumption of private consumer households. This means human consumption which takes place outside the home in restaurants, canteens, take-away services, etc., are not covered. Additionally, consumption of organic agricultural products as animal feed, for industrial uses (e.g. in the chemical industry) or seeds is not included.

In general, all recommendations should be in accordance with the European Statistics Code of Practice which was adopted by the Statistical Programme Committee on 24 February 2005. This code is intended for implementation by governance and statistical authorities and for information to the users and data providers. The main issues concerning the institutional environment of these recommendations are professional independence, a mandate for data collection, adequate resources, quality commitment, statistical confidentiality, impartiality and objectivity. The relevant aspects of the statistical processes are sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness. Further, the statistical output must meet users' needs and therefore fulfil the European quality standards.

6.5.2 Recommendations

6.5.2.1 Establishment of an adequate legislative basis for the data collection and processing system

A sound legal basis is needed for:

- certification bodies to provide data on domestic production, either obligatory (preferred) or paid
- data on foreign trade with third countries by obliging member states to collect this data

Possibilities for including intra-EU trade are more complicated and seen as realistic only if the Danish system (with a single identification number for each business) is introduced within the member states.

This recommendation can only be implemented if the national governments or the EU Council adopt legislation on unique identification of businesses and mandatory or paid data delivery for statistical purposes.

This should be linked with the similar recommendation for production level data.

Rank: Very high
Objective(s):

- Improvement in the current situation of data collection and processing systems for the organic sector:
- Innovation in data collection and processing systems for the organic sector

Responsible organisation(s): National governments and EU Council
Resources: Differs from member state to member state, depending on the country's existing laws on statistical data collection
Addressees: National agricultural policy makers as well as EU agricultural institutions
Timing (months): 24 months

6.5.2.2 Improvement of current foreign trade data collection

The recommendation can be implemented with the following actions:

1. obligation upon administrative authorities in importing countries to collect data on organic imports from third countries (mainly using certification documentation from certifying bodies) and national statistical offices to collect these data on third country imports. Data should then be reported to Eurostat.
2. collection of data on exports to third countries by export authorities, national statistical offices and Eurostat
3. collection of intra-EU trade data as a medium-term objective after having implemented steps 1 and 2.

Data collection should start with extra-EU trade because it is much easier to obtain good data on extra- than on intra-EU trade and, from the EU perspective, these data are the only ones of relevance, whereas national governments also need data on intra-EU trade to adjust their policies.

There was overall agreement in the group discussion on these points. There are different thresholds for the minimum amount of trade to be reported by importers and exporters in different EU countries. The countries with a high threshold are particularly problematic because many organic enterprises are small and this leads to only part of the foreign trade being included in the statistics.

Rank: High
Objective(s):

- Improvement in the current situation of data collection and processing systems for the organic sector
- Innovation in data collection and processing systems for the organic sector

Responsible organisation(s): EU-Commission and Council for making this obligatory; national statistical offices and Eurostat for data processing
Resources:

1st step: 1-2 person month(s) in national statistical offices and 1 person month in Eurostat
2nd step: as step 1
3rd step: cannot be calculated at this stage

Addressees: Policy makers
Timing (months):24 months

6.5.2.3 Pilot Study

The main objective is a regulatory assessment in a few member states to test the feasibility of transferring existing systems of data collection (e.g. Denmark) to other countries.

In order to calculate total consumption, data for all other components of a supply balance - production, imports, exports and changes in stocks - are needed. Changes in stocks are not taken into consideration within the EISfOM project which makes it very difficult to calculate a supply balance unless one assumes that changes in stocks are negligible for organic commodities. Furthermore, there is a special problem for supply balances with organic products which does not appear in the usual supply balance for all agricultural products in that significant amounts of organically produced products are sold on conventional markets because there are not enough customers in the organic sector for these products. This means that data on the amount of consumption of organic products cannot be derived without additional information on the amount of organic products sold conventionally.

These problems have to be solved before developing a DCPS for organic supply balances on the EU level and for special commodities on the national level.

The following actions are recommended:

- Adopt the necessary legislation for introduction of a unique identification number for all enterprises for all governmental reporting purposes so that it is easy to combine different governmental registers (and also statistics)
- All enterprises should be obliged to differentiate between organic and conventional in their data registers on all imports and exports (from EU and non-EU countries)

Rank: Very high
Objective(s): Innovation in data collection and processing systems for the organic sector
Responsible organisation(s): EU Commission project
Resources: 3-5 Million € given to a project consortium of 2-3 member states and the Danish statistical office.
Addressees: Policy makers
Timing (months): 36 months

6.5.2.4 Contacts between national institutions and official data collectors

National networks have to be built up (either in the form of observatories or of informal advisory groups) in order to allow harmonisation at the data level and at the institutional level, allowing the implementation of the necessary changes at national level, integration and better use of resources (e.g. avoiding duplicate work).

Closer relationships between major institutions and/or companies which focus on organic market, trade and price data could lead to efficient collaboration and improved data quality and availability. Workshops could be organised in order to discover possible linkages and co-operations.

As Eurostat will provide funding for such activities, the financial aspect of this recommendation would be of less importance than for other recommended actions in this report.

Rank: High
Objective(s):

- Innovation in data collection and processing system for the organic sector
- Networking and harmonisation at national level

Responsible organisation(s): National institutions - ministries
Resource: Funding by Eurostat may be applied for
Addressees: National institutions and Eurostat
Timing (months): 12 months

6.6 Priorities

Although the working groups at the Brussels seminar prioritised activities within their specific areas, it is also necessary to give some sense of prioritisation across the different areas. We therefore asked project partners to rank the relative importance and urgency of each data area, using a scale ranging from 1 (Not Important, Not Urgent) to 5 (Very Important, Very Urgent)

The results of this prioritisation exercise are reported in Table 6.1, where a final Group Weight is found by multiplying the Importance and Urgency scores.

Table 6.1: Weighting of each data group

	Average Importance	Average Urgency	Weight
	A	B	AxB
Farm-level production data	5.0	4.9	24.50
Farm-level financial data (FADN)	3.7	3.3	12.21
Price data	4.1	3.9	15.99
Consumption data	4.1	3.4	13.94
International trade and supply balances data	4.0	3.0	12.00

Based on these weights, all the individual recommendations have been prioritised by multiplying the rank of each recommendation (ranging from 1- Very Low to 5 – Very High) by the corresponding data group weight. The final list of recommendations, ordered in terms of overall priority, is reported in Table 6.2.

All the farm-level production data recommendations are among the top-ten priorities, showing the extremely high relevance of improving the collection of basic production data at this level.

The most highly ranked price recommendations are also among the first ten priorities, and refer to agreeing on a common EU nomenclature for commodities (which is also a relevant issue for trade and supply chain data) and to defining a first priority product group on which to start collection on a multinational (or EU) level.

The tenth most urgent and important recommendation is the establishment of an EU-wide expert group on organic consumption data, which could be integrated with the general recommendation of establishing a **European Organic Market Statistics Expert Group** (see Chapter 8 below).

Altogether, these ten recommendations do not place significant burdens on EU finances, and could easily be implemented if the political will and some national resources were available.

The remaining recommendations are not to be considered less relevant, simply less urgent, as can be seen from the individual ranks and ratings.

For all recommendations where a pilot implementation study is proposed, these could be addressed as part of DG Research's FP7, and specific support for policy research actions could be envisaged for funding under that framework.

Furthermore, it should be noted that many data would be needed to meet the Commission's requirements for policy evaluation (e.g. the EU Action Plan and RDP 2007-2013), which will involve basic annual monitoring (uptake, expenditure etc.) and

periodic evaluations, particularly the Mid-Term Review 2010. EU strategic guidelines for RDP include the action plan, therefore it is expected that member states will report on organic progress as part of strategic monitoring. Production structures and financial data most easily available as monitoring systems are already in place on an EU-wide basis. However, some measure of market share and value added would also be desirable – and could be achieved through satellite accounts similar to environmental value added, but would require an EU-wide system to be put in place. Pilot studies – such as the ones proposed in this report – could be a basis for providing this kind of policy relevant data.

Table 6.2: Recommendations ordered by global priority

Nr.	Recommendations	Group	Rank	Imp.	Urg.	Weight	Final Priority
1	Legal requirement for inspection/certification bodies to collect/provide data	Production	5	5,0	4,9	24,5	122,5
2	Match 2092/91 and FSS as well as possible in their current reform process	Production	5	5,0	4,9	24,5	122,5
3	Use one ID number for all data collection relevant to organic farming production data	Production	5	5,0	4,9	24,5	122,5
4	Use an integrated or network approach involving stakeholders for all recommendations	Production	5	5,0	4,9	24,5	122,5
5	Provide financial compensation for the additional work to be done	Production	4	5,0	4,9	24,5	98,0
6	Use one classification system	Production	4	5,0	4,9	24,5	98,0
7	Definition of an internationally harmonised product classification and nomenclature	Price	5	4,1	3,9	16,0	80,0
8	Determine the product group to start with	Price	5	4,1	3,9	16,0	80,0
9	Production quantities must be included	Production	3	5,0	4,9	24,5	73,5
10	Establishment of a European wide expert network for consumption data	Consumption	5	4,1	3,4	13,9	69,7
11	Publication of implementation guidelines	Price	4	4,1	3,9	16,0	64,0
12	Increasing organic sample sizes	FADN	5	3,7	3,3	12,2	61,1
13	Establishment of an adequate legislative basis for the data collecting and processing system	IT &SC	5	4,0	3,0	12,0	60,0
14	Pilot study	IT &SC	5	4,0	3,0	12,0	60,0
15	Implementation of output harmonisation for organic consumption data by EUROPANEL	Consumption	4	4,1	3,4	13,9	55,8
16	Pilot implementation	Consumption	4	4,1	3,4	13,9	55,8
17	Improve recruitment and retention of farmers in samples	FADN	4	3,7	3,3	12,2	48,8
18	Improved identification of organic holdings and organic products on mixed status holdings	FADN	4	3,7	3,3	12,2	48,8
19	Increasing representativity of organic samples	FADN	4	3,7	3,3	12,2	48,8
20	Improvement of current foreign trade data collection	IT &SC	4	4,0	3,0	12,0	48,0
21	Contacts between national institutions and official data collectors	IT &SC	4	4,0	3,0	12,0	48,0
22	Pilot implementation	Price	3	4,1	3,9	16,0	48,0
23	Definition of appropriate criteria for selecting comparison groups	FADN	3	3,7	3,3	12,2	36,6
24	Time series data	FADN	3	3,7	3,3	12,2	36,6
25	Definition of sales channel and priorities	Price	2	4,1	3,9	16,0	32,0
26	Standard Gross Margins	FADN	2	3,7	3,3	12,2	24,4

7 Experiences concerning success, time and cost frames

It has not been possible to provide detailed costings for many of the recommendations since they involve actions by national agencies, the costs of which will depend in part on existing systems and the initial starting point for organic data collection. Where no systems exist, some indications of potential costs etc. can be obtained from the reference systems identified.

7.1 Experiences from reference systems

7.1.1 Land use and production data

Setting up a system to collect high quality data involving the control bodies retrieving the necessary data from their data storage system (which should be a well structured database) requires some human resources and a budget for paying the control bodies for their additional workload.

1) Human resources:
   The actual need for staff will depend on the number of control bodies working in one country and the time needed to persuade them to provide their individual holding data for further statistical analysis (with data anonymised and aggregated on the regional or national level). In Germany where there are 16 relevant private companies in existence, three person months per year are needed in order to collect, process and publish the data.
2) Budget for compensating for the additional workload of the certification bodies:
   It is proposed that every professional control body should work with a well set up database to record control data and manage control procedures efficiently. If there is no database, the existence of an accurate certification process conforming to the EU regulation has to be considered as doubtful.

   With an existing database, the additional workload of certification bodies to retrieve the requested data should not exceed 1-4 Euros per farm. In the first three years of establishing such a data exchange system and dealing with harmonisation issues, the workload could be higher but, once running, the annual workload should be as estimated on the basis of experience in Germany and France.
3) Time frame:
   It will take three years to make the system fully operational.

7.1.2 Producer prices

For a price collection system relying on farmer-derived information, first of all the farmers have to be convinced that a price collection and reporting system will enhance their competitive position and thus help to sell their products at reasonable prices. Next, a price collection, recording and processing system has to be built up. As useful experiences from systems in other countries are available, software tools etc. can be copied, thus reducing the initial work load and budget requirements.

1) Human resources:
   Several countries have started providing a person on a part-time basis in recent year, but experience has shown that this normally means that the other duties of this person are often more highly prioritised and progress in

establishing a price collection and processing system is therefore very slow and success very unsure. It is recommended that 12 full person months be used in order to achieve useful results in a reasonable time scale.

2) Cost frame:
During the system establishment phase, it will be necessary to add more staff to this area. Based on a country like Germany, increasing data volumes and the need for further detailed data on all relevant production areas will require 12 person months for each product group (e.g. fruit and vegetable; potatoes and cereals; livestock, meat, milk and eggs). In addition at least 12 person months for data recoding, database and client management, as well as publication issues will be necessary.

   Additional costs will depend on the range of services provided for participating data providers or customers. The German experience suggests that ca. 20% of costs can be recovered by selling the information to customers.

3) Time frame:
It will take at least one year to establish a useful system for one product group if a full-time individual is available.

7.1.3 Consumer prices and consumption data

EISfOM recommends establishing a pilot project on European consumer/retailer level reporting, involving current data providers as well as the national official statistical institutions. This would provide a basic market overview with e.g. volume/expenditure of total food as well as organic food consumption and its market share for a broad range of product groups. Further a basic set of organic market data could comprise the national retail sales value for organic food. Where available, the data set should include the share of organic in relation to the total retail sales of food.

The goals of such a project would include the harmonisation of product group definitions and data exchange at the European level with a number of countries, starting with existing systems. If single product data delivery is possible for the participating countries, data harmonisation can include product group definitions. The usage rights of data exchanged have to be clarified. Generally, only aggregated data would be exchanged. The basic European market overview on organic food consumption and its share of total food consumption could be provided on an annual basis.

1) Human resources:
As a rough estimate, at the European level 12 expert person months would need to be financed to fulfil the task of international coordination of (total) organic consumption and retail data collection. The coordinator task would cover the establishment and coordination of international expert groups for consumption and retail data, the collection of national data, the compilation of data (output harmonisation) and the annual publication of data. This resource can be reduced by 25% after the first year. In addition, about one expert person month annually will be needed for each participating country.
The detailed tasks envisaged for the central coordinator are: analysing methodology; comparing data; data harmonisation; building up/co-coordinating the data delivery process; reporting on European organic markets; organising steering committee/working group meetings; organising the overall funding/financing of meetings, etc.. The one person month per year in each participating country would cover: data delivery; description of data collection/validity of data; contact/coordination with national authorities.

After the two-year pilot phase the coordinator's role should be integrated into the organisational structure of DG Agri.

2) Cost frame for the pilot project:
In additional to the human resources envisaged in the pilot project, a further €30,000 per year would be needed for national subcontracts (data collection/compilation) or annual workshops. Altogether a sum of c. € 200,000 would cover personnel and other costs of the pilot project.

3) Time frame for the pilot project:
1-2 years

7.2 European Database

The European database (see Annex 3), which has been worked on by ZMP in Germany for two years as part of the EISfOM project, aims to be a central systematic database covering all available and checked data for the European countries from official or non-official data sources. A similar global database is also being developed by FiBL/IFOAM, and there is the possibility of merging the two.

In contrast to the Eurostat database, non-official data which have been checked and have proved to be reliable (e.g. data from control bodies which Eurostat will not accept as official) are included. Thus there are fewer gaps in the data than there are currently in the Eurostat database, and the data are more up-to-date. If funding is achieved, this database will be published, subsequently broadened to cover all areas of interest and updated regularly.

1) Human resources:
Experience from Germany indicates that 12 full person months are necessary in order to achieve useful results in a reasonable space of time in building up a consistent and useful database. As a prototype has already been set up by the German ZMP as part of the EISfOM project, it would be possible to continue with the current system and establish a professional working tool with a skilled person.

2) Time frame:
Another two years will be needed to set up all necessary data areas (land use, production, trade, consumption, farmer prices, consumer prices) and integrate all available data from 30+ European countries.

3) Cost frame:
Alongside the human resources, it will be necessary to pay for software licences, web space and updates, with costs of around 2,000 Euros per year.

7.3 Financing possibilities

Given that resources available to national statistical agencies are constrained, and new activities may not be possible without other activities being terminated, there is a need to review all possible funding options, both private and public, to support the development of the European information system for organic markets.

7.3.1 Farmer-based funding systems

1) Marketing fees/levy systems:
In some countries, farmer-based funding systems exist in order to finance market research and marketing initiatives. In Germany, farmers who sell their products via wholesale channels are required to pay a certain percentage of the turnover or a fixed amount per head (animal for slaughter) to an "Absatzfonds" (levy fund). The Ministry of Agriculture has the duty to collect this levy and all activities related to the marketing of agricultural products by the CMA and market research via ZMP are financed from this fund.

2) Membership fees:
There are also member-based research organisations, such as HDRA in the UK, in which some activities are funded from their membership fees.

7.3.2 Sales-based funding systems

1) Regular customer/subscription fee:
Various organisations have customer-based/subscription funding systems. Only customers who pay a monthly fee have access to market information and receive publications free or at a discount. For example, the ZMP generates around 20% of its annual budget by selling their publications (weekly, monthly and annual market reports) and by providing online access to members. The ZMP monthly fee is around 10 Euro/month for the weekly report on market information and market prices for organic products.

2) Sales of publications:
Another possibility would be to sell publications in the traditional way, billing single requests separately.

7.3.3 Administrative (public) funding

1) Organisational support from national administrations:
Various organisations in, for example, France (Agence Bio), Switzerland (FiBL) or The Netherlands (LEI) are funded partially by administrative support. The annual budget of these organisations is supplemented by their own activities to obtain funding for specific projects via national or international programmes or announcements.

8 Long-term strategy for integrating existing participating countries as well as additional countries

8.1 Current situation and organisational issues

In all the areas investigated by the EISfOM project (production, financial data, consumption, prices, supply balances and trade), there is a need to improve data quality and quantity on the organic market in almost every European country. Some countries do have systems which work quite well and could be used as reference systems for other countries. Nevertheless, there is still a need to define a Europe-wide harmonised nomenclature and classification system for production, consumption and price data. Eurostat is currently working on this issue in some areas. Some countries are already working with Eurostat to find common solutions that will meet both national and international needs.

Eurostat is the central European coordinating organisation able to define common systems and infrastructure in order to achieve comparable data. As most of the data needed cannot be provided by the official national contact partner of Eurostat, other official and private organisations will have to be integrated into a wider network than that which is currently operated by Eurostat. Besides, the national officials involved in the Food Safety working group at Eurostat are often not those dealing with organic farming statistics at the member state level.

The EISfOM project, through its membernet, has established a network of relations with those national organisations which could provide the data Eurostat and DG Agri need. As indicated above, there is still a need for central coordination between Eurostat/DG Agri, individual countries and other experts/market research institutes, etc. with access to organic data, as well as coordination to initiate and accompany the harmonisation process.

DG Agri would benefit from these actions because available, checked and harmonised data (as far as possible), recorded in a central database and processed for the user needs, would be made available by Eurostat.

8.2 Building a long-term European organic data network

In order to improve coordination and enhance current data availability and quality there is an urgent need to devise an institutional framework allowing:

1. consolidation of the network of relationships established during the EISfOM project among various stakeholders at both national and international level;
2. the enlargement of this network in order to increase the quantity and quality of available statistics at national level as well as the national coverage;
3. an increase in the links between the member states' officials responsible for agricultural statistics (including organic) and those responsible for food safety statistics;
4. the formal integration of research institutes, universities, market research companies, independent experts/consultants, certification bodies and other stakeholders that currently either own, collect or process organic data.

In order to do so, we propose the establishment at the EU level of a **European Organic Market Statistics Expert Group** consisting of Commission, member state and external experts, including researchers and stakeholders, to advise DG Agri and Eurostat in planning and devising the best organisational solution to implement the

institutional network in the long term. This group could be linked with the EU Action Plan advisory committee and/or SCOF.

The tasks of the expert group could be backed by an independent study aiming at:

1. deciding, together with Eurostat representatives, which EISfOM recommendations are to be worked on jointly, in detail, in order to develop and implement Eurostat-harmonised systems at the European level (with the emphasis on output harmonisation so that national systems can be appropriately developed and adapted);
2. investigating possibilities for improving data quality or implementing adapted reference systems in countries and areas where no data are available;
3. exploring the various institutional solutions in order to: facilitate data transfer among different organisations at both national and international level; increase feedback and knowledge transfer among the different actors and organisations; and guarantee prompt and reliable availability of organic farming statistics to the general public and/or to the relevant stakeholders;
4. advising member states on how to better implement data provision under article 30 of the revision proposal of Council Regulation (EEC) No. 2092/91 [COM(2005) 671 final].

8.3 Time, cost frames and funding

The establishment of such a network would require a commitment to the provision of core resources for central staff as well as to supporting the participation of stakeholders and external experts in the network. This commitment would need to be long-term – certainly longer than the usual DG Research project duration of three years. An initial commitment of resources for seven years (corresponding to the Commission's 2007-2013 planning period) would be appropriate, whilst a longer period would be ideal but perhaps unrealistic.

In the shorter term, what is requested is to establish the Expert Group and to fund a specific study/research on the establishment of such a long-term strategy and institutional network.

The estimated cost for such short-term actions is around 200,000 Euros. In addition, some resources for development work and underpinning research could be made available by DG Research (SSP).

9 Conclusion

The recommendations made as a result of the EISfOM concerted action represent the outcome of many years of practical experience with data collection and analysis on the part of the EISfOM project team as well as intensive dialogue with stakeholders (including both data owners such as organic sector control bodies and data users such as policy-makers, business consultants and organic sector associations).

The recommendations are supported by in-depth analysis of the current situation of organic data collection and processing in 32 countries, by the case studies of innovative approaches in selected countries, and by the presentations to and debates at the two EISfOM European seminars, which brought together many individuals and organisations from different countries with a common interest in improving the quality and scope of organic market information in Europe.

With this report, the EISfOM project is completed, but the work on developing a European Information System for Organic Markets needs to continue, sponsored primarily by governmental agencies, but with engagement from the private sector. In this context, we hope that the commitment in the European Action Plan for Organic Food and Farming, and the significant interest and commitment demonstrated by representatives of the European Commission, in particular from Eurostat and DG Agri, will bear fruit. We acknowledge however that the views expressed in this report are those of the authors and project partners, and do not necessarily reflect the views of the European Commission, nor do they in any way anticipate the Commission's future policy in this area.

We also acknowledge that the availability of financial resources will be a key factor limiting the development potential at both European and national levels. We therefore propose that the European Information System should be developed in a series of smaller incremental steps, reflecting not only the importance and urgency of specific steps, but also the potential for ‘quick wins’ where current discussions on modifications to general statistical systems open the door for relevant developments with respect to organic food and farming data.

Finally, we would like to acknowledge with thanks the financial support for carrying out this work from the European Commission (DG Research) under Key Action 5 of the Fifth Framework Research and Technological Development Programme, as well as the time and expertise contributed on a voluntary basis by the many people who engaged with the EISfOM partners during the life of the project.

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11 Annexes

11.1 Annex 1 –ZMP proposal for classification system and codes for land use and livestock production

11.2 Annex 2 –ZMP proposal for classification system for price data

The above Annexes are undergoing continual development by ZMP. The latest versions can be found at: www.eisfom.org/publications/index.html

11.3 Annex 3 – EISfOM database of organic production data

A link to this database will be available from July 2006 at www.eisfom.org