

S I G M A

The bulletin of European statistics

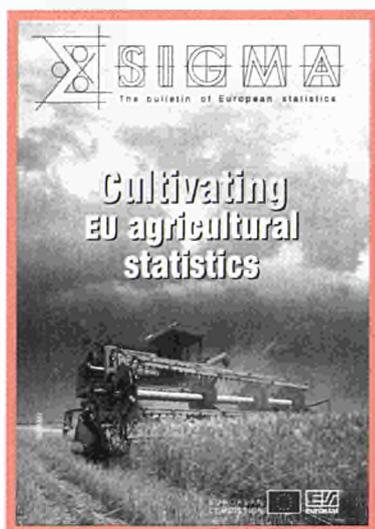
Cultivating EU agricultural statistics

02/2000



EUROPEAN
COMMISSION





In *this issue* of Sigma...

We start off with an exclusive interview of Pedro Solbes, member of the Commission responsible for economic and monetary affairs and statistics, who speaks about the role, present and future, of Community statistics and the quality challenge.

Turning to our Sigma theme – with enlargement, the new round of WTO negotiations and the reformed CAP looming large, European agriculture faces some major challenges. As agricultural statistics form the foundations upon which decisions are taken and negotiation scenarios are adopted, we felt it was about time to dedicate an edition of *Sigma* to one of the most, if not the most developed, sector of Community statistics.

In the course of your reading, we aim to:

- present a broad outline of the new agriculture programme,
- shed light on the role and importance of agricultural statistics,
- offer glimpses of new developments and issues high on the agenda,
- show how some Member States have organised themselves, *and*,
- offer some users the opportunity to express their views and expectations.

Sigma – the bulletin of European statistics produced in Luxembourg by Eurostat

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Published by

Office for Official Publications of the European Communities

Catalogue number
CA-AB-00-002-EN-C
© ECSC-EC-EAEC
Brussels • Luxembourg 2000

Printed in Luxembourg

Views expressed in *Sigma* are those of the authors, not necessarily those of the European Commission

Sigma is available free of charge from:

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We asked David Heath, the Eurostat director in charge, to start the ball rolling by sharing with us his view on the challenges facing agricultural statistics.

This is followed by a presentation by José Manuel Silva Rodríguez, Director-General of the Commission's DG 'Agriculture', of the future agriculture programme.

Encarnacion Redondo-Jimenez, MEP and Rapporteur to the Committee of Agriculture, shares the views of the European Parliament.

A roundtable discussion with Eurostat's Giuseppe Calò, Marcel Ernens and Rainer Muthmann, allows these insiders to complete the picture and express their views.

Frans Kutsch Lojenga, Eurostat's co-ordinator for statistical work related to the candidate countries, and Lidija Gjorgjevska, trainee from the Statistical Office of the former Yugoslav Republic of Macedonia, talk about enlargement.

Two important agricultural countries take the floor: Christian Gay from the French Ministry of Agriculture, and Porfirio Sanchez, head of the Spanish Agriculture Ministry statistical unit. They speak about the inner workings of agricultural statistics at home and the new challenges facing Europe.

In addition, Esa Ikäheimo, Information Centre of the Finnish Ministry of Agriculture, gives us the view of one of the latest newcomers to the EU and talks about pioneering the use of administrative registers.

End users Noël Devisch, President of COPA – the farm organisation lobby – and Thomas Rickli of Agra-Europe, talk about the importance of topicality.

We believe that this collection of information and opinions will not only help you better understand this vital zsector of Community statistics, but will also keep you abreast of the developments.

Also in *this issue*...

A trip to Switzerland helped us tap the statistical experience of one of our important European neighbours.

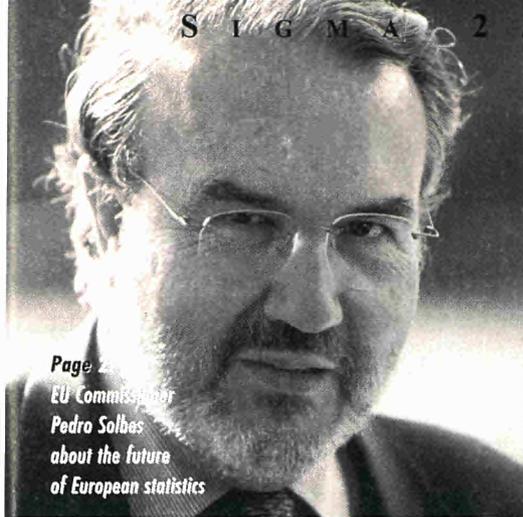
We follow with a farewell interview with Alberto De Michelis, who retires from Eurostat.

Finally, we close with reports on the arrival of a new head at the UK's ONS, the new market friendly approach at Dutch CBS and the integration of environmental and economic accounts in Germany.

Fons Theis
Assistant chief editor

We would like to **thank** all those who contributed to this edition, in particular:

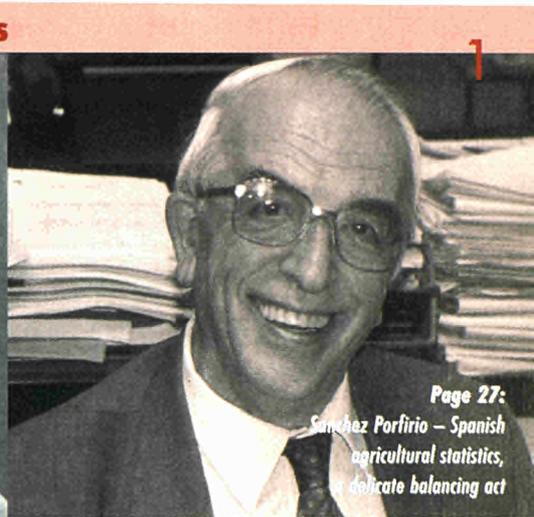
Giuseppe Calò, Noël Devisch, Marcel Ernens, Christian Gay, Lidija Gjorgjevska, Armin Grossenbacher, David Heath, Esa Ikäheimo, Encarnacion Redondo Jimenez, Paul van Kalleveen, Ursula Lauber, Frans Kutsch Lojenga, Carlo Malaguerra, Alberto De Michelis, Rainer Muthmann, Sanchez Porfirio, Charles Peare, Thomas Rickli, José Manuel Silva Rodríguez, Salvador Trinxet, Ian Scott, Pedro Solbes, Gerassimos Thomas, Saverio Torcasio – and, of course, to all our 'correspondents' in Member States...



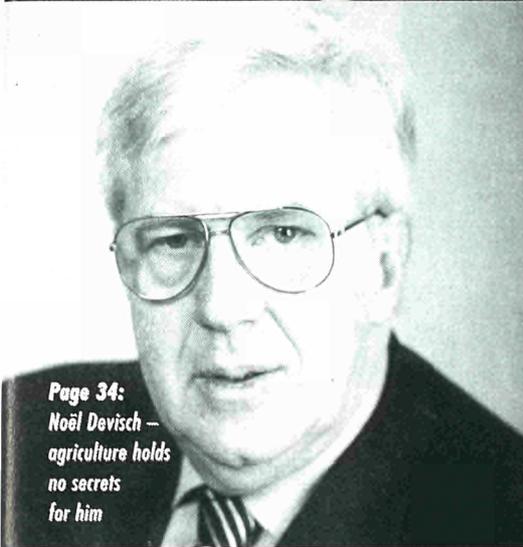
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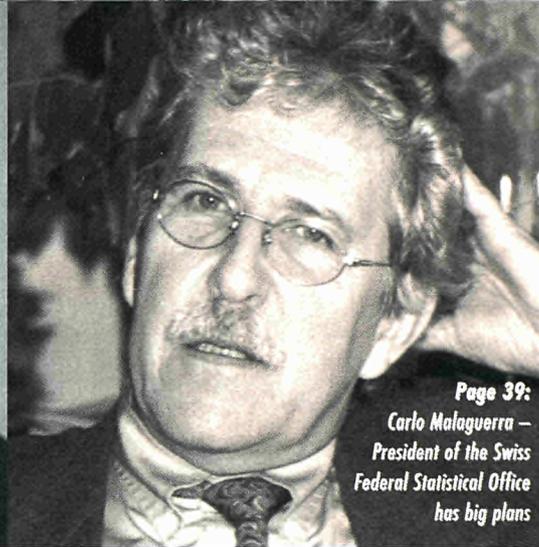
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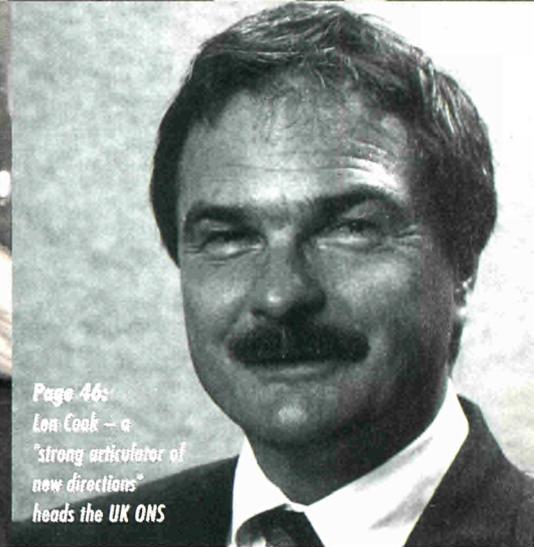
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After the new European Commission took up office in 1999, **PEDRO SOLBES** is now the new Commissioner responsible for Economic and Monetary Affairs and for Eurostat, the Statistical Office of the European Communities. He is therefore overseeing statistics as well as the implementation of economic and monetary union. *Sigma's* FONS THEIS spoke to him about the future of statistics.

QUALITY – a constant challenge for statistics

Commissioner, you have held several ministerial posts in Spain, including three years as Minister of Economic Affairs and Finance. You are now a Member of the Commission. How important are statistics to you?

A vital asset

The answer is clear and is borne out by my experience in politics: statistics are the mainstay of democracy in market economies, and thus of the European Union. Community statistics are vital to decision-makers at all levels for planning, implementing and monitoring Community policies. They provide enterprises with vital information on the markets and give the public and media an objective view of changes in society.

With the steady progress of European integration, and, notably, Economic and Monetary Union, the impor-

tance of Community statistics is growing all the time. Along with the regularly published macroeconomic indicators, they are a vital asset in the decision-making process.

What are the key statistical domains?

In the fields for which I am personally responsible, I cannot overemphasise the importance of statistics, both for the institutions and the markets. Statistics provide us with a critical instrument for charting our course. The convergence criteria – inflation, deficit and debt – have served as a benchmark for assessing Member States prior to their admission into Monetary Union. We will continue to use these to decide whether to admit other Member States. Not to mention the Stability and Growth Pact which, together with the planned structural reforms, represents a key

component of Community activity.

The European Union is faced with a major upheaval triggered by globalisation and by the challenges of a knowledge-based economy. To monitor the changes, we will need reliable measuring instruments.

Two sides of the same coin

The same applies to the field of employment...

Yes. Particularly since economy and employment are two sides of the same coin, and since job creation is one of the primary objectives of economic policy. The Special European Council held in Luxembourg at the end of 1998 already called for specific statistics to accompany the policy of full employment and combating poverty and social exclusion. The recent

European Council held in Lisbon gave extra weight to this message. It also incited us to develop new forward-looking structural indicators to monitor the evolution of the new economy.

Statistics are also essential for transposing Community policies as a whole. Agricultural policy, for instance, which has always accounted for half the Community budget, cannot be meaningfully managed without a sound statistical basis.

No real decisions can be made about the structural funds, the Union's main vehicle of solidarity, unless the institutions have information on the current state of affairs and the impact of their decisions on the regions. These changes affect the daily lives of each and everyone of us. The overall strategy emerging from these must be based on statistics.

Striking the right balance

From what you say, it seems that statistics are facing new challenges. This begs the question of budgetary and human resources...

Faced with these new demands, we will have to strike the right balance if we are to continue to produce essential statistics at the right rate, though we must also allow ourselves some leeway for new developments. This may mean rationalising, or even discontinuing, less important statistics.

I am fully aware that, in a number of Member States, the statistical institutes are faced with major budgetary constraints. However, I can only remind politicians of the importance of statistics to any decision-making process. I for my part will do everything in my power within the Commission to ensure that the proper role of statistics is maintained.

Statistics must meet a number of criteria. How important is quality to you?

Quality has always been a challenge to statistics, even though the concept of quality has changed over time. It covers a number of concepts – accuracy, reliability, relevance, speed, timeliness of results, ease of access, comparability, consistency, exhaustiveness and transparency in dissemination. Quality is all the more important as statistics exert a considerable impact in a number of polit-



European Commission

"Statistics are the mainstay of democracy in market economies"

Community integration

has marked the political career of Pedro Solbes (57) from the very beginning. At the University of Madrid, he graduated in law and was awarded a doctorate in political science before obtaining a diploma in European economics at the University of Brussels.

He made his European début in 1973 as trade advisor to the Spanish mission to the European Communities. In 1978 he became special advisor to the minister responsible for relations with the European Communities. He continued his career at the Spanish Ministry of Economic Affairs and Finance, participating directly in the working party for Spain's accession to the European Community. In 1985 he became Secretary of State for relations with the European Community.

In 1991 he was appointed Minister of Agriculture, Food and Fisheries. Two years later he was appointed Minister of Economic Affairs and Finance, a post he held until 1996. In that capacity, he became a major user of statistics and played a crucial role in ensuring the NSI's power and independence.

ical and economic fields. Without reliable statistics, we cannot make the right decisions.

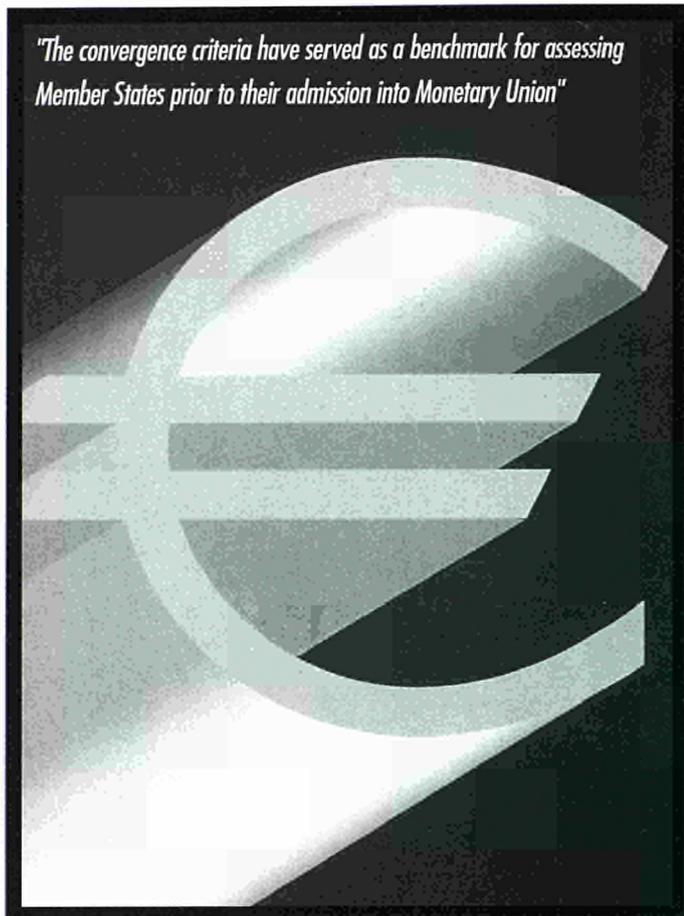
An ongoing process...

Yes, you are right to say that a statistician can never rest on his laurels, as quality is an ongoing process and a constant challenge. Methodologies, for example, must constantly be adapted to technological advances and changes in the economic field. Considerable progress has been made in measuring inflation, for instance. The harmonised consumer price index for the euro zone and EU15 is rightly considered a reliable instrument – and may even be the best in the world.

It is equally true that Eurostat experts, together with their colleagues from the national statistical institutes, must continue in their work to optimise this index. They recently made another advance by expanding the base for calculations, even though a number of details still need to be resolved. The same is true, for example, of gross domestic product calculations, which will gradually have to include the new economy, the invisible economy, and take account of the increasing complexities of the services society.

A change of emphasis...

However, it is not easy to incorporate quality standards into the European Statistical System, which is



by nature a federal, and thus complex, system...

The quality requirement applies not just to Eurostat, but to the European Statistical System (ESS) as a whole. I would like to take this opportunity to pay tribute to the work done by thousands of statisticians in the Member States. Without this work at grass-roots level, the system as such could not function. I would naturally include all those working in Eurostat. That said, within the system, the accent will increasingly be on responsiveness, internal effectiveness and efficiency, better planning and co-ordination and the implementation of appropriate standards and methods. The fact that the system functions as a network certainly compounds the difficulties.

But the wealth of experience at our disposal is also a great advantage, as it allows the constant exchange of best practices.

Some headway has been made in transposing quality concepts, but in many areas much remains to be done. I am convinced that quality concepts can be transposed to the ESS by attaching greater importance to users, enhancing partnership with suppliers, systematically managing processes, introducing a mechanism for evaluating performance and improving decision-making.

... and new demands

The creation of the euro zone has placed an additional strain on statistics...

Indeed! Since the beginning of last year, the financial markets, together with political and economic decision-makers and the media, have been paying much closer attention to the macroeconomic euro indicators that are published on a regular basis. Before the euro-zone was created, the main focus was on national data. Now it is data on the euro-zone and EU15 that are in the forefront of attention and the object of political scrutiny. In addition to the data it aggregates itself, the European Central Bank basically draws on these data to set its monetary policy. It goes without saying that the quality of statistics is crucial to decisions which, for the Bank, Commission and Council, sometimes have a major impact on changes in the economy.

As you already know, the Central Bank, the institutions and the markets will continue to push for an improvement in the quantity and quality of the statistics they will need in the future. Those involved in the statistical field are constantly striving to make headway in priority areas. I am convinced they will rise to the challenge. Again, I will do my utmost to help them.

The applicant countries are also waiting to be admitted into the European Union...

Enlargement brings with it a twin challenge. Firstly, the Community institutions need statistics for the accession negotiations with the applicant countries. The latter must then be gradually

brought into the European Statistical System. They must adapt their methodologies to the harmonised methodologies being used in the EU so that data are fully comparable. A very long-term project indeed.

However, I am happy to report that the first steps were taken as soon as the Berlin wall came down, and much headway has since been made in bringing these countries into line with Community standards. Furthermore, these countries have spared no effort to completely overhaul their own statistical systems.

Shorter lead-time

Decision-makers are keen to have short-term economic data as quickly as possible. Do you share this concern?

Although the quality of statistics is constantly improving, it is also true that data must be disseminated more rapidly than at present. Political and economic decision-makers as well as the financial markets are pushing in this direction in order to have fresh and reliable data. And I quite understand why. It is true that, for example, inflation figures are published very rapidly, within 17 to 19 days of the reference month. But other indicators that are also essential for implementing EMU must be made available sooner. Obviously, though, we need to ensure that the price we pay for rapidity – which is essential – is not quality.

The right balance needs to be struck here. I would encourage Eurostat and the national statistical institutes in the strongest possible terms to redouble their efforts to see that best practices used in other major economic areas are likewise applied here.

Transparent statistics

What about transparency?

The current Commission is keen to emphasise the transparency of its political actions and the need to involve citizens directly in the integration process. Transparency is a necessary precondition for this. What is true of politics in general is also true of statistics in particular. Remarkable progress has been made in recent years in the field of statistical communication. Operators now know in advance when economic indicators will be disseminated, which is in line with best practices world-wide. I can only encourage Eurostat to continue in this direction and to make optimum use of modern communication tools such as the Internet.

Eurostat, one of the Commission's Directorates-General, is an integral part of a political institution...

Yes, Eurostat is a fully-fledged directorate-general within the Commission. I am quite convinced that this situation has a number of advantages. Because of this institutional background, Eurostat has a rela-

tively independent budget. It is also part and parcel of the Community process, vouching as it does for the quality of the statistics used in official reports.

The institutions, as well as the Commission directorates-general, constantly need statistical backup to implement various types of policy. The fact that Eurostat is a directorate-general of the Commission is certainly of great help to the ongoing discussions between the directorates-general and to the co-operation that has come naturally into being between them.

... and independent statistics

This situation inevitably raises the question of statistical independence. Is this independence guaranteed within an institution that is essentially political?

To make things perfectly clear – and the experience acquired at both national and Community level over the years will bear me out on this – I would say that there is no doubt in my mind that statistics must be absolutely independent from a professional point of view; they must be free of all political interference. This independence is essential if statistics are to be credible. If any doubts are cast on this, the confidence of users will be durably shaken. I was personally committed to this when I was Minister of Economics and Finance in Spain, and thus assumed political

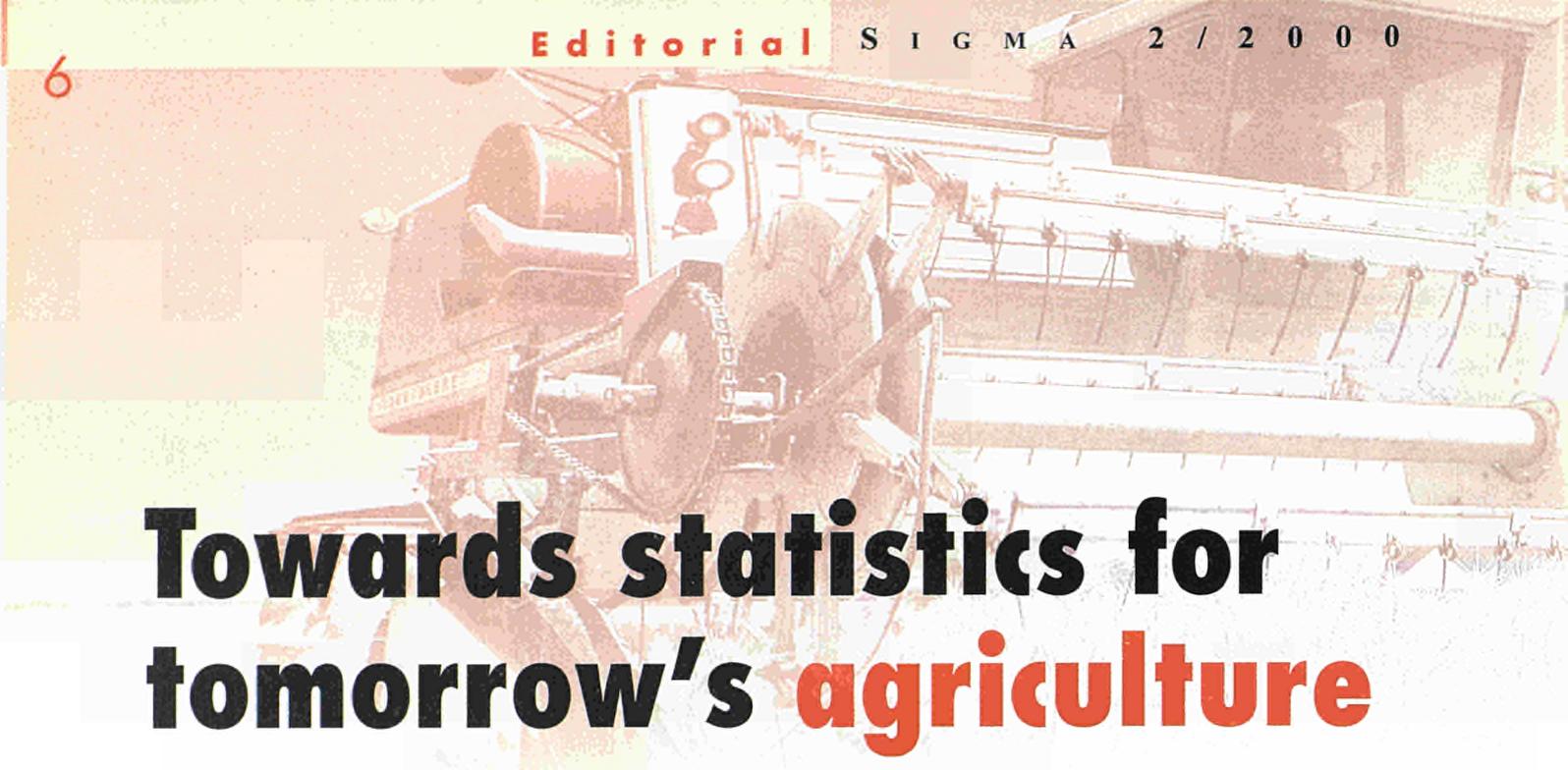
responsibility for statistics. I will likewise do everything in my power to guarantee the independence of statistics at the Commission.

How do you see the role of Eurostat in a reformed Commission?

The experience that Eurostat has acquired in the field of quality management gives the Commission as a whole an important edge, particularly since considerable efforts have been made over the past few years to modernise the Office and so provide users with the best possible service. The concept is not limited to the quality of statistics as such, but covers fields as diverse as strategies, staff training and motivation, work-flow management, better products and services and, last but not least, user satisfaction.

The directorates-general as a whole should therefore draw their inspiration not only from the analytical assessment that has been made at Eurostat, but also from the various measures implemented. Although Eurostat has been around longer than other departments, I would encourage it to continue in the same direction, exchanging best practices and spreading the message of total quality within the Commission and the European Statistical System as a whole.

Ultimately, we must all help the Commission to become a true public service, in the fullest sense of the term. ■



Towards statistics for tomorrow's agriculture

Having enough to eat has been a major preoccupation throughout most of the history of mankind and, as we only too well know, it continues to remain a major issue in many parts of the world today.

When the Treaty of Rome was signed in the aftermath of the Second World War, memories of dire shortages were still vivid and resulted in particular attention being paid to agriculture. This was also when the framework for Community market management was laid down.

Since the absence of reliable information jeopardises the successful management of agricultural markets, it is therefore not surprising that agricultural statistics were one of the earliest sectors of Community statistics to be developed. Over the years an extensive statistical system has been set up to cover all aspects of European agriculture.

From shortages to surpluses

The importance and objectives of agricultural policy have remained unchanged but the situation within the Community has evolved with successive enlargements and new concerns. As fears about shortages have disappeared, questions of how to dispose of surplus produce without damaging the well-being of the farming community or trading relations have replaced initial concerns. There is also a growing awareness of environmental issues. Progress has been punctuated by a number of "reform" processes, the most recent being Agenda 2000.

Agenda 2000 is an action programme whose main objectives are to strengthen Community policies and give the European Union a new financial framework for the period 2000-06 with a view to enlargement. Launched in 1999, it sets out some major changes in priorities for European Agricultural Policy.

Although the main objectives for agriculture remain the continuation of reform along the lines of the changes made in 1988 and 1992, the European Agricultural Policy now has to:

- ▶ take greater account of environmental considerations, *while*
- ▶ ensuring a fair income for farmers;
- ▶ groom the Community to play a full role in the forthcoming World Trade Organisation (WTO) negotiations; *and,*
- ▶ prepare for the next round of enlargement.

Each of these objectives will place demands on the Community system of agricultural statistics and will have an impact on its future developments.

Towards new WTO negotiations

The Union has to prepare its agricultural sector for international negotiations, especially in the framework of the

World Trade Organisation (WTO), and define the limits of what it finds acceptable. The impact of various negotiating scenarios can be studied only on the basis of reliable and up-to-date information together with models of the inner workings of the agricultural economy.

For many years Eurostat has worked with policy-makers, economists and econometricians to develop not only these models but also the necessary coherent sets of data. Experience of the GATT rounds, as well as simulations of policy options during various CAP reform rounds, gives us confidence that we have an important input to make to the process.

Agriculture within the rural economy

Agenda 2000 also aims to increase the effectiveness of the Structural Funds and the Cohesion Fund by a greater thematic and geographic concentration of projects on specific objectives and geographical areas. Agricultural support is distributed some-



David Heath aims for "a truly multi-functional system of agricultural statistics to serve a multi-functional agriculture"

what unequally between regions and producers; this could result in poor rural planning, a decline in agriculture in some regions and over intensive farming practices in others, generating pollution, animal disease and poorer food safety.

Information on the structure of agriculture has long been a priority at Eurostat, ever since the first Community survey was carried out in the then six Member States in 1966/1967. But, the increasing association of non-farm activities with the more traditional agricultural occupations have reinforced the need to integrate information on agricultural structure with a broader picture of the rural economy.

An important element here is the recognition of the multi-functional role played by agriculture. In addition to traditional agricultural products, the agricultural sector has important outputs in terms of the environment (for example, the protection of traditional landscapes), tourism and leisure services

as well as the integration of processing and packaging activities on the farm. The production of non-food products is growing in importance in some parts of the Union where products such as biomass for renewable energy are becoming significant activities.

Growing linkage

The greater emphasis being placed on the role that agriculture can play in enhancing and preserving the environment (as well as the risks resulting from inappropriate farming practices) has strengthened the close cooperation which exists between agricultural and environmental statisticians.

Successive European summits have particularly emphasised the need for environmental indicators relating to each area of Community policy, meaning that new presentations of existing data sets will need to be complemented by information relating to concepts unfamiliar to statisticians such as, for instance, the evaluation of landscape. This work involves not only arranging systems for data collection and analysis, but also developing the conceptual frameworks which ensure that the information provided is capable of delivering the insights necessary to support Community policies.

Consumer concerns at centre stage

Public awareness and concerns with food safety have been raised by events that led to the contamination of the food chain, such as BSE ("mad cow disease") and others. Both consumer preferences and Community policy have placed increasing importance on the question of food quality and consumers are also becoming increasingly sensitive to animal welfare issues. Now that, in the European context, all essential food needs are fully met, the next stage of development lies in increasing interest in food safety and quality.

An important statistical input here is from statistics on the agri-food industry with regard to the producers' uses of transformed food products. Another statistical resource being studied is the possibility of using the very extensive administrative information resulting from new tracing systems (involving such concepts as animal passports).

"Having enough to eat has been a major preoccupation throughout most of the history of mankind (...) as fears about shortages have disappeared, questions of how to dispose of surplus produce ... have replaced initial concerns."

This would supplement traditional statistical sources and therefore improve information flows to users while reducing the response burden on data suppliers.

New approaches, new horizons

The possible use of administrative records to supplement traditional collection procedures for statistical data is only one of the developments and pilot projects that have been undertaken over the years. The Internet and the World Wide Web have also opened up new collection and dissemination possibilities. And experiments have been carried out on the potential use of satellite imagery for statistical purposes. The technical results are exciting but, at least for now, the economics of this approach limit its applicability.

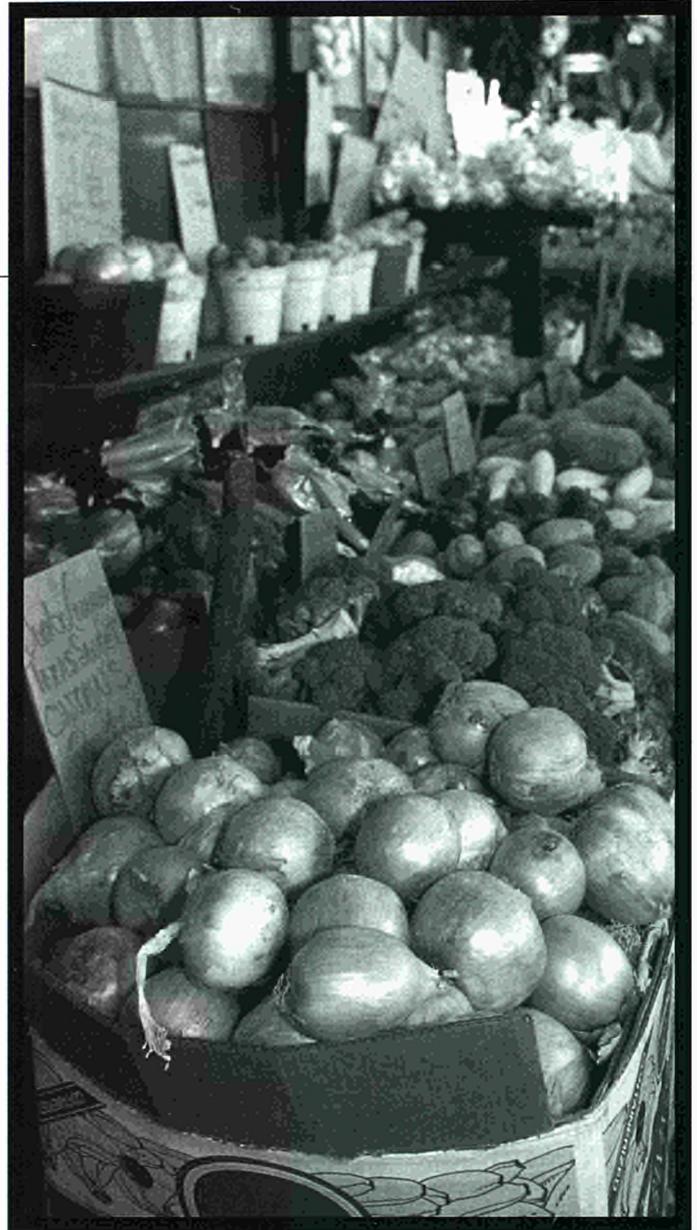
The economies of the aspiring new members are heavily dependent on agriculture. The agricultural statisticians of the Community (in the Member States as well as at Eurostat) have been active in assisting their counterparts in these countries to get to know how the Community statistical system works and to begin the task of adjusting their national systems to meet the

requirements which will arrive at accession. There is of course also an urgent need for statistics relating to the candidate countries to support the negotiation process.

Focusing on the important phenomena

As the agricultural world, its policies and their contexts change, Community agricultural statistics have to adapt. Maintaining relevance is a large part of maintaining quality. A detailed "screening" exercise was carried out in the early '90s in conjunction with the Commission's Directorate-General for Agriculture in which the need for all items was critically reviewed. Numerous adjustments were made.

Under the 'Agriflex' slogan, countries were enabled to focus their resources on important phenomena at the expense of the marginal, while under the current TAPAS decision, the DG 'Agriculture' funded 'Technical Action Plans for Agricultural Statistics' have improved efficiency and coverage, e.g. early estimates of sowings. A major exercise then followed to identify the information which people will ask from



agricultural statisticians in the second half of this decade. Constant monitoring of both our current decisions and the target allows the least painful and minimal resource evolution in the desired direction.

Agricultural statistics have a long, and on the whole, successful history in the Union. They are now extending their connections and coverage to new areas through the developing links to environment and other sectors.

If our future service is to match and exceed that of the past, we will need, in parallel with policy development, to envisage a truly multi-functional system of agricultural statistics to serve a multi-functional agriculture. ■

**David Heath,
Director at Eurostat
responsible
for agricultural,
environmental
and energy statistics**

Sigma asked **JOSE MANUEL SILVA RODRIGUEZ**, the new Director-General of the Commission's DG 'Agriculture', and as such one of the biggest users of agricultural statistics in Europe, to tell us about current issues and describe the future outlook. It was a very informative discussion...

The major tasks of agriculture and agricultural statistics

Could you give us a brief outline of your programme for the coming years? How has agricultural policy developed over the years?

During the 1990s, as you know, the common agricultural policy (CAP) underwent radical reform, both to respond to the internal and external challenges facing European agriculture and to ensure that it remained competitive while at the same time preserving the socio-economic viability of our rural areas.

These objectives were pursued – and largely met – as a result of a support policy based on direct aid to farmers rather than on prices as in the past, and a proper rural development policy. We have just embarked on a new phase in the process with the entry into force, on 1 January 2000, of the measures adopted last year as part of the Agenda 2000 decisions. So as I take on my new duties, the reform of the CAP is fully underway.

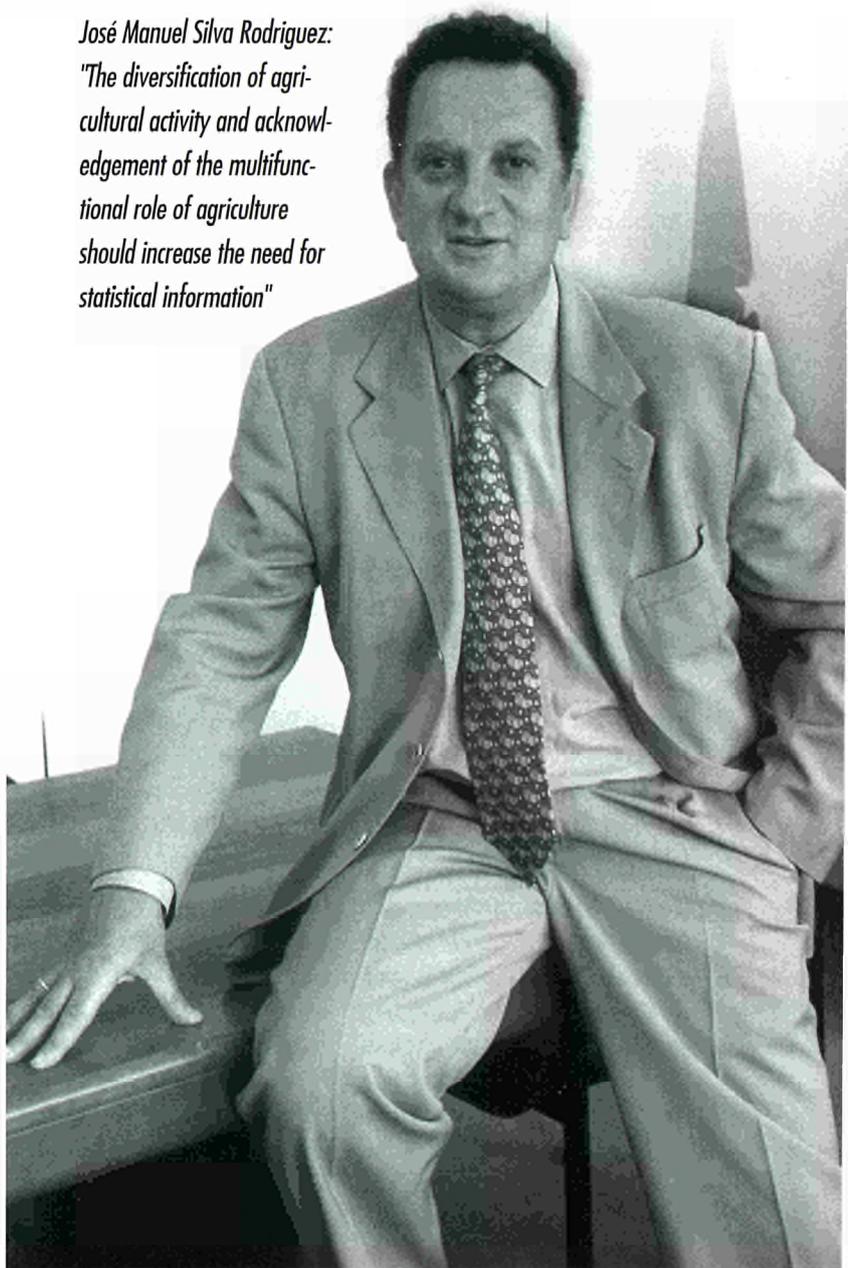
The challenges for European agriculture

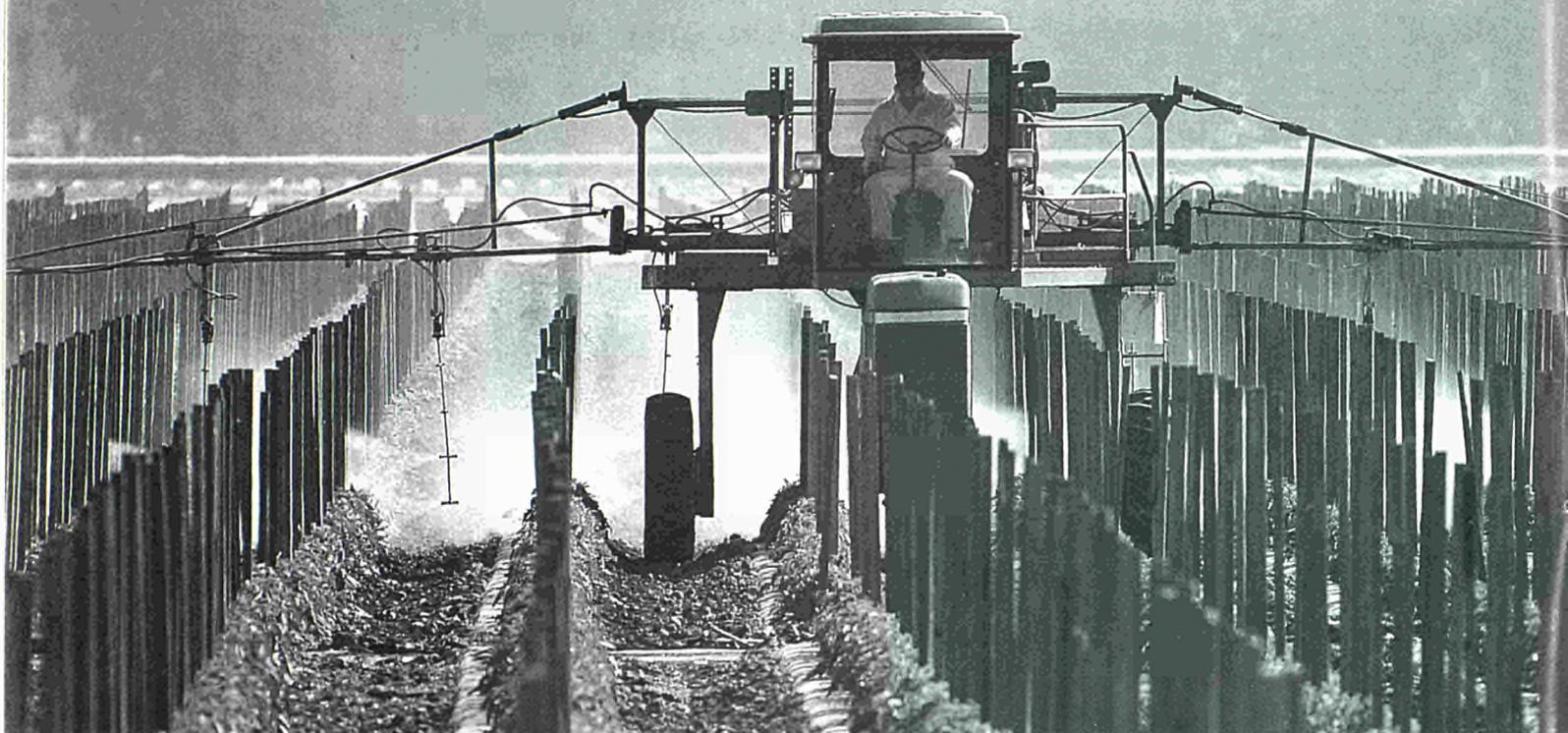
The years ahead hold some formidable challenges, however. At international level, first, we must safeguard the European agriculture model at the imminent international trade negotiations, carry the enlargement process through to a successful conclusion and contribute to the success of this process by implementing the pre-accession strategy.

At Community level, we must not only implement the reforms already agreed but also pursue and complete the process of adapting common organisations of the market, make rural development policy the second pillar of the CAP, make environmental concerns a larger part of agricultural policy, encourage the qualitative improvement of agricultural produce and take greater account of consumer health.

Overall, could you describe the various uses and needs

*José Manuel Silva Rodríguez:
"The diversification of agricultural activity and acknowledgement of the multifunctional role of agriculture should increase the need for statistical information"*





for statistics at the different stages of the policy-making process: planning, implementation and monitoring?

Statistics have always played a crucial role in the creation and implementation of the Common Agricultural Policy. This role has not diminished over the years. On the contrary, it has become more important. This is why legislation relating to Community agricultural statistics is so extensive and so detailed.

Main functions of agricultural statistics

Both for the economic analysis that precedes the preparation of reforms and for evaluating the results obtained, statistical information has become essential in guiding policy-makers in the choices to be made and in gauging the effectiveness of the measures implemented. Demand for statistical information has therefore kept pace with the increasingly important role

played in recent years by economic analysis and assessment in decision-making.

However, for the Directorate-General for agriculture, statistics are also useful in areas other than these two specific areas of activity. Statistics are also essential in managing agricultural markets, drafting our budget forecasts, implementing rural development policy, in trade negotiations with our partners, and of course they will play a key role in the future negotiations on enlargement.

Prompt and reliable

In the light of these issues, I believe I am correct in saying that probably in no other sector of the Commission's activities does statistical information play such a key role. There is also a great deal at stake in agriculture. This is why quality and speed of information are of such great importance in

relation to agricultural statistics.

I am aware that these two characteristics cannot always go hand in hand: just like good wine, producing good statistics takes time. The problem lies in the fact that those responsible for policy-making or for the management of agricultural markets do not have much time to act. If the information arrives too late it loses in usefulness what it may have gained in quality. This is one of the main challenges to which agricultural statistics must respond.

How do you rate the accuracy and relevance of Eurostat data and the service Eurostat provides?

On the whole, I think that the situation in terms of agricultural statistics and the cooperation we have developed with Eurostat in this area are quite satisfactory. Having said that, we do not always have what we need when we need it and there are still sig-

nificant shortcomings in certain areas. Nevertheless, I believe that our main statistical needs are relatively well covered, either by Eurostat or by regular communications which the Member States are required to send us as part of the Community legislation in force.

Difficult integration

We are, however, rather disappointed by the difficulties we meet in incorporating into the European statistical system new needs arising from the development of the Common Agricultural Policy, despite eliminating certain statistical obligations which are not considered to be a priority. While aware of the constraints involved in the production of new statistics in the Member States, we are nevertheless of the opinion that, without a permanent change, the Community system of agricultural statistics runs the risk of becoming obsolete and distancing itself



The weakness of the TAPAS project lies partly in the voluntary nature of Member States' involvement in these measures and partly in the difficulty of consolidating the progress that has been made, on the basis of either a gentleman's agreement or new legislative provisions.

Major challenge of enlargement

How do you assess the challenge for agricultural statistics represented by the next enlargement of the EU?

You are quite right to point out that enlargement and, in particular, the incorporation of the applicant countries' systems of agricultural statistics into the European statistical system poses a real challenge. This is due not only to the importance of the agricultural sector in these countries but also to the work that needs to be accomplished in many applicant countries to adapt national systems of agricultural statistics in order to meet EU standards.

In fact, we are already faced with this problem. Be it to analyse the agricultural situation and its outlook in these applicant countries, to assess the budgetary impact of enlargement, to implement the pre-accession strategy or to carry the accession negotiations through to a successful conclusion, we already need reliable and up-to-date statistical information on agriculture in these countries. This is why we must encourage and support all initiatives, both at Community level and in the Member States, aimed at helping these countries to

improve their systems of agricultural statistics and to create the appropriate tools. But we must also, even at this stage, equip ourselves with databases which are as complete and as reliable as possible under the current circumstances, in order to deal with the challenges ahead.

How do you see agricultural statistics developing in the future?

Rather than venture into the area of future developments in agricultural statistics – a question better answered by the statisticians – I will just mention some of the information needs which agricultural statistics must meet in years to come, which is another way of answering your question.

First of all, I do not believe that traditional needs in terms of agricultural statistics will become less important in future. On the contrary, surveys on agricultural structures and on livestock, production statistics, and economic accounts for agriculture and price statistics are likely to continue to play a key role in years to come. Here it is essentially a matter of consolidating and improving what we already have, rather than creating new structures.

More environment-friendly agricultural statistics

Secondly, the diversification of agricultural activity and acknowledgement of the multifunctional role of agriculture should increase the need for statistical information on

activities related to agriculture such as the processing and marketing of farm products on farms, rural tourism, forestry, the preservation of the landscape and so on. By the same token, it will probably be necessary to monitor more closely, from a statistical point of view, the dissemination of new production methods which are less polluting or which guarantee healthier and better-quality products.

Finally, environmental concerns are increasingly incorporated into the Common Agricultural Policy and the development of sustainable agriculture needs to be promoted. It is essential, therefore, to be able to measure the scale of the problems with which we are currently faced, the progress made in this area and the contribution of agricultural activity to preserving the environment. This can be done by establishing agri-environmental indicators on the basis of the statistical information that is available or is to be collected in future, for example information relating to different types of land use.

I know that agricultural statisticians always want to know what their work is used for and to what extent it is actually useful. I hope that everything I have just said will reassure them not only in terms of what they have produced so far but also in terms of their future. ■

more and more from the users. All the more reason, then, for us to rely on Eurostat not only to consolidate what has already been achieved in terms of agricultural statistics, but also to include in these statistics new data which arise from new needs and to improve the quality and consistency of such data.

In this context, could you give us a brief assessment of the TAPAS¹ project, adopted in 1996 with the aim of improving agricultural statistics?

Council Decision 96/411/EC on improving Community agricultural statistics is undoubtedly a useful instrument in pursuing the objectives I have just mentioned. Measures financed under TAPAS allow Member States to undertake statistical projects in the fields which we consider to have priority status, to experiment with new methodologies, develop new tools, improve the quality and speed of the information provided, etc.

¹ Technical action plans for agricultural statistics, Council Decision 96/411/EC, 25 June 1996

The entry into force of the Amsterdam Treaty extended the co-decision procedure to the Common Agricultural Policy and gave the European Parliament a pivotal role. *Sigma* has therefore asked Ms **ENCARNACION REDONDO JIMENEZ**, the Vice-Chairman of the European Parliament's Agriculture Committee, to shed some light on current agricultural issues, statistics included.

The European Parliament – key player in agricultural issues

The statistical use of administrative information derived from the granting of direct aid, the application of area frame survey and remote-sensing techniques for 1999-2003, and the inclusion of agricultural statistics in documents formally submitted to co-decision: three different initiatives and demands which show that the European Parliament has taken its new role to heart.

A new importance

The entry into force of the Amsterdam Treaty has led to procedural change, in the form of the co-decision procedure laid down in Article 251 of the EC Treaty. This is important for the Parliament in that it obliges the European Commission and the Council to take heed of its opinions. In the case of agricultural statistics, for example, a considerable number of the amendments adopted by the previous Parliament had been ignored by the Council,



whereas the different institutions now have to negotiate and align their positions.

The approval by the Parliament last March of a common position adopted by the Council on the application of area frame survey and remote-sensing techniques to agricultural statistics for 1999-2003 shows that this procedure is already in operation.

No shortage of questions

The Parliament has compiled a large number of reports on statistics, covering topics such as the legal framework for statistical output, the environment, fisheries, commercial structures, etc.

A quick glance at the number of Parliamentary questions

relating to statistics will show that these have now topped the hundred mark. The statistics of greatest interest to the Members of the European Parliament have been those concerning animal testing, employment, the protection of workers, unemployment and wages and salaries, etc.

The Parliament has been very demanding with regard to the

need for reliable and objective statistics. We are aware that such statistics, like other indicators, form the basis of the legislative policy we are implementing.

"Lawmaking without reliable statistics is like groping around in the dark"

Agricultural statistics are the main source of information for the only policy that can really be regarded as 'common', namely the CAP. This is a key policy, given that 80% of the EU territory is rural and is managed primarily by farmers. There is, therefore, a need for information which is as accurate as possible so that each part of the EU is dealt with on an equal footing.

The main merit of these statistics is, without doubt, the fact that they are compiled using common criteria. These statistics form the basis for applying measures which we can assess in positive or negative terms, but which have all been drawn up in an objective and uniform way.

Harmonisation to the fore

It is clear that agricultural statistics can be improved. In this specific instance, the TAPAS plan to adapt and improve statistical applications to meet the information requirements arising from the CAP has not met all expectations. The implementation of the plan has left much to be desired, particularly since it is up to the Member States to harmonise their statistics, and the lack of interest dis-

played by some does not facilitate this task.

During the Parliament's previous term of office, the reports presented by various Committees (e.g. the fisheries Committee) were also fairly negative on this point. The work carried out by Eurostat, on the other hand, was given a warmer reception. It is worth pointing out that budgetary constraints can also hamper the improvement and development of Community statistics.

Some of the proposals presented by the Commission seek to encourage the Member States to provide Eurostat with comparable statistical data. These proposals are the fruit of collaboration between Eurostat and the national statistical institutes and bear witness to the consensus reached among NSIs. The Member States are thus responsible for collecting these data using whichever methods they feel most appropriate. I feel that it is important to ensure that the data in all the Member States are comparable and harmonised.

The future will tell

The eastwards enlargement of the European Union is one of the toughest challenges it has ever faced, since the objective is to incorporate countries with an average GDP of 30% of the Community average, at the same time as adding 50% to the agricultural territory of the EU and doubling the agricultural labour force. This enlargement and the negotiations currently being held are already placing new demands on agricultural statistics. As the European Parliament's Committee on Agriculture has already stressed in its opinion on the Community Statistical

Born in Spain, **Ms Redondo Jimenez** (56) is a key figure in the European Parliament, of which she has been a member since 1994. She is a qualified agronomist and economist, and is a substitute on the Committee on Budgets and the Committee on the Environment, Public Health and Consumer Policy, in addition to her main role as Vice-Chairman of the Committee on Agriculture and Rural Development, for which she acts as the 'rapporteur' on the issue of improving agricultural statistics.

Programme 1998-2002, uncertainty about the availability and the harmonisation of comparable statistics in the CEECs may well mean that "the accession negotiations themselves could be distorted as a result of being based on unreliable or inaccurate data".

In addition, since the reform of the CAP develops the approach adopted in 1992, which introduced the principle of separating compensatory payments from premiums, better information is fast becoming a prerequisite for the common organisation of the different markets.

I would be wary, however, of ranking issues in the field of statistics in terms of importance; nor would it be right to do so, as either we all make progress together or doubts may be cast on the validity of the whole system. We should, on the other hand, obviously press on with statistical harmonisation in order to ensure that reliable data are available throughout the European Union.

Statistical uniformity

In addition to the accession of the CEECs mentioned above,

another key issue for the future which is beginning to gain in importance is that of statistical standardisation with other trading blocks such as the USA, MERCOSUR, etc.

It is clear that, in order to carry out negotiations within the World Trade Organisation (WTO), there is a need for figures which have been obtained by comparable methods: the opinion on the Community Statistical Programme 1998-2002 had already pinpointed this need as one of the priorities, and on 22 March of this year four MEPs and four members of the United States Congress submitted a joint request to the Member of the Commission responsible for trade, Mr Pascal Lamy, and to Ms Charlene Barshefsky, the US representative for trade, asking for the compilation of basic data and statistics on which the WTO negotiations in Geneva would be based.

The objective is to avoid a situation where the "two parties are talking at cross purposes or are not in possession of the same figures when debating State aid to agriculture or export subsidies". ■

The European System of Agricultural Statistics (ESAS) is by far one of the most developed statistical domains in the Community. However, the changing face of agriculture brings a number of challenges. Environment and rural development have become important policy areas and enlargement is on top of the EU's agenda. **GIUSEPPE CALÒ, MARCEL ERNENS** and **RAINER MUTHMANN** from Eurostat's directorate responsible for agriculture describe to *Sigma's* GLEN CAMPBELL how Eurostat and its partners are responding to these issues.

Sowing the best seeds for agricultural statistics

It may come as a surprise but although agriculture, through the Community's Common Agricultural Policy (CAP), represents some 50% of the EU's budget, only 4% of Eurostat's operational budget and 8% of its human resources are allocated to agricultural statistics.

But, if every year we asked for 50% of Eurostat's resources, we would certainly be barking up the wrong tree. We were the first to encounter the impact of shrinking resources but what enables us to function and help manage 50% of the EU's budget is a good application of the subsidiarity principle together with extra funds allocated by the European Commission's Directorate-General 'Agriculture'.

However tempting such macroeconomic comparisons may be, they are misleading. For example, the share of gross value added at market prices of agriculture in gross domestic product (GDP) is around 1.5%. And if we count the value added generated from the food processing industry as a whole, it is well beyond this figure. Agricultural employment as a proportion of total employment is around 5%. But although EU economies depend more upon agriculture than 1.5% suggests, to expect 50% of Eurostat's resources for agricultural statistics would be unjust at the EU level.

It is only fair that other Community policies get their

share of the pie – according to their economic weight. Agriculture has been around since the first blocks of European integration were put into place. The Community's social and environmental statistics are still relatively new to the scene and growing.

It is important to remember that it was not only the Commission that placed so much importance on agricultural statistics. They have always played a major role in Member States' domestic policies. This sounds passive, but we are, after all, in the business of harmonising the data already existing in the Member States. Our work has been mostly making available these har-

monised data for the CAP. If agricultural statistics developed this way, it was because they had to.

An appetising model

We have been as cost effective as possible harnessing quality human resources and forging synergies with national statistical offices, ministries and several DGs in the Commission against the backdrop of financial constraints. Restructuring plans of Agricultural Statistical Systems in the 1980's and most recently TAPAS and FADO (described on the following page) have proved very efficient working mechanisms which have been to varying degrees copied by other units.



Cultivating a better framework

In recent years, there have been two main approaches to maintaining, further developing and adapting Community agricultural statistics: TAPAS and FADO.

TAPAS (*Technical Action Plans for Agricultural Statistics*) adopted in 1996, were created as a means of "maintaining" and "tailoring" agricultural statistics so that they respond more effectively to the changed information requirements following the CAP reform.

FADO (*Future Agricultural Data Outline*) examines more particularly the future of agricultural statistics including their interaction with environment and rural development while improving collective efficiency. Areas include an innovative rethink of using limited resources, better data dissemination, methodological questions, responding to new CAP considerations (liberalised international markets...), linking to other EU policy areas, developing the territorial dimension and agriculture's wider impact (food quality, animal treatment, agro-industry...).

Over the last three years streamlining has been successful and the results have been very satisfactory. TAPAS has enabled the Member States to adapt their agricultural statistics systems. It has identified priorities through resource concentration thereby avoiding too much ineffective dispersal of resources and has proved to be a good model for the Member States' adaptation to changing statistical requirements – a model followed by other units. FADO continues to help cover new information needs.

However, in tailoring parts of agricultural data considered obsolete, this has generated a greater workload especially in the short term. For example, the CAP reforms of 1992 clearly produced a greater data demand. This has meant that efforts have had to be concentrated more on maintaining the 'acquis' at the expense of focusing energies on development. Overall, TAPAS and FADO offer an efficient self-control system to meet moving targets.

We have often been something of a testing ground for other statistical domains simply because we were first and foremost. For example, although our investment has been limited, we have become the most developed statistical domain thanks to a

very rigorous application of subsidiarity – more so than in other domains. This applies not only to physical data but also to agricultural economic indicators.

Agricultural statistics were the first to develop and

apply the UN's recommendations for satellite accounts. Economic accounts for agriculture have been published by the Statistical Office of the European Communities since 1964. For the first few years, the concepts, definitions and rules of accounting were not uniform and it was not until 1969 that the six original Member States began to use the European System of Economic Accounts for Agriculture (EAA) covering the period from 1963 onwards.

Since 1950 we were also the first to collect EU Agricultural Price Indices (output and input) as well as statistics on Absolute Agricultural Prices which have been regularly published since 1960.

Increasing multifunctionality

In the past, agricultural statistics were very much independent, corresponding to the relatively protected and 'almighty' agricultural policy. But in recent years, agriculture has had to learn how to live next door to new neighbours, notably the environment and rural development. We are working hard particularly on integrating the environment, and it is no surprise that our two agricultural units share the same directorate as the environmental one for greater collaboration.

The CAP reform, an integral part of Agenda 2000, is to achieve essential structural adjustments in the main markets and introduce a strong rural development policy – which becomes the CAP's second pillar. 'Sustainable development' is the buzzword, i.e. to take into account not only production related measures but also environmental aspects. In this context, these agri-environmental policy measures aim to promote rural development, to preserve the landscape and biological diversity and to reduce agricultural pollution potential. The demand is clear: policymakers and the public want selected indicators on how far the EU has reached in "greening" agriculture.

However, this multifunctional aspect has been difficult to integrate, if not at times impossible. For example, questions on these subjects in surveys add to the overall work demanded, regrettably at the expense of quality especially if resources are becoming tighter. There is also the question of respondents. Farmers are reluctant to answer questions on the environment and rural development, not only because it gives them more work, but because such data could be used against them, for instance, answering questions about the use of pesticides or nitrates, for example.





Giuseppe Calò, Head of Unit 'Economic and structural statistics for agriculture (including forestry)'



Rainer Muthmann, Head of Unit 'Agricultural products and fisheries'



Marcel Ernens, deputy Head of Unit 'Economic and structural statistics for agriculture (including forestry)'

We are trying to make farmers aware of the environment by means of a questionnaire every year in which we introduce questions gradually as much as we can.

In addition to these, we are aiming to measure and monitor the income of agricultural households. Already about one third of EU farmers have some other income-earning activity, typically off the farm, a fraction which is greater if spouses are included. The increasing diversification on farms into enterprises which are not strictly agricultural (for example agro-tourism, food processing, activities actually contributing to the environment and rural development) and greater participation in off-farm occupations by farmers and their families partly

reflect the EU's Structural Funds spending for supporting and developing rural areas. CAP reforms following Agenda 2000 are likely to increase the significance of these other activities.

Further, the more widespread exploitation of Genetically Modified Organisms (GMOs) and biological produce will multiply data. If we want to know, for example, how many genetically modified tomatoes were produced along with those produced biologically and those treated with pesticides, the number of variables multiplies by three.

The BSE crisis showed very impressively how valuable an up-to-date, reliable and comprehensive data set like the EU animal statistics on the

structure of animal herds and on meat production can be in such a situation. These Eurostat figures were used throughout the crisis in various contexts and have never been argued. Although, simultaneously, important restructuring and rationalisation work has been done in this domain.

The demand for improved traceability of food "from farm to fork" is currently leading the animal sector to create veterinary registers on bovine animals, an administrative source, which can – provided some basic general conditions and national specificities are respected – be used partially also for statistical purposes.

It is clear, however, that an intelligent use of administra-

tive data sources, although necessary, is not in itself enough. More development work is needed in agricultural statistics to meet growing data demands in the domain of food safety.

For lack of resources we have not been able to address some important gaps. Processed foods have become a major part of today's life, yet there is no real continuity between primary produce and transformed products. However, agro-industrial statistics are currently being developed in a project covering the design of existing interrelations in particular within the agri-foodstuffs industry. Detailed data demands in this domain came recently from the Commission's DG 'Health and Consumer Protection'.



Harvesting the best data

Given tighter resources, frequent hostility to statistical operations, for example, the burden on respondents and the intrusion into personal privacy, it has been essential to optimise the statistics obtained and capitalise on new data sources. We have made the most out of the statistical series by compiling aggregates despite important gaps. In the absence of statistical surveys, we turn to administrative sources at European and national level.

It is only through continuous collaboration and transparency between national agricultural statisticians and the Commission's services that the use of non-survey data can be acceptable for Community statistics. In each case – data type and methods used have to be carefully considered within the institutional framework at European, national or regional level. Work is underway in some countries to build on the experience to define the conditions acceptable for the use of non-survey data.

Timeliness is especially important in agricultural statistics to enable early decision-taking in an area of key importance for society and trade. We cannot wait until

International cooperation essential

Directorate F co-pioneered the IWG.AGRI Intersecretariat Working Group on agricultural statistics, the first of its kind in Eurostat, which draws together the FAO (UN Food and Agriculture Organisation), UN/ECE (UN Economic Commission for Europe), OECD and Eurostat and offers a valuable tool for cooperation and exchange of information and know-how at the international level. Among other activities, the second international conference on Agricultural and Environmental

Statistical Application (CAE-SAR) will be held in 2001 in Rome, focussing on issues such as the future of agricultural statistics in the new millennium.

An international approach is also vital if our statistics are to be compared with data relating to different world regions for our policy makers, particularly in the light of globalisation and World Trade Organisation (WTO) agreements.

There is also much to learn from other international bodies in the field of agricultural

statistics, their methods and systems, for example the comparatively rich and well equipped US Department of Agriculture (USDA) boasts a dense information network, extensive modelling techniques and an army of human resources. The use of modern agricultural data collection systems makes the USA and also Canada, Australia and New Zealand, the so-called CAIRNS-group, very effective during the World Trade Organisation (WTO) talks.

100% of required data are available to provide information on EU food supply. It has, therefore, been decided that EU15 estimates may be made for some essential crop products if the available data already transmitted in the current year represents more than 85% of the previous year's production. We can then easily calculate the EU15 total by taking the previous year's results for those countries for which data are missing without publishing these countries' estimates.

An early estimate at EU15 aggregate level of supply balance sheets is drawn up for important crop products like common wheat three months after the end of the agricultural year. With these

we can obtain a rough idea of what will be available for the Commission's internal use by compiling data on production, external trade and stock variations. With more data becoming available at national level, we are then able to calculate national balance sheets compatible with the EU aggregate.

Eurostat's Directorate F (Agricultural, environmental and energy statistics) is responsible for gathering much information on agriculture. These data are stored in several separate databases and provided to the users through New Cronos, Eurostat's reference database.

The Agricultural Information System (Agr IS) Project aims at bringing together all these data into one harmonised

framework. It makes it possible to monitor and evaluate agricultural measures of the EU as a whole and of each Member State. The Agr IS serves as a tool for ex-post analyses of sectoral developments, providing a solid basis on which to make short- and medium-term forecasts.

The enlargement challenge

The next waves of enlargement represent a major challenge to the EU – and agricultural statistics are no exception. More than for the last enlargement, agriculture is a sensitive issue for the new accession countries since agricultural area, GDP contribution and employment in agriculture are far



Eurofarm

Until 1987, Member States were required to forward results of most Community structure surveys in the form of standard tables. This all changed with Regulation (EEC) No 571/88 which required Member States to send Eurostat data on individual holdings as from 1988.

These data are stored at Eurostat in a special database, Eurofarm, where they are processed and checked.

As individual data are subject to statistical confidentiality, Eurostat has had to develop procedures and programs to guarantee their physical security and to

ensure that certain holdings and data relation thereto cannot be identified in the tables of results published.

Eurofarm consists of two main components:

- ▶ Individual database (BDI): individual survey data by agricultural holding;
- ▶ Tabular database (BDT): standard and ad hoc tables taken from the BDI and accessible online to preferential users.

Eurofarm is a flexible tool and offers a number of advantages: It is based on a data processing method common to all Member States. Standard tables can be rapidly produced on various media (magnetic tape, diskette, CD-Rom, paper, online). The centrali-

sation of data and their standard format also allow the rapid production of ad hoc tables in response to individual requests. Finally, given that all functions are computerised, human intervention is reduced to a minimum.

Eurofarm contains 200 characteristics on each of the 7.4 million holdings surveyed. The number of possible analyses is almost endless.

The list of characteristics and definitions for the forthcoming surveys will be revised further. Work on the specialised Eurofarm database will continue in particular in order to better respond to the changing computer environment, Eurostat data dissemination policy and security and confidentiality requirements.

more significant than the present EU average. With this in mind, agriculture will play a key role in the enlargement negotiations.

The Community's assistance programme, Phare, helps through its national and multi-country programmes the building of a statistical system in the field of agriculture in these countries. We have documented the 'acquis' through manuals and guides, and there is a growing data flow from these countries which we have started to include in New Cronos. Pilot projects, seminars, workshops, training have formed the core of our help.

The Intersecretariat Working Group on agricultural statistics has also organised seminars, helping to transfer methodological, organisation-

al and institutional know-how and thus to foster collaboration and continuity at the international level. An implementation organ for executing a variety of statistical programmes, created on the initiative of some Member States, also helps to ensure quality statistical work.

It is therefore paramount that the European System of Agricultural Statistics (ESAS) provides comparable agricultural statistics on these countries. As many other Eurostat units, we have done much to help the candidate countries adopt the 'acquis communautaire' in terms of agricultural statistics. The target in the next few years is to have farm structure surveys conducted in these countries according to EU requirements.

A project on agro-monetary statistics covering economic



accounts for agriculture, agriculture sector modelling, agricultural labour input statistics and agricultural price statistics is currently being implemented through a multi-country statistical cooperation contract. The project's overall objective is to support the Candidate Countries in preparing and harmonising agricultural monetary statistics in accordance with EU requirements.

The first steps have been taken for the purpose of assessing and improving the quality of the data collected in terms of reliability, representativeness and conformity with Eurostat's concepts and definitions. Technical assistance is underway, it consists of, inter alia, study visits and consultancy, participation in seminars, attendance at Eurostat working groups, formal training courses and



secondment of trainees at Eurostat.

Despite all these efforts it could well be that for certain countries special multi-annual restructuring programmes of institution-building will be necessary as has been the case for four of the present EU Member States.

Sowing the seeds for the future

We have adapted ourselves to the needs of our users fairly swiftly over the years. Eurofarm is one of the three largest Eurostat specialised databases alongside the Labour Force Survey (LFS) and Comext (external trade database) with some 200 variables collected every two or three years in some 7.4 million farms. There have been farm structure surveys conducted in the EU from 1966 onwards.

These structure surveys, with Community co-financing directly from CAP funds, and the supply of institutional data, play a key role in Community agricultural statistics. They not only provide essential information for making and managing policies but also bring together the various national agricultural statistical systems. On the basis of these surveys, Eurofarm has been created.

Our main aim is and certainly will remain the provision and continuous improvement of sound basic statistical data. Apart from that we have very clear views what our challenges are for the future.

Our development priorities are clearly focused on European statistical tools: harmonised EU15 totals and aggregates, earlier and highly reliable estimates and comparable EU data on the interactions of agriculture with the environment and rural space. The new European area frame survey, (see *panel on this page*) for example, is aiming at providing – for the first time – harmonised EU statistics on land cover/land use, including also non-agricultural uses.

Quality all round is our main objective. We need to develop the use of modern techniques and to inform our policy-makers how basic data can be aggregated and integrated into complex indicator systems for use in specific policy contexts.

Resources are certainly somewhat of a handicap. One of our resource handicaps, besides financial, has been the recruitment of collaborators with agromonic know-how – finding them within the limits of the

LUCAS: Statistics on land cover and land use

Land use and land cover take on growing importance in the conception and evaluation of the EU's sectoral policies, in particular, links between agriculture and the environment. The measure of land cover concerns plant- and man-made cover (e.g. constructions, maize crops, area covered by water) whereas land use concerns its functionality or product destination (e.g. construction for industrial, commercial or residential purposes; grain or green maize; drinking water reserve, fish farming, water leisure areas).

LUCAS¹ is an area frame survey in which a sample of territorial plots allows a representative estimate of the total area to be formed with known precision. Based for the first time at the European level on a homogeneous survey methodology – at sample frame level, in nomenclature, collection and data analysis – LUCAS covers all land cover (urban, communications, forest). It also includes the detail of agricultural activities and extends the scope of the survey to aspects linked to the environment, multi-functionality, landscape and sustainable development.

LUCAS is modern in its conception and is able to integrate recent working techniques such as Geographic Information Systems (GIS), satellite positioning and digital terrain models, satellite imaging and orthophotography.

The LUCAS survey, based on 10 000 segments (100 000 points) spread over the fifteen Member States, will take place during the 2001-2003 period. The points will be visited by a surveyor in April/May (1/3 working day) and possibly be object of farmer's interviews in October. The terrain will be classified according to 80 land cover categories and 20 land use categories; around ten characteristics of the landscape will be recorded. The expected level of detail is around 2% for large categories of land cover and land use.

¹ LUCAS: Land Use / Cover statistical Area frame Survey

EU's open competition system is quite a task – but despite that we have an excellent team and good partnerships with our colleagues in Member States and inside the Commission.

Borrowing the words of Mr Franchet, Director-General of Eurostat, Directorate F shares the same outlook: "We are very ambitious in our work, but we are very modest as to our results. At its best, statistics can (only) reduce uncertainty". ■



Agriculture is without any doubt one of the most crucial areas in the enlargement process. So, Sigma invited **FRANS KUTSCH LOJENGA**, Eurostat co-ordinator for all work related to the Candidate Countries at Directorate F 'Agricultural, environmental and energy statistics', to outline his thoughts around agriculture and enlargement.

Agriculture – crucial for enlargement

Co-operation –
a basic condition

Frans Kutsch Lojenga has been working at Eurostat's Directorate F – not for the first time, as he already spent three years at Eurostat as a seconded national official – since last November. His task is to co-ordinate all work related to statistics in the field of agriculture, fisheries, the environment and energy in the context of the enlargement process. His experience at Statistics Netherlands (SN) of almost a decade as deputy head of the agricultural statistics unit qualifies him especially for this post.



My job here is to act as the main link between Eurostat and the Candidate Countries for all statistical matters under Directorate F, most of which relate to compliance with the extensive '*acquis communautaire*'.

Agriculture is a major issue – and a potential obstacle – for the whole enlargement process. Sooner or later, accession will have an enormous impact on markets and will dramatically change the overall structure of agriculture in the EU. If we take into account individual

Candidate Countries' specific problems and offer regular contact and help, it should be possible to get the best out of the enlargement process. Accession negotiations are already triggering enormous pressure for the necessary reforms and for compliance with the '*acquis*'.

Good co-operation between the Statistical Office and the Ministry for Agriculture in the Candidate Countries is a basic condition for the adjustment of agricultural statistics. So far, Eurostat assistance has focused on improving know-how and work structures, and this has led to the collection and dissemination of data on agricultural statistics in some basic sectors. We have to make sure that the relevant EU methodology is applied as widely as possible. This will allow evaluation to take place and guarantee data quality.

A number of ongoing statistical projects are now up and running. Others are about to get off the ground, thanks to the multi-beneficiary Phare programme on statistical co-operation. In agriculture, the 1998 project dealt with agrimonetary statistics, and the 1999 project with the crucial farm structure survey, a source of basic data for many other agricultural sectors. In the environmental field, projects on waste statistics will also soon get under way.

Trainees from Candidate Countries play an important role as they contribute inside knowledge of their countries and take their European experience back home.

LIDIJA GJORGIEVSKA of the Statistical Office of the Former Yugoslav Republic of Macedonia, is currently spending a six-month traineeship at Eurostat. She describes her experience and how it can help CEC NSIs to familiarise themselves with the workings of the European Statistical System.

Agriculture is an area of strategic importance for my country, and providing qualitative statistical data for agriculture by establishing and developing the Economic Accounts for Agriculture (EAA) is one of my priority tasks.

The main reason, therefore, to take up a traineeship at the EU's Statistical Office was to enrich my general knowledge on agricultural monetary statistics and more specifically to get practical experience in the compilation and analysis of the EAA and Agricultural Price Statistics.

My expectations were primarily:

- to obtain as much information as possible about the current situation on agricultural statistics within the existing EU Member States and in Candidate Countries, *but also*
- to be able to talk to Eurostat staff responsible for the different domains of economics and agricultural statistics, in order to tap their experience and improve my knowledge in those areas.

If I were to make a 'mid-term assessment', I would say that I have learned many things during my stay in Luxembourg.

I have been involved in the preparatory work on 'Statist-



tics in focus' for the Candidate Countries regarding output and input price indices. This entailed ensuring data comparability, and re-basing and deflating price indices. I have also participated in preparing the tables for this publication and analysing the data.

During the past four months, I had the opportunity to attend special meetings for trainees organised by Eurostat and a few regular Working Party meetings connected with my activities here at Eurostat as well as at the Statistical Office of the

Former Yugoslav Republic of Macedonia.

Particularly interesting was the possibility to contribute to the verification procedure of new EAA data (on the basis of the revised methodology) for two EU Member States.

With all this recent experience, I would say that improving agricultural statistics on individual agricultural holdings, while fully respecting the target methodological approaches recommended by Eurostat, has to become my country's top priority. ■

Lidija Gjorgievska graduated from the Economics Faculty of the University of St. Kiril and Metodij in Skopje, Former Yugoslav Republic of Macedonia, specialising in financial accounting and banking.

She then started working for the Department of National Accounts within the Statistical Office of the Former Yugoslav Republic of Macedonia ten years ago.

In order to come to Eurostat she took special leave from her job as an Independent Adviser in the Department of National Accounts, with responsibility for compiling the current accounts for the household sector and computing the value-added for unincorporated enterprises, both agricultural and non-agricultural.

It has been said that French agricultural statistics are compiled by an army of professionals. It is not surprising, then, that Sigma asked FRANÇOIS VERMEULEN to speak to one of its generals, Mr **CHRISTIAN GAY**, who is in charge of international affairs at SCEES, the Ministry of Agriculture's statistical studies and surveys department. He is an old hand on Europe's Agricultural Statistics Committee, set up 30 years ago, and he is in a perfect position to comment on the changes that have affected agricultural statistics in Europe.

French agricultural statistics and its army of professionals

Talking about agricultural statistics with Christian Gay, the subject becomes so vast, so exciting and so complicated that it calls for lengthy explanations. Mr Gay's enthusiasm is such that it is hard to interrupt him, or even finish the interview.

Just like a daisy

Before really getting into the subject, I asked Mr Gay if he could explain for the benefit of readers how agricultural statistics are organised in France and he started talking about daisies.

"Official statistics in France

– which include agricultural statistics – are like a daisy. At the centre you have the French national statistical institute, INSEE, which was set up in 1946, and all around you have the petals that make up the specialist statistical departments of the so-called technical ministries, such as Justice, Infrastructure, Education and Agriculture. It is Agriculture in fact that has the most statisticians of any statistical department among the ministries.

"One essential feature of agricultural statistics in France is how they are part of a highly coordinated overall system that allows a great degree of decentralisation but operates as a network. This is what makes it both efficient and professional."

People, methods, money

"There are three aspects to the links between INSEE and

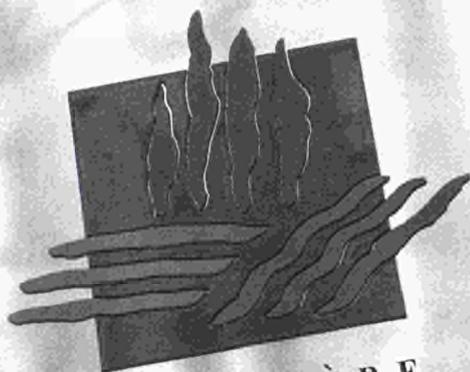
the specialist departments in the ministries: people, methods and money. People, because it is INSEE that provides the training for the statisticians who subsequently work at the institute and at the ministries.

Methods, because it is INSEE that is in charge of the general framework for statistics, the national accounts and classifications.

And lastly money, because it is INSEE providing the Ministry of Economic Affairs and Finance with an opinion on the size of the budget heading that each ministry allocates to its statistical work."

So much for the background. The conversation then turned to the actual structure of agricultural statistics.

"The SCEES is the central service for statistical studies and surveys – and you'll notice that, unlike INSEE, we are not talking here about



MINISTÈRE
DE L'AGRICULTURE
ET DE LA PÊCHE

economic studies. This service covers the three-tier statistical set-up at the ministry. It was formed in 1961 after the start of the common market. It supervises agricultural statistics services in the regions and the *départements*, and thus has a strong local presence throughout the country."

Tailor-made statistics

"The work is organised in a simple way. Every level is responsible for collecting, processing, analysing and disseminating information,

although the emphasis may vary. At central level, the focus is on planning and conception; at regional level, on organisation and coordination; and at local level, on implementation and production.

"The underlying philosophy is twofold. First of all, there is no conflict between the jobs of collecting and analysing the information, since we feel that statisticians are best equipped to assess the quality of the information they collect and to provide an initial guarantee for users by avoiding erroneous interpretations.

DATAGRESTE

Datagreste is something like the cherry on the cake of French agricultural statistics. SCEES launched this new on-line data base in 1999 to provide a single home for two central data bases – Aristide, covering individual data, and Agristat, for aggregate data – plus Agricom, a local tool for producing data at municipal level.

One of the requirements of the new system was that it should allow computer-literate but non-specialist users to access the database. Another major requirement was that the information in the database should be properly documented, in a way that was as uniform and as accessible as possible.

Access to the system is adjusted according to the user. Agricultural statisticians and authorised partners can access the individual data, while the aggregate data are available to the general public.

The tables, texts, diagrams and headings in Datagreste are standardised to improve legibility. Subsequently, the system will also be able to host statistical data from administrative sources, population census data and inventories of municipal infrastructure as well.

"The basic idea is to develop a system that can be consulted on demand, one that does not cover every possible eventuality but can respond to current queries. In future, Datagreste will be even more accessible," states Christian Gay.

Secondly, we customise the information service that we provide, so that every user can find the answer suiting his particular requirements."

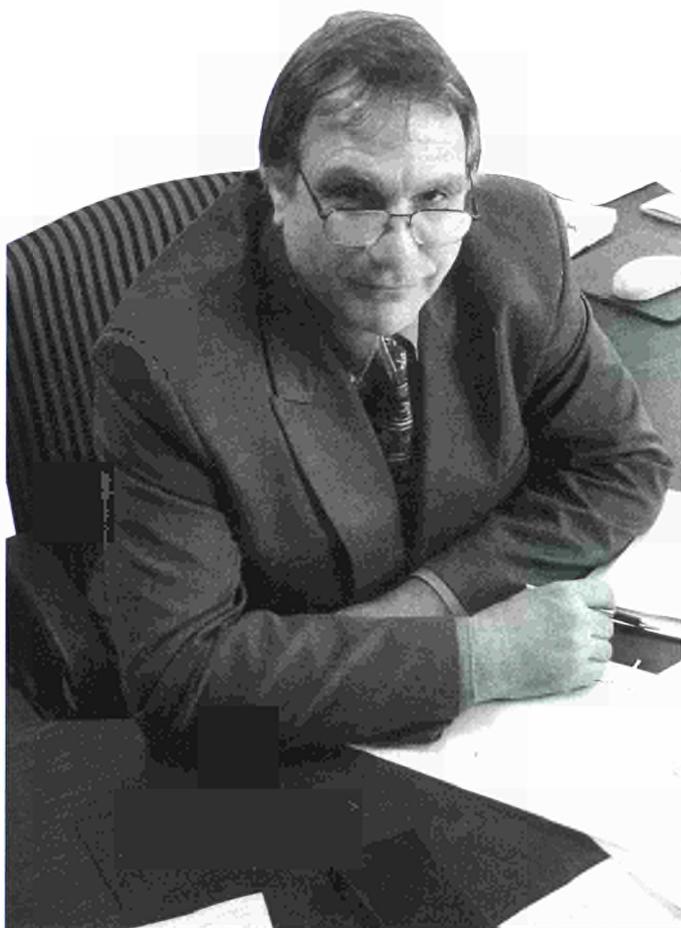
Silvio Ronchetti, a former director-general of Eurostat, seems to have got it right when he spoke of French agricultural statistics and its army of professionals. There are no fewer than 650 people in the department at the Ministry of Agriculture, plus another thirty or so officials permanently seconded to INSEE to cover statistics on agriculture and the agrifood industry. The Ministry of Agriculture has more statisticians than any other technical ministry.

Is there not some discrepancy between the size of agricultural statistics in official statistics and the farming sector's contribution to GNP? The answer comes back like a shot.

"It would be a gross error to relate statistical work in the various sectors of activity in each Member State to the contribution that each sector makes to GNP. This is the argument put forward by those who think that agricultural statistics get too much coverage.

"I do not agree and I think this view is erroneous. The effort put into agricultural statistics must be compared to the cost of public intervention in the agrifood sector. If it were a question of saying that other statistical domains need further development, I would totally agree with this, but if you want to feed the poor, it is





From **football fan** to

As a student, Christian Gay was a fan of Reims, the best football team in the Champagne region of France, but he divided his passion with another activity: statistical surveys. "I was involved in pot-boiler statistics. I was a student at a business management school and conducted the surveys to earn money." Reims is no longer one of football's top clubs, but the interest in statistics has endured and Christian Gay has devoted his working life to statistics.

He joined the Ministry of Agriculture in 1967 on graduating from the Institut d'Administration des Entreprises in Paris. Describing himself as an average theoretical statistician, he set off for Guadeloupe, where he completed the civilian equivalent of military service. He set up the agricultural statistics service in this overseas French département.

Throughout his career, Christian Gay has always retained a keen interest in matters beyond mainland France. Apart from a brief spell in the Directorate-General for Administration and Finance between 1977 and 1981, he has always been involved in foreign affairs work. Since

better to make a bigger cake than to take from the rich. In my view, there is no structural imbalance.

"One of the interesting features of the French system is that the statistical resources put into agriculture depend

bright future. It is obvious that foodstuffs – with the problems of traceability, genetically modified organisms and water – are major issues for the 21st century. And that is without even mentioning the growing concern about environmen-

member of Europe's Agricultural Statistics Committee in 1972, he has experienced first hand the enlargement of the European Union in this particular sector. He remembers fondly how the Six discussed at length how to

to the European level in the broadest sense, in order to establish a common statistical basis. It is in fact better to do less and do better together, while at the same time maintaining statistical output that is geared to purely national requirements.

statistical expert

1982 he has been in charge of international affairs at SCEES, which means dealing primarily with European agricultural matters.

In this he is practically an old hand, since he has been a member of Europe's Agricultural Statistics Committee since it was set up in 1972 and has lived through the successive enlargements of the Union from the inside, from defining a cow in the Europe of the Six to counting reindeer in the EU15.

Now 54, Christian Gay has fond memories of what he calls the bold days of European agricultural statistics, with its "wonderful leaps in terms of comparability", but he continues to keep his sights set on the future. In an article that was published recently in France, he mentioned the need to provide Europe with the means of having a better understanding of agricultural markets in other regions throughout the world. At the same time, he expressed regret that this topic was virtually disregarded by some of his colleagues. The "old hand" has lost none of his verve.



"You cannot keep on waiting for the last piece of information from the last Member State before deciding whether to act or not, because agricultural statistics are closely linked to the application of the Common Agricultural Policy. If you are going to act, you need figures for Europe. But if there are 25 or 30 Member States, it will all be too much, and it will be the end of agricultural statistics in Europe. This is why European agricultural statistics need to be a careful mix of aggregated statistics and statistics that are representative of the Union and some main areas.

"We also have to stop thinking that everyone is progressing at the same rate. It is not true now, and it cer-

tainly won't be when there are 25 in the Union. Why not allow some countries to volunteer to work on some specific areas and let one Member State act as lead country for the work, depending on the case?"

Enlargement is also the future of agricultural statistics. I ask Mr Gay, in charge of international affairs at SCEES, about the challenges posed by this great venture at the start of the 21st century.

Different statistical mentalities

"Enlargement towards Eastern Europe poses a whole new problem. At the time of the earlier applications, the other countries

had more or less the same idea as we had about the meaning of statistics, even though the northern approach is more administrative than in southern Europe. In the case of the new countries, however, statistics tend to mean adding up the figures on the administrative forms that were sent to the major production units to check compliance with the state plan.

"The statistical mentality is different (...) Another thing is that, in the past, the only approach was exhaustive, while nowadays there is a switch to sampling, because agriculture is changing, expanding and contracting like an accordion. Initially, you draw out the sides of the instrument – land is redistributed, pro-

duction units broken up – and then you bring them together again, with land merged again and a reduction in the number of units.

"In the meantime, the economic circuit is shaken up. It is difficult nowadays – if I can give an example here – to look at agricultural holdings and decide which units are producing in the way in which we understand it here in Western Europe, which are involved in subsistence farming and which are not much more than extended family gardens.

"The additional difficulty for these countries is that they also have to incorporate the '*acquis communautaire*' – everything that the Community has achieved – and they need reference data to start talks with the Union. It is on this basis that we have established cooperation with Bulgaria."

Open to the world

Before bringing the interview to a close, I ask Mr Gay if he feels there are any other needs for agricultural statistics, in connection with expanding agricultural trade between the various regions of the world. Here, too, he is ready with an answer.

"As you know, Europe has become a major exporter of agricultural products. In this context, it needs to have an independent source of information on the issues and the regions



that affect its agriculture, especially since the next round of World Trade Organisation (WTO) talks will be geared towards greater liberalisation.

"One example of useful information would be to get advance notice of wheat production in the Maghreb countries or in South America and to forecast potential demand. It came as a shock to learn that colleagues in the Directorate General for agriculture sometimes contact American universities to get the information. We do not need to have eye-in-the-sky satellites, but we could copy the Americans by getting the embassies of the EU countries involved in the work, although this would require considerable determination and special arrangements to benefit the Union as a whole." ■

An area survey, based on observation of 111,000 locations in the country, provides the basis for new agricultural statistics in Bulgaria and their alignment with EU standards.

Precise as always, Christian Gay sets the record straight. "Cooperation is not the job of SCEES. However, just like the European Commission, we are keen to see things as they are," he says, when referring to enlargement and the obvious need to help the applicant countries in a sector, agriculture, that is extremely important for them and for the future of the Union.

SCEES was therefore delighted to respond to the Bulgarian Government's request to help the country's Ministry of Agriculture and Forestry. The basic idea was to help it set up a statistical service that could supervise the incorporation of the '*acquis communautaire*' in the area of agricultural statistics in liaison with the country's national statistical institute.

"We quickly organised an area survey to determine land use and to use it as a sampling base for other statistical operations, which, for the time being, focus mainly on cereals until more traditional techniques could be introduced. An action plan was devised so that, in a few years, decision-makers in

Bulgaria would have a proper statistical system for agriculture comparable with the system in the EU countries.

"The Bulgarian operation was conducted initially using bilateral French funding. It subsequently received additional European funding under the PHARE programme." Mr Gay points out that in France statistical cooperation is normally the responsibility of INSEE, but that the national institute is only marginally involved in cooperation on agricultural statistics, which it delegates as a matter of course to SCEES if possible.

Bulgaria is currently the only applicant country to have benefited from such a thorough and comprehensive statistical operation on the part of SCEES, even though the latter regularly gets specific requests and fields queries from many countries. However, the French agricultural statistics service has a prime interest in the applicant countries, since together with Finland and the European Centre of Statistics and Development (CESD) it has organised a European structure specialising in agricultural statistics and it is able to provide technical expertise and assistance to all of the applicant countries (or alternatively, if necessary, by calling on the best experts in the EU countries).

At a time when enlargement is featuring ever more prominently on the European agenda, *Sigma* decided to shed some light on the matter by visiting Spain, a country which joined the EU in the 80s and which has a major farming industry.

SANCHEZ PORFIRIO, the leading agricultural statistics man in the Ministry of Agriculture, Fisheries and Food (MAPA), shared his thoughts with FRANÇOIS VERMEULEN on this subject and on the state of agricultural statistics in Spain.

Agricultural statistics – a balance between autonomous regions and sponsorship for Hungary

The building that houses the Spanish Ministry of Agriculture inspires respect and instils in the visitor a sense of solemnity. Its monumental façade, steep stairs and high ceilings add to this impression, as does the presence of guards and the need to pass through a metal detector.

At the end of a long corridor in an office brimming with papers, Sanchez Porfirio starts by saying “*Sigma* couldn’t have come at a better time, as Spain is putting the finishing touches to its four-year national statistics plan” (see panel next page).

A statistical triangle

“Two heads are better than one”, as the saying goes. Spain seems to have gone one better, as agricultural statistics are produced by three different bodies – the national

statistical office (INE), the statistical services of MAPA, and the autonomous regions, which are the 19 regions that make up the country. In fact, two other bodies are also involved, with the Ministries of the Environment and Defence making contributions in their fields, i.e. the environment and ... horse breeding, the Spanish army being the country’s most important horse breeder.

I ask Mr Sanchez how his country manages to orchestrate this somewhat unorthodox arrangement.

“The 1985 Law establishing the MAPA statistical plan, following the state’s decentralisation, merely provides that we produce all statistics for this plan not directly produced by the INE. The latter is responsible for the agricultural census carried out every ten years, the regular structure surveys of agricultural hold-

ings, the structural survey of agricultural service companies and of the agri-food industry, and the quarterly survey of food product consumption. Other than these, everything else is our responsibility.”

With 45 staff members in his department, Mr Sanchez has more people under him than the INE, which has fewer than a dozen individuals working permanently on agricultural statistics. The situation is different in the autonomous regions.

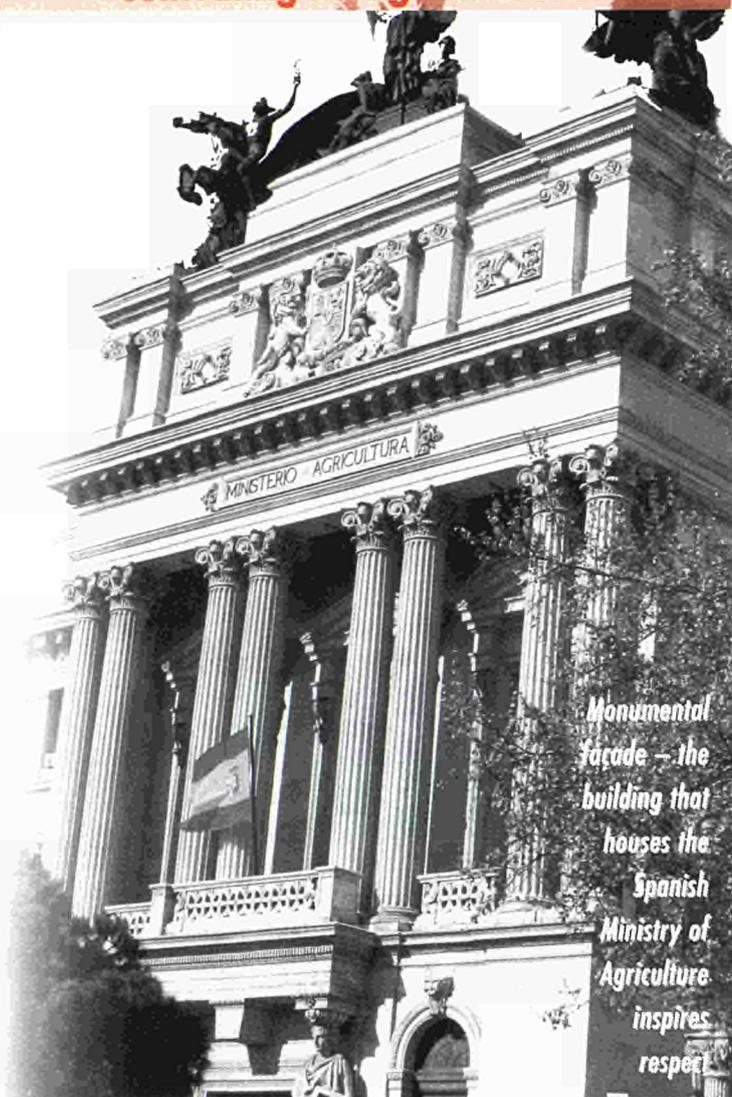
Exclusive yet shared

“In total, the regions have almost 200 statisticians working in the field of agriculture, fisheries and food. An article in the constitution makes statistics the exclusive competence of the central State, but each Autonomous Community has incorporated into its constitutive act an article making

these same statistics their own responsibility for their specific interests...”

This arrangement is peculiar to Spain and has not made Mr Sanchez’s work any easier, particularly since the Spanish statistical system also had to be brought into line with the European Statistical System following the country’s accession to the European Union in 1986.

“To avoid problems, MAPA then drew up co-operation agreements with each of the autonomous regions. It is basically our job to draw up methodologies, timetables for activities, ensure quality control and, ultimately, to validate data, while the regions collect the information. Some of the more advanced regions such as Navarre, Catalonia, Valencia or Castilla-Leon may process the questionnaires, validate the data and even produce results, though these are provisional until MAPA



Monumental facade – the building that houses the Spanish Ministry of Agriculture inspires respect

gives them its official sanction. We must be vigilant here.”

Sponsor of a candidate country

Fourteen years after his country joined the EU, it is with a certain satisfaction that Mr Sanchez announces that Spanish agricultural statisticians can start to think of something other than bringing their system into line with the Community's. And satisfaction turns into pride as he tells us about the sponsorship contract between the Spanish and Hungarian statistical systems, the first of its kind between a Member State and an applicant country.

The European Commission and the Hungarian authorities

chose Spain to bring its experience and technical expertise to bear in helping the Hungarian statistical system adapt to Community standards over the next two years.

The Spanish national statistical institute (INE) will join forces with the statistical service of MAPA to carry out this project, funded under the Phare programme.

“I also think that our relatively recent experience in assimilating Community legislation in the statistical field helped sway the decision” he says with pride, though he adds that his department would not be taking on any further commitments in the short term, “as there are only 45 of us”.

Mr Sanchez's horizons also extend way beyond Europe,

and he has a particular affection for South America. “And not just because my wife's from Ecuador”, he adds with a laugh.

In March 1999, Sanchez was invited to Chile to present a number of projects carried out by his department, particularly a specific area survey – a crop survey carried out at three different points during the crop year on a sample of land parcels – as part of a seminar organised jointly by the FAO (UN-Food and Agriculture Organisation) and the Chilean Statistical Institute. And in June, statisticians will be coming over from Latin-America to take a closer look at a number of topics.

I bring him back from the other side of the Atlantic by asking him about the compa-

Spain's new four-year plan for agri-food statistics (2001-2004)

The new programme of agri-food statistics, whilst taking account of current Community requirements, also endeavours to anticipate future needs under Agenda 2000. At the same time, it aims to meet the demand for ever more detailed and comprehensive information, at both national and Autonomous Community level.

115 statistical operations are planned, the vast majority of which (80) meet European requirements. These operations are included in the national statistical programme (all sectors combined), which covers the same period.

Putting the cart before the horse

Other projects are under way, e.g. a survey on the use of pesticides in farming, on livestock liquid manure and on the secondary activities of farmers. The idea is to anticipate the new needs arising from environmental matters and multifunctionality in the agricultural field. Even so, Mr Sanchez admits that the way forward is less than certain, as “there is still no clear sta-

One of the major innovatory projects in the plan currently being finalised is the setting up of the MAPABAS database. Fourteen existing databases will be merged to provide users with a comprehensive picture, in great detail, sometimes even down to municipal level, of farming, animal rearing, forestry and fisheries. It will contain analyses, digests and compilations of data with time series of at least 20 years. The main subjects will be area, production, prices, income and sectoral accounts. Access to this database will be via computer and will vary according to the user, though the Minister of MAPA will be the first to receive information and will have unrestricted access.

tistical definition or line in this field, and less so a methodology”.

“Clearly, we must move in this new direction of multifunctionality, but other bodies, universities for example, must clarify concepts such as rural development. We need definitions before we can move on. Let's not put the cart before the horse, as they say”.

rability of European statistics in his field.

"This is of fundamental importance. There are ad hoc working parties to resolve technical problems when they arise. But there are sometimes major problems. In the Mediterranean, there is considerable variation in land use. Utilised Agricultural Area (UAA), meadows and pastures vary enormously according to rainfall, whereas, in the countries of northern Europe, the match between utilised and exploitable agricultural land is almost perfect. Similarly, in the Mediterranean, there are sometimes major variations in forested and wooded area, which is not the case in the north. This year, for example, there is a serious drought in Spain that will obviously have a major impact on agriculture in particular.

"To deal with this question, there is now a technical working party on land use operating at European level. But it was revived only in 1997 after 15 years in hibernation.

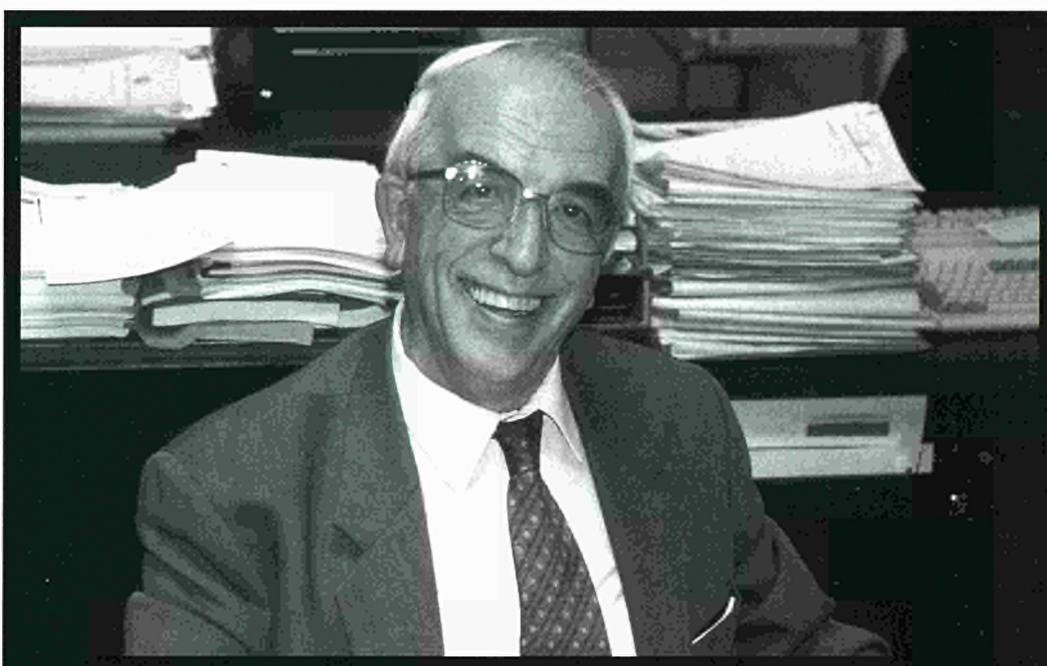
"When you see the differences between agricultural systems within the Union, it is easy to appreciate that these will become even greater once the new countries join. Eurostat will have to keep a much closer eye on the statistical operations carried out by the Member States, and on the technical parameters applied. We cannot continue with the same structure as before."

So what about the challenges facing agricultural statistics under the enlargement process?

"There are two challenges. The Fifteen must ensure that the new applicant countries are in a position to produce the data needed to join the Union. It is my impression that the discussions under way demonstrate an ignorance of the farm structures in the applicant countries and of the potential in this sector. We need the true picture here.

"Secondly, the applicant countries must be able to take on board existing EU legislation. And this is a major challenge, as it was for Spain and Portugal in 1984 and 1985, when we joined. I think the sponsorship arrangement chosen by the Commission is an intelligent way of helping these countries meet this objective."

So the heart of the Spanish statistical system strikes a balance between the autonomous regions and European co-operation. However, it is to the resounding credit of the system and the man at its helm, Mr Sanchez, that it is able to do all this and, at the same time, meet both national and European statistical requirements. ■



Sanchez Porfirio, Deputy Director-General of Statistics at MAPA, describes himself as a man of peace since, he says with a smile, he was born in May 1939, one month after the end of the Spanish civil war. He comes from the countryside near Toledo, where his parents were not just farmers but also ran a small village shop that sold "everything from aspirin to underwear".

After graduating from Madrid University College of Agricultural Science in 1968, he joined the statistical unit of the Ministry of Agriculture in July of the same year. He has remained there since, steadily

climbing the hierarchy, and in 1983 was appointed the Head of Spanish agricultural statistics.

In this capacity, he acted as the general co-ordinator in the pre-accession discussions between Spain and the EU in his field between 1984 and 1985. In 1986 he became a member of the Agricultural Statistics Committee and of the Farm Accountancy Data Network.

Amongst his major achievements, Mr Sanchez lists the preparation of the Regional Accounts for Agriculture (1971), the methodological programming for the annual survey of the price of agricultural land (1979), the imple-

mentation in 1990 of the new methodology for statistics on agricultural land use and exploitation, the preparation of the MAPA statistical plan as from 1985, and the incorporation of agricultural statistical programmes into the national statistical plans.

However, he has not passed on his passion for statistics and agriculture to his three children, one boy and two girls – the two eldest have opted for history and economics respectively, whilst the youngest, his 15-year-old daughter, has yet to decide what she wants to do in life. At the moment she is at school and playing football in an amateur club in the Madrid region.

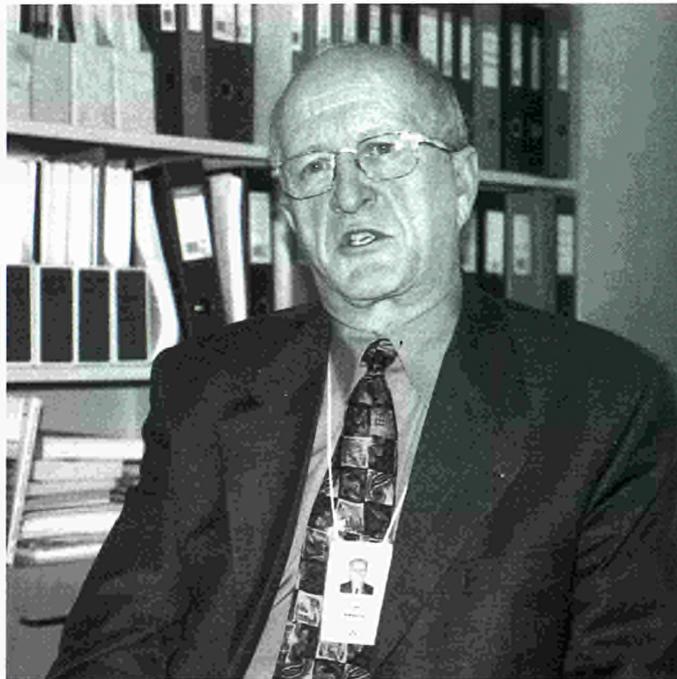


Sigma's BARBARA JAKOB went to Finland, a country whose most recent experience with EU accession can be of great value for candidate countries (CCs) and a country that is geographically closer to some Central European CCs than to many EU Member States. **ESA IKÄHEIMO** heads the statistical group of Finland's Information Centre of the Ministry of Agriculture and Forestry. He talked about Finnish farmers, the characteristics of the Finnish agricultural statistical system, EU accession and the Union's future enlargement as well as about other challenges ahead for agricultural statistics.

Bridging GAPS in more than one way

"Agriculture was one of the most difficult areas in EU accession negotiations", Esa Ikäheimo recalls (see panel on page 32). He was then responsible for adjusting Finnish agricultural statistics to EU requirements. "An interesting task, not too difficult though, since we enjoyed a long period of international cooperation, first with Nordic countries, then within the OECD, the FAO (Food and agricultural organisation) and also in other environments. Since the beginning of the 1990s we have been taking part in Eurostat working group meetings – useful training for EU membership."

Intensive international collaboration and the fact that Finland had the same type of system and basic ideas to produce agricultural statistics



Agriculture and statistics marked Esa Ikäheimo's (60) career from the very beginning. After graduating in agriculture and statistics from the University of Helsinki he started work in 1966 as a Researcher in the Finnish Agricultural Economics Research Institute.

In the early seventies he joined the National Board of Agriculture, first as an agricultural planner and from 1986 onwards as head of the agricultural statistics division.

When the Information Centre of the Ministry of Agriculture and Forestry was established in 1993 he took over the post as the head of the Statistical Group at this organisation where he also holds the post of a Deputy Director.

resulted in a fairly smooth transition to the EU agricultural statistical system with just a few definitions and classifications to be adapted and some new areas to be covered. "We needed about two years to make the necessary adjustments", Ikäheimo says.

A change of a new quality

The future EU enlargement to Central Europe is of a completely different nature than all previous enlargements, Ikäheimo is convinced. "Structure, production conditions and marketing systems differ so much from what can be found within the EU that the focus is on whether current systems will also suit the new enlarged Union, instead of seeing to it that the CCs adapt to the 'acquis communautaire'."

And this is also true for statistics. Finland, together with Sweden and Denmark, has worked with the Baltic States

in a so-called Baltic-Nordic agricultural statistical group over about four years. Its aim is to assess the state of Baltic agricultural statistics and their ability to meet EU requirements in this area.

The lesson that Esa Ikäheimo learned from this project was that if statistics are to describe a situation properly after accession the system must be called into question. "The challenge for future EU agricultural statistics is to describe sufficiently the real situation of agriculture in the whole enlarged EU without losing important information for EU and domestic needs.

"Until now the starting point has always been to adjust the CCs' agricultural statistics to the EU system. But because of the very special ways in which agriculture operates in Central European countries, the existing EU agricultural statistical system might not be able to describe the totality of agriculture in the CCs.

"If we take, for instance, the existing EU thresholds for the farm structure survey", Ikäheimo continues, "a large amount of enterprises with an important role in production in the Baltic States will not be covered. Also, the structure of marketing channels still differs much from those in the EU. Direct sales from farms and self consumption are still very important. And then things are still changing profoundly and rapidly...

"So, the real challenge of enlargement – at least in agricultural statistics – consists in discussing what kind

of changes and adaptations might be necessary in the EU system."

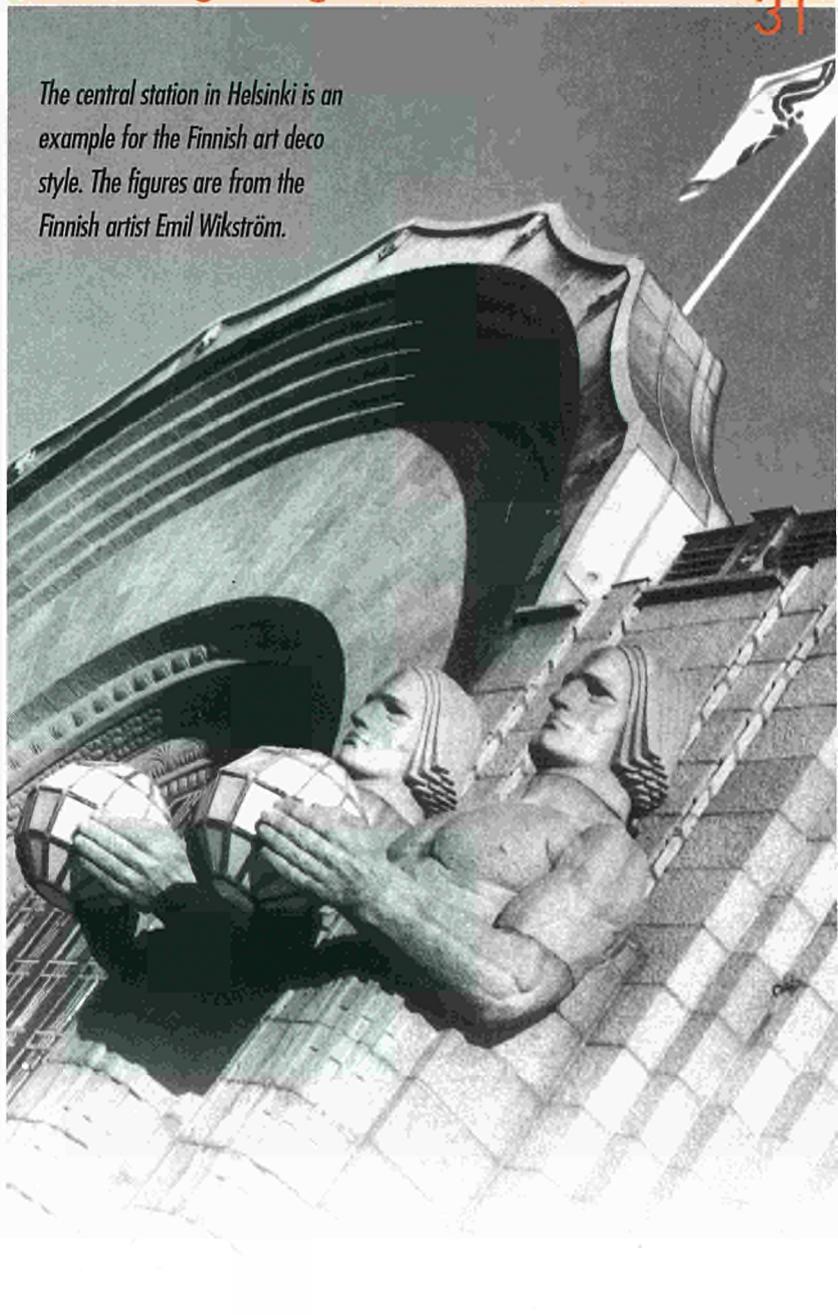
A privileged position?

One area in which Finland together with other Nordic countries is frequently consulted by other EU Member States and also by the CCs is the use of administrative registers. In times of budget restrictions and a growing reluctance by respondents the use of existing data sources is considered the appropriate tool to overcome both problems.

Finnish legislation obliges the producers of official statistics to verify if the use of existing data sources might be possible before they are allowed to send their own questionnaires. One could say that Finnish agricultural statistics enjoy, in a way, a privileged position: Finnish agricultural administration has a rural business register at its disposal, whose use is regulated under separate legislation.

The great advantage of the Finnish rural business register is that it was created (in 1991 after an agricultural census in 1990) with both sorts of use – administrative and statistical – in mind. And since all Finnish farms applying for subsidies – 95% – are recorded in this register, it thus forms a good starting point for the statistical register. So general information about the owner, the holder of the farm, his calculation on how he plans to use the arable land, how many animals there are, etc., is constantly drawn from the rural business register.

The central station in Helsinki is an example for the Finnish art deco style. The figures are from the Finnish artist Emil Wikström.



"It is one precondition for the optimal use of the register that we are embedded in agricultural administration", Esa Ikäheimo says. "We can make our statistical requirements clear and the close collaboration makes sure that we can draw the best out of the data – statistically."

But the use of administrative data is not preventing respondents from complaining about too many questionnaires or refusing to respond. "Only recently we had a question in Parliament why TIKE collects so many statistics", Ikäheimo says. "It

was quite easy to answer because we do make use of the register and we do not ask for the same information twice. But farmers still get the feeling that they are asked the same questions over and over again. Everyone who looks at the package of forms that farmers have to fill in when they apply for CAP subsidies will understand this attitude.

"It is indeed one of the biggest difficulties to convince farmers that we are not asking too much, that we are using existing data but that we sometimes still have to ask for more."

Better understanding

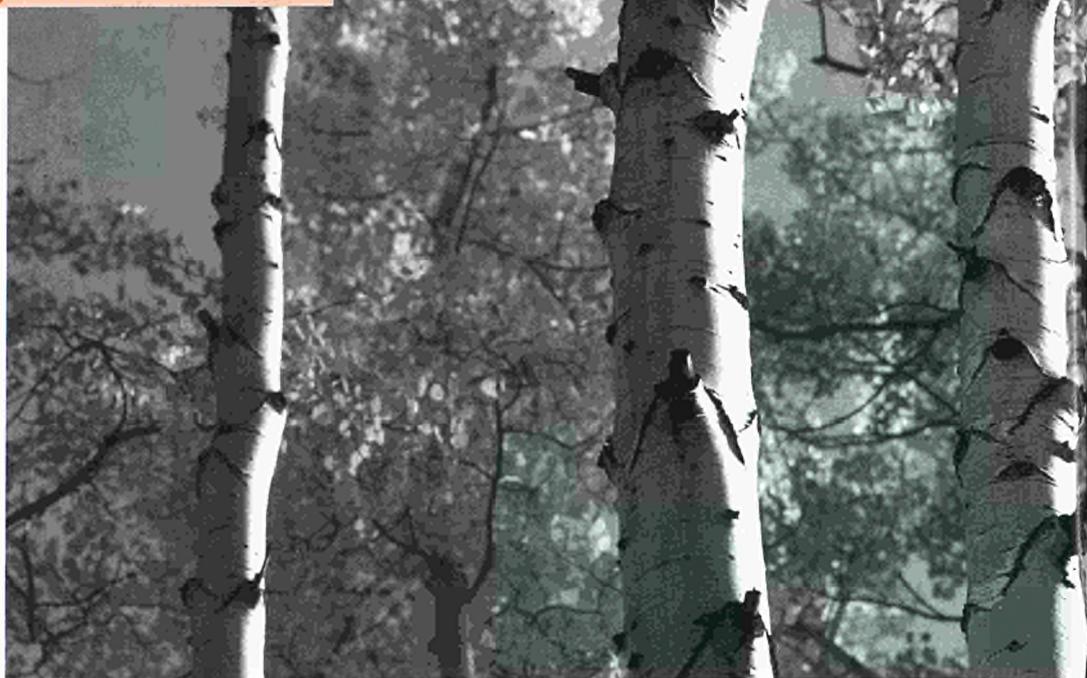
It is not only for the register alone that Esa Ikäheimo thinks a connection between official agricultural statistics and the administration might be an advantage. "The close collaboration also gives you a better understanding of the requirements and needs of policy. It is the direct dual feedback between the data producer and the data user that makes the difference."

That the ministry could try and touch the impartiality of statistics is, according to Ikäheimo, only theoretical. "The ministry has a very good understanding that impartiality is essential for a statistical agency and it has never touched this principle", he confirms.

"It might be more of a problem to make a clear distinction between official agricultural statistics and administrative data reports. This distinction is sometimes not perceived enough in the public. We also have to be very careful to make it clear whether data are used for administrative, statistical purposes, or both. Statistical information is entered into a separate database which is not for administrative use."

Room for improvement

On a wider, European perspective Ikäheimo thinks that "Fado (Future Agriculture Database Outline) and Tapas (Technical action plans for agricultural statistics) are very successful and flexible tools to try and better



meet the needs of data users. I also appreciate that every time we have an important statistical meeting representatives of the Commission's Directorate-General for agriculture are present so that we can immediately have feedback and that we can directly exchange views and opinions.

"Harmonisation is very well advanced in agricultural statistics", he goes on, "but there are limits. The very different nature of agriculture in different parts of the EU makes it almost impossible to describe the situation properly with all member countries using the same tools. And more so after enlarge-

ment with the very different situations of agriculture in Central European countries."

Ikäheimo perceived the weaknesses of the EU agricultural statistical system when he wanted to make use of the Eurofarm database. Ikäheimo: "We were preparing a publication

Finnish agriculture in brief

The agricultural sector in Finland contributes roughly 1% to the country's GDP. As a comparison: the contribution of a well-known company producing information technologies to Finnish GDP is around 4%.

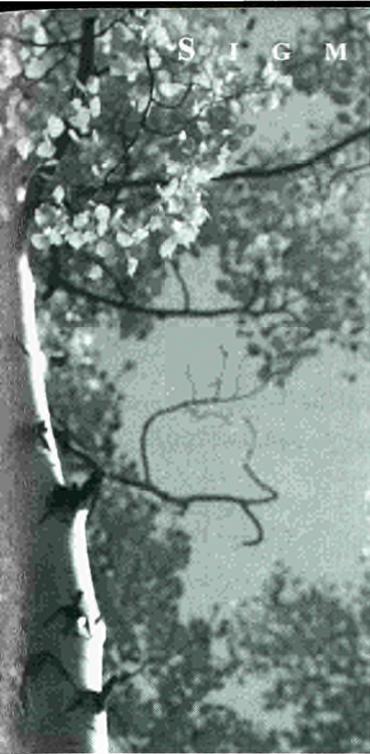
There are about 85 000 farmers in Finland or roughly 100 000 people working in agriculture, that is 3-4% of the Finnish workforce. In certain areas of Finland, however, agriculture may make up for about 30-50% of employment.

Since Finnish producer prices were at a considerably higher level than EU prices

agriculture proved to be one of the most difficult areas in the negotiation of EU membership. Lower producer prices and support would automatically lead to a lower farm income. Hence, it was quite understandable that Finnish farmers strongly opposed joining the EU when the majority of Finnish people supported membership.

With Finland joining the EU, producer prices immediately experienced – as expected – a dramatic fall of around 40%. Finnish farm income is levelling down since then at an average rate of about 5-10% per year.

The trend towards concentration – also noticeable before Finland's EU membership – has strengthened since then. While the number of large farms and investments of bigger enterprises are increasing, small agricultural holdings in remote areas, especially in East and South Finland, are disappearing. The situation in these latter areas is very difficult because they are also characterised by high unemployment. The average rate for the whole of Finland is about 10% – in East Finland it might reach 18% or even 20% – which reduces the chances of a farmer giving up farming to find an alternative job.



describing the Finnish farm structure in comparison to that of the EU and we wanted to use this database. The first problem we encountered was that until the end of last year we could not obtain the '97 figures from the structure survey. And then, it is not a very user-friendly database...

"I regard Eurofarm as a very valuable database that should be effectively used within the EU and Member States. Therefore, I would like to see it improved in terms of timeliness and user-friendliness. Although, I do understand that Eurostat has to wait for the very last Member State to deliver the data before it can provide EU figures."

A wider scope

From the reform of the EU Common Agricultural Policy (CAP), Ikkäheimo sees at least two important implications for agricultural statistics:

"Agricultural policy is changing in the direction of rural policy. Instead of focussing on agriculture only, the new approach is a much wider concept that includes the ele-

ments of activities outside agricultural holdings. We must follow this change in the focus of policy and broaden the scope of agricultural statistics.

"The Finnish approach has been to establish a register of small rural enterprises. In a collaboration project Statistics Finland, the Economic Research Institute and TIKE have analysed the information systems of the different parties and have combined those data providing information on small enterprises in rural areas. The new small enterprise register which is supposed to shed light on this area of rural activity is now up and running for about one year. It is very important to have a complete picture of rural life and of the totality of farmers' activities.

"The other important area will be environment related agricultural statistics", Ikkäheimo goes on. Several contributions have been made in this respect. A project in the framework of *Tapas* (Technical action plans for agricultural statistics) aims at providing data regarding the use of pesticides.

Another contribution was made to provide statistics regarding environment-linked subsidies. Finland has a broad system of environment related agricultural subsidies. "The farmer has to choose environment friendly production methods and can then get subsidies", Ikkäheimo explains. "A large number of farms are in this system but it is difficult to use this data statistically since the information collected for

this purpose is at the planning stage. We haven't really succeeded in using this source.

"Another important area is the quality of foodstuffs – safe methods of producing healthy foodstuffs and methods where animals are well treated."

With the further liberalisation of the agricultural markets and the replacement of the price support system by a system of direct income subsidies Ikkäheimo sees the importance of market price information and subsidy statistics increasing. "TIKE has set up a specific statistical information system regarding the subsidies paid to farmers. The first publication has just been issued, a regularly-updated online database is planned. But", Ikkäheimo continues, "we can only provide the figures. Analysing the impact of a special type of subsidy still remains a problem.

"There are many areas upon which we have to shed light. But we also know that we cannot increase the response burden for the farmers. So we don't really have a choice, we must try and do our best to use existing data sources."

A European type of agriculture

"The European model of agriculture also discussed at the Seattle negotiations is that of family farming. Even if development goes towards bigger holdings and consequently a decrease of production costs, we will never get so far as the American

TIKE, the Information Centre of the Ministry of Agriculture and Forestry is an expert unit operating under that Ministry and produces the majority of Finland's agricultural statistics. The Information Centre is a service provider for the Ministry and for other customers. It is one of four organisations (Statistics Finland, Custom and National Research, Development Centre for Welfare and Health) in Finland providing official statistics.

Besides collecting official statistics, TIKE is in charge of financial management, which includes handling the EU's agricultural subsidies to Finland, and of data management. The latter comprises maintaining a data communications network and shared databases between the Ministry of Agriculture and Forestry, TIKE and other parties in the agricultural field.

Esa Ikkäheimo heads the statistical group with a staff of 34 people. Responsibility for agricultural statistics is shared with Statistics Finland which is in charge of economic statistics of agriculture, whereas TIKE takes responsibility for structure, products, prices, balance sheets and also for the administrative part, the support statistics.

type of 'industrial' farms. Future agricultural statistics", Ikkäheimo concludes, "must be able to reflect the diversified nature and the multifunctionality of our European type of agriculture." ■

For **NOËL DEVISCH**, Belgian president of the Committee of Agricultural Organisations in the European Union (COPA), agriculture is almost a way of life. Having been born into the world of agriculture, Devisch is ideally placed to give *Sigma* his views as both a user and a provider of agricultural statistics.

He threw light on a number of topical issues during a discussion with FRANÇOIS VERMEULEN.

Agricultural statistics

ready when needed

European agriculture and its corollary, the Common Agricultural Policy (CAP), have been in a state of constant change since the beginning. The gradual accession of new Member States, the increased mechanisation of production and the liberalisation of trade within and outside Europe have led to a series of changes in the CAP. I therefore asked Noël Devisch to review these developments.

"When the common agricultural policy was launched, the principal objectives of the original agricultural policy were to guarantee the people of Europe sufficient food, at stable prices, while allowing farmers a reasonable income for their activities. The first two objectives have now been met, even better than was hoped, because prices, in nominal terms, are generally lower than they were ten years ago, and food is in plentiful supply.

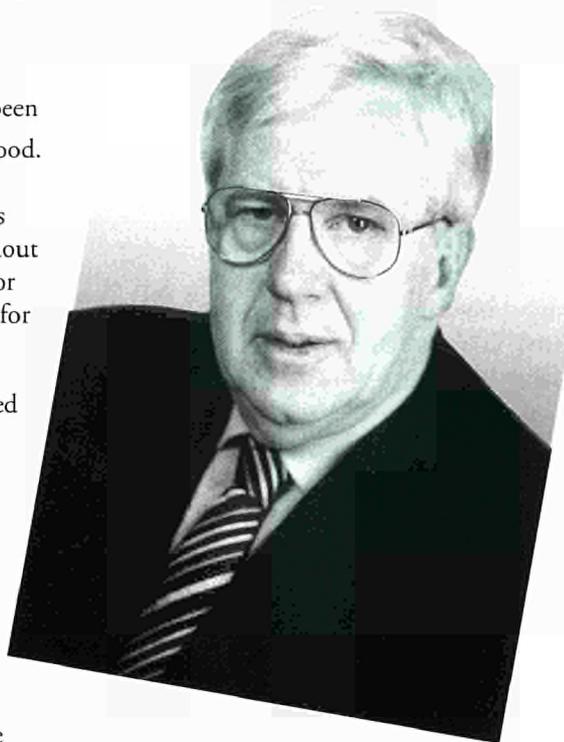
"However, the third objective has not been fully met. Demand for food is highly inelastic in relation to prices. We do not eat more food simply because prices fall. As productivity has constantly increased, the impact on

Noël Devisch's life has been closely linked to agriculture since childhood. Originally from the Bruges area, in East Flanders, Devisch's father, brother, uncles and in-laws were all farmers. It goes without saying that agriculture holds no secrets for him. Even the name "Devisch" – Dutch for "fish" – refers to a related sector.

Born in March 1943, Devisch first pursued an academic career from 1967 to 1978, obtaining during this time a Master's degree in agricultural management from Reading (UK) and a PhD in agricultural economics from Columbia, Missouri (USA). From 1976 to 1978 he worked as an assistant at the agricultural economics institute, but the political bug brought him out of the classroom and he became a member of the cabinet of the Belgian Minister for Agriculture, where he worked from 1979 to 1980. He then moved on to European politics.

After a spell as a European civil servant from 1981 to 1989, he joined the cabinet of Frans Andriessen, External Relations Commissioner and Vice-President (1985-88) and the cabinet of Ray MacSharry, Agriculture Commissioner, the following year. When he left the Commission, MacSharry joked that the gamekeeper had turned poacher.

Devisch's new tasks did not take him far from agriculture. On the contrary: he became a member of the governing board of the *Boerenbond*, Belgium's main agricultural organisation. Thus began the third stage of Devisch's career.



Today, at the age of 57, he holds several posts, including that of President of the *Boerenbond* (since 1995), member of the Council of Regency of the National Bank of Belgium (1993), President of COPA (1999) and part-time lecturer in the faculty of agriculture and applied biological sciences at the Catholic University of Leuven, one of the oldest universities in Europe.

And when he is asked to reveal the secret of such a varied career, he simply replies that he has always worked for the good of agriculture, even if family gatherings at Christmas were sometimes difficult, he admits, during his years of working for Europe.

farmers' revenue is obvious: it is falling."

The trained agronomist can be seen lurking behind the champion of agriculture. This is no doubt thanks to a Master's degree in agricultural management from the University of Reading, in the United Kingdom, followed by a doctorate from the University of Missouri in the United States. Indeed, his PhD thesis proposed an econometric model predicting trends in pig meat prices. And when asked whether he had not indirectly helped the competitors of European agriculture, he bursts out laughing and says: "This type of model is no longer used".

A new order for town and country

Although you have mixed views about the past, what do you think of the challenges facing European agriculture in the future? Are we heading towards a new order for town and country?

Devisch smiles at the question but launches straight into the answer.

"First, it is clear that current and future policies tend to switch between price support and income support. This means that, in the far North or in vulnerable areas such as the mountains, maintaining agricultural activity is bound to involve subsidies.

"Then there are also new consumer demands. For example, interest in food safety has never been so strong. The concept of quality has also become very important.

Finally, environmental issues are becoming more and more significant, such as the use of water and preservation of the countryside.

"By meeting these new demands, farmers will show that they bring added value to society. This will give agriculture its new *raison d'être*, in addition to its traditional activities. In this sense, there is probably a new order between town and country."

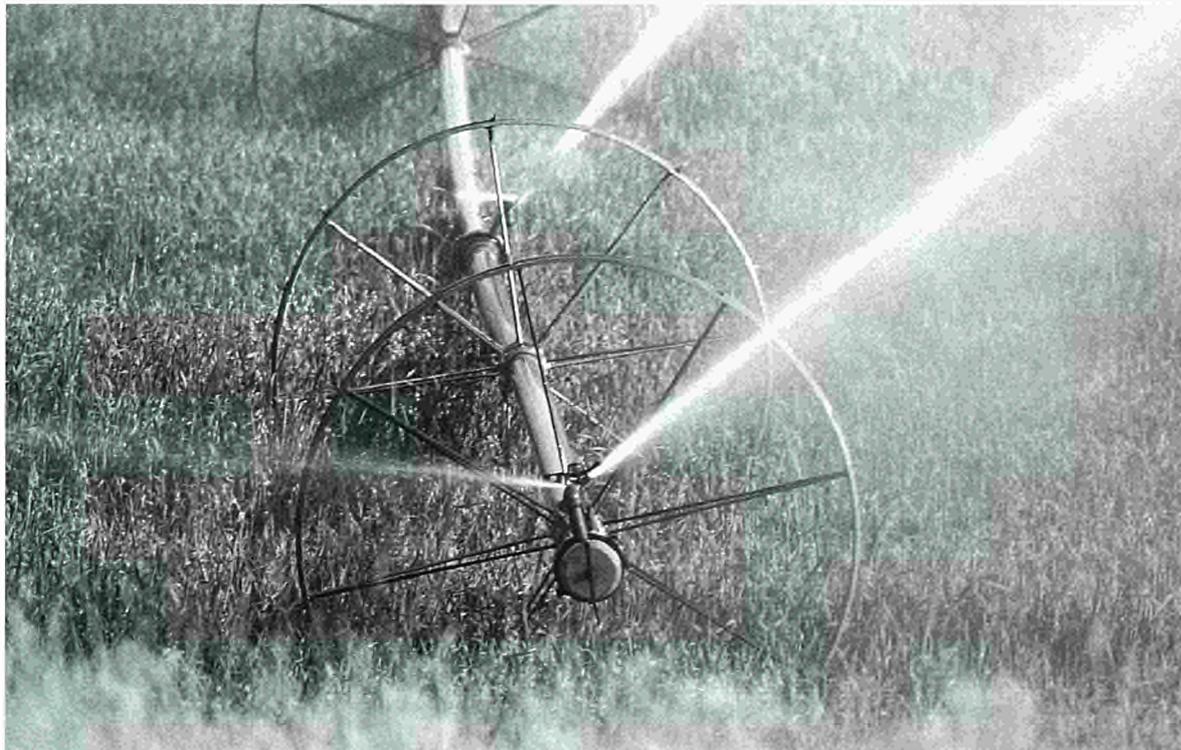
however, Mr Devisch remains cautious and gives us some clues as to his thoughts. The conversation becomes more focused.

The COPA president sets out the issue briefly. "On the one hand, I cannot imagine a two-tier agricultural model, the first tier being made up of the current Union, with an income support system, and the second being made up of the applicant countries,

and Portugal – which had a fully developed market economy – you will appreciate that we should not underestimate the difficulties. I am in favour of integration but it must be on a realistic basis!"

Up-to-date statistics

And statistics and realism go hand in hand, in Mr Devisch's view: "We all have



The enlargement process

Of all the challenges which the future holds, enlargement is surely a godsend for any agricultural lobbyist. The accession of the 13 applicant countries would instantly double the EU's farming population, increase its agricultural area by 50% and open up new opportunities. This would increase agriculture's standing in any future Union and make it the most important agricultural power in the world. On this point,

which would not have a system of this kind. On the other hand, the differences between these two agricultural areas are significant, both from the point of view of food safety and quality and from the point of view of farm structure. Considerable work therefore needs to be done.

"For example, there are as many dairy farms in Poland today as there are in the current Union, and the average size of the farms is barely more than an hectare. If you consider that it took almost ten years to integrate Spain

our opinions and views, but the facts are important. And here the most important thing, when making decisions and establishing their impact on the ground, is not to know the price of poultry or pigs in 1998 or even in 1999. One of the crucial points is to have up-to-date information, as in this way our questions can be answered immediately.

"Our decisions concern the future, not the past. We are not historians. What Eurostat is now doing with herds of pigs is a good example of

this type of statistics because, on the basis of current data, they can predict a shortage or abundance in two or three months' time. The numbers and prices are all very useful, but especially if they are available in good time.

"Furthermore, I have just received a copy of *'The Agricultural Situation in the European Union'* for 1998. This document is published in 2000, the data sometimes relate to 1997 and in some cases are even provisional..."

So in what sectors is speed crucial?

"We need rapid information on prices, total production, actual or estimated, farmers' incomes and, as Europe is an exporter, we need to know quickly the quantities of agricultural produce imported and exported, particularly in relation to quotas. This would tell us what quantities remain and enable us to optimise trade flows. Some Member States sometimes take up to six months to provide this trade information although we need it almost immediately."

Comparable statistics

"It is also important for statistics from the various Member States to be comparable, even if we all have our own systems for collecting information. For this reason, we prefer harmonised systems where possible. The more we aggregate, the more information we lose. We also make our own estimates for certain outputs at

EU level and must work with the data we receive. However, as Europe is becoming more and more integrated, I think it is obvious that the systems must become increasingly harmonised, with everyone using the same methods.

"After all, agriculture undoubtedly has the greatest tradition in collecting, calculating and assessing data. Remember that the Belgian statistician, Adolphe Quételet (1796-1874), who is renowned the world over, was involved in agriculture. Agricultural statistics should therefore take the lead and use modern and fast methods to obtain the best information possible."

Agricultural statistics generally play a more important role in general statistics than one would expect from the importance of the sector in the domestic economy. The president of the Portuguese national statistical institute recently noted that agriculture in his country represented 3% of GNP in 1997, but accounted for almost 15% of statistical costs and approximately 20% of statistical projects.

One-stop statistical system

So I ask Mr Devisch if he regards this 'disproportion' as a source of conflict or problems for agricultural statistics.

"It is true that there is some inconsistency here, but we could easily simplify data collection. In Belgium, where I come from, farmers are

required to fill in census forms, forms required for 'MacSharry' aid, tax returns and documents relating to environmental issues. Why not simplify all this and devise a single information system?

"Modern technology should help us. We are already working with computers and aerial photos for the 'MacSharry' subsidies. Why not have a single, accurate system for collecting information that also allows this information to be distributed to the users, such as Eurostat or the Commission's Directorate-General for agriculture? By combining sampling techniques, electronic mail and the Internet, we could certainly ensure faster provision of information.

"Too often, farmers are asked for the same information for different purposes. It should be possible to coordinate it better. What is needed is a one-stop system. Farmers are not interested in who has requested the information; what they see is the amount of work it involves, especially as the information requested sometimes already exists in one form or another. If farmers are overburdened, there is a risk that the quality of the information may suffer as a result.

"Perhaps I am being very theoretical here, but why not plan requests at the beginning of the year and coordinate all this work, identifying once and for all what we need to know for the decisions that are to be taken." He adds: "It is true that it is difficult to do this even at municipal level, where there

are different utilities (water, gas, electricity, telephone) digging up the same pavements several times."

Irrefutable facts

Beyond immediate needs, I ask Mr Devisch whether he believes statistical information is necessary for any other sectors. After a moment's thought, he mentions two areas: the social section in agriculture and the environment. I ask him to explain.

"Today we do not have much information on the whole social aspect of agriculture, employment, wages, social security. However, it will become increasingly important to know the exact situation in these areas, particularly in terms of an income support policy.

"Then there are all the environmental issues. We have to measure the impact of agricultural activities on the environment, the use of pesticides, etc. We must show society what agriculture is doing in this area, both negative and positive.

"To give you an example, in Flanders we are currently setting up an official network to assess water quality, in connection with problems involving liquid manure. These measurements will be taken by the public authorities. If the water is of good quality, why not tell people? If it is bad, then let's improve its quality. But what is important is that the facts are not in any doubt. They must be irrefutable." ■

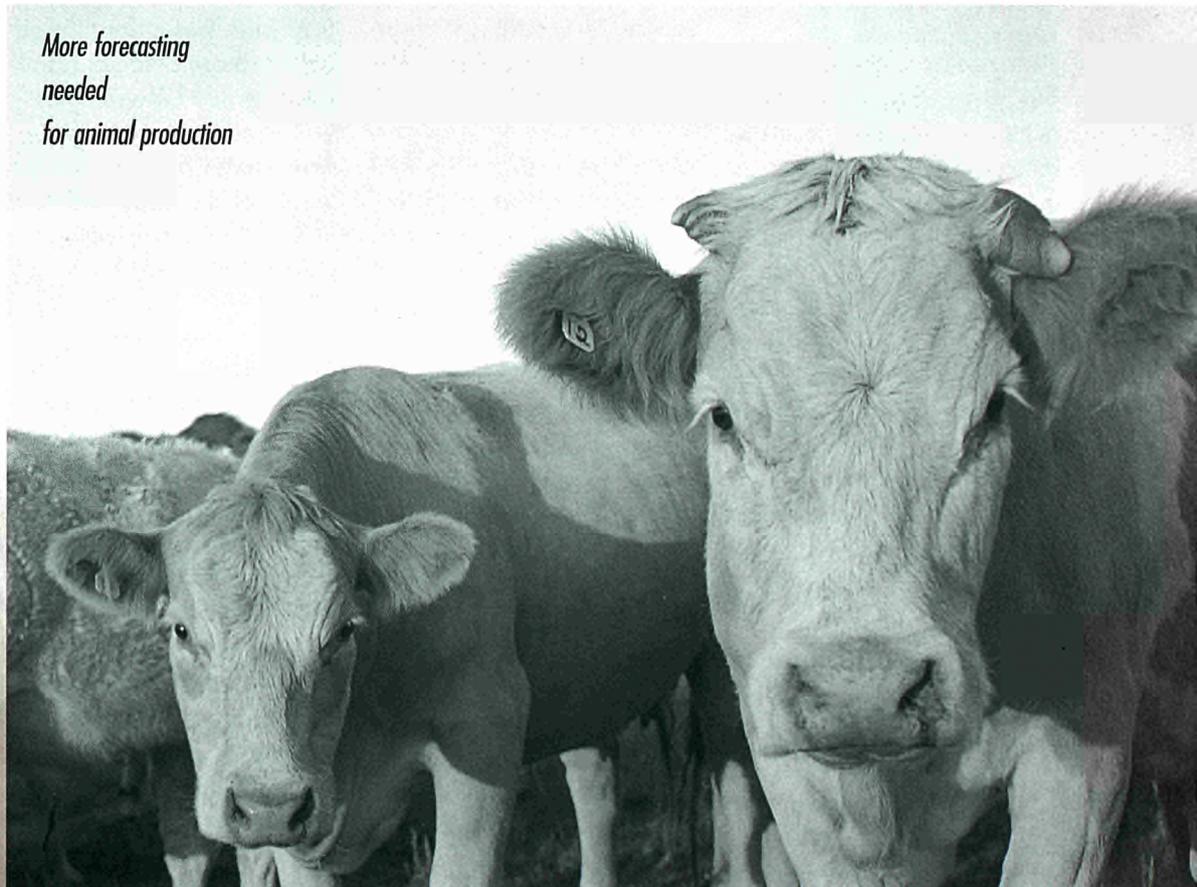
When it comes to raising public awareness of statistics, the media come into their own – indeed, they are one of the most important groups of users of statistical data. In this article, **THOMAS RICKLI**, an editor at Agra-Europe, the press and information service specialising in farming and agricultural policy, looks at the quite legitimate demand for up-to-date, detailed, reliable and ready-to-use statistics.

Responding better to **USERS** and their needs

The pace of change of society has stepped up tremendously at every level over the last two decades. It is now more important than ever to measure and document such changes by producing ready-to-use, intelligible statistics. The journalist can act here as a go-between: mindful of the readers he has at any one moment, he can peruse the statistics on offer and present them in a meaningful way.

Over the past few years in particular, an enormous amount has been done in the European Union that requires media coverage and statistical reporting. Highlights have included the unification of Germany, completion of the single market, the accession of the Nordic countries and, as the crowning achievement, European Monetary Union.

However, one of the cornerstones of today's EU15 and thus of the Statistical Office of the European Communities (Eurostat) was, and still



*More forecasting
needed
for animal production*

is, agriculture. Long before the single market, this was one of the few areas of the economy whose destiny was shaped by Brussels. And this is probably still truer of agriculture than of any other sector of the EU economy.

Running in parallel

Because the Common Agricultural Policy absorbed so much of the Community budget from the very beginning, there was a corresponding need for common

European agricultural statistics. Indeed, it is no exaggeration to say that Eurostat and Agra Europe owe their very existence to agriculture and the Common Agricultural Policy. This year, by the way, marks the fortieth birth-

day of the German-language edition of *Agra Europe*.

The importance of transparency

It is our daily or weekly duty to come to grips with the complexities of an increasingly daunting agricultural policy and its impact on farming and the food industry. We have to render these as intelligible as possible by means of informed and meticulous reporting. Although most of our subscribers use *Agra-Europe* simply to keep abreast of developments, we also provide the press and radio with analytical reports and printed material. The main group of subscribers comprises virtually all levels of politics and administration and also includes associations, other organisations, agricultural enterprises, scientists and,

last but not least, farmers themselves.

As for the wealth of detailed information from Eurostat, here in Bonn we basically concentrate on the *Statistics in focus* publications in order to keep abreast of developments. The green-coloured publications (agriculture) are obviously at the forefront of attention, particularly the reports on changes in agricultural income, farm prices and on individual agricultural markets. The figures on changes in animal stocks and the production of major animal products in the European Union come in for particularly close scrutiny. This is because animal production accounts for a very high proportion of agricultural income in Germany, and also plays a decisive role in the areas located downstream.

More forecasts?

We would welcome it if Eurostat, which does an excellent and reliable job when it comes to documenting trends, were to make more forecasts in future. In the field of animal production, these might comprise estimates of gross domestic production as well as price forecasts. Predicting developments in this way is obviously fraught with uncertainty, but it would give an edge to the reports. This is why we also draw regularly on the reports issued by the American Department of Agriculture.

One thing that does strike us is the gaps in Eurostat data on crop production. Current estimates of trends in areas

under crops and of yields of major crop products would be of interest here. And, from the point of view of the agricultural press, supply balances for major agricultural products are perhaps a little late in arriving.

Topical and detailed data

It would also be appreciated if external trade data were available earlier. The agricultural sector would also find it helpful if trade figures were not published at such highly aggregated levels. *Statistics in focus* often only gives values for food products and basic farm products. A more detailed breakdown would be welcome.

The same applies to the length of the published time series: if only two years are given, it is impossible to say whether the current value is above or below average. It would be better to include several years in the table or at least give a mean value for a longer period of time. Alternatively, the appropriate explanations could be incorporated into the text. Unfortunately, the accompanying text often merely describes the trend shown in the tables. In the meantime, qualitative explanations of some of the trends at work, would also be of great help.

One thing that looks clear is that the need for data and reliably processed information will increase further in future. Nor will there be any less demand for topical statistics. This clearly creates a conflict that will not be easy to solve. Eurostat will most likely be at the front line,

relying as it does on the national statistical offices to supply data. A policy change would thus seem to be in order. Greater harmonisation of the statistics used in the Member States is indispensable if valid comparisons are to be made. And the national statistical authorities should be held more to deadlines, because if time series are published with several years' delay, they will clearly meet with criticism rather than acclaim.

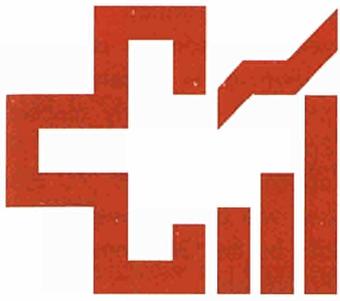
The challenge of enlargement

Against this backdrop, the planned enlargement of the European Union to the east throws down the gauntlet to politicians and statisticians alike. The Common Agricultural Policy puts agriculture firmly at the centre of accession discussions. A smooth accession process in this delicate area calls for reliable and topical data for political and economical decision-makers.

Eurostat should thus work to ensure that the agricultural statistics used in the candidate countries are quickly adapted to EU standards. It is to be hoped that enlargement to the east will add to the value of EU statistics. As a press and information service that will be closely following the accession of the countries of central and eastern Europe to the Community, we are keen to see this happen. Because topical and accurate data on farming and the major agricultural markets in the EU is what our customers want, so it is what we must push for. ■



With this profile of Switzerland, Sigma is extending its series of portraits of statistical offices and systems to include the EFTA countries. BARBARA JAKOB travelled to the Neuchâtel headquarters of the Swiss Federal Statistical Office (SFSO) to meet its Director, **CARLO MALAGUERRA**.



A visit to the SFSO soon dispels any prejudices about the Swiss as ponderous, resistant to change and the like. In the foyer of the new, ecologically-friendly headquarters opened in Neuchâtel in 1998, visitors are welcomed by large-screen interactive art displays on the Internet. A conversation with the eloquent SFSO Director refutes such prejudices even further.

Whilst Carlo Malaguerra would not wish to describe the SFSO as a trend-setting institution, he has no difficulty enumerating some of its strengths. Geostat, for example, is the Swiss geographical information system that is widely recognised as a standard in Europe. The most recent illustration of the Office's success was the CD-ROM *'Interactive Swiss Atlas'* – the 5,000 copies published in spring sold out in only two weeks.

Malaguerra attributes this success to the "truly excellent cooperation" between the SFSO, the Federal Office for Topography and the

Switzerland affirms its statistical position



Cartographical Institute of the Swiss Technical University in Zurich that produced this collection of maps, statistics and relief maps.

User-friendliness

The ease of use of the statistical atlas resulting from the interactive option – the user can process data and conduct searches at will – is also a prominent feature of SFSO's on-line databases. The 'Statweb' facility "should

make us one of the leading suppliers of statistics in Europe, if not the world", says Malaguerra.

At the same time, the SFSO does not confine its use of Internet technology – Statweb also incorporates a browser-controlled surface – to the dissemination of information. Malaguerra is convinced that the Internet will increasingly become a data-gathering tool. The SFSO has begun to use it to collect

local-authority building statistics and the Year 2000 census form will be the first that every household can complete via the Internet.

Malaguerra sees a major challenge in making full use of the new technologies to provide an optimised, highly efficient and faster statistical service. A concomitant task will be to meet increasing information requirements with, at best, unchanged resources.

"The willingness to answer questions is also declining in Switzerland", reports Malaguerra. Consequently, the SFSO is currently examining all available administrative data in order to determine their statistical usability. The 1992 Statistical Law (see box on page 41) even requires the Office to establish prior to each survey whether target information cannot already be obtained from such data.

Trial run for the future

"But the trouble is", Malaguerra concedes, "that these administrative files were not compiled for statistical purposes, which means that certain snags have to be ironed out before we can use them."

The Year 2000 census, for example, will also serve as a trial run for the future with regard to the use of registers. "Our first task will be

to exploit the municipal registers to the full. The experience gained from this census will, I hope, enable us to compile harmonised registers in time for the next census – scheduled for 2010 – so that a complete survey of the principal characteristics of buildings and dwellings can then be carried out".

One for all

A further major SFSO project involves the creation of an integrated data management system, a "data warehouse". This platform will bring together all data from generation to dissemination and serve as a common working tool. "Information must be more efficiently integrated as society becomes increasingly complex", Malaguerra explains. "The needs of the modern world can no longer be met by an exclusively sectoral approach that disregards other disciplines."

This is one of the reasons why Malaguerra would also like to see the corporate identity of the Office strengthened. "Not that the entrepreneurial spirit did not exist in the past, but it will undoubtedly be easier to solve tomorrow's problems if all staff were familiar with the overall situation." A reorganisation is planned, under which processes will be analysed and structures modified to provide for optimum working procedures.

At the same time, the status of the Office is due to change soon. The possibility of basing its statutes on New Public Management principles is under discussion, although the SFSO would remain part of the Federal administration.

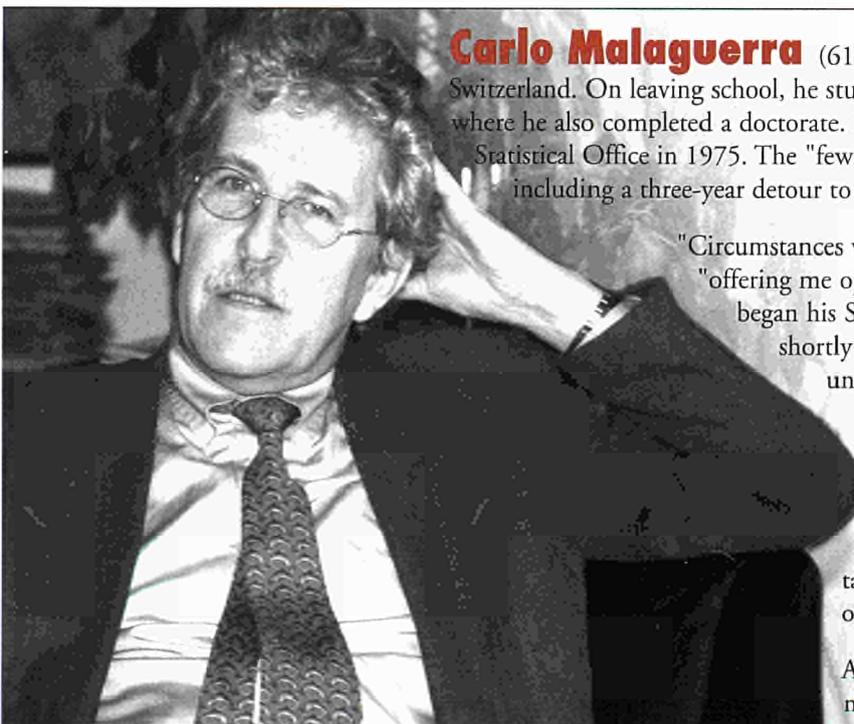
The SFSO Director, however, favours an institute that would be financed by the Federal and cantonal authorities whilst retaining full administrative independence. Throughout its long his-

tory, the SFSO has always been attached to the Federal Department of the Interior. In conjunction with the proposed legislation, a four-year programme is being drawn up to implement the plans of the newly elected Parliament. Funding of approximately CHF 70 million will be approved annually by the Government and Parliament.

The professional independence of the SFSO has now also been legally established. "Independence is a fundamental principle of statistics which we are extremely careful to observe and apply", stresses Malaguerra. "In the past, when people asked questions like, 'Do these statistics really need to be published now?', we simply ignored them."

Investment in dialogue

Malaguerra points out that "Statistics and their signifi-



Carlo Malaguerra (61) comes from Tessin, the Italian part of Switzerland. On leaving school, he studied economics and econometrics in Freiburg, where he also completed a doctorate. From there, he went directly to the Swiss Federal Statistical Office in 1975. The "few years" he originally intended to spend there – including a three-year detour to the OECD in Paris – now total 25.

"Circumstances were extremely favourable", says Malaguerra, "offering me opportunities I couldn't ignore." Malaguerra began his SFSO career in the national accounts unit and shortly after became Head of the economic statistics unit; he was then appointed Deputy Director of the Office before finally becoming Director in 1987. In the European context, he gained experience as President of the European Statisticians Conference during a period (1989-1993) which, he says, "was made simultaneously exciting, difficult and enjoyable by the opening-up of Eastern Europe".

Apart from statistics, he says with a wink, he has no time for hobbies...

The legal framework

Official statistics in Switzerland have been regulated by a legal framework since 1870. The Federal Statistical Law of 1992 established a legal basis tailored to the needs of a modern society.

This new departure involves a coordinating role for the SFSO as the central Federal statistical body, the preparation of a multi-annual overall planning programme for national statistics and the establishment of an advisory body, the Federal Statistical Commission, to the Federal Council.

The organisation of Federal statistics, the execution of Federal statistical surveys, the fees for statistical services provided by Federal agencies and questions concerning the use of registers are governed by detailed regulations.

Moreover, statistics were brought within the framework of the totally revised Swiss Federal Constitution which came into force in January.

cance are now better understood. Whilst it would be an exaggeration to maintain that the Swiss would lose sleep if there were no statistical reports in their newspapers, statistics are now an established concept with a broadly recognised function. That was not always the case", he notes. "Nowadays we are listened to, we are invited to join panels of experts and we help prepare political decisions in such fields as social security, health, transport and the environment and education as well."

The SFSO's investment in dialogue with the institutions and the social partners, the fact that it keeps in contact with society and the attempt to open up the Office and liberate statistics from the ivory tower in which, in Malaguerra's opinion, they have been isolated for far too long, have certainly all contributed to the growing public acceptance of the discipline. In the field of R&D statistics, for example, the SFSO works with the major

Swiss industrial associations and has created a "Forum School" on its website to familiarise younger generations with statistics and their social significance.

"Of course, the media play a central role in the public dissemination of information", says Armin Grossenbacher, the SFSO Director of Information. "In addition to traditional press releases, we regularly organise press conferences and, increasingly, seminars in Bern. One of the latter was devoted to national accounts, their basic principles and the changes which will result from the ESA 95 (European System of National Accounts). A further seminar is planned on labour force statistics.

Eager to build public confidence, we endeavour to make all information transparent, provide background data and justify our activities. That is why we allow journalists to approach the individual experts best qualified to provide the information."

Information as a public service

The Federal Statistical Law defines statistics as public property, the results of which must be easily accessible to the public. A certain amount of information is therefore being made available to the public on a free basis.

Nevertheless, to ensure that individual user groups with different requirements can be directly targeted and served, the SFSO developed a specific marketing philosophy at the beginning of the 1990s. "Under this", Grossenbacher explains: "we refer to the first of three groups as *observers*. They find statistics in the mass media or fields such as education. For this group, statistics fulfil their main function as a source of information promoting social orientation and democratic discussion.

"Users generally consult statistics in the form of standardised products that underpin decision-making,

whilst the third group, *processors*, as specialists to some extent, require a greater volume of data and customised products which they can process in, for example, research and consultancy work prior to dissemination.

"This 'three-circle model' correspondingly determines publication activity, the choice of medium and pricing", Grossenbacher explains. "Thus, services to observers, who are generally more interested in information in breadth than in depth, are free of charge. Small, easily comprehensible brochures are made available to them, for example."

Such products, however, are not enough for those who use and process statistics. They pay the appropriate price for the greater volume of statistics or even the customised data they require.

The entire SFSO publication programme is being examined in the light of this model. "We want to do

away with such things as large-scale publications that, in reality, are nothing more than table cemeteries. They are of no interest to the general public and no help to anyone seeking to work with the data", Grossenbacher explains.

<http://www.statistik.admin.ch/>

Here, again, the Internet comes into play. "Our aim is to press ahead with the Internet as a medium as well as with e-commerce and network dissemination" – possibilities already offered by the SFSO. Grossenbacher goes on: "Our on-line database can be accessed and its contents examined free of charge, although anyone wishing to use the data professionally must register and pay a small fee. Before downloading, they can inspect a table on screen and decide whether to buy it for a fee based on the number of downloaded cells.

"We take care to match both the product and its form to individual user requirements. In this connection, the new technologies offer a range of possibilities which we must exploit. At the same time, new technologies create expectations, for example for increasingly up-to-the-minute data. We are prepared to accept this challenge", says Grossenbacher in conclusion.

The conversation moves from the unbounded Worldwide Web to unlimited statistics.

"Fully EU-compatible"

Carlo Malaguerra attributes the growing internationalisation of statistics to the development of an increasingly globalised and ever more complex society. In this context, he sees cooperation as vital. "Even more in the future than at present, statistics must be considered from the international standpoint", a credo that clearly reveals his attitude to European statistics.

For, although the Swiss voted *against* EU membership, their statisticians have voted *for* integration into the European system.

"Because of the great need for comparisons between our statistics and those of other countries, we decided to make our data EU-compatible and, consequently, we attach great importance to cooperation with Eurostat", Malaguerra states. "Thus, official Swiss statistics now incorporate

all the EU nomenclatures, classifications and definitions including, for example, ESA 95.

"Whilst Swiss statistics can be said to be fully EU-compatible as far as meta-data are concerned, this is not the case for quantitative data, since we do not conduct all mandatory Community surveys and do not make all compulsory statistics available. For example, there are no Prodcom or quarterly labour force statistics and even certain areas of transport are not covered. In the case of meta-data, however, we have completely transposed the Eurostat directives."

Similarly, the system used by the territorial units for the NUTS statistics has now been transposed to the Swiss context. Seven NUTS 2 regions have been defined and the first statistics in respect of these major regions have been published. In addition, the representativeness of sampling in these areas is

guaranteed. The cantonal statistical offices, of which there are 17 (26 cantons), do not themselves collect data but evaluate administrative information and process Federal statistics.

Since, as a non-Member State, Switzerland has no say in Community decision-making, the SFSO is all the more dependent on cooperation with Eurostat as an observer if it is to achieve its goal of EU-compatibility. "We are very pleased to be able to monitor the activities of Eurostat's working groups", says Malaguerra. The degree of active Swiss participation is clearly revealed by the number of working group meetings attended (between 80 and 100 a year).

"As far as possible, we try to participate actively, rather than merely observing", Malaguerra goes on. "The prevailing spirit of professionalism is a help here. Objective discussion is considered far more important than the question of membership."

Stefano Franscini,

who like Carlo Malaguerra came from Tessin, was the father of Swiss statistics. Recognising the importance of statistical analysis in politics at an early stage, he used this technique to promote the interests of his native canton in the first Federal Council of the newly-established Swiss state in 1848.

As early as 1827, Franscini published a standard work on Swiss statistics, the '*Statistica della Svizzera*'. In 1850, he organised the first national census and advocated the establishment of a national statistical office, the Federal Statistical Office and forerunner of the present SFSO, which

came into being in 1860, three years after his death.

The first general statistical law of 1870 was not replaced until the adoption of the Federal Statistical Law of 23 October 1992 more than 100 years later. This law also reorganised Federal statistics – in response to the great variety of services that had grown up within the Federal administration – and assigned the SFSO responsibility for coordination.

In the last ten years, which have seen many of the statistical services formerly attached to ministries transferred to and centralised in the SFSO, the

Open on all sides

Of course, the SFSO also collaborates with the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund, the UN Economic Commission for Europe (UN/ECE) in Geneva and the Conference of European Statisticians. This supra-national cooperation is backed up by a series of bilateral cooperation agreements and support programmes.

Thus, the SFSO promotes the exchange of information, for example with neighbouring countries, or participates in joint projects of the type currently involving the Netherlands, Denmark and Sweden in the field of metadata or Finland for registers.

Statistical support programmes are conducted under the development projects run by the Federal Department for Foreign Affairs, which generally involve a statistical dimension. Support is given to clearly defined programmes

which are then monitored and evaluated by the SFSO, as is currently the case, for example, in Slovenia, Bosnia-Herzegovina and the Former Yugoslav Republic of Macedonia as well as in Palestine and Kyrgyzstan. Together with Italy, the SFSO has also accepted responsibility for the preparation of a census in Albania under a Community project.

Aware of the future challenges facing Swiss statistics, the SFSO is keen to take advantage of the experience and knowledge of other statistical offices. Thus, in Spring 2000, two officials from 'Statistics Canada' subjected the SFSO to a 'peer review'.

The Swiss statistical service maintains a special link with Liechtenstein. "We helped to create their statistical system and are authorised to carry out certain censuses and surveys."

How does Carlo Malaguerri see the

future of European statistics given that the Swiss are so outward-looking?

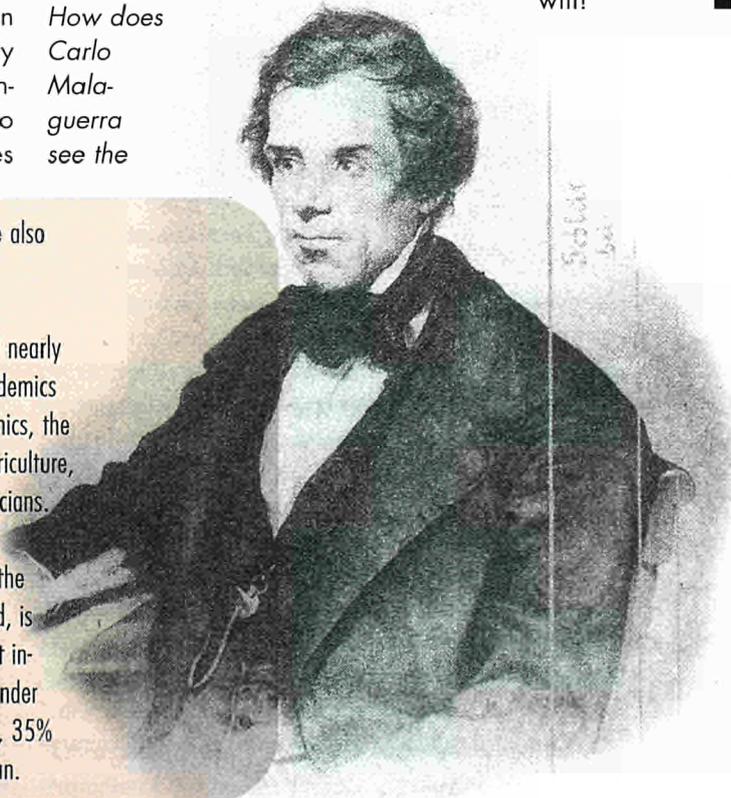
"The future of European statistics certainly looks very promising. Frontiers are gradually becoming less important and the cross-border movement of individuals, capital, traffic and the like is now an established fact. It is therefore hugely important for information to be exchanged and gathered on an international basis.

"Supra-national offices which promote the exchange, harmonisation and uniform collection of data will play a central role in this context since they ensure that statistics speak a common language.

"For me, Eurostat is an indispensable institution which will become even more important as the integration process proceeds – as it undoubtedly will!" ■

resources devoted to statistics have also more than doubled.

At present, the SFSO has a staff of nearly 600, almost half of whom are academics – mainly from the fields of economics, the social sciences and forestry and agriculture, but also including some mathematicians. The move from Bern to Neuchâtel, i.e. from the German-speaking to the French-speaking part of Switzerland, is altering the balance of the different in-house language groups, with just under 60% of staff still speaking German, 35% French and approximately 6% Italian.



PICTURE CREDITS

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Swiss Federal Statistical Office

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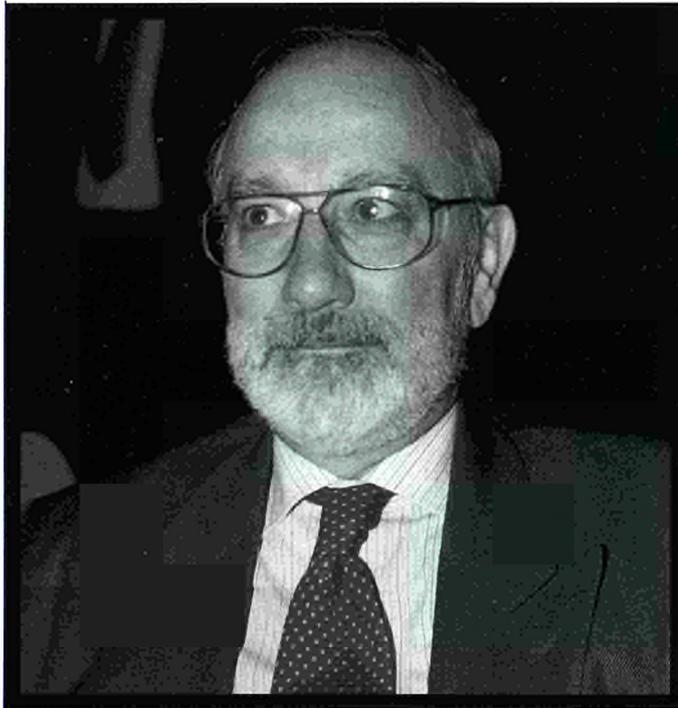
After thirty-seven and a half years in the Commission, thirty-seven of which were spent in Eurostat (!), **ALBERTO DE MICHELIS** has retired. STEFFEN SCHNEIDER spoke to him.

A man still brimming with enthusiasm about his job...

Alberto De Michelis had a brilliant career, but his most exciting period was undoubtedly his time as director of Directorate B, "Economic statistics, economic and monetary convergence", in the run-up to the introduction of the euro. The constant pressure on Eurostat due to the convergence criteria was mainly felt by Directorate B, which is responsible for economic statistics. Alberto De Michelis carried his task through to a successful conclusion before passing on the torch to his successor at the end of March.

"There is no doubt that it was the most recent period, the one involving the euro, that was the most exciting," he said. "It was the high point of my career. This period highlighted clearly the role of Directorate B and of Eurostat in introducing the euro.

"I observed throughout my career that the interest we take in our professional activities helps to make our work



Alberto De Michelis studied economics at the University of Florence and statistics at the IPSOA Institute in Turin before joining the price statistics unit of the Statistical Office of the European Communities in 1963.

During his career he worked in many sectors of Eurostat and was involved in major international negotiations (GATT, Kennedy Round, ACP). After taking over the agriculture division in 1984, he became head of the unit "Planning, budget, relations with other Community institutions and international organisations" in 1988. In December 1992 he became acting head of the Directorate "Economic statistics and national accounts, prices and coordination relating to the single market". He was then appointed Director of this Directorate in 1993, which was renamed "Economic Statistics and economic and monetary convergence".

interesting. I also noticed this when, although I was very satisfied with my work in the developing countries division, the Director-General of Eurostat appointed me as head of the agricultural statistics division. I made an effort to be interested in this work, and I found it fascinating."

With regard to the convergence criteria, you used the image of a thermometer that must work perfectly. How is the thermometer working today?

"I remember. It worked well! With regard to the statistics relating to the euro-zone, which are intended for use by institutional decision-makers and the world of finance, a great deal remains to be done. We have made progress. And the press is a good indicator, as Eurostat is being quoted more and more, but it is also criticised for being too slow. We must persevere and improve the "thermometer"; otherwise we will be overtaken by others. But I am optimistic."

How does it feel to be newly retired?

"Very good. I am in top form. After so many years of service with Eurostat I was still just as fascinated by my work. During my career I changed jobs regularly, every five or six years. And now, having worked in Directorate B since 1992, it is time to let a younger colleague with new ideas take over."

A 'user' approach

Was it difficult to change fields so often?

"I always approached my work by trying to demonstrate

what purpose statistics served. I tried to put myself in the user's shoes in order to understand what was expected of the statistics in question. This helped me in my approach to my work.

"Furthermore, changing divisions is not difficult if you have a good team. Good colleagues are crucial. And I must say that I was not disappointed. In recent years I had excellent support, from the secretaries to the heads of unit."

Did you ever experience any truly difficult periods?

"Personally, I did not really encounter any serious difficulties. The only time I was really anxious was at the end of the 1970s, in early 1980, when the Commission was losing interest in Eurostat activities and its capabilities were not understood. At that time we had no contact with the cabinet. There was even talk of doing away with Eurostat. The entire staff would then have been transferred to the corresponding DGs in Brussels.

"But we wanted to keep it going. We fought together with Alain Chantraine (Chief Adviser), Daniel Byk (Adviser to Units C1 to C4) and others, and we are still around today."

Awareness of quality

As in many private enterprises, a total quality project has been launched in Eurostat. How did you manage to work for 30 years without this concept?

"In fact, we have always achieved quality without being aware of it! Of course, we did not really talk about quality, but we always took care to ensure that our work met the needs of the users as far as possible. In my view the most important measure of quality in statistics is user satisfaction. Therefore we must always listen to users if we are to have a proper understanding of their needs.

"All things considered, Qualistat has given Eurostat a quality ethos and Eurostat, in turn, has been able to equip itself well to meet the challenges of the information society. We have become aware of the importance of quality, and everyone is using these new instruments."

Lies, damned lies, ...statistics do not always enjoy a favourable reputation. Do you believe nonetheless that statistics are in general still flourishing?

"Statistics continue to be a fundamental tool in managing society and in managing the policies that govern society, for example environmental, social or economic policy. Without statistics we risk being faced with decisions taken purely on a political basis, in the true sense of the word. Statistics are an instrument for decision-makers but also for the public in the broad sense of the term. The independence and development of statistics are good indicators of a country's democracy.

"Enlargement is a good example of this: when a coun-

Farewell from the Director-General of Eurostat, Yves Franchet...

Visionary, energetic and competent

Alberto De Michelis spent his entire career in Eurostat. He covered various sectors, working mainly in foreign trade, business statistics and regional agricultural accounts.

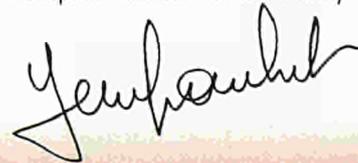
At the beginning of the 1980s, when European statistics were going through a difficult period for a variety of reasons, he was one of a small group of people who were able to remain hopeful for the future and fight for the survival of an activity that was difficult to manage.

The last ten years of his career saw a period of intense statistical activity as European integration was accelerated by the implementation of the Single Act, the Maastricht Treaty, the Amsterdam Treaty and the introduction of the euro.

Initially responsible for preparing for this period by planning the work to be carried out within the European statistical system, he soon took charge of economic statistics. The creation of the euro gave rise to a period of intense activity in this field involving measurement of the excessive deficit, the stability and growth pact, which was added to more standard activities linked to own resources, and measurement of economic growth. The creation of the European Central Bank and the development of close collaboration with Eurostat also represented a fundamental challenge for this department.

Alberto De Michelis was able to mobilise his colleagues in order to meet all these challenges, his vision, energy and skills helping to overcome the many obstacles encountered.

He was an excellent colleague, and the European Commission owes him many thanks.



try wishes to join the EU, we of course examine political criteria but we also look at statistics as they give an overview of the country."

What about the future of Eurostat?

"In my opinion, Eurostat is on the right track with its 'Qualistat' project. Quality and service to users must remain at the heart of its activities and organisation. Above

all it must not backtrack from this project."

Is there life after Eurostat?

"Yes. My preferred destination is Nice. Italy will not be very far away... Of course, I will not forget Eurostat and I will always keep an eye on my colleagues' activities. But I am going to devote myself to other pastimes I enjoy, such as travelling or reading. And I am going to start to play golf, as retired people do!" ■

Len Cook, 50, formerly Government Statistician in New Zealand, landed in London at the end of May and has already taken the first step towards fulfilling his mandate. In addition to being the UK's first National Statistician, Cook also takes over as Director of the Office for National Statistics (ONS), where he succeeds Tim Holt, and as Registrar General for England & Wales. Holt, who was director for nearly five years, first of the Central Statistical Office and then of the ONS, will be returning to the University of Southampton where he was formerly deputy Vice-Chancellor.

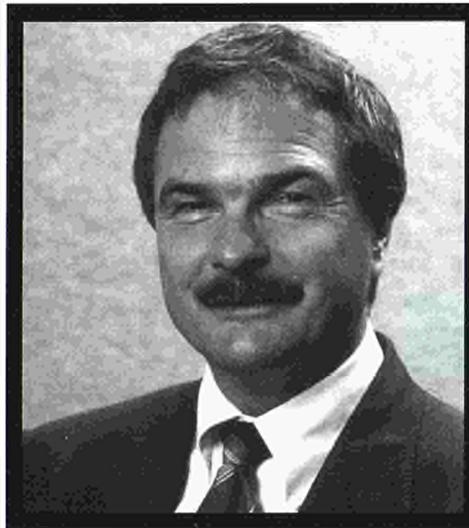
National Statistics on the move

The appointment of a National Statistician follows the widest debate on official statistics in the UK for at least 30 years. Cook's arrival coincides with the setting-up of a Statistics Commission to oversee the integrity of National Statistics, a hallmark that would guarantee high standards of data collection, processing and dissemination. Sir John Kingman, a former president of the Royal Statistical Society, has been named chairman of the commission.

In his preface to the White Paper spelling out the government's plans for official statistics, British Prime Minister Tony Blair summed up the overall objective: "Our aim is to build a platform that will establish the UK as a world leader in the provision of quality statistical information – statistics based on high professional standards and acknowledged to be honest, dependable and accessible."

To oversee a major reorganisation of its official statistics, the United Kingdom spared no efforts to find the right man for the job. In the end, the search was called off when New Zealander **LEN COOK** signed on as the United Kingdom's first National Statistician.

A New Zealander at the helm of British official statistics



Len Cook, the UK's new first National Statistician describes himself as a "strong articulator of new directions in official statistics"

A turning point

The new National Statistician has a wide-ranging background in managing both economic and social statistics – including population censuses – as well as a formidable international reputation.

"I am delighted to be coming to ONS at such a significant turning point for UK official statistics", he said. "Internationally, it is a progressive time for official statistics, and the UK is clearly sharing that spirit. I have followed the changes of recent years in the UK, and look forward to helping further the good work."

Following the announcement of his appointment, which is

for three years with the option of extending it or permanent appointment, Cook undertook a week-long fact-finding mission to London, where he met opinion-formers in the statistical community and senior figures in government. "In my meetings," he summed up, "I have found a strong reservoir of goodwill towards ONS, and consistent thinking on what we need to do to build on that."

"A strong articulator of new directions"

The New Zealander, a professional statistician who describes himself as a "strong articulator of new directions in official statistics and infor-

mation technology", has been chief executive of Statistics New Zealand (SNZ) since 1992. Before that he was Deputy Government Statistician. During his nearly 30 years with SNZ, he has been active in implementing new management forms and processes, and in upgrading public statistical services – including Internet, media and research services. He has been actively involved in a variety of professional bodies in New Zealand, and has been a member of the Royal Statistical Society since 1973.

Cook has also contributed to many advisory groups involved with public policy in New Zealand; he was a member of a royal commission on social policy, and an adviser to government task forces and reviews on taxation, superannuation, social science research, and population policy.

During his stay in Britain, Cook hopes to find time to pursue his leisure interests, which include fly-fishing, hiking, travel and languages. He and Shirley, his partner of 20 years, have no children. ■

The Federal Statistical Office has been supplying figures on economic structures and trends in Germany for 50 years. The quality of its national accounts is recognised world-wide. However, national accounts alone are unable to adequately illustrate the link between economic activities and the environment. The Federal Statistical Office has consequently set up the Integrated Environmental and Economic Accounts database in a step-by-step process.

At about the same time that the first steps were being taken to develop the Integrated Environmental and Economic Accounts at the beginning of the 1990s, a fundamental change occurred in environmental politics. In 1992, a world conference took place in Rio de Janeiro, focusing for the first time on both environmental policy and development aid. The model of "sustainable development" was coined in Rio to signify a balanced combination of economic, social and ecological goals and measures.

Sustainability as a reference measurement

Sustainability is the reference measurement for the long-term methodological orientation of Integrated Environmental and Economic Accounts. In short, sustainability denotes a process in which only natural

It is universally agreed that environmental considerations must also be incorporated into statistics on the evaluation of economic performance. However, it is unclear as to how such statistics could be usefully presented. In the following article **URSULA LAUBER** of the Federal Statistical Office describes the German approach.

The greening of economic accounts

The German experience towards a sustainable economy



The team of the Integrated Environmental and Economic Accounts unit at the Federal Statistical Office (from left-to-right, first row: Ursula Lauber, Dr Karl Schoer (head of the group), Michael Deggau; second row: Elle Krack-Roberg, Steffen Seibel, Dr Bernd Waldmüller; last row: Norbert Meyer, Klaus-Dieter Würtz, Heike Becker, almost hidden: Sabine Olbort and Christine Flachmann, Norbert Küster

resources (raw materials, the landscape, biotopes etc) which grow again or can be replenished from other sources are used. In this context, the Integrated Environmental and Economic Accounts are split into five

sectors, as shown in the figure on the following page.

1. *Material and energy flow accounts:* Major environmental problems occur because large amounts of raw materials, energy sources and other

resources are taken from nature, changed or used in economic processes and households and eventually emitted back into the environment as refuse, waste water and air pollutants or as waste excavated material, heat etc.

Material and energy flow accounts record these different flows as physical quantities expressed in tonnes, joules etc.

The main basic data used are environmental, energy and production statistics, plus the energy balance. The input-output tables provide a central framework with their methods and subdivisions being used to determine the material and energy flows.

An appropriate definition of the links between industry and the environment in figures necessitates a comparison of data on the two sectors. The subdivision of data from material and energy flow accounts within the structure of the Integrated Environmental and Economic Accounts is therefore based on the separation of so-called homogeneous areas of production, as in

the input-output data in the national accounts. This subdivision into production sectors allows for material and energy flow data on the environment and environmental pollution to be directly linked to economic reference figures (e.g. GDP, employment).

Nature as a factor of production

Information recorded in this way can also be used to draw conclusions about the efficiency of nature as a factor of production. Assessing the productivity of labour and capital, by linking economic performance to units of labour or capital, is a daily task.

However, the concept of nature as a factor of production can also be grasped in the material and energy flow

accounts in such a way as to allow the necessary links to economic output to be established. On the one hand then, the productivity of raw materials, energy, water and land is calculated in order to highlight how efficiently nature as a resource is being used. On the other hand, the link between economic performance and, for instance, the emission of greenhouse or acid gases, refuse or waste water, can be used to clarify the efficiency of using nature as a basin or sink for residual matter and pollutants.

Observing the trends in these variables over an extended period can provide information on how the relationship between these factors changes e.g. with technical progress; and whether, for instance, the way capital is used can relieve the strain on labour or nature. Together with trends in volume, this can be used to determine whether there is currently a move towards greater respect for the environment in the use of natural resources.

2. The use of land and space: Land use and coverage plus any changes to these factors are recorded under the above heading. Importance is placed on the trends and changes in land coverage, and the intersection of landscapes by roads, paths and railway lines.

To obtain the information needed, air and satellite photographs are analysed together with topographical charts as part of a European survey. Private firms (engineering consultancies, institutes) record land coverage data by interpreting air and satellite photo-

graphs. Following closer examination, the Federal Statistical Office then digitalises the data. This databank represents a substantial component of the geographical data system STABIS (Statistical Data System on Land Use). Such a system has the advantage of bringing together a large amount of different data on land coverage, and is therefore able to take account of the spatial aspect, which is of importance to environmental issues.

As in the case of material and energy flow accounts, the links between land use and economic activities are shown in the Integrated Environmental and Economic Accounts with the use of input-output tables.

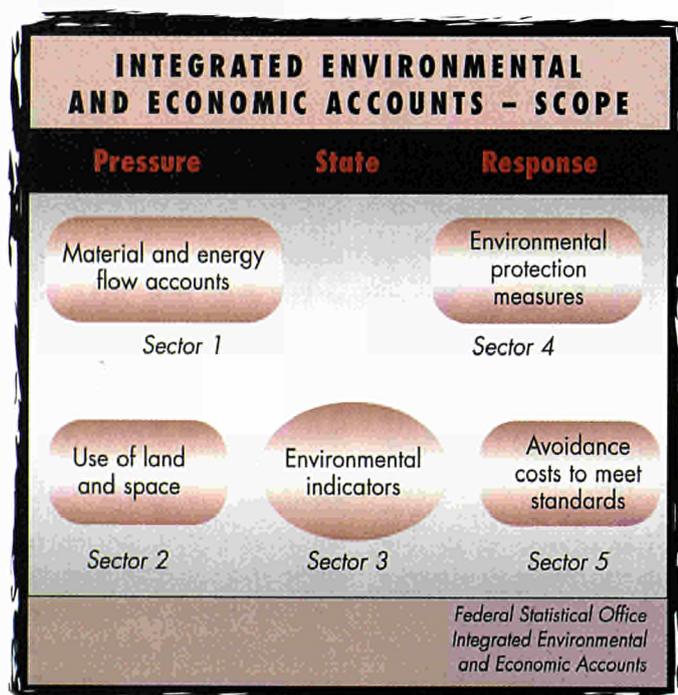
Ecological area samples

3. Environmental conditions: The above sector is responsible for recording statistics on changes to the environment without becoming bogged down in detail or submerged by a surfeit of information.

Ecological area samples are currently being used to prepare a survey intended to record changes to the quality of nature and the landscape by using representative samples and indicators. The concept was developed by the Federal Statistical Office in close collaboration with the Federal Office for Nature Conservation and various private research institutes.

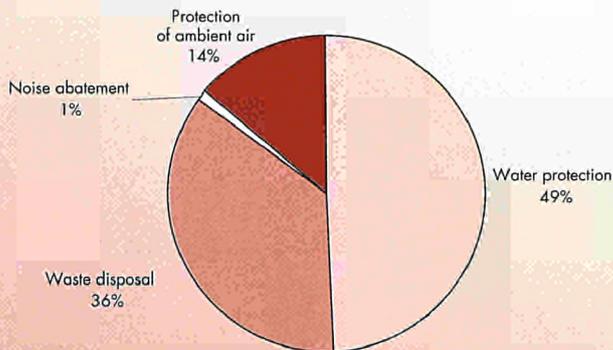
The Federal Statistical Office has set out the sample size and programme together with the list of features to be examined (biotopes). Practical

Overview of the sectors of the Integrated Environmental and Economic Accounts



Expenditure on environmental protection¹⁾ for each sector in 1995

Expenditure on environmental protection totalled DM 75,638 million in 1995



¹⁾ Investments and current expenditure on environmental protection for the State, manufacturing industry and public waste disposal firms (in current prices)

Federal Statistical Office 1999
Integrated Environmental and Economic Accounts

research in the field is to be carried out by ecological experts.

In principle, it can be presumed that the statistical approach is similar to that applied in other areas, where basic sets of facts are recorded in full in a large-scale census (e.g. a population census). With the help of samples (e.g. microcensus), surveys of complicated issues can then be undertaken inexpensively. Moreover, the focus in this section of the Integrated Environmental and Economic Accounts is on developing highly aggregated indicators to define the state of the environment. The results of the abovementioned surveys *inter alia* are incorporated into this section.

What environmental protection costs

4. Environmental protection measures: The above sector records the measures which

have been taken to protect the environment and, in particular, the related expenditure. Fixed assets and expenditure on environmental protection are recorded, following on from the survey on investment in environmental protection in manufacturing industry and the analysis of financial statistics relating to public expenditure on environmental protection.

The figure above shows a set of core results from the 1995 accounts. In future, other sectors of industry will need to be included, particularly the private waste disposal sector, whose importance increased substantially in Germany during the 1990s. In addition, detailed results for this sector based on the European System for the Collection of Economic Information (SERIEE) were compiled for Eurostat. Revenue from eco-taxes and fees is also recorded.

The internalisation of external costs

5. Avoidance costs: All forms of integrated environmental accounts are based on the assumption that the costs of environmental pollution caused by industry and households must somehow be recorded. This concept is known as the "internalisation of external costs".

It is, of course, very difficult to directly assess environmental pollution or damage, particularly as the pollution frequently occurs at some distance from the polluting activities, in terms of time and space. For instance, who would be able or want to determine the financial loss incurred when a species of orchid dies out or blue whales become extinct.

The Integrated Environmental and Economic Accounts have chosen to bypass such difficulties by recording the costs incurred in preventing certain harmful emissions or other such damage to the environment from the outset (avoidance costs approach). For instance, the task would then be to establish the costs of reducing nitric oxide emissions by 25% within a given period, or of halving the volume of refuse. The reports therefore always focus on specific questions and pre-established goals. Although this method involves considerable practical problems, it would appear to be much easier to put into practice than assessing overall environmental pollution and damage.

Environmental national product?

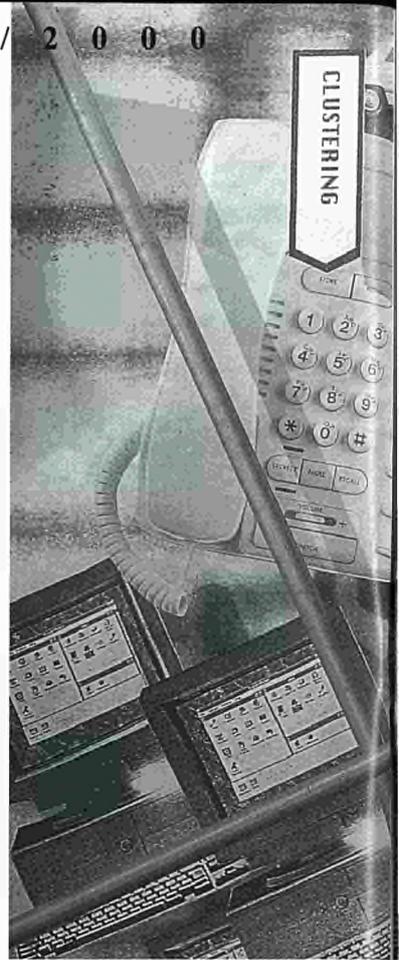
As with other results from the Integrated Environmental and Economic Accounts, the recording of avoidance costs forms the basis for calculating national environmental costs. When the Integrated Environmental and Economic Accounts were set up, it became clear that owing to the problems of assessing national environmental costs and the limited knowledge of the links between cause and effect, national environmental costs would not be reduced to a single figure to correct gross national product, as was originally hoped. For this reason, the Federal Statistical Office is no longer endeavouring to record the environmental national product.

A new method which involves outlining the approach towards a sustainable economy using model economic accounts is currently taking shape. These model accounts are able to show the results of various environmental strategies and therefore act as an important aid in the decision-making process.

By their very nature, the results of such model accounts depend to a large extent on the previous assumptions made. This falls outside the remit of official German statistics, and for this reason they are compiled by external bodies. However, the Federal Statistical Office co-operates with these research institutes by providing a wide range of basic data for such model accounts. ■

In this article, **PAUL VAN KALLEVEEN***, head of marketing and responsible for account management at CBS, shares his experiences of marketing and data dissemination within CBS, the Dutch statistical organisation. He provides us with details of the various steps required for strategic marketing planning, right from mission to action. Mr. Van Kalleveen's views are based on desk research and experiences of account managers. He describes CBS's mission and strategic marketing goals, defines its marketing strategy and actions and concludes with a brief look at the future.

Making Dutch statistics ALERT and RESPONSIVE to the MARKETS



Some people believe that the best strategies are thought out after the event. That is indeed partly true in the case of Statistics Netherlands. Nevertheless, I believe that a clear marketing strategy, embedded in a corporate mission, provides a good basis for 'defining the future'.

The mission of Statistics Netherlands, as formulated in its business plan *CBS 2000*, contains a statement about its role in Dutch society. The Bureau's strategic marketing goal is summed up in the last sentence of this mission statement as "Statistics Netherlands wants to achieve a considerable increase in the external use of its information."

It goes on to ask how it can get a faster and more complete view of the information needs of (potential) users, adapt its production process to make it more alert and

responsive to these needs, and organise itself so as to stimulate the use of the information it provides. In addition, Statistics Netherlands seeks to be a "junction on the electronic highway", implying a leading role for the Internet in its dissemination strategy.

Choice determines strategy

For the people in the marketing department, this raises an important question, namely, in which market are we actually operating, or more importantly, in which market do we want to operate? There is an element of choice here, and what you choose largely determines your strategy. The key question is therefore: in which market can we achieve our marketing goal?

We always implicitly assumed that Statistics Netherlands operated in the market for statistical information. However, desk research and account managers' experiences re-

vealed that most of our users consider statistical data as a semi-finished product, which, when enriched with other information like business information, gained considerable added-value for them. This led us to conclude that statistical information is a basic component of professional information and that Statistics Netherlands operates in the market for professional information, i.e. the market for occupational and educational information. As the professional information market is a strong growth sector with considerable upward potential for absorbing statistical information, Statistics Netherlands should be able to achieve a sustainable growth in the external use of its information through this market.

Opting for the professional information market largely determines the marketing department's field of operation. The next stage of strategic marketing planning process is to further describe

this market in terms of market segmentation, market needs and market developments.

Segmentation sets priorities

The big advantage of segmentation lies in the simple setting of priorities. Each segment can be rated at its own real value and receives the attention it deserves. The market for professional information can be divided up along the criteria of information needs, information-seeking behaviour and accessibility by users via external distribution channels.

In the latter case, our segmentation research surprised us, revealing that *marketing at Statistics Netherlands is largely based on tracing intermediary organisations with distri-*

* The discussion at Statistics Netherlands about the marketing strategy is currently in progress. This article reflects Mr Van Kalleveen's personal views.



distribution channels in the market for professional information. This led to the conclusion that distribution matters play a key role in Statistics Netherlands' marketing mix. Another important lesson was that no matter how essential we believe our statistical information to be, most users and potential users only consider it, at best, as 'useful to know'. This is apparent from the passive search behaviour of most users, among other things.

Furthermore it emerged that within the business segment, the size of the company is the main factor behind the search and use of information, while in the education segment it is the level of education that determines the division into sub-segments. It also became clear that the division of specific users (organisations) into segments may vary, for instance, depending on the strategy. From a marketing perspective, a ministry can be classified as government in terms of end user, and at

the same time, as an intermediary agent for special interest groups and implementing organisations in the field.

An information hyper-market

Each segment has its own information needs. In fact, each user has his or her own information needs. In practice, users, especially professional users, want the information to meet a mix of criteria. This mix and the hierarchy of elements in it depend on each specific user situation.

Professional users want information to be

- ▶ reliable;
- ▶ timely;
- ▶ appropriate to their working field;
- ▶ complete.

Reliability is essential. Without a high level of reliability products have no place

in the market for professional information.

'Timely' simply means being available at the right time. In this regard, the Internet can play an important role.

Although the third element of the mix would seem to be self-evident, working-field-fit is often not given enough attention. Sometimes this is because product development themes – professional, market, trade-specific, and government policy information – are confused with 'newsworthy' themes like employment and crime.

Information that is complete from the users' point of view does not stop at the border of one organisation. Users want to have a one-stop information shop: professional information users are looking for a single provider for all their information needs; and the information supplier who can offer this will come off best.

As for information needs, it is important to note that user categories can only be identified on the basis of users' interest both in terms of subject and content. For the professional market, this is relatively easy to determine, as the information should match the users' field of work; target groups are relatively easy to trace and easy to reach through numerous organisations, as in the case of trade associations and specialist publishers, who direct their information supply to these groups.

Tailor-made products

As high quality information tailored to the needs of specific users becomes an increasingly profitable product and while at the same time information technology costs are falling, many new actors, some of them from outside the information business, are entering the market for professional information.

In the Netherlands, trade associations are gradually becoming professional publishers, providing Statistics Netherlands with new channels to relevant user groups. Large financial institutions are also emerging as professional publishers of business information for specific segments, especially for small and medium-sized businesses. This development offers opportunities for co-operation, by which Statistics Netherlands can achieve widespread and effective dissemination with minimal effort. But, at the same time, this poses a threat as our core business comes under increasing competition.

With the results of this market research, backed by our mission statement and our strategic marketing goal, we have sufficient ingredients to formulate a marketing strategy. Co-operation with other suppliers of professional information and large-scale dissemination via the Internet become two major components of this strategy.

Co-operation with intermediaries (e.g. ministries, trade associations, special interest groups and professional publishers) is essential for Statistics Netherlands. Primarily, because they are able to enrich the 'semi-finished statistical information product' with the information required by the professional information users since they are fully aware of the information needs of their target groups. And, the intermediaries have the distribution channels to reach the target groups.

From the user's point of view, the one-stop shopping principle is being fleshed out. The additional advantage is that there will be less pressure on the information service of Statistics Netherlands in due course. Users will be able to go directly to their own 'window'. Statistics Netherlands will also be able to limit the time and money spent on its own product development as we 'just' have to go along with the intermediaries.

Promising virtual markets

As any modern information company, Statistics Netherlands wants to achieve a wider and more intensive use of the Internet as a dissemination channel for its data. Although there are some

ideas on how the Internet could be used now and in the future, there is no clear-cut Internet strategy embedded in our corporate dissemination strategy. In my opinion, one important aspect of this strategy will be an active as well as passive use of the Internet medium.

All kinds of markets are being created on the Internet. Target group networks and sites, virtual communities, portals, micro-market sites and subject directories are all names for what is essentially the same phenomenon: a virtual market place for a specific target group. This is particularly true in business-to-business trade, where Statistics Netherlands is active, and where these markets are booming.

The active element of the Internet strategy means that Statistics Netherlands is present in such markets, with information naturally linked to the actors. The challenge is to find the most promising virtual markets. The presence of Statistics Netherlands in a virtual market place combines the two elements of the dissemination strategy: co-operation with intermediaries and dissemination via the Internet.

In addition to this active Internet approach, Statistics Netherlands has its own site, where our medium-neutral output database *StatLine* plays a key role.

Marketing in action

The marketing department at Statistics Netherlands implements the above-mentioned strategy in various ways. It

starts by asking how the requirements of the different segments will be met. Intermediaries play a significant role in this respect. We have more or less rejected the 'product approach', i.e. trying to sell products we developed ourselves.

The marketing department cannot serve all segments at once, and therefore two segments have been given priority: education and business. Basing themselves on a more specific description of these segments, Statistics Netherlands' account managers have located intermediaries with distribution channels in these two segments. The by-product has been an increasing familiarity with Statistics Netherlands and use of Statistics Netherlands information on the part of the education and business segments.

There are some examples of successful actions in 1999:

- ▶ The SurfNet project, a pilot project to test the possibilities of an active Internet approach. We put our StatLine CD-ROM on SurfNet, a network for institutions for higher education, so that users can consult our database simply and rapidly.
- ▶ We have also contacted *KennisNet*, a network for primary and secondary education, recently created by the Dutch Ministry of Education, Culture and Science. This promising network (extranet) offers Statistics Netherlands the opportunity to reach teachers and pupils of Dutch schools directly.

- ▶ We have placed selected statistics on *NOvAA-net*, a network for accountants, who are an important link to small and medium-sized companies, a group that is otherwise difficult to reach.
- ▶ We have also started a co-operation project with Chambers of Commerce, another important channel to the small and medium-sized companies.

Also, depending on the available capacity, we want to extend our activities to the government segment. The intranet for all government departments and institutions seems to offer a promising channel for this.

A digital future

With the above-mentioned strategy, Statistics Netherlands will be able to reach its strategic marketing goal: a considerable growth of the external use of its information. It will continue to invest in the organisation of statistical information (*StatLine*), to be able to meet the various information needs. Because of the shift from product development to an intermediary-oriented approach, promotion activities will be replaced by account management and business relation management. By 2005, most statistical information will leave Statistics Netherlands in digital format. However, this does not mean that final users will not encounter printed statistical information; the intermediaries will take care of that. ■

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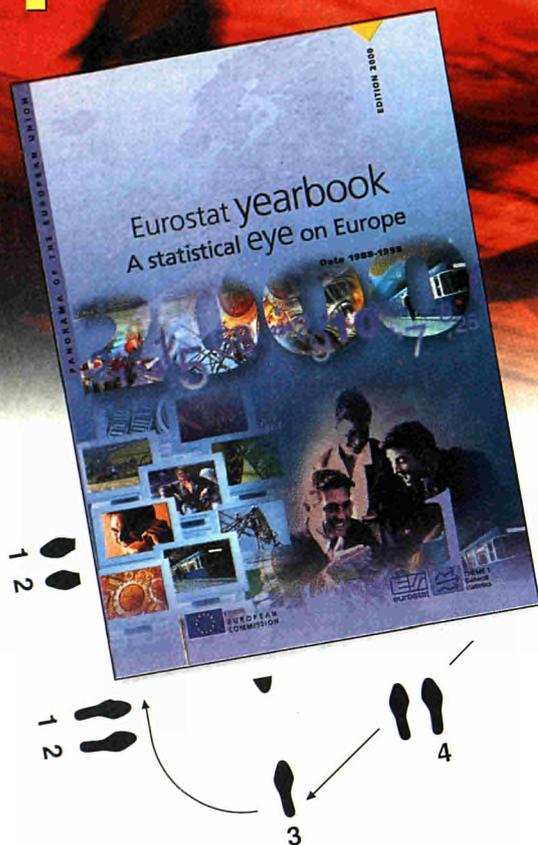
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