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SEMINAR ON STRATEGIC ISSUES IN BUSINESS STATISTICS

SESSION I: REDUCING RESPONDENT BURDEN

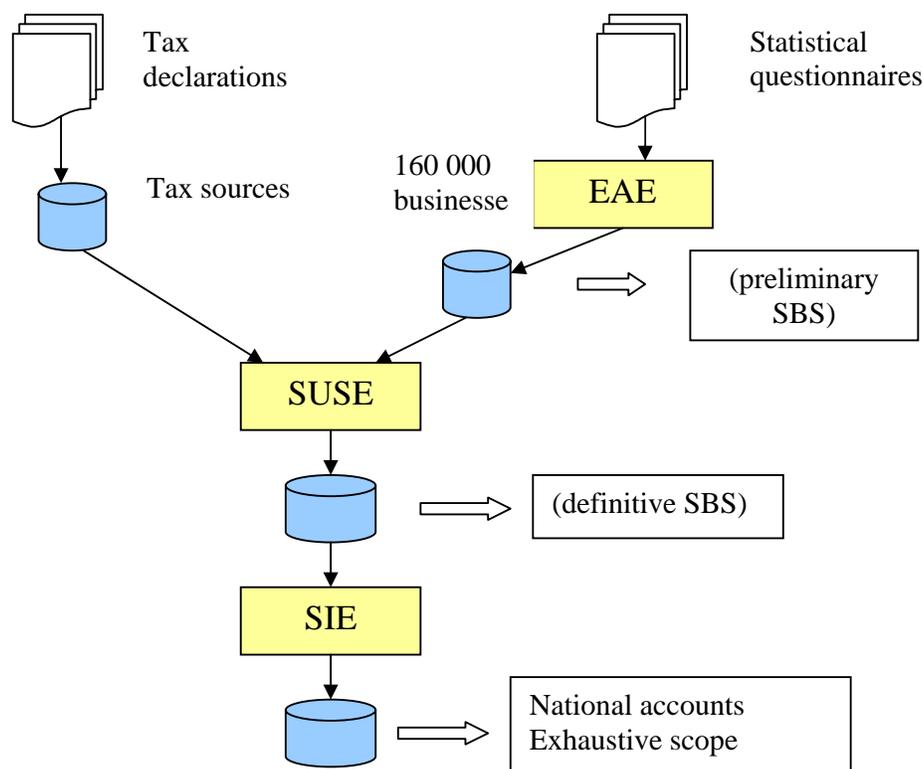
**REDESIGNING FRENCH STRUCTURAL BUSINESS STATISTICS: HOW CAN THE
RESPONSE BURDEN ON COMPANIES BE LESSENERD? (AMONG OTHER
OBJECTIVES)**

Note by the National Institute for Statistics and Economic Studies, France

1. In 2005 France launched a vast programme to overhaul its structural business statistics, the first phase of which is being introduced in 2009. The three main strands of this programme are to reduce the response burden on businesses, make internal productivity gains and improve the quality of the statistics produced. This article sets out the objectives of the programme and the context within which they were set, before focusing on the first objective achieved: reducing the response burden. In the absence of an objective measurement, a measurement based on the volume of questions was adopted. This has been reduced on average by 64%.

2. Since around the end of the 1970s, the compiling of sectoral statistics in France has been based on a structure comprising three successive statistical processes, using first sectoral surveys, then making use of tax information before adding a layer in preparation for their use in national accounts statistics. The diagram below shows the sequence of processes involved (2006 data)

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This sequence of processes is possible because French businesses are identified in tax sources via a single identification number known as SIREN. The corresponding register is managed by Insee (Sirène register) and the number is therefore present in the EAEs.

3. In this diagram:

(a) The EAE (Enquête Annuelle d'Entreprise - Annual Business Survey) is an important survey of businesses carried out in six of the main production sectors and comprising two parts for each large sector¹:

(i) A core section comprising mainly questions on the accounting characteristics of the businesses² and the measurement of salaried employment; this core section included in particular a question on the breakdown of turnover by different activities of the

¹ The survey is divided into 6 sectors: Industry excluding the agri-food industry, the agri-food industry, transport, construction, trade and services. NB: banks and insurance companies are not included in the EAEs. The Banque de France and the Commission de Contrôle des Assurances (the controlling authority in the insurance sector) collect the information directly from the companies concerned. The former M, N and O sectors (in NACE rev. 1) are not covered by the EAE either.

² Including the main characteristics grouped together in the operating account, domestic and export turnover, wage costs, annual investment, value of intermediate consumption, etc making it possible to calculate the company's value added.

company³, which made it possible to ascertain its different branches⁴ and calculate its main activity (APE) using an algorithm. Determining the main activity of a company, i.e. also determining the sector it belonged to when the company had been surveyed in the EAE, was therefore based on the company's response to this survey and not merely on its declarations. This breakdown of turnover by activity was itself used as a basis for compiling the sector-branch transition matrix of the national accounts;

(ii) A sectoral part of the questionnaire relating to the characteristics of the company that are specific to a given sector: sales area for companies in the trade sector, kilometres covered for companies in the transport sector, etc;

(b) The statistical burden on companies, which had a bearing on the preparation of the French response to the SBS Regulation, was derived almost exclusively from the responses to this survey. All companies above a certain size threshold⁵ were surveyed; conversely, a sample of those below the threshold was surveyed; in the industrial sector, the very small companies were not surveyed at all. This survey, which was conducted in the first half of the year, served as a basis for the response to the preliminary SBS data. But the response to the regulation was not based on this survey alone. We were in fact waiting to get the tax declarations of all the companies whose values made it possible to estimate the variables of the regulation more accurately than by only using the EAE survey because the information is almost exhaustive;

(c) The Integrated system of business statistics (Système Unifié de Statistique d'Entreprises – SUSE) is the information system that made it possible to supply a single database using the tax reports of all the companies. These declarations are available neither at the same time nor in the same format because the companies are subject to different tax arrangements, with some being able to make a flat-rate declaration; similarly, their obligations are not always the same depending on which sector they belong to, etc. The statisticians dealing with this editing system were given easy access the previous year's results, as well as the results of the EAE survey, when they were dealing with a company covered by the EAE survey. Their objective was to ensure consistency between these different declarations and obviously to correct the errors they had been able to identify;

(d) The system of enterprises accounts (Système Intermédiaire d'Entreprises – SIE)⁶ carried out the editing of individual data for national accounts statistics (NA) in order to improve the comparability over time of the NA aggregates that can be calculated using the data, especially the comparability of the totals by branch. This required work to be done on the scope, adding or eliminating specific companies (without going into any details, the tax scope is a bit different from the theoretical scope of the NA) and on the variables: despite the existence of the French company accounting system, there is still varying degrees of leeway when it comes to

³ These activities are allocated a NAF code, which is the French equivalent of the NACE.

⁴ Called homogeneous production unit in the EU classification of statistical units.

⁵ Which can vary from sector to sector. This threshold ranges from around 20 to 50 employees.

⁶ SIE incorporates concepts derived from those of National Accounts, but is not fully consistent with information from other institutional sectors.

dealing with certain account headings⁷ by companies; the most important thing is that treatment chosen within a sector is the same across the board and is comparable with the previous year. In the same spirit, the administrators of SIE had to make corrections to the durations of the financial years (to reduce them to 12 months, for example).

4. Although this system functioned smoothly and enabled France to meet its Community obligations, it did contain a number of drawbacks:

(a) It was fairly costly for companies: The Eurostat priority setting taskforce estimated the cost at 3.7 million euros⁸. DG Enterprise arrived at a total of 5.3 million euros by using differentiated costs⁹ depending on whether it was dealing with SMEs or large companies; a French consultant¹⁰ arrived at a total of 7.4 million euros using different parameters for the model¹¹. In the absence of an objective and exhaustive¹² measurement of the time needed to complete the survey, it is clear that the measurement of the burden will depend to a great extent on the evaluation of this time and on the related cost of completing the survey. Whatever the case, a cost of around 4 to 5 million euros would seem to be a reasonable estimate. However, it would seem that considerable reductions are possible;

(b) It was also costly for the State: The EAE survey was conducted by Insee in the trade and services sectors using two different surveys and two different teams, and by four different ministerial statistical services for the remaining sectors, thus creating burdens stemming from the need to coordinate and ensure consistency between the corresponding questionnaires. It is estimated that 200 public servants¹³ have been working on the system as a whole. Once again organisational changes would mean that possible productivity gains could be envisaged;

(c) Finally, as regards users and the quality of the statistics produced, it would appear possible to make tangible improvements to a large number of characteristics:

⁷ The case of trade margins in particular, or of the treatment of certain taxes which might appear in both the revenue and expenditure columns. The rules governing APE (main activity of a company) may also differ slightly: The data relating to a final national account is not revised until the following base. However, business statistics is never revised. As a result, when an error occurring between two successive years is observed in a company's declaration which may affect in particular the sector to which it belongs, the error is corrected immediately in the business statistics, otherwise it would be never be corrected, whereas the national accountants wait until the next base. In other words, the n/n-1 variations incorporate the error corrections into the business statistics whereas the national accounts function with a constant error using the same base.

⁸ With a standard average cost of 31 €an hour (cost per hour published by Eurostat). We considered half of the total cost of the survey had a bearing on the SBS regulation, the cost of which the task force attempted to measure.

⁹ 131,25 €an hour for a large company and an average response time of 225 minutes ; 26,67 €for a SME and an average response time of 80 minutes.

¹⁰ Accenture: within the framework of the ministerial modernisation process, known as MRCA (mesure et réduction de la charge administrative – measurement and reduction of the administrative burden).

¹¹ Average response time of 103 minutes and average cost per questionnaire of 64 €

¹² Measuring the time needed to fill in the questionnaires has not been a particularly widespread practice in France up until now. It was done systematically during the test phases (concerning a few dozen questionnaires) and the times that were measured during the questionnaire tests were used as a basis for calculating the average costs of the surveys.

¹³ In full-time equivalents (FTE). The number of people employed was slightly higher, but a significant proportion worked part-time.

(i) The most delicate point was undoubtedly the relevance of the results in view of the definition of the statistical units chosen in France, which consider companies as equivalent to legal units. As a result, large multinational groups comprising tens or even hundreds of subsidiaries do not exist as such in statistical terms. Measurements of sectoral concentration, the results by unit size¹⁴ and all the variables that give rise to intra-group trade, which does not obey market laws, are affected by a considerable bias. This problem was obviously not new, but it has been exacerbated by increasing globalisation and increasing numbers of these large groups;

(ii) Timeliness and punctuality also left a lot to be desired: considerable progress has been made in very recent years, but in the early 2000s France was not always able to deliver results to Eurostat on time. One of the reasons for this was that responsibilities were shared out among several stakeholders: if just one of the stakeholders fell behind schedule, it was not possible to fulfil our commitments;

(iii) As regards the consistency of results, users could also expect improvements to be made: breaking up the process into three stages, as described earlier, with different people in charge of the different stages, gave rise to the existence of a great many concurrent mid-term publications¹⁵ which only informed users could understand;

(iv) Comparability over time¹⁶ was not accorded the same importance, nor were the same methods used, in each of the three stages but insofar as it was the focal point of the SIE, or even SUSE, it was not the major drawback to the system;

(v) Accuracy was probably one of the strengths of the previous organisational structure due to the large size of the samples and the good response rates for the part of the survey focusing on the process, as well as the almost exhaustive nature of the tax sources used. It should be noted that this positive situation was not used to good effect by publishing the accuracy of the results obtained. This very high level of accuracy suggested that there was scope to improve other characteristics;

(vi) As in all countries, clarity and accessibility had been improved thanks to progress provided by the internet. Users were in any case used to having access to detailed results, even though the complexity of the three-stage system did not necessarily make it easy to understand all of them.

5. These various problems were known to and felt by French statisticians working on business statistics from the end of the 1990s onwards after the introduction in 1996 of the revamped annual business surveys (known as fourth generation surveys). But the introduction of Economic and Monetary Union and the creation of the European Central Bank (ECB) brought to

¹⁴ For example, the added value of small and medium-size enterprises (SMEs).

¹⁵ This gave us a turnover for each sector estimated on the basis of the EAEs, another turnover based on SUSE and a third based on SIE, and even a fourth based on national accounts. The differences were sometimes significant and difficult to explain.

¹⁶ To which should be added the particularly normative nature of the French company accounting system, which ensures that the accounting variables from one company to the next are comparable even though, as we have seen, it may be necessary in the SIE to make corrections to the accounting treatments carried out by the companies.

the fore the need to improve first and foremost short-term statistics¹⁷ (improvements in the deadlines for publishing the industrial production index, setting up indices of orders received and import and export price indices). Insee therefore had to wait for the 2004-2008 medium-term programme of the National Council for Statistical Information¹⁸ (Cnis) before announcing and then embarking on a vast programme designed to overhaul its structural statistics: the so-called Resane programme (REfonte des Statistiques ANnuelles d'Entreprises –.overhaul of annual business statistics).

6. Very quickly this programme became symbolic of the modernisation of the administration. For it is very ambitious and, from the offset, covers the three possible dimensions of an undertaking to modernise a public system by aiming to set right most of the aforementioned shortcomings identified in the previous system; the needs of the programme, which were approved in autumn 2005 by the Executive Committee of Insee, reveal five main objectives:

(a) Vis-à-vis citizens (in this case the businesses): to reduce considerably the response burden on companies (objective 1). A target of around 50% has been set - we will see later how this is measured;

(b) Vis-à-vis taxpayers: to use available resources more efficiently (objective 2). Once again an objective of 50% productivity gains (aiming to bring down to 100 people the human resources needed) was quickly put forward;

(c) Vis-à-vis users : to improve the quality of the statistics produced, particularly:

(i) Their relevance by taking account of groups in business statistics (objective 3);

(ii) The timeliness of their dissemination: the aim is to limit to one year the time needed to process all the information and therefore to have definitive statistics for year n on 31/12 of year n+1. (objective 4) ;

(iii) Clarity of the information by eliminating the many different sources of information (objective 5). The aim is to replace the three sources – EAE, SUSE and SIE - with one single source of information.

7. In order to achieve these five objectives, three projects, referred to as the three axes of Resane, have been undertaken in parallel:

(a) The first is designed to reduce the response burden on businesses and comes under objective 1; it is based from the outset on the adoption of the principle of systematic use of administrative sources. We shall come back to this later;

(b) The second is a vast undertaking to re-engineer the process involving Insee and the ministerial statistical services, which should make it possible to achieve objectives 2, 4 and 5.

¹⁷ Via a “Gentleman’s agreement” under the STS Regulation.

¹⁸ The Cnis is the dialogue body bringing together statisticians and representatives of civil society (employers’ unions, employees’ unions, consumer associations, representatives of elected assemblies, researchers, various experts, etc.). Each year Insee and the ministerial statistical services present their work programme to the Cnis. The Cnis also produces five-year programmes which set out the main orientations for the forthcoming five-year period.

These two projects constitute the first phase of the programme, which is scheduled for 2009. The date of 2009 is being kept to at the moment even though the final conclusions on the success or otherwise of the projects will only be made at the end of 2009;

(c) Objective 3 requires specific thinking too and is the most innovative part of the programme. This is less urgent than the first two projects. From the outset it was scheduled to take place after the other two projects and constitutes the second phase of the programme. It started with a period during which users were consulted about their needs through the Cnis. After two years of study and various consultations, the Cnis produced a report¹⁹ in April 2007 containing around twenty recommendations relating to this issue. In May 2008, and in line with these recommendations, Insee adopted a series of decisions aimed at taking account of groups into business statistics; this will be achieved by profiling the largest multinational groups²⁰ - a process that will commence in autumn 2010. Although the principles have more or less been established and the decisions taken, the profiling process has been postponed slightly until the resources needed become available. We shall say no more about this project in this paper.

8. The largest undertaking is the re-engineering project. As regards the systematic use of administrative sources (objective 1), several important decisions were taken swiftly (immediately after the needs were expressed in 2005):

(a) As well as using administrative sources, the principle of a survey is to be maintained, but there will only be one overall process, compiling annual business statistics (Élaboration des Statistiques ANnuelles d'Entreprises – Esane). The new survey, which will replace the EAE survey within this overall process, is an annual sectoral survey (Enquête Sectorielle Annuelle - ESA). It will continue to be used as the basis for determining the main activity (APE) code and the sector-branch transition matrix of national accounts. The statistical burden placed on businesses will from now on be the response burden stemming from the ESA survey;

(b) The six teams of administrators have been replaced by a single team from within Insee, to which a project management role has been delegated (the ministerial statistical services will continue to be the contracting authority in their sector, but will delegate to Insee responsibility for developing the global information system). In the industrial sector, matters are a little more complex because the annual statistics also include the response to the Prodcom regulation. We will hence kill two birds with one stone by limiting the ESA in the industrial sector to the response to Prodcom under another new survey: annual production survey (Enquête Annuelle de Production - EAP) and therefore by suppressing the previous EAE; the precise identification of annual marketed production in the industrial sector also makes it possible to pinpoint the branches to which a business belongs. This survey will still be managed by the statistical service of the Ministry for Industry²¹;

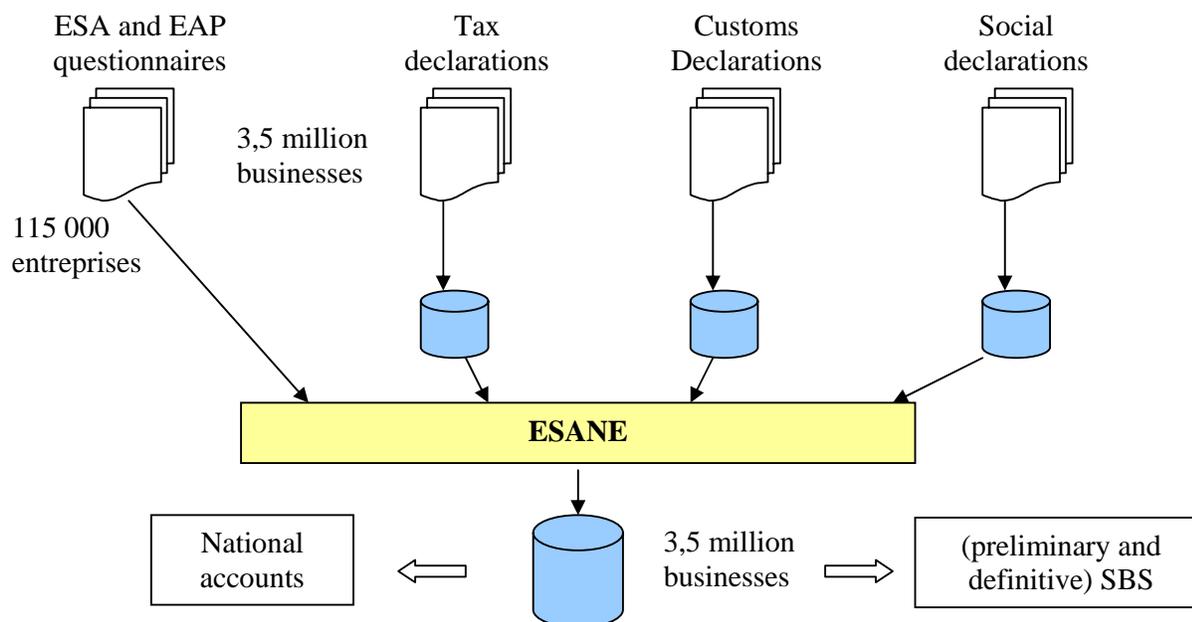
¹⁹ Statistiques Structurelles fondées sur les groupes d'entreprises et leurs sous-groupes ; N°107 janvier 2008. This report is also available in English under the title Structural statistics based on enterprise groups and subgroups; N°111 - September 2008. They can be consulted via the Cnis website.

²⁰ The aim is to carry out around one hundred profilings to start with.

²¹ In 2008 the French government decided to place this service under the direction of Insee, so that the entire Esane process would become the sole responsibility of Insee. This decision, however, falls outside the framework of the Resane programme, even though it is in line with our objectives.

(c) The stages of the previous system (determining the branch to which a business surveyed in the ESA survey belongs, incorporating specific sectoral variables, incorporating various variables stemming from administrative sources) are still present of course, but will henceforth be treated as successive sub-processes of the overall process. One sub-process is particularly original: the one that makes it possible to bring together individual data relating to a single business: Where before we were faced with sources of information that were sometimes inconsistent at macro-level, we now identify the biggest inconsistencies at micro-economic level, with the survey administrator being responsible for resolving these inconsistencies through direct contacts with the business concerned. The sources of these inconsistencies are manifold: reporting errors made by the company, data capture errors, but above all errors caused by the fact that the concepts measured by certain sources may be different from the questions asked in other sources; the most frequent inconsistency, which was not satisfactorily resolved in the previous system, is linked to the fact that the business can choose its accounting period, which can end at any time during the year, whereas a number of other variables, such as employment, are systematically measured on 31 December; if, in the meantime, the company has undergone restructuring (purchases, merger, break-up), we are faced with business sizes that are structurally inconsistent.

9. Basically the new system governing the Esane process can be depicted in the following manner (2008 data).



Such a diagram is possible because French businesses are identified in tax sources via a single identification number known as SIREN. The corresponding register is managed by Insee (Sirène register)

10. All available administrative sources are systematically used, including in particular two sources which had not previously been used: customs and social sources²², which make it possible to ascertain levels of salaried employment. In the previous system, the corresponding questions were included in the annual business survey (EAE) itself, which ensured that there was a form of consistency between the different variables – a consistency that now has to be verified ex-post once all the sources have been made available.

11. Let us now come back to the project to reduce the statistical response burden on businesses. We noted that under the previous system it equated to the response burden stemming from the EAE survey and under the new system to the burden stemming from the ESA and the EAP surveys. We also noted the difficulty in measuring this burden objectively due to the absence of a question in the EAE survey on the time taken by businesses to respond to the questionnaire, with the highest financial estimates being twice as high as the lowest ones. How, therefore, can it be measured? Working on the premise that the response burden is linked to the number of questions put to each business and to the number of businesses which are asked the questions, we considered that the total number of boxes filled in by all the companies was a good substitute for expressing the burden. To be more precise, the following conventions were adopted:

(a) Qualitative or quantitative questions both count for 1;

(b) For open-ended questions, especially the important question of breakdown of turnover by branch (which can be found both in the EAE survey and in the ESA surveys), a pro-rata of the average number of responses provided by size of company is taken. For example, if the companies with between 10 and 250 employees in the industrial sector have on average 3 branches, 3 boxes are counted;

(c) The filter questions also count for 1 box; but the part of the questionnaire which is filled out only by the companies selected by the filter is only counted for the companies which respond;

(d) The size of the samples (of the EAEs or the ESA) was taken into consideration without bringing the response rates into the equation. That said, it is expected that the rates for the two surveys be similar²³. This, therefore, comes into play very little when ascertaining the gain;

(e) In the industrial sector, initially both the responses to the EAE survey and to the survey designed to meet the provisions of the Prodcom²⁴ regulation were taken into account;

²² These sources are known as DADS - déclarations annuelles de données sociales – literally, annual declarations of social data, made by employers and containing information on their payroll, etc. We also implicitly use declarations made to the Union pour le Recouvrement des cotisations de Sécurité Sociale et d'Allocations Familiales (URSSAF), which collects companies' quarterly contributions to their employees' pensions. In practice Esane uses an intermediate database containing information from the DADS, which is supplemented with information from URSSAF.

²³ These rates of course vary from one main sector to another, but are fairly similar at around 90%.

²⁴ The annual branch survey (enquête annuelle de branche – EAB)

(f) In order not to rely excessively on a single reference year, we used the averages observed in 2006 and 2007²⁵.

12. We initially set for ourselves an objective of a reduction of around 50%, but the official objective was to reduce the burden as much as possible. The total number of boxes at the outset was as follows:

Average 2006/2007 Sector	Size of business			Total
	<=10 empl.	10-250 empl.	>250 empl.	
Agri-food industry	58 647	531 675	68 162	658 484
Services	2 611 855	1 873 311	179 696	4 664 861
Trade	2 106 187	4 128 090	183 178	6 417 455
Construction	712 440	1 552 732	62 813	2 327 984
Transport	301 858	971 916	63 597	1 337 370
Industry excluding agri-food industry (1)	0	2 641 002	270 384	2 911 386
Total	5 790 985	11 698 725	827 829	18 317 539

(1) In the industrial sector, no company employing fewer than 10 people was surveyed.

13. In order to reduce the burden, the three main aforementioned channels were used:

(a) Systematic use of administrative sources: as we have already seen, we eliminated all the questions where administrative sources can provide similar information. In terms of the number of questions asked, the gain is considerable as regards the accounting variables. The existence of the company accounting system, which is used both by statisticians and the tax authorities, is of key importance. The second element of key importance is the bringing forward of the date when tax information is made available: The EAE survey was set up in the 1970s mainly in order to get hold of this information earlier²⁶. Nowadays the tax authorities are able to provide 76% of the total information²⁷ by June of the year n+1;

(b) Systematic analysis of the need to ask the questions contained in the survey, especially in the sectoral section of the EAE surveys: an analysis of each individual variable was carried out in order to ascertain whether there is a need to ask the corresponding questions each year. In some cases, it was possible to take out all of the questions. In other cases, the ministerial statistical services will replace the EAE survey with an ad-hoc survey, which will be conducted less frequently (every three or five years, for example);

(c) Optimising the sampling plans: Accuracy calculations carried out on each of the six main sectors have shown that the sampling rates were too high in some cases in relation to, for

²⁵ This was reinforced by the fact that in some sectors the sampling rates were not the same each year, as some categories of SME were only surveyed every other year.

²⁶ The tax authorities took two years to process all the declarations which only existed in hard copy format. The time needed to make the information available has been reduced thanks to the introduction of electronic data interchanges between the tax authorities and businesses.

²⁷ Measured on the basis of the turnover of the relevant companies.

example, the homogenous nature of the SMEs under consideration and that the rate could be reduced, sometimes considerably, with barely no loss of accuracy. This means of achieving improvements will be continued next year by optimising the thresholds above which the survey is exhaustive. Currently these thresholds are practically fixed for each of the six main sectors.

14. All in all, by combining all these elements, we arrive at the following table, measuring the number of boxes:

2008 (ESA, EAP, ad hoc survey) Sector	Size of business			
	<=10 empl.	10-250 empl.	>250 empl.	Total
Agri-food industry	93060	121320	10868	225248
Services	1656092	707434	53800	2417326
Trade	895336	852384	40230	1787950
Construction	269320	248600	13872	531792
Transport	90278	369740	25142	485160
Industry excluding agri-food industry	357021	710259	52965	1120245
Total	3361107	3009737	196877	6567721

15. Expressed in terms of percentage gain, we obtain the following:

% gain by sector Sector	Size of business			
	<=10 empl.	10-250 empl.	>250 empl.	Total
Agri-food industry	-59 (*)	77	84	66
Services	37	62	70	48
Trade	57	79	78	72
Construction	62	84	78	77
Transport	70	62	60	64
Industry excluding agri-food industry	// (*)	73	80	62
Total	42	74	76	64

(*) For companies with fewer than 10 employees in the agri-food industry, the gain is negative, i.e. the burden has increased. The same goes for the industrial sector where they were not surveyed at all, which meant that it was not possible to obtain reliable results for SMEs in the industrial sector.

16. Across the sectors and size categories, the average gain of 64% is well above the initial 50% target. The gain obviously varies depending on the efforts made by the sectoral contracting authorities, the situation at the outset and the size of the companies. In this respect, the fact that the biggest gains have been made by large businesses which bear the brunt of the burden in absolute terms (even though they have more resources to allocate to responding to the surveys) is good news.

17. This average gain is undoubtedly lower than the gain that the businesses will perceive they have made. As regards accounting data, in the past we allowed the company to merely provide a photocopy of its tax forms in response to the accounting questions in the EAE survey questionnaire. No longer having to copy out the information or provide a photocopy will

probably not be deemed as big a gain as the almost two-thirds reduction we have arrived at. But we sincerely hope that we have taken a decisive step forward and will avert all the letters of protest from companies complaining about having to provide information they had already given to the authorities.

18. Is there still room for improvement as regards this specific project? There are three possible avenues in this respect:

(a) In 2009 - the first year of existence of the new process - we have introduced a systematic measurement of the burden. By the end of the year we will have at our disposal a declarative measurement of the response burden on businesses; we will be able to study closely how the burden varies from sector to sector and depending on the size of the business, as well as envisage, if necessary, specific measures to further lessen the burden;

(b) The collection will be conducted exclusively by post in the first year. We are planning to offer an electronic collection in 2011²⁸ on the web; experience has taught us that this option is often perceived by companies as a burden reduction;

(c) Finally, as we pointed out earlier, there is still some room to make slight improvements to the sampling plan by optimising the exhaustivity thresholds: these could be made to differ for each of the NACE categories. In other words, we could replace some strata that are currently exhaustive with sampling strata, which would help to further reduce the burden.

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²⁸ The schedule would appear to be too tight for this to be possible in 2010.