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The OECD Better Life Initiative

The Environmental Goods and Services Sector (EGSS): A New Approach to the Environment Industry by Statistics Austria

Francisco Labbé – The New National Director of the National Statistical Institute of Chile

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Deadline for articles for the next issue: 25th August 2011
This year the OECD celebrates its 50th anniversary. Since its existence, the Organisation has worked to help governments of member countries deliver good policies and improve the economic well-being of nations. The health of economies is primordial. But what ultimately matters is the well-being of citizens.

Measuring well-being represents however a considerable challenge. First, because well-being is multi-dimensional, as living a good life depends on many factors. Secondly, because comparing well-being across countries requires defining common metrics for a set of dimensions that are relevant for all countries analysed, not an easy task given that culture and institutional contexts may influence these dimensions. Third, because a comparative assessment of well-being requires a large amount of comparable data in many domains and existing indicators are often far from ideal.

The OECD work on Measuring Progress and Well-Being (www.oecd.org/measuringprogress) has been addressing these issues in the last few years. Over the past year, many efforts have been devoted to consolidate previous reflections and to assemble the data necessary to conduct such an ambitious exercise. These efforts have led to the OECD Better Life Initiative, launched by the OECD Secretary-General on 24 May at the 2011 OECD Forum. The Better Life Initiative includes three main areas of work:

- a comprehensive publication, *How’s Life?*, presenting a selection of well-being indicators, to be released October 2011;
- a preview of the *How’s Life?* publication, the *Compendium of OECD Well-Being Indicators*, released at the Forum; and
- the interactive, web-based tool «Your Better Life Index» (www.oecdbetterlifeindex.org).

The *Compendium of OECD Well-Being Indicators* (www.oecd.org/document/28/0,3749,201185_47916764_1_1_1_1,00.htm) and *How’s Life?* offer an overview of well-being in OECD countries, and selected emerging economies by looking at eleven dimensions of well-being: income and wealth, jobs and earnings, housing, health status, education and skills, work and life balance, civic engagement and governance, social connections, personal security, environmental quality and subjective well-being.

These two reports put a strong focus on people and households, reporting on both «average achievements» in each country and inequalities in achievements between people with different characteristics. Looking at inequalities is important because «averages» provide a very incomplete picture of well-being of different groups in the population, especially so because achievements tend to be strongly correlated across dimensions (e.g. people with good education tend to access better jobs, earn higher income, have better housing conditions, live longer, etc.).

Another feature of the framework used in these two reports is its emphasis on both objective and subjective aspects of well-being. Objective measures are needed in this type of analysis, as well-being is strongly influenced by living circumstances (e.g. overcrowding of dwelling, availability of a job, air pollution, etc.). Subjective indicators provide complementary information on aspects of well-being which can only be measured through self-reported feelings and appreciations (e.g. life satisfaction). Considering both objective and subjective indicators allow to understand what drives objective and subjective well-being and how these are intertwined.

This framework is based both on theory (e.g. the report from the Stiglitz-Sen-Fitoussi Commission on Measuring Economic Performance and Social Progress) and practice in many OECD countries. It has been discussed with the OECD Committee on Statistics, particularly with respect to the choice of the indicators. Indicators have been notably selected for their relevance (e.g. policy amenable, easy to interpret, etc.), their good quality (e.g. most of them comes from official
statistics) and their comparability cross-country.

The Compendium of OECD Well-Being Indicators and How’s Life? analyse many aspects of well-being and their determinants, with the twofold objective of informing policy-making and moving forward the statistical agenda.

However, the OECD Better Life Initiative also recognises the big demand for summarising well-being information into one headline indicator, which is easier to interprete and can potentially send a stronger message on well-being patterns. Composite indicators respond to this demand but are often criticised because of the arbitrary weights used to balance the various components. To overcome the issue of arbitrary weights, but also because weights may vary across countries and people, the OECD has created Your Better Life Index (www.oecdbetterlifeindex.org), an interactive composite index of well-being that combines information on the eleven dimensions of well-being listed above, and which allow users to rate these dimensions according to their own preferences. As a result, users can build their own ranking of countries and see which countries offer the highest quality of life, according to what matters most to them. Users can also share their Index with their friends and with the OECD. This web application is also a gateway to the OECD work more generally, as the public can find a wealth of OECD data and analysis and have it for free.

The OECD Better Life Initiative innovates in many respects. First, it is the first time that comparable evidence on such a broad range of well-being components is produced for the 34 OECD member countries. Second, the initiative has the potential to foster a debate on well-being among different audiences: statisticians, policymakers and the general public, as each of its tools is conceived to meet the specific needs of these audiences. Third, the OECD plans to use the information collected through the sharing of Your Better Life Index to orient its future efforts towards improving the measurement of those aspects of well-being that count most to people.

The OECD Better Life Initiative has so far generated a lot of interest, attracting a large number of visits and media contacts. During its first week of life last May, the Better Life Initiative attracted around 300000 people from all over the world through more than 2300 sources and media; about 19000 people shared their Better Life Index. Many challenges remain, however, for the future: extending the range of indicators to additional aspects of well-being; increasing the quality of the data, especially for dimensions (e.g. social connections, security) where official statistics are less developed; and better taking into account inequalities within the population. Finally, another important development will consist in developing indicators on the sustainability of current living conditions and quality of life; this will require measures of the asset base of our economies and societies.
Since the early 1990s the increasing awareness of environmental issues is also reflected by the search for environmentally friendly production processes, technologies and products. The production of goods and equipment, the provision of construction works and services in the context of environmental protection constitute economic activities that gain more importance from year to year. For this reason, specialists in advanced environmental technologies and services emerge that are designated as environment industries.

In this changing context, policymakers have expressed a strong interest in the environment industry, since it is perceived as a new growth sector which generates wealth, creates jobs and plays an important role in the transition of economies towards sustainable development.

This policy interest has raised numerous questions on different aspects of the environment industry. These include: growth potential, employment creation, success in exporting environmental technologies, research and development for cleaner products and processes, the impact on competitiveness in industry due to applications of cleaner technologies, as well as how to improve environmental and economic policy to encourage and support growth, job creation and trade. Answering these questions poses statistical and methodological difficulties related to problems of delimitation and data availability.

In response to these needs, the OECD and Eurostat in 1995-1996 laid the foundation for the harmonised calculation of data on the environment industry. In 1998 the handbook «The Environment Industry Manual - Proposed guidelines for the collection and analysis of data on the Environment Industry» was presented.

Following these guidelines Statistics Austria, in consultation with the Institute for Economic Research (WIFO), implemented in the years 1997 and 1998 the collection of data to show the economic influence of the so-called environment industry.

This industry has grown significantly in the past twenty years. It should continue to grow in the future as emerging issues such as the level of greenhouse gas emissions or the consumption of resources are addressed. The environment industry is not a traditional industry sector and is not currently defined in the European Statistical Classification of Economic Activities (NACE). NACE classifies firms based on the predominant products they produce or services they offer. For example, a company producing electric pumps would be classified in the electrical products sector. If some of those pumps were used to manage pollutant outputs in a factory, part of that firm’s activity could be considered to be environmentally-oriented. Therefore it might be appropriate to classify the firm as part of the environment industry. At the same time, however, the bulk of that firm’s output is not oriented towards environmental ends.

Over the past years an increased awareness of preserving natural resources has been noticeable; as a result, a considerable change in the structure of the environmental sector has been taking place with a shift from «end-of-pipe» to «clean» environmental technologies. To display this development in a comprehensive and harmonised way, Eurostat – since 2006 – has developed a new concept (data collection handbook «The Environmental Goods and Services Sector» – EGSS) which has been implemented for the first time in Austria in the 2008 reporting year. The goal is to get from EU countries harmonised, detailed data at national level that will enable analysis of economic growth, employment potential, exports and research and development in the EGSS.

One important aspect in the evaluation of the EGSS performance is in the area of job creation and employment generation. Related to
the challenges involved in classifying firms to the EGSS is the issue of identifying the employees who work in environment-related activities. So-called «green jobs» are of lively interest in Austria's environmental and economic policy. Green jobs are seen as secure jobs during an economic slowdown with positive effects in two ways. On the one hand, they are considered as a key driver for the future strength of the economy and thus support the maintenance and development of value added and wealth. On the other hand, they contribute to maintaining and preserving ecosystems and lifting quality of life in the long-term.

With regard to this, Statistics Austria – as a member of the Eurostat Task Force on EGSS – in 2009 carried out a pilot study on environmental turnover and employees within the environmental goods and services sector.

The data collection ran across all sectors and ranged from agriculture, industry and construction to the private and public services sector. The input data included production data from short-term statistics, information on companies specialised in environmental technologies and facilities for pollution control, structural business statistics data and the environmental protection expenditure accounts. Trade in environmental goods was not taken into account according to EGSS-manual, but was estimated at the time.

The most important changes compared to the OECD/Eurostat manual of 1998 concern the development of the definitions for integrated technologies and the guidelines for the account of resource management. A differentiation from goods, technologies and services to classic environmental protection activities and resource management activities was made. «Resource management» is presented in detail for the first time. Furthermore (and needed for the breakdown of resource management into environmental domains), a separate classification, CReMA (Classification of Resource Management Activities) had to be developed. CReMA is based on the «Classification of Resources Use and Management Activities and expenditure – CRUMA», which was developed by ISTAT, the National Statistical Institute of Italy, for resource management expenditure accounts. All this follows CEPA (Classification of Environmental Protection Activities) which is largely the OECD/Eurostat guidelines of SERIEE, the European System for the Collection of Economic Information on the Environment (Figure 1).

<table>
<thead>
<tr>
<th>Environmental goods and services sector</th>
<th>Resource Management Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classification CEPA (as from SERIEE)</strong></td>
<td><strong>Classification CReMA (new, compliant with SERIEE)</strong></td>
</tr>
<tr>
<td>• Protection of ambient air and climate</td>
<td>• Use and management of inland waters</td>
</tr>
<tr>
<td>• Wastewater management</td>
<td>• Use and management of forest resources</td>
</tr>
<tr>
<td>• Waste management</td>
<td>• Use and management of wild flora and fauna</td>
</tr>
<tr>
<td>• Protection and remediation of soil, groundwater and surface water</td>
<td>• Use and management of fossil energy</td>
</tr>
<tr>
<td>• Noise and vibration abatement (excluding workplace protection)</td>
<td>» Renewable Energy</td>
</tr>
<tr>
<td>• Protection of biodiversity and landscapes</td>
<td>» Economy of Energy and Heat</td>
</tr>
<tr>
<td>• Protection against radiation (excluding external safety)</td>
<td>» Minimizing non-energetic use of fossil energy</td>
</tr>
<tr>
<td>• Research and development</td>
<td>• Use and management of raw materials</td>
</tr>
<tr>
<td>• Other activities</td>
<td>• R&amp;D activities for natural resource use management</td>
</tr>
</tbody>
</table>

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**EGSS Definition**

The EGSS – Environmental Goods and Services Sector-consists of a heterogeneous set of producers of technologies, goods and services that:

Measure, control, restore, prevent, treat, minimise, research and sensitize environmental damages to air, water and soil as well as problems related to waste, noise, biodiversity and landscapes. This includes “cleaner” technologies, goods and services that prevent or minimise pollution.

Measure, control, restore, prevent, minimise, research and sensitize resources depletion. This results mainly in resource-efficient technologies, goods and services that minimise the use of natural resources.

Source: EUROSTAT, 2009, Data collection handbook EGSS

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**Source:** EUROSTAT, 2009, Data collection handbook EGSS

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**Figure 1. Nomenclature CEPA and CReMA**
The classification of environmental goods and services also differentiates connected services, special environmental services, adapted and connected goods, end-of-pipe technologies and integrated technologies, and ancillary activities (Figure 2). Furthermore, a distinction is made between the private and public sector; the private sector is represented by economic classification NACE rev.2 or the classification PRODCOM 2009 2-digit level. The data collection is limited to sales and employment (full time equivalents) in the environmental field.

### Estimation of revenue and employees

The pilot study was limited to the collection of environmental turnover and environmental employment (FTE); exports and value added were not included. This also applies to the follow-up 2010 study.

For data collection a mix of methods was applied in accordance with the proposals of the methodological manual for EGSS. This approach already proved to be useful in accounting the «benefits of environment industries» as it is not possible to cover all aspects of the environment related economy with a single source due to its very heterogeneous nature.

Basically, a supply-side approach was taken; only in exceptional cases were demand-side elements included. Data were collected both by product groups, from short-term statistics (STS) or structural business statistics (SBS), as well as individual companies (primarily in the technology sector). First and foremost, data used to compile official statistics were taken; if these were not available or were not available to the extent required or at an appropriate level of detail, internet research, literature and expert estimates were taken into account as well as telephone interviews with technology companies.

Due to the fact that within the basic statistics, data were partly available for only one of the two variables (revenue or employees) the information not currently available for the report was estimated in compliance with the EGSS manual. These estimates were based on data from STS as well as SBS, assuming an average ratio of employees per turnover in the relevant PRODCOM or NACE group. Considering the proportion of required effort, the lowest possible data breakdown was used. The production value, according to STS, was used here as a proxy variable for sales. Accordingly, for data collection STS were preferred. For companies not recorded within the STS, employment data of the association of the social security institutions was included in collective positions along with non-environmental products within the available data sources. In these cases the share of the environmentally relevant products had to be estimated. Some of these evaluations had already been made in the context of environmental protection expenditure accounts and thus could be included in the calculations of the EGSS.

### Environmental goods and services sector - overview

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental turnover</td>
<td>Million Euro</td>
<td>31,818</td>
<td>31,497</td>
</tr>
<tr>
<td>Ratio of environmental-turnover to GDP (nominal)</td>
<td>Per cent</td>
<td>11.2</td>
<td>11.5</td>
</tr>
<tr>
<td>Environmental employees</td>
<td>Pers 000</td>
<td>172.0</td>
<td>178.4</td>
</tr>
<tr>
<td>Share of environmental employees in labour force</td>
<td>Per cent</td>
<td>4.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>Trade with environmental goods and technologies</td>
<td>Pers 000</td>
<td>22.0</td>
</tr>
<tr>
<td>Environmental employees including trades</td>
<td>Pers 000</td>
<td>193.9</td>
</tr>
</tbody>
</table>

Statistics Austria: Environment; National Accounts: Gross domestic product (GDP) in current prices; Labour force survey
Data limitations

The report on EGSS is a further development of the «economic performance of environment industries» and is intended to reflect the environmental production and services sector in Austria even more comprehensively. Accordingly, both data collection and calculation methods were carried out on a broader basis. Especially in the area of resource management that had previously not been considered as a core element, new data sources and estimation methods were found. Due to the variety of data sources and additional research activities, the EGSS can be described extensively for the first time, yet the completeness of the data collected cannot be claimed as full. Besides the obviously environmentally relevant recognisable products, there are also many where the environmental purpose is not directly seen. Some products are also indicated in collective positions and the individual products had to be estimated out from these positions, which can lead to both under- and over-coverage. Also, double counting cannot always be ruled out since the initial product or the readily manufactured plant cannot always be identified clearly and assigned, for example due to different names.

Main results: Environmental production and services sector defies the crisis in 2009 by 3.7% more employees

In 2009 the Austrian environmental goods and services sector (EGSS) generated a turnover of €31.5 billion, employing over 178 thousand people.

The results of the recent study on turnover and employees in environmental goods and services (EGSS) show that the 2009 economic slowdown had significantly less impact on the environmental sector than on the overall economy. During the period under consideration (2008 to 2009), Austrian gross domestic product (nominal) declined by 3.1%, while environmental turnover decreased only slightly (-1.0%). Employment in the overall economy receded by 0.6%, while environment related employment in production and services increased by 3.7% from 2008 to 2009.

There were 199.8 thousand “green jobs” (2009) in the field of environmental production, services and trades in Austria, thus showing the significance of green business. The production of environmental goods, technologies and services (without distributive trades) in 2009 employed 178.4 thousand people in Austria.

Special influences in the development of the environmental sector have been seen particularly in the measures for heat and energy conservation and the use of renewable energy, mainly affecting the environmental sectors «management of energy resources». In 2009 this sector generated 52.8% (about €16.6 billion) of total environmental turnover with about 39% eco-employees (almost 70 000 persons). A wide range of activities are summarised under this domain: e.g. the production of renewable energy, renewable energy technologies, low energy buildings and the insulation of buildings.

The full report (in German) can be found at: www.statistik.at/web_de/static/projektbericht_umweltorientierte_produktion_und_dienstleistung-_egss_2009_055934.pdf
On 12th April 2011 Francisco Labbé became the new National Director of the Instituto Nacional de Estadísticas de Chile. Francisco Labbé, Engineer and Master of Arts from the University of Chicago, has extensive experience in academia. He formally headed the posts of Dean of the Faculty of Economics and Business at the University Andrés Bello and Gabriela Mistral as well as Associate Dean and Acting Dean at the University of Chile.

He has also acted as Economic Adviser in the National Society of Mining, Head of the Investment Department of the Office of National Planning and was Project Engineer in the Corporation for Production Development, among other posts.

Instituto Nacional de Estadísticas (INE) 2012-2014: A reliable institution recognised by all

The National Statistical Institute of Chile is one of the public bodies with the longest history in Chile. Today, its 167 years of experience reflects the quality of its statistical products, transparency, procedures and its technical independence. This stated, generating consistent and internationally comparable statistics that meet international standards is a goal of the INE.

In this perspective, the INE advances in its path of modernization in order to reach the best possible methodological and operational standards of its statistical products. In such a way, it guarantees information that is representative of the economic and social situation in Chile and makes more efficient use of public resources according to good national and international recommendations.

In order to strengthen economic growth, social equity and welfare of the population, Chile needs quality statistics. Along these lines, one of the objectives of INE is to generate indicators which avoid duplication of effort and allow making better decisions in diverse fields of national activity.

This challenge means that there is a need to work towards overcoming existing gaps between our national statistics and those of some OECD countries. This is why INE started the publication and dissemination of international standard indicators, such as: the new Consumer Price Index which reflects the changes in the consumption of Chilean men and women, new Wage Index which shows labour reality for men and women, and a new Employment Survey.

In the period 2012-2014, INE proposes to deploy its process of institutional modernization in two areas. The first task will see INE carry out public education to reaffirm its standing as an efficient and independent body. The next step, as important as the previous one, is to develop statistical projects in the mining and construction statistics, as well as regional and environment statistics and those of family budget, among others. This period will also see the undertaking of the 18th National Population Census and the 7th Housing Census.

The increasing inclusion of Chile in the international arena requires strong institutions which are highly technical and are recognised across all sectors of society. The 2012-2014 proposal aims at INE’s transformation as the backbone of the Chilean statistical system. In order to achieve this, it requires an articulated statistical information system which is accessible and comparable, so that citizens can make better decisions in their diverse areas of expertise.

The modernization of INE is taking place through anticipating the requirements of increased efficiency in the production and delivery of official statistics in the country.
Most of the data produced by statistical agencies are disseminated according to different classifications, such as COICOP (Classification of Individual Consumption According to Purpose) or NACE (the statistical classification of economic activities in the European Community). From time to time, these classifications undergo major revisions that require a considerable effort from all involved in the production of statistics.

One of the most difficult tasks that have to be undertaken when a classification is changed is to calculate or estimate statistical data according to the new classification referred to time periods prior to its introduction in the statistical process. This is known in official statistics jargon as «backcasting».

From the point of view of the user, backcasting is necessary for the sake of comparability. In particular, short-term indicators are frequently analyzed by means of time series models. If the time series are broken when the classification changes, it is not possible to identify and estimate any model until the new series is long enough. Moreover, long series are necessary to perform seasonal adjustment.

Once the necessity of backcasting is established, one has to decide which method to use for this task. Most commonly used are either the Micro Method or a Conversion Matrix Method (CMM). The Micro Method consists of reclassifying the microdata of past periods and then recalculating the aggregates. Besides problems related to the sample design, this method is the most desirable from the point of view of the accuracy, but it is costly and sometimes even not feasible. CMM is described in the following section and is a less burdensome alternative, but provides only an approximation, so the decision between methods is a trade-off between quality and cost. However, a well-informed decision requires some assessment of the quality loss of the CMM with respect to the Micro Method. There are also some other decisions to take that require a measure of quality, in particular how far to go back in the past and what level of disaggregation is intended to be reached. Unfortunately, at the time the European statistical institutions needed to undertake the required backcasting for the new revision of the NACE, adequate tools to measure the quality of the estimates were not around. Therefore at INE, we have tried to provide a tool to estimate the error introduced by the CMM by using a probabilistic model for the data. We have also performed an experiment to check the validity of the estimates.

The complexity of the problem depends on how the classes of the old and new classification are related. By «related», we may mean either a conceptual relationship (classes 1 and A are related when their definitions allow for

<table>
<thead>
<tr>
<th></th>
<th>Many to one</th>
<th></th>
<th>One to many</th>
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<th>Many to many</th>
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<tbody>
<tr>
<td>OLD</td>
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<td>OLD</td>
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Figure 1. Classification Relationships

For the sake of simplicity, we will describe here the method as applied to the estimation of totals and also ignore the implications of the sample design and of the possible seasonal behaviour of the data. Note that the essentials of the backcasting problem after a change of classification are present even if the population was exhaustively sampled. A more detailed description can be found in a working paper, available from the INE website: www.ine.es/en/welcome_en.htm.
the existence of statistical units that belong to both of them or an actual relationship (that is, there are actually units in the population under study, that belong to both classes). Usually, this is described in terms of many-to-one and one-to-many relationships (figure 1). The many-to-one relationships are easy to deal with. In order to obtain $Y_{it}$ you just have to aggregate $X_{1t}$ and $X_{2t}$. Unfortunately, in most of the real cases you do not have this kind of relationship, but rather a combination of the two which is called many-to-many (the right panel in figure 1).

Many-to-many relationships such as the one in figure 1 can be decomposed as in figure 2, that is, first we break down an old aggregate in so many pieces as arrows go from it and then, we recombine the pieces to obtain the new aggregates.

While the second step is straightforward the question arises – how is the first step completed? According to the CMM, we can estimate the pieces as $C_{ij}X_{jt}$, where $i$=A, B, ... and $j$=1, 2, ... The coefficient $C_{ij}$ is obtained usually as

$$C_{ij} = \frac{X_{is}}{X_{js}}$$

Where $X_{is}$ is the total of the variable under study corresponding to the statistical domain obtained as the intersection between the old class $j$ and the new class $i$, at time $s$. For this, it is necessary to have microdata of period $s$ coded according to both classifications. This is possible because in a change of classification, there is usually an overlapping period. Thus, $s$ is called a double classification period.

Sometimes, the coefficients $C_{ij}$ are computed as ratios of other related variables, or even ratios of the number of units. Finally, the second step is to aggregate all the pieces:

$$\hat{Y}_{it} = C_{i1}X_{1t} + C_{i2}X_{2t} + ...$$

We can write this identity in matrix form as $\hat{Y} = CX$, the name of the method.

How to estimate the error

We will now outline a simplified version of our method to estimate the error of the CMM. We assume a probabilistic model for the variation rate between the microdata from the double classification period and from any of the periods to which the CMM is applied, that is, for

$$C_{ij} = \frac{X_{is}}{X_{js}} - 1$$

Where $X_{it}$, $X_{is}$ are the microdata at times $t$ and $s$.

If these rates are independent and their variances are $\sigma^2$, then the Mean Squared Error of the $i$th new aggregate estimate CMM is given by

$$\sigma^2 \sum_{j} \{ (1 - 2C_{ij})Q_{ij} + C_{ij}^2Q \}$$

where $Q_{i}$ and $Q_{ij}$ are the means of $X$ in the class $j$ of the old classification and in the intersection of the old class $j$ and the new class $i$ respectively at the double classification period. $Q_{i}$ and $Q_{ij}$ can be estimated using the microdata from the double classification period, but in order to estimate $\sigma^2$ we need a sample of the $C_{ij}$'s. However, our empirical results indicate that a small subsample may suffice. This means that by reclassifying a few units, we would be able to check whether the error of the CMM estimates is acceptable.

Figure 2. Many-to-Many

<table>
<thead>
<tr>
<th>Decomposition</th>
<th>OLD</th>
<th>INTERMEDIATE</th>
<th>NEW</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1A</td>
<td>A</td>
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</table>

Figure 3. Relationship between NACE rev.1.1 and NACE rev.2
The availability of abundant structural information (mainly PRODCOM, but also the Industrial Companies Survey), the fact that the units were classified at a four-digit level and a good information storage system of the survey made possible to reclassify most of the units automatically. The remaining ones were reclassified manually. Consequently, we had the opportunity to simulate the CMM as we would have used it if required.

For most of the industrial divisions of the NACE (some of them had too few units to obtain significant results and some were not explored in the survey), we have computed the estimated relative errors and the actual ones for all months from 2002 to 2007. In table 1, we compare the average predicted and actual relative errors. These data are also represented in figure 4. We can see that: (i) the method overestimates the error by a factor of around 3, but (ii) there is a strong linear relationship between them ($R^2 \approx 0.8$). Consequently, the estimates serve to detect the greatest quality problems (such as the outlier near the top-right corner of figure 4) and they give an indication of the order of magnitude of the errors.

We also found that in this case, the estimation of $\sigma^2$ is greatly improved if we assume that the $\zeta_i$'s are drawn from a log-normal population and if we use a trimmed estimator to increase robustness.

Future research remains to analyze the sources of the overestimation. A possibility worth examining is whether by relaxing the unrealistic assumption of independence of the, $\zeta_i$’s the estimates could be improved.
In 1921 the State Central Bureau of Statistics of the Republic of Estonia was established. This year Statistics Estonia celebrates the 90th anniversary of the establishment of the statistical system of the Republic of Estonia with Mr. Priti Potisepp as Director General.

The need for official statistics was already clear in 1921 when independence was gained in Estonia: without statistics it is impossible to describe the essence and interrelationship of many complicated events. For Estonia, the practical use of numbers was divided into four categories in 1921. The first or most general level was «satisfaction of certain curiosity» or «knowledge». The second level was «analysis of numbers for explaining phenomena», which means explaining social and economic phenomena as a result of analysis or stating the situation. The third level in contemporary meaning was using the statistics in compiling action plans and the fourth level – finding trends with the help of mathematical, graphical, etc analysis.

For the user, the existence of data is self-evident. In most cases the data provider needn’t necessarily be a user of statistics and vice versa. Already in the 1920s it was clear that the attitude of people towards data collection was not completely positive. However, during the first period of independence, one of the most important characteristics in the organisation of statistical work was in the field of data collection. The data of agricultural statistics were collected and transmitted by correspondence network and 17,000 co-workers volunteered to participate in the Population Census. The people were eager to contribute to the development of the young country.

Already at the beginning of the 1920s it was clear that dissemination and popularisation of statistical knowledge is an important task. Publishing activity was one way to make statistical materials available for the wider public. At the end of the first decade of the Republic of Estonia, statisticians estimated the use of numerical data in social life very positively; the development was especially conspicuous compared to 1921.
Did you know?

The educational level of the people in Estonia has continuously increased during the last decade. The share of persons having completed at least upper secondary education among people aged 25–64 has increased from 86% in 2000 to 89% in 2010. People in Estonia are more educated than the residents of many other EU countries.

Source: Statistics Estonia

Nowadays, among the objectives of official statistics, serving the government has moved into first place (statistics as a tool for informing policies, observing their impact, and for planning activities). Such a situation results partly from the fact that in many cases national statistical institutions are government agencies and also that the Statistical Offices of the European Communities are part of the executive power. In fact the role of official statistics is by no means smaller while satisfying the interests concerning research activities, enterprises, society as a whole, and specific spheres.

It is not easy to compare the initial years of official statistics in Estonia with statistics today. But lots of similarities can be found observing the distribution of subject areas, purpose of data use and organisation of data collection. The world has changed but many phenomena that needed to be observed and studied 90 years ago are also needed now. Contemporary statisticians should reflect and contemplate with respect the processing and publication today as compared to the period 90 years ago considering the technical facilities now available.

Statistics Estonia, Endla 15, 15174 Tallinn, Estonia - stat@stat.ee - www.stat.ee

The 58th World Statistics Congress of the International Statistical Institute (IS) will be held in Dublin, Ireland, from the 21st to the 26th August 2011: www.isi2011.ie

The Scientific Programme of the 58th Congress will offer statisticians innovative and stimulating topics with well-balanced presentations. A key feature of the 58th Congress will be the special Theme Day to be held on Wednesday the 24th August, where papers will be devoted to statistical issues relating to Water and Water Quality.
F

From July 2011, for the first time, Poland will hold the Presidency of the European Union Council according to the sequence of Presidencies established by EU Council Decision of 1st January 2007. Generally speaking, the EU Presidency is a 6-month rotating chair of the EU Council preparatory bodies by different EU member states. However, according to the Lisbon Treaty which came into force, December 2009, Poland is to hold a group EU Presidency together with Denmark and Cyprus for the period of 18 months. This will naturally require close cooperation amongst the trio of countries. In Poland the preparations for this prestigious task started almost two years ago, in 2009, when the central «Programme of the preparations for the EU Presidency» was adopted by the Ministry of Foreign Affairs.

EU Presidency in Statistics Foresee the Unforeseeable

In the field of statistics the main objective during the EU Presidency for the Central Statistical Office of Poland (CSO) is to chair and organise the EU Council Working Party on Statistics (CWPS). Established in July 2003, the Working Party on Statistics is one of the bodies of EU General Affairs Council. Its work can be briefly described as a review of all statistical issues, with the aim of elaborating legislative drafts within the field of statistics. Characteristic for this group are the multidisciplinary issues it has been dealing with since its creation, as a result of combining three thematic statistical working parties: the Working Party on Agriculture Statistics, the Working Party on Internal Market Statistics and the Working Party on Financial Statistics.

The issues that can be found on the agenda of CWPS vary significantly, and range from statistical returns in respect of carriage of goods by road, to environmental economic accounts, to statistics on tourism, and to permanent crops statistics. These examples come from the topics that were discussed in CWPS meetings during the Hungarian EU Presidency.

Being aware of the above, the CSO of Poland has prepared a part of the central «Programme of the 6-month Polish Presidency of the EU Council», defining priority actions to be taken and issues to be raised during the Polish EU Presidency in the field of statistics. Poland aims to continue the debate on matters initiated by the previous EU Presidency, including the extremely important dossier on the system of national and regional accounts in the EU.

The CSO is also planning to move forward the legislative procedure concerning the European long-term statistical programme (2013 – 2017), taking into account its strategic character and importance for development and rebuilding the European Statistical System.

While chairing the CWPS may seem like an easy task, as it normally meets only once a month (or at most twice), this isn’t so. Taking into account the variety of topics that can be expected on the agenda, the task becomes more complicated quickly and in fact requires a lot of preparation. All this keeping in mind that it is the very first time the Polish CSO is facing such a challenge and without any previous experience in the EU Presidency to count on. Nevertheless, the CSO over the last two years has done its best to get ready.

Prepared but Flexible Capacity Building

The Central Statistical Office of Poland is focused and well advanced in the preparations for the EU Presidency (www.prezydencjagus.stat.gov.pl). Firstly, people responsible for the EU Presidency preparations were identified and a Presidency Team was created. The Team, chaired by the Advisor to the CSO President, Ms. Grażyna Marciniak, is dealing with all matters concerning preparations for the EU Presidency and will take all the necessary action in the field of statistics, both substantively and logistically. The main task being to chair the CWPS; in strict cooperation with EU member states and EU institutions.

Realising that knowledge and capabilities will greatly influence the outcome of the Polish EU Presidency, CSO employees who will be most involved took a series of courses, seminars and internships dedicated to the EU Presidency and the EU in general. These included: changes in EU law after the Lisbon Treaty (implementing and delegated acts), EU negotiation techniques, and English language training (EU Presidency oriented groups).
Furthermore, CSO staff most involved took part in internships in the Budget and Finance Section of Permanent Representation of the Republic of Poland to the European Union. The aim of those internships was to establish networks, which will enable efficient cooperation with the Permanent Representation during the Presidency period, acquire knowledge concerning the issue of chairing EU Council bodies on various levels, as well as, observing negotiation techniques and methods of achieving a compromise. Moreover, experience and good practice gained during study visits to the statistical offices of Slovenia, the Czech Republic and Spain cannot be underestimated.

Continuing the practical approach, the CSO’s International Cooperation Division decided that the most efficient way to get a grip on EU Presidency practicalities is to observe the work of CWPS. That is why Polish EU Presidency Team representatives have been following the current stage of legislative procedures since the Spanish Presidency and to observe the manner in which previous Presidencies tackled CWPS meetings. It is also a great opportunity to set up contacts and friendly relations with national delegates from EU member states and EU institutions representatives.

**Continuity**

**The Trio Cooperate**

Establishing cooperation among the three – Poland, Denmark, and Cyprus – was always a priority during CSO EU Presidency preparations. The Presidency Team got acquainted with its counterparts from Statistics Denmark and the Statistical Service of Cyprus during a meeting organised in Copenhagen, November 2009. It was followed by assemblies in Nicosia (October 2010) and Warsaw (April 2011). During those meetings a common Trio statistical programme was elaborated and actions to be taken by the Trio were identified. The programme was submitted as an input to the 18 month programme of the EU Council. Moreover the role and obligations of the EU Presidency in the current institutional system of the European Union was discussed and good practices were shared.

Thanks to a suggestion from Danish colleagues to organise a seminar on «The European Statistical System – running the EU Council Presidency within the European Statistical System» CSO employees involved in preparations got the opportunity to learn about the Danish experience in holding the EU Council Presidency, which was extremely beneficial as Denmark is the most EU-experienced Trio country.

**Expect the Unexpected Priorities**

As stated, the Polish EU Presidency priorities in the field of statistics are laid down in the “Programme of the 6-month Polish Presidency of the EU Council”. They stem from the Trio programme prepared jointly by the Trio: Poland, Denmark and Cyprus during their meetings. Therefore, the Polish EU Presidency will work according to the provisions of the European Statistical System being also in compliance with the principles of the European Statistics Code of Practice. High quality, reliable and relevant official European Statistics, a need to keep the balance between new data needs and resources limitations, as well as, the need to reduce the response burden will be taken into account during the 6 months.

Each incoming EU Presidency needs to be fully aware of the fact that the legislative dossier it will be dealing with is built on the progress of the previous EU Presidency, in the Polish case – the Hungarian Presidency. In this respect, the Polish Team visited the Hungarian Central Statistical Office in November 2010, with a view to identifying the programme in the field of statistics, including issues that will be on the agenda of the Working Party on Statistics for the first six months of June 2011.

Both Hungary and Poland believe that particular emphasis, during the two EU Presidencies, shall be laid on the revision of the European System of National and Regional accounts in the European Union. A main objective being to adapt the EU national accounts system to the present economic situation and better suit user needs. Specific attention will also be devoted to the proposal for a decision on the European Statistical Programme 2013-2017 which is expected to be submitted by the Commission in the second half of 2011. Issues indicated above were the key subjects during several meetings with Trio partners and the Hungarian EU Presidency Team.

**Remembering the Polish EU Presidency Scientific Conference**

With reference to Polish priorities of the Presidency in the EU Council in the second part of 2011 the CSO plans to organise a conference connected with the Eastern Partnership titled: «Development of the European Statistical System within Eastern Partnership – directions and strategy». The conference is to take place on 18-19 October 2011 in Krakow under the auspices of the European Parliament. The Eastern Partnership programme is a Polish and Swedish initiative brought to the system of external relations of the European Union. It was approved by the European Council on 19-20 March 2009. The program is dedicated to Armenia, Azerbaijan, Belarus, Georgia, Moldova and the Ukraine.
The conference is going to be one of the central events of the Polish Presidency in the Council of the European Union. Its aim is to point out a direction of action that will allow statistical rules applied in Eastern Partnership countries to become compliant with those in the EU, as well as, to present a strategy for their implementation. During the conference the following topics will be discussed:

- Official statistics as a dynamic form of cooperation between Eastern Partnership countries.
- Role of official statistics in establishing a coherent information system within the frame of Eastern Partnership.
- Cooperation in the field of cross-border and euro-regional statistics.
- Transformation of statistical systems within the Eastern Partnership countries – towards harmonisation with the European Statistical System.

The closing session of the conference is going to be covered by Eurostat, the contribution of which shall be stressed and appreciated. At the end of 2010 a Conference Scientific Committee was established. It consists of distinguished international experts on statistics representing Eastern Partnership countries, Eurostat, Trio country representatives and international organisations. All information shall be progressively published on the CSO website in a section dedicated to the conference.

**Contact Us!**

In order to facilitate contact and continue the good practice of previous Presidencies, the Central Statistical Office of Poland launched a website: [http://pl2011.stat.gov.pl](http://pl2011.stat.gov.pl)

The site informs about activities of the Council Working Party on Statistics during the Polish EU Presidency and about progress on legislative dossiers and other important issues. It also contains contacts to the CSO Presidency Team. Please do not hesitate to contact us pl2011@stat.gov.pl if you have any questions.

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**OECO HEALTH DATA**

**HEALTH: SPENDING CONTINUES TO OUTPACE ECONOMIC GROWTH IN MOST OECD COUNTRIES**

OECD Health Division

Health spending continues to rise faster than economic growth in most OECD countries, maintaining a trend observed since the 1970s. Health spending reached 9.5% of GDP on average in 2009, the most recent year for which figures are available, up from 8.8% in 2008, according to OECD Health Data 2011.

But health spending as a share of GDP is likely to stabilise or fall slightly in 2011. This is due to improving economic growth and lower health spending as governments seek to rein in budget deficits.

While governments must do more to get better value for money from healthcare spending, they must also continue pursuing their long-term goals of having more equitable, responsive and efficient health systems, according to the OECD.

The rise in the health spending share of GDP was particularly marked in countries hard hit by the global recession. In Ireland, the percentage of GDP devoted to health increased from 7.7% in 2007 to 9.5% in 2009.

In the United Kingdom, it rose from 8.4% in 2007 to 9.8% in 2009.

Health spending per capita increased on average across OECD countries by 3.8% in 2008 and 3.5% in 2009. Public spending on health grew even faster, at an average rate of 4.8% in 2008 and 4.1% in 2009. Private spending also continued to increase in most countries, but at a slower pace (1.9% in 2008 and 2.7% in 2009).

**Variations in health expenditure across countries**

In 2009, there were large variations in how much OECD countries spent on health and the health spending share of GDP. The United States continued to outspend all other OECD countries by a wide margin, with spending on health per capita of $7960. This was two-and-a-half times more than the OECD average of $3223.

As a share of GDP, the United States spent 17.4% on health in 2009, 5 percentage points more than in the next two countries, the Netherlands and France (which allocated 12.0% and 11.8% of their GDP on health). Norway and Switzerland were the next biggest spenders on health per capita, with spending of more than $5000 per capita in 2009.

These are some of the short- and long-term trends shown in OECD Health Data 2011, the most comprehensive source of comparable statistics on health and health systems across the 34 OECD countries. Covering the period 1960 to 2009, this interactive database can be used for comparative analyses on health status, risk factors to health, health care resources and utilisation, and health expenditure and financing.

More information is available at [www.oecd.org/health/healthdata - health.contact@oecd.org](http://www.oecd.org/health/healthdata - health.contact@oecd.org).
**Entrepreneurship at a Glance 2011**

Entrepreneurship at a Glance presents a collection of indicators for measuring the state of entrepreneurship along with explanations of the policy context and interpretation of the data. This publication also includes special chapters that address measurement issues, and solutions, concerning entrepreneurship and its determinants. In this first issue the special topics covered are: business demography and green entrepreneurs.

[www.oecd.org/document/0/0,3746,en_2649_37461_48107008_1_1_1_37461,00.html](http://www.oecd.org/document/0/0,3746,en_2649_37461_48107008_1_1_1_37461,00.html)

**PISA 2009 Results: Students On Line: Digital Technologies and Performance (Volume VI)**

This sixth volume of PISA 2009 results explores students’ use of information technologies to learn. In 2009, students in 19 countries and economies took a PISA test using computers which tested their ability to navigate and evaluate information on line. Students also filled in a background questionnaire providing information on their use of computers both in school and at home.


**African Economic Outlook 2011: Africa and its Emerging Partners**

This tenth edition of the African Economic Outlook finds the continent on the rebound and expects it growth performance in the next years to resume at pre-crisis levels. The focus of the 2010 AEO is Africa’s Emerging Economic Partnerships, presenting a comprehensive review of Africa’s expanding economic relations with outside the continent that until very recently did not belong to the club of traditional «donors», the OECD Development Assistance Committee. Africa benefits not only from the visible direct interactions with large emerging countries – investment, trade, aid – but also from the macroeconomic, political and strategic advantages that their rise has produced. As always, country chapters provide detailed information on a country-by-country basis and the statistical annex provides a wide variety of indicators for the countries covered. This year, the AEO covers all African countries except Eritrea and Somalia.

## AGENDA
### FORTHCOMING MEETINGS

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<td>25-26 Oct. 2011</td>
<td>OECD Global Forum on the Environment: Making Water Reform Happen. OECD, Paris, France <a href="http://www.oecd.org/document/57/0,3746,en_21571361_44315115_47429177_1_1_1_1,00.html">www.oecd.org/document/57/0,3746,en_21571361_44315115_47429177_1_1_1_1,00.html</a></td>
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<tr>
<td>7-9 Nov. 2011</td>
<td>Working Party on International Trade in Goods and Trade in Services Statistics (WPTGS), Statistics Directorate. OECD, Paris, France</td>
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<td>10 Nov. 2011</td>
<td>Meeting of the Task Force on Statistics of International Trade in Services (TFSITS), OECD Statistics Directorate. OECD, Paris, France</td>
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<tr>
<td>28 Nov. 2011</td>
<td>22nd Session of the Working Party on Territorial Indicators, Directorate for Public Governance and Territorial Development. OECD, Paris, France</td>
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### Other meetings

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<td>3-4 Nov. 2011</td>
<td>G20 Summit. Cannes, France <a href="http://www.g20.org/">www.g20.org/</a></td>
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Unless otherwise indicated attendance at OECD meetings and working parties is by invitation only.