

Distr.
GENERAL

WP.21
9 May 2012

ENGLISH ONLY

UNITED NATIONS ECONOMIC COMMISSION
FOR EUROPE (UNECE)
CONFERENCE OF EUROPEAN STATISTICIANS

EUROPEAN COMMISSION
STATISTICAL OFFICE OF THE EUROPEAN
UNION (EUROSTAT)

ORGANISATION FOR ECONOMIC COOPERATION
AND DEVELOPMENT (OECD)
STATISTICS DIRECTORATE

Meeting on the Management of Statistical Information Systems (MSIS 2012)
(Washington, DC, 21-23 May 2012)

Topic (iv): Collaboration

Update on the activities of the OECD's Statistical Information System Collaboration Community

Supporting Paper

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I. Introduction

1. The OECD currently shares its *OECD.Stat* data warehouse system with a number of other International Organisations and National Statistical Agencies.
2. This paper provides a brief background to the OECD collaboration and outlines the advantages for software sharing. It describes, using examples, how this can enable the implementation of standards, in particular SDMX, as well as an update on leveraging of innovative visualisation software with the integration of the *eXplorer* graphical components. The paper describes the current status with collaboration partners via the OECD SIS Collaboration Community (SIS-CC), new and potential partners and gives a summary of the recent SIS-CC annual Workshop.

II. Why collaborate?

A. Background

3. The OECD began sharing the main components of its Statistical Information System (SIS) software in 2007 on collaborating with the IMF on the development of the *OECD.Stat* statistical data warehouse project. This followed an earlier collaboration project on developing a joint Trade system with UNSD which proved to be successful and thus encouraged the OECD to embark on further joint ventures.
4. There have subsequently been numerous expressions of interest in collaborating on *OECD.Stat* from other International Organisations and National Statistical Agencies. A common Memorandum of

Understanding (MoU) has now been created and developments are managed on a shared basis as a single project.

5. Sharing software in this way is very much in line with current philosophy of the international statistical community and is endorsed by the High-Level Group for Strategic Developments in Business Architecture in Statistics (HLG-BAS), the Sharing Advisory Board (SAB) and MSIS.

B. Advantages of software sharing

4. There are a number of very obvious reasons to share statistical software and this activity is growing considerably among International Organisations and National Statistical Agencies.

These include:

- (a) Savings in time and money in re-using or adapting an existing technical solution to meet the processing requirements of another organisation,
- (b) sharing new features developed by one of the collaborating parties by the other partner(s) at minimal cost,
- (c) the use of common shared systems can promote and enable the use of statistical standards, both in structure and content,
- (d) using the same software platform for statistical data management makes the exchange of data and metadata easier between organisations and can facilitate the production of joint data collection or dissemination exercises between organisations,
- (e) collaboration between organisations in this way sends a very positive message to stakeholders that we, as publically funded bodies, are making our best efforts to efficiently use resources by working together and not duplicating effort in re-inventing the wheel,
- (f) and strengthening ties and relationships among the statistical community.

C. Sharing software: enabling the SDMX data exchange standard

5. Sharing SIS software with other organisations is seen by the OECD as an important means for promoting standards for data exchange. This refers particularly to Statistics Data and Metadata eXchange standard (SDMX).

6. SDMX provides a standard model for statistical data and metadata exchange between national agencies and international agencies, within national statistical systems and within organisations. SDMX is the preferred standard recognised by the UNSC and its main goals are to facilitate data and metadata exchange; to make efficient use of technologies and standards; to reduce the reporting burden for national agencies; and to enhance the availability of statistical data and metadata for users.

7. The approach being taken by the OECD with regard to SDMX is that any new statistical process or software development should incorporate SDMX as the data exchange mechanism and that existing systems should provide for SDMX both as inputs and outputs. This is leading to a steady increase in the use of SDMX within and outside the Organisation.

8. The OECD have a number of ongoing initiatives in data SDMX exchange, and as part of a recent exercise to collect Short-term Economic Statistics (STES) from member countries using SDMX we have been able to take advantage of the collaboration on SIS to enable and accelerate the process. Both the Italian Statistics Institute (iStat) and the Australian Bureau of Statistics (ABS) are using the *OECD.Stat* data warehouse platform so they are able to use the in-built SDMX web-service to output data in the required format. These flows are being tested at the time of writing and are expected to be operational during 2012. A similar exercise is planned in 2013 with Statistics New Zealand (SNZ) who are also using *OECD.Stat*.

9. OECD and IMF are engaged in a bilateral data exchange exercise using *OECD.Stat* and SDMX. In this case the OECD makes the IMF International Financial Statistics (IFS) data available daily via SDMX web-service exchanges and the OECD Main Economic Indicators data goes in the opposite direction using the same method. Both cases provide for more timely, easily accessible data for each organisation.

D. Data Visualisation

10. The latest version of its *OECD.Stat* statistical data browser includes animated data visualisations. Any data selection from the 700+ datasets available via the data warehouse can now be viewed as an animated graphic using maps, bubble charts, line charts and histograms. Visualisations can be customised and shared among groups and provide a new dimension for data discovery and storytelling based on the latest available data.

11. The graphical components are part of the eXplorer visualisation suite developed by NComVA. The use of the graphics has been enabled by the recent cooperation agreement between the OECD and NComVA, which follows several years of successful collaboration, and allows the graphics to be distributed to other organisations sharing the *OECD.Stat* software platform.

III. The SIS community

E. Current status of collaboration partners

12. SIS-CC collaborating members are those that have signed Memorandum of Understanding (MoU) with the OECD to use the .Stat system, and who are actively involved in the community. The table below shows the current member organisations, modules used, and when the MOU was signed.

Organisation	MOU Signed
Australian Bureau of Statistics (ABS)	May 2010
European Commission (EC) (Business Unit - DG-SANCO)	March 2011
International Monetary Fund (IMF)	June 2007
Italian National Institute of Statistics (ISTAT)	July 2010
Statistics New Zealand (SNZ)	May 2009
University of Manchester (UoM)	March 2012
The United Nations Educational, Scientific and Cultural Organisation (UNESCO)	March 2012

Note: (e) indicates that the modules are currently being evaluated for use and no MOU for the module has been signed. MetaStore is included in the MOU if one is in place for either .Stat or StatWorks.

F. Interested organisations

13. The OECD is currently working with a number of organisations to complete evaluations of the *OECD.Stat* data warehouse system or in ongoing discussions. These include:

- (a) Statistics Canada
- (b) Statistics Korea
- (c) INSEE
- (d) UNIDO
- (e) INEGI
- (f) Banca d'Italia

14. To help support the evaluation process a number of things have been put in place. This includes an installation package, installation and technical documentation, as well as technical support. Existing partners are also open to answer questions about the collaboration to provide firsthand experience.

G. Summary of the SIS-CC workshop 2012

14. Following on from the success of the 1st workshop in March 2011 the OECD again offered collaborating partners the opportunity to help shape the future of the community and discuss a number of key topics. An invitation for the first 2 days was also extended to other interested groups and organisations that have been considering joining the community and would like to know more, and learn from the experiences of the organisations already involved.

15. The focus for the 2012 workshop was on innovation and how by sharing statistical systems, such as *OECD.Stat*, we can provide leverage for innovation in our organisations, and in turn achieve the vision we set out at the start of this important initiative.

16. The vision:

- (a) Co-producing and co-developing state-of-the-art Statistical Information Systems by leveraging on community capacities
- (b) Sharing of experiences, knowledge and best practices through multilateral collaboration and building of a collective capacity
- (c) Enabling innovation at an optimal cost with all members benefiting from each other in terms of ideas and methods
- (d) Provide a platform for Open Data projects as identified as a priority for many countries
- (e) Implementing standards for data sharing across organisations in order to improve data accessibility and quality, and reduce costs

17. The workshop was split into 3 main sessions with the initial session covering the important aspects of the communities' main activities, building the 2012 workplan, improving community processes through an improvement plan, and continued capacity building for developers. It was also an opportunity to welcome two new partners, UIS and UoM, who presented their business cases for joining the community.

18. The following 1 ½ days focused on the overall theme of the workshop leveraging innovation and covered three main topics:

- (a) Data Machine-Readability in support of open data strategies - *OECD.Stat* already features data machine-readability functions. But it needs to evolve to support the ambitious Open Data strategies of SIS-CC members. This session aimed at directing the community towards the right decisions as to what standards and which implementations to prioritise.
- (b) Data Discovery and the potential of semantic web - The worlds of semantic web and statistical metadata are converging, in a way that should enable new ways of linking data and content. This session was about exploring the potential value add this convergence represents, seeking for directions in *OECD.Stat* future implementations.
- (c) Exploring new technologies for dissemination - Mobility, Cloud, HTML5... Multiple radical technology evolution are driving the market, calling for renewed design of dissemination systems, whether it is at the level of the application interface or more broadly, application architecture it is fast moving and we need to be prepared to key pace. This session was about assessing the value add that *.Stat* could bring in this new context and identifying SIS-CC priorities.

Each session was a good mix of presentations, discussions and working groups and all participants actively participate to help achieve the desired outcomes.

19. Presentations were provided by the OECD, existing partners, and external specialists in their field. A total of 18 presentations over the 3 innovation sessions were given and provided the lead into the group work.

20. A total of 64 participants representing 25 organisations attended the workshop over the course of 2 days. Feedback was very positive following the workshop both with interest in the finding out more about the community but also continuing the discussions on the innovation focused topics.