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Topic (iv): Collaboration

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

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I. Introduction

1. The OECD has been sharing its .Stat data warehouse technology with other international organisations and national statistical agencies for a number of years, establishing the Statistical Information System Collaboration Community in early 2011 that today has a membership of 9 organisations and many more expressions of interest. The OECD has learned a great deal during this period concerning the conditions necessary to make such collaboration a success. The challenges are not solely related to technology but cover a number of different dimensions in a wide scope of organisational, technological and legal aspects.

2. This paper provides a brief background to the OECD collaboration and outlines the prerequisites and advantages for software sharing. It describes, using examples, how this can enable the implementation of standards, in particular SDMX, as well as leveraging of innovative visualisations. 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 outcomes from the recent SIS-CC annual Workshop with future directions in mind.

II. Collaboration – prerequisites and advantages

A. Brief history of OECD's collaboration on SIS

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 .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 were subsequently numerous expressions of interest in collaborating on .Stat from other International Organisations and National Statistical Agencies. A common Memorandum of Understanding

(MoU) was created and finally the SIS-CC to facilitate for co-developments and ensure they were well 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. Prerequisites for Software Sharing – the OECD experience

6. Establishing right organisational model and collaboration framework at the senior executive level is fundamental. Clear support is required from top management to enable collaboration and to deliver the message on the benefits of collaboration, to set the agenda and to drive the process. A clear governance model is essential.

7. Support is required at the administrative level to ensure that the instruments exist to allow any common funding between organisations. This element is extremely important and should not be underestimated.

8. The legal department need to be involved in the drafting of any MoUs necessary.

9. Human resource agreement is needed, particularly in facilitating any short- or long-term staff exchanges between collaborating organisations.

10. Developing and maintaining in collaborative mode between multiple organisations adds an extra layer of complexity to the project management process. Transparency is essential along with a sense of community commitment to ensure all members of the collaboration group feel involved and that their needs are given the appropriate priority. In the OECD case the sense of collaboration partnership is promoted rather than that of a customer/client relationship.

11. Staff working on the collaborative exercises must be committed to working together with other organisations and again have a sense of belonging to a development community. Staff need to be flexible and willing to accommodate staff from other organisations and/or work in other organisations for periods of time themselves. In the OECD experience, staff have found this to be a positive and motivating aspect of collaborating.

12. A clear prerequisite for success is that the product in question must meet the requirements of other organisations. In order to work on differing IT platforms the software used should be either open source or a widely used software package otherwise the chances of success are much reduced. The product should be designed in a way to be as configurable as possible in order to adapt it to different organisation needs it terms of functionality, look-and-feel, languages used etc. Recognised standards (such as SDMX) should be integrated into the product both to facilitate implementation and also to promote the use of the standard.

C. Advantages of software sharing

13. 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.

D. Sharing software: enabling the SDMX data exchange standard

14. 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).

15. 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.

16. 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.

17. The OECD have a number of ongoing initiatives in data SDMX exchange, and as part of the global exercise to out in place and agreed a number of data structure definitions (DSDs) including facilitating the collecting of Short-term Economic Statistics (STES) from member countries using SDMX, we will take advantage of the collaboration on SIS to enable and accelerate the process. The Italian Statistics Institute (iStat), the Australian Bureau of Statistics (ABS), and Statistics New Zealand (SNZ) are using the .Stat data warehouse platform so they will be able to use the in-built SDMX web service to output data in the required format later in 2013 once the required changes have been made to the underlying data structure. These flows are already being tested at the time of writing through an integration of the SDMX-RI, leveraging the work already underway, and continuing by EuroStat, and the .Stat integration by iStat. This is all expected to be operational by the end of 2013.

18. The first such initiative between the OECD and IMF established a bilateral data exchange using .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 timelier, easily accessible data for each organisation

III. SIS-CC status and future directions

E. Current status of collaboration partners

19. 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 following table shows the current member organisations 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 Estonia (SE)	March 2013
Statistics New Zealand (SNZ)	May 2009
The United Nations Educational, Scientific and Cultural Organisation (UNESCO)	March 2012
University of Manchester (UoM)	March 2012

F. Interested organisations

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

(a) INSEE
(b) National Bank of Belgium
(c) Statistics Korea
(d) Statistics Canada

21. 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 first-hand experience.

G. Future directions

22. During the early part of the collaboration the focus was very much on laying the foundations to ensure the community could evolve and continued to grow. This was followed by starting to build on a collective capacity to enable innovation. This has allowed the community thus far to achieve some very good results. However, it is now important to take stock, and turn the focus to ensuring we continue to meet the business and strategic needs of the community securing long term sustainability.

23. To date the SIS-CC plans have been based around a yearly roadmap with elements of strategic orientation for example SDMX, and open data. This has been supported through a well-established governance and development framework, including interactions from quarterly reviews to an annual workshop when the workplan is validated.

24. An annual review of all processes has so far introduced new iterations but it is now clear that those involved in the sharing of .Stat need to establish a longer term strategic plan in order to further align both within the SIS community, and in a broader international context.

25. This will cover three core elements; 1. .Stat strategy, 2. Governance and 3. Funding and sourcing model. To be initiated through a community questionnaire to identify business drivers and objectives, and impact in terms of requirements on .Stat, followed by a series of sprint style workshops to derive a long term strategy with stronger mechanisms to take the SIS-CC, and .Stat into a next phase of collaboration.