

Business Model for Global Platform for Big Data for Official Statistics in support of the 2030 Agenda for Sustainable Development

Introduction

This note sets out a business model for a Global Platform for Big Data for Official Statistics, in support of the 2030 Agenda for Sustainable Development to provide scale and scalability for data, services, applications and infrastructure for the use of Big Data and its integration with administrative sources, geospatial information and traditional survey and census data.

The proposed business model is an outcome of three years of work of the Global Working Group (GWG) on Big Data for Official Statistics, which has identified the need to network many promising public and private Big data networks at the national, regional and global level both held by public and private agencies to make data, services and applications accessible and accelerate their synergies for research and capacity building.

This business model also offers an innovative and technical solution in support of the programme of work of the High-level Group on Partnership, Coordination and Capacity Building for the 2015 Monitoring, which has been mandated to draft a Global Action Plan for data, statistics and innovation and to initiate technical discussions at the UN World Data Forum to be held in Cape Town, in January 2017. These discussions are expected to include topics¹ related to innovative technologies and methods of data production, dissemination and analysis, the integration of traditional and new sources of data, including big data and qualitative data, the mobilisation of geo-spatial information systems, and data communication and visualisation tools. Also the business model is a response to the identified need expressed during the regional Conferences on Transformative Agenda for Official Statistics² to establish regional data, services and innovation centres to provide products and services in support of country programmes on innovation and modernisation of the national statistical systems.

Moreover, the business model follows the main recommendations contained in the report entitled “*A World That Counts*”, presented in November 2014 by the United Nations Secretary-General’s Independent Expert and Advisory Group on Data Revolution for Sustainable Development³. In particular, the business model addresses the recommendation on *technology, innovation, and analysis* to establish “a network of data innovation networks” for leveraging and sharing data and data research, the recommendation on capacity building and resources related to *capacity building and*

¹ Available at: <http://unstats.un.org/unsd/statcom/47th-session/documents/BG-2016-3-update-high-level-group-for-partnership-E.pdf>

² Available at: <http://unstats.un.org/unsd/statcom/47th-session/documents/2016-4-Transformative-agenda-for-official-statistics-E.pdf>

³ Available at: <http://www.undatarevolution.org/report/>

technology transfer, data literacy, and resource mobilization through innovative financing mechanisms in partnership with the private sector, and the recommendation on *governance and leadership* related to partnership and coordination between governments, private sector, NGOs, media and academia to promote good practices and principles in data sharing, open data, and data rights.

The proposed Global Platform is governed by a collaborative partnership network of agencies from the public and private sector for access and use of trusted data under the aegis of the United Nations Statistical Commission.

The Case for the Global Platform

The advantages of the use of big data for data-driven decision making in the private and public sector are now well recognised. Equally recognised is that need for the integration of big data with administrative sources, geospatial information, traditional survey and census data and the benchmarking with official statistics. In many instances, these different operations require the use of similar data, services and applications even if the business needs among the different users may vary. A Global Platform would allow for the different operations to be run on a common network of trusted data, services and applications.

Coordinating the development and delivery of the Global Platform will be a complex task, but a partnership network under the United Nations Statistical Commission could leverage the expertise and investment of the proposed partnership network. It will allow sharing of expertise across the government and private sector and conducting business in new and innovative ways. Being a global public good, the benefits and participation should extend to all UN regions and all public and private partners in UN member countries.

It is envisaged that the Platform will promote interoperable services and applications across partner organizations, thereby reducing the cost associated with developing independent capabilities. It is of course critical that national statistical offices and regional and global statistical agencies would like to partner with the private sector based on the business case that the benefits in cost savings, improvements in quality of services, the generation of new services and expected efficiency gains outweigh the individual public and private investment.

The Business Model

The Business Model for the Global Platform includes the following four components: (i) products and services, (ii) business institute, (iii) customers and (iv) financial approach.

Products and services

Products and services consist of the suite of assets delivered to customers including data, services, applications and infrastructure.

Data: include trusted and transparent individual datasets and integrated data that are provided by private and public partner organisations

Services: to customers will include technical statistical services (e.g. stand alone or as building blocks to develop applications) as well as capacity building. Services will build on the work, which has already been developed by the various task teams of the GWG. It should include services to assist national statistical offices in rolling out mixed mode multi-source approaches in data production, using satellite data, mobile phone data or social media data in addition to register, other administrative and survey data.

Applications: consist of a large variety of tools or capabilities, which may include technological innovations in mixed mode multi-source use of data, data reduction methods, estimation methods, data visualizations or other data analysis products. Applications may leverage one to many different services to conduct analysis and return a result to the user. The Global Platform will offer access to applications that can be downloaded, customized, and used to meet customer business needs.

Infrastructure: includes both physical and logical components of a network of networks that can be leveraged by multiple customers. The physical shared infrastructure includes (but is not limited to): national and regional data centres and data repositories, including the cloud; networks, including internet and intranets, host platforms for data services and applications. Of course, the global platform will operate under strict access and security protocols.

Business institution

The business institution, which could be developed in a Global Centre/Office for data, services and innovation, consists of the following: (a) managing partner, (b) partner network and (c) governing organization.

Managing Partner

The Managing Partner will coordinate the Platform's activities and develop, deploy, operate, and manage the products and services. The Managing Partner needs full-time resources to carry out its functions. Important functions of Managing Partner will include, but are not limited to, establishing and managing relationships with partners; facilitating requirements analyses and developing the products and services; managing the portfolio; customer relationship management; and outreach and marketing efforts. Moreover, the Managing Partner will serve as the broker and manager of the partner network and the primary interface with customers.

Partner Network

Partners provide content (i.e. assets including data, services, applications, and infrastructure) to the Global Platform. They may be governmental or non-governmental organizations. Initially the Managing Partner will focus on identifying customer

requirements and identifying organizations with assets available to meet those requirements. The Managing Partner will reach out to these organizations to encourage them to become a member of the Partner Network and share their assets through the Global Platform.

Some assets of potential partners can be quickly shared with few added resources to the partners, while other desirable assets will require more resources. Explicit and achievable incentives will be defined to help encourage partnerships that might include, but are not limited to hosting capacity, technical support, capacity building, and exposure of partner services to the broader community, or reimbursement for services.

For instance, partner agencies might find that database-hosting services offered by the Platform are a valuable incentive to provide services. In essence, partner agencies may be willing to manage and share micro data sets of business and household statistics, population and housing censuses, geospatial, social media and mobile phone data sets if the Platform provides hosting services in return. Also, private sector organizations exposure of their value added applications might serve as an incentive to offer services to the Platform.

When assets are shared with the Global Platform, they will become part of the Global Platform portfolio and benefit from the Global Platform portfolio management processes and marketing.

Once providers become partners, they will be required to meet rules of engagement included in negotiated contractual, license, or service level agreements, to continue their partner status. These rules of engagement and business processes will be clearly defined and monitored for compliance and performance reporting.

Governing Organization

The Managing Partner is committed to managing Platform operations through a collaborative approach that includes all global, regional and national stakeholders. The model developed and refined by the United Nations Statistical Commission for the International Comparison Programme (ICP) may serve as a good example.

The Global Platform will develop a shared governance model that involves members from governmental, private sector, non-profit, and academic organizations. The Managing Partner will develop a process for long-term stakeholder engagement and shared governance of the Global Platform in collaboration with stakeholders under guidance and direction of the United Nations Statistical Commission.

The Customers

The customers determine the business requirements and the products and services of the Platform. Key customer segments may include: Government at international, regional and (sub) national level, Private sector, Academia, Non-profit organisations and foundations and Citizens

The Managing Partner will act as the primary interface between the Global Platform and its customers. The Managing Partner will conduct a market survey /needs assessment to better understand the target market and identify customer groups. These interactions will also help the Managing Partner to develop the processes of ongoing customer interactions and feedback.

The Financial Approach

The financial approach for the Global Platform considers both the costs to develop and manage the products and services and the sources of funds and other resources that will be used to cover the costs.

In the first stages of the Global Platform development, capital investments will be necessary to ensure smooth implementation. Capital investments will include infrastructure, processing capabilities, and asset migration. The Global Platform will identify the resources of similar initiatives, such as cloud computing and data centres.

The Global Platform will leverage existing assets. Sharing the tools and technology developed by other agencies or partners not only reduces costs, but also speeds implementation of the Platform and builds upon already established best practices. Over time, these investments will reduce the cost of data technology by decreasing redundancy, increasing efficiency, and improving the tools and data available for core business processes of partner agencies.

Way forward

The GWG may request the United Nations Statistical Commission for its further consideration to mandate a small committee of interested partners with UNSD as Secretariat to detail the components of the business model, i.e. products and services, business institute, customers (e.g. customer requirements through marketing survey and inventory of assets of potential partners to meet the requirements) and financial approach.

Questions to be considered by the Global Working Group

1. Is the proposed Business Model for a Global Platform an appropriate innovative technical response to accelerate the synergies between public and private data networks/platforms at the national, regional and global level both held by public and private agencies to make data, services and applications accessible for multiple purposes, including for official statistics?

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2. Should a small committee of members of the GWG be established to further explore the components of the business model and prepare a request to the Statistical Commission at its upcoming session in March 2017?