



UNITED NATIONS

**United Nations Statistical Commission**

**Global Working Group on Big Data for Official Statistics**

**GWG Bureau meeting**

**Seventh meeting – 13 June 2018, 09:00 EST**

**By video-conferencing**

**Agenda item 3 – Profiles of experts of the Advisory Group**

## Profiles of experts of the Science and Technology Advisory Group

Note by UNSD

1. The GWG Bureau agreed to establish a Science and Technology Advisory Group, which will advise the GWG on the quality of its work. The terms of reference of the advisory group is provided in the annex.
2. The members of this advisory group should be internationally recognized experts in their fields. The GWG needs advice on the following:

### Science

- Agricultural crop identification and statistics
- Water management and quality measurement
- Tourism, commuter and population density statistics
- Migration and human mobility statistics
- Finance and mobile banking statistics
- Price statistics and indices

### Technology

- Satellite imagery, remote sensing and aerial photography
- Mobile positioning data and CDRs
- Cloud computing and data security
- AI, machine learning and other algorithms

3. The profiles will follow the pattern of regular job postings, and contain the following sections:
  - Role and responsibilities of the adviser
  - Professional background, publications, additional role and functions

## **Terms of Reference**

### **SCIENCE & TECHNOLOGY ADVISORY GROUP**

#### **Background**

The Statistical Commission created a Global Working Group (GWG) on Big Data for official statistics at its 45<sup>th</sup> session in 2014. The GWG is mandated to provide strategic vision, direction and coordination for a global programme on Big Data and other non-traditional data sources for official statistics, and to promote the practical use of these new sources through its conferences, capacity-building activities, projects and other ways of sharing of experiences.

The vision and mission of the GWG was recently renewed in the Bogota Declaration, which was formulated and adopted by the GWG at the Big Data Conference in November 2017 in Bogota. The declaration is a way forward of innovation in official statistics and underlines the following activities for the GWG:

- (a) the exchange of ideas and methods for processing, analyzing and visualizing Big Data between official statisticians, data scientists and domain experts from the public and private sectors with a focus on research and development building towards modernized statistical production;
- (b) the sharing and exchange of trusted metadata, methods, services and applications for continuous development and reuse, including sharing trusted data where useful and legally possible. The sharing of sensitive data between trusted partners will be agreed bilaterally, whilst widely applicable open data sources can be generally made available; and
- (c) the development, jointly among the official statistical community, private sector technology companies and other communities, of a trusted data architecture so different types of data can be shared safely and securely.

#### **Objectives**

The GWG is based on data collaboration among a broad and diverse community of experts. The quality of the products delivered through and by this community needs to be assessed and assured. The labels of trusted data, trusted metadata, trusted methods, trusted services or trusted applications need to be assigned by a scientific advisory group. Moreover, the technology choices for the trusted data architecture and the data security, data algorithms and other machine learning techniques need to be of high quality as well, and evaluation should be handled by a technology advisory group.

#### **Tasks**

The Science and Technology Advisory Group will have the following specific tasks:

- a) Advise on the quality of the handbooks, methods, algorithms and applications produced by the task teams of the GWG
- b) Advise on the quality of the training courses of the GWG, including the e-learning materials

- c) Advise the global platform team on the choices for the data architecture of the platform
- d) Advise on data security, privacy preserving techniques, data algorithms and other machine learning techniques produced by the GWG task teams
- e) Advise on the programme of the GWG's conferences
- f) Advise the GWG bureau and the leaders of the GWG task teams

### **Methods of work**

The members of the Scientific and Technology Advisory Group will be appointed by the GWG bureau for a period of two years. The tasks of the advisory group will be reviewed by the GWG bureau annually. The GWG bureau will report on the work of the advisory group to the annual plenary session of the GWG.

### **Composition of the Scientific and Technology Advisory Group**

UK and Denmark, as the co-chairs of the GWG, and UNSD, as secretariat, are ex-officio members of the advisory group.

Other members of advisory group are recognized experts in fields, which are relevant to the work of the GWG both in terms of subject matter and technology.

Experts will be appointed by the GWG Bureau.