Forum Summary

Introduction

The PARIS21 Cross Regional Forum 2018 was held on 3-4 December 2018 at the OECD Conference Centre in Paris. The Forum brought together National Statistical Offices (NSOs), private sector, international organisations, development agencies and academia from different parts of the world to enhance mutual learning and co-operation. This year's forum shed light on how digital technologies and the adoption of the Sustainable Development Goals (SDGs) have given rise to new data demands, sources, skills, analytical methods and actors. Presentations and discussions revolved around how this new data ecosystem will play a key role in complementing, rather than replacing, traditional statistical approaches, and how National Statistical Systems (NSSs) still possess many gaps in their ability to identify, adopt and leverage these new opportunities. The objective of the Forum was to bring together countries and development partners to discuss and identify what emerging roles NSSs should play in the new data ecosystem, as well as to provide an opportunity to identify the specific needs of NSSs, available resources provided by development partners and opportunities for synergies.

Session 1: Welcome and opening remarks

Mr. Johannes Jütting (Manager of PARIS21) introduced the Forum and thanked all participants, countries and partners for attending PARIS21's 5th Cross Regional Forum. He commenced his intervention by explaining the relevance of this year's Forum theme: *Making National Statistical Systems fit for the New Data Ecosystem: what needs to be done?*. The complexity of the new data ecosystem requires National Statistical Systems (NSSs) to reinvent and reorganise themselves accordingly to respond to national data demands, international agendas such as the SDGs, and new issues such as trust, new data producers and new data users. Mr. Jütting emphasised that the forum brings together actors from different parts of the world to share experiences, and strongly encouraged mutual learning and co-operation on how to help NSSs adapt to the new data ecosystem. Closing his intervention, Mr. Jütting presented three main challenges in today's ecosystem to the audience:

- Providing sufficient quality data for the Sustainable Development Goals and Agenda 2030

- Technology with its new actors, private sector and corporate data
- Polarisation of societies

Mr. Avinash Collis (MIT) gave the first keynote speech during the Forum on measuring consumer welfare in the digital age. Mr. Collis started his presentation by suggesting that traditional national accounts metrics such as GDP and productivity are not meant to be measures of welfare, before pointing out that people also get welfare from IT, and that the explosion of free digital goods is not necessarily measured. Since free digital goods, such as Google, Facebook and Wikipedia create tremendous amounts of welfare gains, but are not properly accounted for in GDP statistics, Mr. Collis suggested to estimate consumer welfare directly through online choice experiments and lotteries. He concluded that consumer surplus is a better metric of well-being, and that massive online choice experiments have the potential to significantly supplement the measurement of economic welfare since they are highly scalable and can be run in near real time to track changes in well-being. In conclusion, Mr. Collis therefore recommended that this approach can be incorporated into the national accounts.

Session 2: NSSs in the digital era

Chair Ms. Gay Tejada (PARIS21)

In the first intervention of this session, **Mr. Baguinébié Bazongo (INSD Burkina Faso)** presented INSD and its mandate to co-ordinate the NSS & official data production. He further elaborated on the innovation through mobile devices in censuses & surveys, smartphone and tablet usage as well as web sites and public data via devices physically in-house (dissemination). Throughout the presentation, Mr. Bazaongo pointed out numerous challenges for the INSD such as trust of leaders in new technology, investment needs, lack of IT skills and low coverage of internet and electrical power, all in an environment of political insecurity. As recommendations for how to improve the NSS, Mr. Bazongo highlighted leadership training, improved user-friendliness and improvements in digital infrastructure as important factors.

Dr. Pudji Ismartini's (BPS Indonesia) presented the Indonesian statistical challenge and efforts in the new data ecosystem. The presentation explained what BPS has done related to the digitization process in order to support BPS's statistical activity and the government's programme. Dr. Ismartini elaborated on the challenges the NSO faces, including the quality and variety of data, new data sources, innovation and

modernisation. During the presentation, Dr. Ismartini also described how BPS has been taking advantage of Big Data for migration statistics, and introduced the Data Lake Ecosystem (centralised storage of all data). Lastly, Dr. Ismartini also elaborated on the National Strategies for Development of Statistics, and stressed BPS' commitment to the SDG Indicators.

Panel Discussion:

The first panel discussion focused on the role NSSs should play to stay relevant and respond to the needs of citizens and decision makers in a modern economy, and sought to identify which leadership qualities heads of NSOs are expected to have to support this role. The need for NSSs and NSOs to reinvent themselves, as well as the need for a realistic new role of NSS in a complex data environment, were key assumptions in the context for this discussion.

Ms. Emily Poskett (ONS-UK) emphasised that there were several needed measures for NSOs to adapt to the new data ecosystem. Ms. Poskett emphasised that good communication from leaders and the ability to communicate data are important factors to keep the NSSs relevant, while also pointing to transparency and integrity as key characteristics in order to ensure users' trust in data. NSOs must also facilitate innovation through staff support and allow individuals to fail. In conclusion, Ms. Poskett pointed out that the future data ecosystem will require strategic thinking to seek out new methods since NSOs cannot work in isolation. A good knowledge of statistical production will also be fundamental for the NSSs to stay relevant. Finally, Ms Poskett stressed that NSSs should remain as a voice of authority, and drew attention to how they should collect policy relevant information and advice for policy makers and for citizens.

Dr. Leo Ferres (Universidad del Desarrollo) presented how new technology can be used as a solution for real-time data, illustrated through the use of antenna and sensors used to measure gender inequality (gender spatial movements). Dr. Ferres presented his findings on both gender and mobility, and social inclusion and malls in Santiago, together with his vision about using mobile (private) data for public good at a country scale. He emphasised the power of knowing where people move in real time, for instance during natural disasters such as earthquakes when people call each other to meet up, which causes population regrouping and overpopulated locations. Given that censuses are expensive and require more time to be produced, the data collected from the antennas and sensors represents a great opportunity, and can help governments to more efficiently allocate their resources and send provision to locations.

Mr. Jerome Coffinet (Banque De France) pointed out that official statistics remains key to many stakeholders, mentioning its democratic value due to the evaluation of policies, and the ESS quality declaration. Central banks are especially concerned with official statistics (wide range of statistics produced with many stakeholders, competitive market, and public commitment). Mr. Coffinet remarked that the statistical world has changed, in particular the general approach to big data and data science, and advised NSSs to take the opportunity to adapt to the new environment. He encouraged NSSs to embrace opportunities in big data and data science, and to avoid regarding them as threats to public statistics but rather opportunities, noting that these techniques can allow us to make official stats better and more reliable. Mr. Coffinet also highlighted the impact of data sharing making it easier to access: web portal, data quality management, analytical platform, data sharing platform, and data dissemination portal. In conclusion, Mr. Coffinet acknowledged that NSOs are and will remain relevant; the most important is for NSOs to adapt and create a new role for themselves in the new ecosystem (i.e. collect data from multiple private organisations to reduce or eliminate sampling issues).

The following discussion revolved around:

- Trust in data from technology

- How NSOs with scarce resources should approach big data

- Sustainable development: Mix of big data sources and official statistics

Session 3: New technologies and new measurements in an enabling environment

Chair: Mr. François Fonteneau (PARIS21)

Mr. Kristofer Hamel (World Data Lab) presented subnational income projects in numerous countries that integrate survey, census, and satellite imagery to come up with better models and forecasts. Seeking to obtain data at the most disaggregated level, Mr. Hamel introduced World Data Lab's "AgeSpot" and "Machine-learning" that use high-resolution imagery to make predictions about demography and income. The new approach to data modelling is based on real-time, about people not numbers, unit of analysis is actuals (vis-a-vis percentages), and direction of analysis is present and future (vis-a-vis past). During the presentation, Mr. Hamel explained how World Data Lab had chosen to answer the following two questions: *How much will I earn?* (economic forecast) and *How long will I live?* (demographic forecast)**,**

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before underlining that credible models and storytelling were the two key ingredients. Mr. Hamel further explained that they are able to do things that NSOs are unable to do in terms of technology and methodology, since they have the possibility of providing granular level data. However, NSOs have access to data and output with a political mandate, which Mr. Hamel claimed made the case for a natural marriage between the two models.

Mr. Rogelio Campos (IIEG Mexico) spoke about supporting the NSS at the most disaggregated level – the state and municipality level. In his intervention, Mr. Campos presented three examples in the sub national ecosystem displaying how statistical information is filtered and applied to particular problems at the local level. These examples manifested how statistics have direct relevance for households, businesses and for civil society. Subnational statistical systems offer an advantage, the opportunity to merge statistical and geospatial data, gathered from multiple sources; thus, information is generated not just for the sake of it, but in order to respond to specific public, private and social problems. Mr. Campos mentioned that none of the cases presented were measured by the National Bureau of Statistics. Since subnational systems are more agile, they are able to generate specific knowledge, intelligence from local perspectives, filter and merge data (for ex. Spatial and Statistical data), which led him to note the complementarity, and not the rivalry, with the NSO.

Mr. Erik Vickstrom's (OECD) presentation sought to answer how developing countries can better measure emigration. The presentation started with an explanation of why improving data is crucial for the implementation of the migration-related dimensions of the 2030 Agenda for Sustainable Development, the Global Compact on Migration, and the Global Compact on Refugees. Next, Mr. Vickstrom pointed out that many developing countries lack the capacity to collect, analyse and disseminate high-quality, timely, comparable and disaggregated migration data. Mr. Vickstrom then reviewed proposed solutions for better migration data, including recommendations of more census questions on migration, the use of admin data, migration data in labour force surveys, as well as better use of existing data/ non-traditional data sources.

Mr. Arogya Koirala (Kathmandu Living Labs) presented how his organisation helped support immediate relief and rescue operations by harnessing the power of crowdsourcing, and remote mapping using OpenStreetMap. The presentation showed the experiences of KLL working with the Nepali government to

successfully carry out one of the largest mobile surveys ever, which collected census-level data for the 11 most affected districts (5.5 million individuals, 1 million buildings).

Dr. Jennifer Requejo's (UNICEF) intervention described the Child Friendly Communities/Real Time Monitoring Project, which aims to strengthen community health data, and improve the flow of information through the health system both upwards from the community level and back down to frontline workers and programme managers. Dr. Requejo discussed the various innovative aspects of the programme including the integration of multiple services for women and children, the integration of community health data into the health information system, and the development of new tools such as electronic registers and the use of digital technology.

Mr. Harry François (Statistics Canada) presented the culture of innovation providing Canadians with high quality statistics in the ever-shifting social and economic landscapes of their country. He gave an overview of current transformations that are taking place in terms of expertise to deal with challenges of the data ecosystem, and further elaborated on how Statistics Canada is addressing these challenges and its vision for a modern, flexible, innovative workplace.

Session 4: Working with new actors

Chair: Mr. Rafik Mahjoubi (PARIS21)

Etienne Grass's (CAPGEMINI Invent) presentation focused on the use of Artificial Intelligence, and illustrated its potential through several examples of innovation in the public health sector. Mr. Grass underlined that the accuracy of artificial intelligence lies in the accuracy of the data. Mr. Grass elaborated on the public's perception of robots, and described the relation between Artificial Intelligence and humans, claiming that there exists no linear correlation between them. Mr. Grass also stressed the cognitive biases of humans, placing particular emphasis on how the Pygmalion effect relates to humans and AI. During the discussions on robots, artificial intelligence and humans, he also touched upon threats, such as ethical choices and moral hazard. In conclusion, the link between official statistics and artificial intelligence were highlighted through Mr. Grass' remarks that trust, factfulness and judgement are key common denominators, and that trust will be key in future collective intelligence.

Break-out sessions

For the break-out sessions, participants were divided into four groups working on different topics related the theme of the Forum. At the end of the session, the groups presented the following findings:

Group 1: Capacity Development 4.0: New approaches to filling data gaps: How can technology help to do better?

As challenges for NSOs and other data providers in operationalising new approaches to fill data gaps, this group emphasised the lack of IT capacity and lack of trust in new data as the main challenges. The group suggested that the IT capacity issue could be improved through increased engagement with the local IT scene (young firms, start-ups), and increased sharing of information on opportunities and making jobs attractive (campaigns and hackathons). Additionally, trust in new data could be improved through shared methodology, clear definition of concepts, notes on limitations, and complementarities.

Group 2. Data sharing and regulation/law: How to take into account challenges accompanying technology in making data more accessible?

This group identified modern statistics (NSO mandate to access data for statistical purposes only, trust among other NSS stakeholders, statistics as public good) and the culture of data sharing within the NSS and the private sector (political economy, fear, data as a source of power) as key challenges accompanying technology in making data more accessible. To this end, the group recommended that NSOs should review regulations regularly, strengthen provisions in the statistical legislation and establish memorandums of understanding. Furthermore, the group underlined technology to leverage data sharing, communication, investment in strong data security (process, systems) and capacity building.

Group 3 - What are the success factors in building partnerships in the new data ecosystem?

This group pointed out that partnerships are about moving beyond responsibility for independent results to a relationship that involves co-creation, shared risks and responsibilities, interdependency, and organisational transformation. Factors for a partnership include: strategic fit, common understanding, management commitment, resource fit, communications and IT strategy. To tackle these challenges, Group 3 acknowledged the importance of creating a sense of competition and urgency. Moreover, important

aspects of partnerships include: Dynamism in the partnerships, identification of needs and setting expectations, and course corrections.

Group 4 –Better coordination for efficient national statistical systems: What is the added value of technology (i.e. IT systems)? This group discussed the use of technology in co-ordinating national statistical systems. The main challenges identified include defining and enforcing standards, increasing resources, government setup, human capacity and process efficiency. While technology can be used to create efficiencies and new opportunities, they can also bring a new set of challenges that NSOs have to adapt to.

Session 5: Let's make something happen!

Chair: Ms. El Iza Mohamedou (PARIS21)

Regarding the needed measures to respect to laws and IT requirements, **Ms. Carol Coy (Statistical Institute Jamaica)** pointed to the political support behind statistical laws. She pointed out that leadership skills are a critical factor – where openness to changes and responsiveness to environment will be key characteristics. To the question on prioritising proposals, Ms Coy said that cost-benefit analysis was important. They have technical committee meetings and discussions. She also stressed ideas from the youth played an important role.

Ms. Maria Courteaux (INEI Peru) described how there is a large political involvement in facing new data challenges and disaggregation requirements in Peru. She referred to both the Ministries of Finance and Planning.

Dr. Hugues Kouadio (ENSEA Abidjan) underlined how partnerships with private companies are important to prepare young statisticians for new technologies. Dr. Kouadio stressed the importance of collaboration of all stakeholders needed to leverage possibilities ("come together to address programme of innovation").

Ms. Kerstin Hinds (DFID UK) described how DFID addresses the new data ecosystem challenges. She explained how DFID develops a 10-year programme structure timeframe, and presented the new investments in local skills to leverage new opportunities. Ms. Hinds emphasised how the use of data and its ultimate demand is the guiding consideration for their programmes. In response to how DFID copes with

data sharing agreements, Ms. Hinds pointed to the limitations of legislation, the cultural dimension of sharing and the decentralised data system. She further stressed the privacy standards, illustrated by health data scandals that have affected society's trust. In her concluding remarks, Ms. Hinds chose to focus on DFID's strong conviction of the good public nature of data and the need for public conversation around data and statistics.

The following discussion revolved around:

- Fostering collaboration between data scientists around the world

- Sectoral approaches to tourism, migration and gender data

- Establishment of E-platform for online training of journalists and schools

- Advocacy for Data sharing agreements

- How to cope with data sharing agreements

- "Business thinking" in official statistics. How to make attractive statistics and technology to increase attention to official statistics? The panellists emphasized the focus on user engagement, the mapping of supply and demand and that statistics need to keep up with society's demand.

Final Wrap-up:

Johannes Jütting (PARIS21)

Mr. Jütting highlighted three main takeaways from the forum:

1. **Creation of safe spaces for innovation is needed**. How can development partners help to push innovation in a safe space - possibly separate from NSOs?

2. **Technology is only a means to an end**. Many parameters are unaffected by new technology. Development partners should shift towards academic and citizen-generated data initiatives, since partnerships such as PPPs have not delivered as much as expected so far.

3. **"Leave no NSO behind".** Technology might be attractive, but it does not fit in all local contexts of developing countries. We need to acknowledge realities on the ground, and shift focus towards basic statistics (censuses, DHSs, poverty measures, well-being indicators) in the contexts where this is more expedient.

Annex 1:

Participants List for the PARIS21 Cross Regional Forum

All Sessions

German Agency for International Cooperation (GIZ)

Joern GEISSELMANN   *Policy advisor*
                                                   GIZ

United States

Matthew FISHER POST   *Consultant*

Côte d'Ivoire, ENSEA

Kouassi Hugues KOUADIO   *Directeur des Études ISE*
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Lao People's Democratic Republic

Phetsamone SONE   *Deputy Head of Lao Bureau Statistics*
                                                    Department of Statistics
                                                    Lao Statistics Bureau

Tunisia, National Council of Statistics

Anis ZARMDINI   *Deputy Director of Studies and Economic Analyses*
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                                                    National Council of Statistics

UN Educational, Scientific and Cultural Organization (UNESCO)

Borhene CHAKROUN   *Chief, Section for Technical and Vocational Education and Training (ED/ESB/TVET)*

Kathmandu Living Labs

Arogya KOIRALA   *Tech and Innovation Lead*

Banque de France

Jerome COFFINET   *Head of Statistical Engineering and Methodology*

Bhutan National Statistics Office

Chhime TSHERING   *Director*

Statistics Indonesia (BPS)

Pudji ISMARTINI   *Statistics Services and Promotion*

Capgemini Consulting

Aliae SAYAH   *Senior Consultant*

Capgemini Invent

Etienne GRASS   *Head of Citizen Services*

Consultant

Geoffrey GREENWELL

Department for International Development (DFID)

Kerstin HINDS *D4D Team Leader & Senior Stats Adviser*

Expertise France

Beata SUSZTEROVA *Statistical projects unit*

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Badria ABDALLA OBAID HABLAIL *Economic Statistics*

Aasma ABDULLA RASHED ALSAGHEER ALSHEHHI *Senior Statistician*

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Stephan KRISCHE *Director*
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Instituto de Información Estadística y Geográfica del Estado de Jalisco

Rogelio CAMPOS CORNEJO *Director-General*

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María Estela VIVAR COURTEAUX *Coordinadora Nacional del proyecto ANDESTAD y PENDES*

Maldives National Bureau of Statistics

Ashiyath SHAZNA   *Statistician, Statistics Development and Coordination Division*

Massachusetts Institute of Technology

Avinash COLLIS   *Doctoral Researcher at MIT Initiative on the Digital Economy*

National Institute of Statistic and Demography, Burkina Faso

Bazongo BAGUINEBIE   *Engineer in Statistics and Economist*
                                             Economy and Finance

Nepal Sustainable Development Foundation

Janak Prasad SHRESTHA   *Vice President*

ONS UK

Emily POSKETT   *Head of International Development*

Oxford Policy Management

Paul JASPER   *Senior consultant*

Samoa Bureau of Statistics

Leilua TAULEALO   *CEO of ICT and Data Processing*

Statistical Institute of Jamaica

Carol COY   *Director General*

Statistics Canada

Harry FRANCOIS   *Centre de collaboration internationale et d'innovation en méthodologie*
Statistique Canada

Uganda Bureau of Statistics (UBOS)

Peter MUKURU   *Information and Communications Technology*

UNICEF

Jennifer REQUEJO   *Lead on Health, Data and Statistics*

Universidad del Desarrollo

Leonardo Adrian FERRES   *Professor*
Institute of Data Science

World Data Lab

Kristofer HAMEL   *Chief Executive Officer*

Expertise France

Clement DUPONT   *Charge de projet*

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Eric ANVAR   *Head of Division*
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Karina Miroslava CAZAREZ GRAGEDA   *Junior Policy Analyst*
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Francois FONTENEAU   *Programme Co-ordinator*
                                            SDD/P21

Emer HEENAN   *Assistant*
                                            SDD/P21

Fiona HETHERINGTON   *Budget and HR Officer*
                                            SDD/P21

Johannes JÜTTING   *Head of Division / Secretariat Manager*
                                            SDD/P21

Manuel KUHM   *Intern*
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Rafik MAHJOUBI   *Regional Programme Co-ordinator*
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Rajiv RANJAN   *Technical Programme Advisor*
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Emilia ROSSI   *Policy Analyst - Gender Statistics*
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Giorgi SHARVADZE   *Applications & Database Developer*
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Magali SOCHAY   *Assistant*
                                          SDD/P21

Millicent Gay TEJADA   *Regional Programme Co-ordinator*
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Yu TIAN   *Junior Policy Analyst*
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Erik VICKSTROM   *Migration Analyst*
                                          ELS/IMD

Koffi ZOUGBEDE   *Junior Analyst*
                                          SDD/P21

Annex 2:

Satisfaction Survey Results

Overall evaluation of the Forum	
Number of respondents:	18
Completion rate (excl. PARIS21):	51.43%
Overall satisfaction with the following aspects:	**Average satisfaction:** (1: Very unsatisfied - 10: Very satisfied)
1. Content/quality of discussions	**9.00**
2. Structure of Forum	**9.22**
3. Usefulness of Forum for your work	**9.00**
4. Logistical organisation and support	9.17
5. Overall evaluation of the Forum	9.11