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Outcomes of the recent in-depth reviews carried out by the Bureau of the Conference of European Statisticians

In-depth review of statistics and data on cities

Note by Statistics Netherlands and Eurostat[1]

Summary

This document is an updated version of the in-depth review paper on statistics and data on cities that the Bureau of the Conference of European Statisticians discussed in October 2018.

The in-depth review provides an overview of the activities on city statistics of international organizations and presents practices from selected countries: Austria, Canada, Finland and the Netherlands. It identifies issues and challenges and formulates conclusions and recommendations for further work. The last section summarises the discussion and decision by the Bureau in October 2018.

[1] The document has been prepared by Statistics Netherlands and Eurostat in collaboration with Statistics Austria, Statistics Canada, Statistics Finland, Organisation for Economic Cooperation and Development (OECD), United Nations Statistics Division (UNSD), United Nations Population Division (UNPD), United Nations Economic Commission for Europe (UNECE), United Nations Human Settlements Programme (UN-Habitat) and the World Bank.

I. Introduction

1. The Bureau of the Conference of European Statisticians (CES) regularly reviews selected statistical areas in depth. The aim of the reviews is to improve coordination of statistical activities in the UNECE region, identify gaps or duplication of work, and address emerging issues. The review focuses on strategic issues and highlights concerns of statistical offices of both conceptual and coordinating nature.

2. In February 2018, the CES Bureau selected "statistics and data on cites" for an in-depth review. Statistics Netherlands and Eurostat volunteered to co-lead the preparation of the paper providing the main basis for the review.

II. Scope of the statistical area covered

3. The scope of this in-depth review of "statistics and data on cities" lies on official international and national city statistics.

4. Cities worldwide show a fast-growing need and ambition to develop data-driven, evidence-based policy making. Cities are looking for tools and guidelines to benchmark themselves against other cities and identify innovations to serve their citizens in the best, most efficient and effective way. In addition, a fast-growing number of cities link these benchmarking efforts to the Sustainable Development Goals (SDGs) given the importance of cities and human settlements for achieving SDGs, which come into effect in an increasingly urban world, with a little over half the global population now living in urban areas. All cities aim at increasing prosperity, promote social inclusion, and enhance resilience and environmental sustainability. In this perspective, SDGs capture large parts of the existing political agenda in virtually every city. This indicates the necessity of working together with local authorities.

5. On the global level there is a strong united focus on developing a global, people-based definition of cities and settlements for statistical purposes as SDGs contain many indicators with focus on rural or urban areas and a specific goal dedicated to cities and settlements.

6. Furthermore, many universities, research groups, think-tanks, networks of local governments, businesses etc. on various levels (national, regional, global) report and produce data and indicators on cities and support cities in their ambitions to become data-driven and benchmark their activities to SDGs.

7. This all leads to the conclusion that statistics and data on cities are of a fast-growing importance.

III. Overview of international statistical activities in the area

8. This section provides an overview of recent and ongoing activities of international organizations on city statistics. There is a wide range of organisations: United Nations organisations, OECD, the European Commission, the World Bank, universities, research groups, networks of local governments, businesses etc. working at various territorial levels that report and produce data and indicators on cities. As mentioned in section II, this review is focusing on strategic international statistical activities related to statistical offices. Activities and experiences of universities, research groups, think-tanks, networks of local governments, businesses etc. are believed to be of value so they could be involved in a follow-up activity on this in-depth review.

9. The initiative to develop a harmonised methodology to delineate cities and settlements at global level is supported by many actors, so it is presented as a multi-organisation activity. The other activities are presented under the leading organisation.

A. Developing a global, people-based definition of cities and settlements

10. SDGs contain many indicators with focus on rural or urban areas and a specific goal dedicated to cities and settlements. A global definition of these different types of areas, however, is still missing. Many of the SDGs indicators are sensitive to where the boundary is drawn. For example, access to public transport quickly drops as one moves away from the city centre, while public spaces tend to be more prevalent further away from the city centre. To compare cities across national borders reliably, these areas should be defined in the same way. An analysis of national definitions revealed that they are so different that they make international comparisons impossible.

11. This is why the European Commission, Food and Agriculture Organization of the United Nations (FAO), OECD, UN-Habitat, UNSD, International Labour Organisation (ILO) and the World Bank are working together to develop such a global definition. This work was launched at the UN-Habitat III conference in 2016. Currently, the above-mentioned organisations are testing two definitions developed jointly by OECD and the European Commission: degree of urbanisation and functional urban area. A new global population grid was also created by the European Commission Joint Research Centre to show the estimated results of this methodology in every country in the world.

12. The group has initiated pilot projects in 15 countries to test the definitions, compare them to national definitions and gather feedback. The countries are Australia, Brazil, Colombia, Egypt, India, Indonesia, Jordan, Malaysia, Mozambique, Pakistan, South Africa, Tunisia, Turkey, Uganda and the United States of America.

13. UNSD asked 20 statistical offices to assess the proposed degree of urbanisation definition and evaluate its usefulness for international statistical comparisons. Three quarters of the replies were supportive of this definition.

14. The 49th session of the United Nations Statistical Commission (UNSC) requested the organization of an ad hoc United Nations Expert Group Meeting on the Statistical Methodology for Delineating Cities and Rural Areas, which took place in January 2019. The conclusions and recommendations of the Expert Group suggest discussing the approach with the Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs) to help with monitoring of SDG indicators. For global reporting of specific SDG indicators, a harmonized approach is needed. The 50th session of UNSC in March 2019 decided that the degree of urbanisation[2] and functional urban area[3] definitions will be presented to UNSC in March 2020 for discussion. The overall goal is to have harmonised methodologies for the delineation of urban and rural areas approved by UNSC in 2020 as a recommended definition for international comparisons and monitoring of SDGs.

B. European Commission

15. The first attempt to collect comparable statistics on 58 European cities, so-called "Urban Audit Pilot Project", was conducted in 1999 by the European Commission. In 2001, at the meeting of the Working Party on Urban Statistics it was decided that Eurostat will have coordinate the Urban Audit data collection at the European level, while national statistical offices (NSOs) will coordinate the data collection at the national level. Using this new organisational set up, the first "full scale" data collection was launched including 258 cities from 27 countries, co-funded by the European Commission. Several data collection rounds followed and all together more than 20 NSOs received grants in one or more rounds. In 2017, Eurostat signed grant agreements with 18 NSOs with the objective to collect statistics on cities.

[2] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_degree_of_urbanisation
[3] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_cities,_commuting_zones_and_functional_urban_areas

16. Since 2004, the city statistics experts of the European Union (EU) member States and the countries of European Free Trade Association (EFTA) usually meet once a year to discuss topics specific to city statistics. The outcomes of that meeting are discussed by the Expert Group on regional, urban and rural development statistics.

17. Members of the European Statistical System (ESS) (Eurostat, NSOs and other national authorities in each member State, EFTA countries responsible for the development, production and dissemination of European statistics) have been continuously making efforts to increase data quality – coverage, comparability, relevance. For example, *Methodological Handbook on Urban Audit*, first published in 2004, has been revised several times based on the results of the peer review in 2010, feedback from thematic Eurostat experts, and information provided by NSOs in the national metadata files, quality reports, etc. The latest *Methodological manual on city statistics* was published in 2017 (Eurostat, 2017).

18. Another major improvement was the revision of the delineation of cities for statistical purposes to follow the harmonized city definition developed together by OECD and the European Commission (OECD, 2012). In 2017, the European Commission integrated the most important territorial typologies, including the functional urban area (FUA), city and predominantly urban region definition into the NUTS Regulation[4]. By giving them legal recognition, the European Commission ensures their harmonised application in all the EU member States. The ongoing data collection exercise seeks information from almost one thousand cities and functional urban areas (across the EU member States, Norway and Switzerland).

19. Currently, Eurostat provides statistics on a wide range of socioeconomic indicators covering many aspects of the quality of urban life: demography, housing, health, economic activity, labour market, income disparities, educational qualifications, environment, commuting patterns, tourism and cultural infrastructure.[5] Data availability varies by topic and year. While demographic indicators have very good coverage in all reference years, some other topics, like commuting patterns, are mostly available for the reference year of the population census. All available data is published as datasets on the Eurostat website[6] and a subset of indicators is visualized on maps and graphs in the interactive Regions and Cities Illustrated[7] tool. In 2016, Eurostat released a flagship publication *Urban Europe* (Eurostat, 2016), which provided detailed information structured into 12 chapters on urban development and people living, working in cities, towns and suburbs. The recently published *Sustainable development in the European Union – Monitoring report on the progress towards the SDGs in an EU context* (Eurostat, 2018) has a chapter dedicated to SDG Goal 11 *Make cities and human settlements inclusive, safe, resilient and sustainable*.

20. The Directorate-General for Regional and Urban Policy in co-operation with the ESS conducts every three years a perception survey focusing on cities in the EU member States, Iceland, Norway, Switzerland and Turkey. These survey covers a range of issues, including: employment, environment, housing, transport, culture, city services and immigration. The next survey is planned for 2019.

21. The Urban Data Platform[8] developed by the European Commission merges traditional information sources, fine-scale satellite imagery, census data, volunteered geographic information and big data to form multifaceted datasets to produce consistent spatial urban indicators for cities.

[4] Regulation (EC) No 1059/2003 of the European Parliament and of the Council of 26 May 2003, on the establishment of a common classification of territorial units for statistics (NUTS), OJ L 154, 21.6.2003

[5] https://ec.europa.eu/eurostat/web/cities/background

[6] https://ec.europa.eu/eurostat/web/cities/data/database

[7] https://ec.europa.eu/eurostat/cache/RCI/#?vis=city.statistics&lang=en

[8] http://urban.jrc.ec.europa.eu

C. Organisation for Economic Cooperation and Development

22. Activities related to city statistics are carried out by OECD and overseen by the Working Party on Territorial Indicators (WPTI). WPTI is an official body of the OECD Regional Development Policy Committee, composed of country representatives mainly from NSOs. All projects carried out by OECD on the topic of cities with a strong statistical or quantitative approach are presented and discussed in the WPTI meetings (twice per year). OECD has a specific unit within the Centre for Entrepreneurship, Small and Medium-Sized Enterprises, Regions, and Cities that focuses on developing statistical evidence on regions and cities. Overall, the activities related to city statistics are the following:

- Setting standards on statistical and territorial definitions
- Measuring socio-economic and demographic phenomena at the city scale
- Collecting and/or producing indicators on cities for OECD countries
- Producing analytical reports on topics related to cities
- Publishing indicators on cities (and regions) in the OECD Data Portal, after approval. This ensures a unique source of international comparative analysis at the city level.

23. OECD collects several statistics at city level (FUAs) from NSOs, mainly related to socio-demographic characteristics. The statistics collected can have different data sources, from census data to administrative data published by the NSOs. The data is collected usually at the municipal level and then aggregated to the geography of interest. The OECD Metropolitan Database provides consistent urban spatial indicators for cities (FUAs) with more than 250 thousand inhabitants. Indicators are collected or produced by combining traditional sources with satellite imagery, administrative data or other less conventional data sources (air quality, built-up area, income levels, etc.). The OECD flagship publication *OECD Regions and Cities at a Glance 2018* (OECD, 2018) provides a summary of all indicators at city level that OECD collected or produced at the scale of cities. The main outcomes of the statistical activities carried out by OECD on cities are the following:

- Consistent definition of cities and metropolitan areas in the OECD countries through the concept of "functional urban area" (FUA) (OECD, 2012)
- Extension of the concept of FUA at the global level
- Development of a database of all metropolitan areas (functional urban areas with at least 250,000 inhabitants) across the OECD countries
- Production of novel indicators on several well-being dimensions at the FUA scale. These indicators include, among others, assessment of income levels, poverty and income inequalities.

D. United Nations Statistics Division

24. UNSD collects population data of cities and respective urban agglomerations from national statistical offices of all countries and areas. These data are collected via the Demographic Yearbook questionnaires and refer to national estimates or census data of total population of the city and its urban agglomeration disaggregated by sex if available. The suggested definitions of a "city" or "urban agglomerations" provided as part of the Demographic Yearbook questionnaires are the following:

(a) City proper is defined as a locality with legally fixed boundaries and an administratively recognized urban status, usually characterized by some form of local government;

(b) Urban agglomeration is defined as comprising the city or town proper and also the suburban fringe or densely settled territory lying outside of, but adjacent to, the city boundaries.

E. United Nations Economic Commission for Europe

25. UNECE is supporting the monitoring of SDGs, including urban-related SDGs and targets in the UNECE region through coordination and methodological work. In 2017, the Conference of European Statisticians published its roadmap supporting the monitoring of SDGs in the UNECE region. This road map also included information on the sub-national level indicators (UNECE CES, June 2017).

26. UNECE has also several projects supporting national and city governments in promoting evidence-based policies for urban development. (UNECE, 2018)

27. The UNECE Housing and Land Management Unit develops country profiles on housing, urban development and land management[9], which are country studies performed on requests of the national governments. Country profiles are an important tool to analyse countries' housing and land management policies, strategies, institutional and financial frameworks and to review the implementation of 2030 Agenda and other global and regional commitments.

28. Building on the current efforts to establish evidence-based policies through the country profiles on housing and land management, the UNECE Housing and Land Management Unit in cooperation with UN-Habitat, started in 2016 the implementation of a joint UNDA 10th tranche project on "Evidence-based policies for sustainable housing and urban development in selected countries with economies in transition". Within this project, UNECE and UN-Habitat are developing a policy paper and guidelines for collection and analysis of national data on housing and urban development. The policy paper includes analysis of data collection status in pilot countries: Albania, Georgia, Kyrgyzstan and Ukraine. Based on the analytical reports, a training programme will be developed, and trainings will be organised in the four countries to support building capacities of national and city governments for evidence-based policies for sustainable housing and urban development.

29. At city level, the UNECE Housing and Land Management Unit[10] launched in 2014 the United Smart Cities (USC)[11] programme, which aims to address the major urban issues in medium-sized cities and includes training on data collection. In 2016, UNECE and the International Telecommunication Union (ITU) established the United Nations global initiative United for Smart Sustainable Cities (U4SSC), which currently involves 16 United Nations bodies. In 2017, the U4SSC stakeholders elaborated a set of Key Performance Indicators (KPIs) for smart sustainable cities which includes 92 indicators (core and advanced) divided in three dimensions of sustainable development: economy, environment, and society and culture. KPIs encompass the following topics: information and communication technology, transport, productivity, infrastructure, spatial planning, innovation, air quality, water and sanitation, waste, public spaces, energy, education, health, culture, safety, housing, food, and social inclusion. The indicators are fully aligned with SDGs and serve as a tool for evidence-based decision making, progress monitoring and achieving SDGs at the local level. 50 cities of different sizes and development are implementing KPIs worldwide, including Dubai, Singapore, Montevideo, Valencia, Rome, Astana, Manizales, Goris, Voznesensk, Bizerte, Pully.

30. The Working Party on Land Administration (WPLA)[12] and its activities contribute to policy guidance for sustainable land administration that will provide a means for raising awareness and improving advocacy, and a reference and guide for member States when developing and strengthening land administration and management in the region. These are key requirements and elements for sustainable and interoperable land administration and management systems that can efficiently and effectively document, record and recognize the complex relationships related to land. WPLA uses its expertise to improve the acquisition, registration, storage, maintenance and dissemination of information on real property rights

[9] http://www.unece.org/housing/countryprofiles.html
[10] http://www.unece.org/housing.html
[11] http://www.unece.org/housing/smartcities.html
[12] https://www.unece.org/housing/working-party.html

as well as the geometric and physical characteristics of land. The 2030 Agenda for Sustainable Development calls for new data acquisition and integration approaches, including the contribution by Earth observations and national geospatial information management systems. These should be used to secure land and property rights for all.

F. United Nations Population Division

31. The United Nations Population Division (UNPD) of the Department of Economic and Social Affairs has been issuing for several decades revised and updated estimates and projections of the urban and rural populations of all countries in the world and of their major urban settlements, as published in the World Urbanization Prospects[13]. In its latest revision released in 2018, the Population Division produced estimates and projections of urban and rural populations for 233 countries and areas of the world and for close to 1,900 urban settlements with 300,000 inhabitants or more in 2018. In preparing the 2018 Revision, the Population Division relied on the collaboration with UNSD, which produces the United Nations Demographic Yearbook (UN Department of Economic and Social Affairs, 2018) and accompanying databases. Within this compilation exercise, the Population Division acknowledges the use of information from the City Population website and is grateful for support received directly from NSOs, many of which made available additional data and reports from recent censuses and surveys to assist in the preparation of the 2018 Revision. In preparing estimates and projections of the urban population, the Population Division relies on the data produced by national sources, which reflect the definitions and criteria established by national authorities. In compiling information on city population size for this revision, the Population Division endeavoured to use data or estimates based on the concept of urban agglomeration or metropolitan area. When those data were not consistently available, population data referring to city as defined by its administrative boundaries were used.

32. The Population Division has also issued an interactive database that can be used to archive and display the geographic coordinates of city boundaries according to various definitions (for example, city proper, urban agglomeration, metropolitan area) and the size of the associated populations as enumerated in national censuses.[14] The selection of countries and censuses for this release has taken into consideration the availability of publicly accessible boundary files linking geographic information to relevant census data, the number of cities (in a given country) with 100,000 inhabitants or more, and regional diversity.

G. UN-Habitat

33. UN-Habitat is involved in several activities related to human settlements monitoring, especially urban and city statistics. In their recent publication *SDG 11 Synthesis Report* chapter 2 gives an overview of these activities, in particular the progress in monitoring urban related SDG indicators (UN-Habitat, 2018). The chapter focuses on methodological developments, capacity development initiatives and diversity of tools created by custodian agencies and their partners to enhance data generation and availability. As highlighted in the report, some urban-related SDG indicators require a new reporting territorial level – the city – as a unique entity of analysis. Some of these indicators (11.3.1, 11.3.2, 11.7.1, etc.) shall be collected and computed at city level although the monitoring is to be done at the national level. This underlines the need for a harmonised definition as to what constitutes a city or an urban area for purposes of global monitoring.

34. UN-Habitat along with other custodian agencies also developed methodological guidance for national and local governments to monitor SDG 11 (UN-Habitat, UNESCO, WHO, UNISDR, UN-Women, UNEP, UNDP, 2016), which also includes a guide to apply the concept of the national sample of cities. This sample is vital in ensuring that countries with so many cities that are challenging to monitor and report on concurrently and annually,

[13] https://population.un.org/wup/
[14] https://population.un.org/cityboundaries/index.html#/cityPop

rely on a consistent set of a representative sample of cities. It allows for analysing time series and measuring national progress in a more structured manner.

35. UN-Habitat has a specialized statistical unit, the so-called Global Urban Observatory unit, which is in charge of global monitoring of the development agendas with an urban linkage such as the SDGs, the New Urban Agenda, Paris Agreement, etc. The unit has also developed the City Prosperity Index to measure the wealth and sustainability of cities. The City Prosperity Index is a composite index based on 6 dimensions and over 15 sub-dimensions that are contextually specific and globally comparable. The index is part of a broader platform, the City Prosperity Initiative (CPI). CPI integrates indicators for urban SDGs to concentrate in a single framework the environmental, social and economic components of city prosperity and sustainability. UN-Habitat has supported more than 400 cities across the world to implement CPI.

36. UN-Habitat is working in close collaboration with United Nations system entities, local governments, city departments, academia, civil society and the UNSD to complement the SDG monitoring framework by including specific components of the New Urban Agenda that are not covered by SDG indicators (UN-Habitat, 2018).

H. World Bank

37. The World Bank publishes on its World Bank Open Data Portal a variety of statistics about countries, including national and subnational population, land use, living standards. For example, poverty data (based on the living standards measurement surveys sometimes also called household income and expenditure surveys or household budget surveys) are collected and published by the World Bank at national level, as well as for urban and rural areas. The resulting poverty data are part of the national official statistics. More information on the surveys is available on the dedicated webpage (World Bank, 2018). Another example is the business environment data: the "Doing Business" project provides objective measures of business regulations for local firms in 190 economies and selected cities. This data usually is not part of national statistics. More information on the project is available on the specific website (World Bank, 2018).

38. The World Bank also conducts research and analysis. A recently published report *Cities in Europe and Central Asia: a shifting story of urban growth and decline* (Cineas, Restrepo Cadavid, Quintero, & Zhukova, 2017) analysed the transformation of urban systems in the region using a database comprising demographic, economic and spatial data from more than 5,000 cities in 15 countries. The starting point of the database was obtaining from each country a list of official cities and their population data. The official list of cities was geo-referenced and overlaid with globally available spatial data to produce city-level indicators capturing spatial characteristics (e.g. urban footprint) and proxies for economic activity.

IV. Country practices

39. This section provides a brief overview of the work, practices, issues and challenges on statistics and data on cities in the following countries: Austria, Canada, Finland and the Netherlands.

A. Austria

40. In early 2000, the former Austrian Central Statistical Office was separated from Government Services by a new Federal Statistics Act. Since 2000 Statistics Austria (STAT) is an independent and non-profit-making federal institution under public law. It is responsible for performing scientific services in the area of federal statistics.

41. The 2000 Federal Statistics Act defines federal statistics as a (non-personal) information system of the government providing data on the economic, demographic, social, ecological and cultural situation in Austria. This information helps administrative bodies in planning and political decision-making procedures and in controlling the measures they have

taken. Moreover, data are made available to scientific and economic community and to the general public. Federal statistics comprises compilation of statistics of all kinds as well as analyses, prognoses and statistical models reaching beyond the interests of an individual Austrian province. The statistics are decreed by international legal acts of the European Community, federal laws and regulations.

42. Statistics Austria is providing national statistics – without differencing urban or rural areas – for all municipalities. Therefore, no specific city statistics are published by Statistics Austria.

43. Statistics Austria is providing data on municipality (LAU2) level. With the most important delineations of urban areas based on LAU2 (e.g. functional urban areas, degree of urbanisation) the information needed can be easily obtained. Statistics Austria is also maintaining a national typology that can be used as a basis for comparison of cities. This national typology delineates urban areas including their commuting zones (*Stadtregionen*) for LAU2 level and is in use since 1971. Having an update cycle of generally 10 years, the methodology has changed due to more detailed data and new technologies available.

44. With the availability of statistics based on administrative data sources (registers) on a yearly basis and the possibility to link statistical data to geographic locations (from the buildings and dwellings register maintained by Austrian municipalities), publications on very detailed geographical levels are possible. Thus, Statistics Austria provides socio-demographic data and data on buildings and dwellings on detailed regional levels (100-meter, 250-meter grids) or for any other areas of interest. This makes the comparison of cities and urban areas possible independent of administrative boundaries.

45. Many interesting variables are only available from sample surveys, and therefore the results are valid for very general geographical levels. Thus, attempts are made to break down or disaggregate survey results to increase the spatial resolution. In Statistic Austria's rich frame, which is used for all person or dwelling samples, the degree of urbanisation (among other typologies) is available for all units. For some surveys, it is an important stratification variable, or it might be used as one of the variables to estimate response probabilities of certain groups.

46. Currently at Statistics Austria, there is an EU-funded project trying to combine various data sources to improve the spatial resolution for data only available from sample data in the field of social statistics. The project aims to improve the regionalization of poverty indicators using machine learning algorithms and geospatial data as support information.

47. As there are no specific city statistics produced by Statistics Austria, there is no special data created with cities. However, Statistics Austria manages the buildings and dwellings register which is maintained by the Austrian municipalities with regards to content. Building coordinates and identifiers from this register serve as the basis for linking statistical information with geographic location and allow the standardised production of statistics at a very detailed geographical level. Thus, insight into what is happening below city/municipality level is possible.

48. International as well as national typologies on urban and rural areas (such as cities, functional urban areas, degree of urbanisation as well as the national *Stadtregionen*) are delineated on grid level and finalised on municipality level in Austria. Therefore, municipality statistics – as produced by Statistics Austria – can also be seen as the basis for city statistics.

49. However, some data may depend on settlements structures. This has to be kept in mind when dealing with municipalities but even more with typologies combining municipalities (such as functional urban areas) of very different kind of settlement structures.

50. There are no obligatory data deliveries from city to national level. When Austria participated in the EU data collection for sub-national statistics (former Urban Audit) data deliveries were based on an informal agreement. Cities were contacted by Statistics Austria when data not available from national statistics was needed.

51. There are regular reports of the Austrian Association of Cities and Towns (*Österreichischer Städtebund*) partly based on data provided by Statistics Austria. These

reports cover all members (on a voluntary basis) of the Austrian Association of Cities (about 250, including all towns with more than 10,000 but also cities with fewer inhabitants).

B. Canada

52. Statistics Canada is the main department collecting and publishing data at city level in the country. In addition, many departments and agencies produce and publish geographically disaggregated data, which may include city-level data, but few produce such data systematically.

53. In Canada, many organisations collect and publish data at city level. The three levels of government—the federal, the provincial and territorial, and the municipal—are the main ones, but other organisations such as private corporations, NGOs, and international organisations also produce statistics at this level.

54. Production of statistics at the city level is highly relevant for Canada. The Canadian statistical ecosystem already ensures the production of many variables about Canadian cities. However, these data are not always comparable and available for all cities. Also, the size of Canadian municipalities varies greatly, ranging from a few dozen people to a population of millions. Therefore, it would be difficult, even irrelevant, to produce the same set of statistics for all Canadian cities. Statistics Canada mainly uses the concepts of census metropolitan areas and census agglomerations to publish city-level data. The recent expansion of open data initiatives amongst public and private organisations considerably improves the availability of Canadian city-level data.

55. Statistics Canada publishes data both collected from the cities themselves and at the city-level. Data collected and published at the city level include health statistics, demographic statistics, labour and income statistics, justice statistics, economic and environmental statistics.

56. Statistics Canada uses different sources of data to produce statistics at the city level. The first source is the census (census of population and census of agriculture). In addition, Statistics Canada produces a lot of statistics using survey data, but most statistics produced using survey data are not available at the city level. Data are also collected directly from Canadian municipalities. Statistics Canada also uses administrative data, including tax data, to produce statistics. Depending on the source, data could be available at the city and even sub-city levels. The development of geolocalisation tools and technologies increases the possibility to produce statistics based on administrative data at the city level. Finally, Statistics Canada is currently exploring the possibility to expand the use of other sources such as sensors, scanners and satellite images, to produce statistics. Given the nature of these sources, most of these data are available at a geographically disaggregated level, including cities.

57. In Canada, municipalities are legally subordinate to provincial governments. Thus, municipal responsibilities, powers and even boundaries can be altered by provincial and territorial legislatures. As they are ultimately responsible for them, provinces and territories collect and publish many statistics about municipalities within their jurisdiction. Therefore, these statistics will vary from one province or territory to another. Most Canadian provinces and territories have a bureau of statistics or an equivalent.

58. Many Canadian municipalities publish statistical information about their activities and their citizens. According to the Government of Canada Open Government website, there are about 60 Canadian municipalities that currently have an open data initiative. Published data range from the number of trees by species to the use of treated water per capita. Again, the statistics vary from one municipality to another.

59. In addition, also other organisations publish data on Canadian municipalities like the Federation of Canadian Municipalities, the World Council on City Data and the Canadian Council on Social Development.

60. Data published by some organisations are standardized, which allows for comparisons. Unfortunately, it is not always the case for data published by provinces,

territories, municipalities and other organisations. Those organisations often use concepts, definitions and classifications that make comparisons with other jurisdictions difficult. While Statistics Canada cannot enforce the use of standards, it undertakes considerable efforts to promote their use.

61. A consequence of many organisations producing data at the city level in Canada is that datasets are scattered and often difficult to integrate and compare, occasionally even within the same organization.

62. Statistics Canada is currently exploring the possibility to create a City Data Hub, where users could access many data sets about Canadian cities in a one-stop shop. The Hub would provide many functionalities and options such as the ability to compare cities, cross-tabulate variables, download datasets in different formats, create infographics, import new data sets, and analyse time series data.

63. Sharing relevant information is an important challenge and opportunity for Canadian municipalities. As mentioned, about 60 Canadian municipalities currently have an open data initiative, and organisations such as the Federation of Canadian Municipalities and the Municipal Information Systems Association, which identifies itself as the "national voice of municipalities relating to information and communications technology", provide support to cities in terms of data.

64. Statistics Canada also provides important support, in different ways. It not only provides municipalities with relevant and good quality data, but it also offers different services such as workshops, training, conference, consulting services and even a data quality toolkit on its website. This support is important, given that Canadian municipalities are producing more and more statistics.

C. Finland

65. The National Statistical Service in Finland covers 14 agencies and institutions, 12 of which produce statistics for the Official Statistics of Finland (OSF). Statistics Finland is the national statistical office, whose key task is to manage and develop the national statistical service. Statistics Finland compiles around two-thirds of official statistics. Statistical authorities produce both OSF and statistics for the European Statistical System (ESS). In addition to Statistics Finland, OSF are produced also by 11 other public administration organizations.

66. OSF are a comprehensive collection of statistics describing the development and state of society. OSF are produced by expert organisations in the field of public administration. They guarantee the continuity of statistics and are committed to common quality criteria. The OSF quality criteria are compatible with the ESS quality criteria. Compliance with the quality criteria is monitored by the Advisory Board of Official Statistics of Finland. It also has the task of developing the statistical system and the dissemination of statistics. OSF comprise nearly 300 sets of statistics on 26 different topics. The basic data of OSF are available to all users free of charge. Statistics Finland produces approximately 160 sets of statistics, of which well past 20 per cent are available also by municipality.

67. Finland is divided into 311 municipalities (2018). According to the Local Government Act, a municipality may use the designation "city" when it considers that it meets the requirements of an urban community. 117 municipalities in Finland uses this possibility. There is no official definition of the designation "city". There are nine municipalities in Finland with over 100,000 inhabitants. The Helsinki Metropolitan Area of (consisting of the municipalities Helsinki, Vantaa, Espoo and Kauniainen) has over one million inhabitants. Hence most city statistics in Finland are in fact municipal statistics.

68. Municipalities can be classified through statistical grouping of municipalities, which is a classification based on a yearly delimitation of settlements and data on population originating from that delimitation.

69. For different reasons, not all statistics can be produced by municipality, for example national accounts and environment and natural resources. There are also sample-based

statistics like the Labour Force Survey, the Household Budget Survey and the European Union Statistics on Income and Living Conditions, that cannot be produced by municipality.

70. Statistics Finland also produces municipal statistics outside OSF. These municipal data sets can be free of charge, for example the municipal key figures database and the financial data reported by municipalities and joint municipal authorities' database or chargeable like the urban and regional indicators database. Statistics Finland also produces a variety of data sets with different regional classifications that are non-administrative. The municipalities are for example offered chargeable demographic data by municipal sub-area.

71. Municipal statistics can also be produced using the urban-rural classification, which is geographical information-based area classification system that has been created by the Finnish Environment Institute and the Department of Geography of the University of Oulu.

72. All data in Statistics Finland's databases that are free of charge, are also open data. In addition, Statistics Finland also makes geographic data available free of charge and open, for example population by municipality and municipality-based statistical units.

73. For several years Statistic Finland has also participated in the EU data collection for sub-national statistics (former Urban Audit). The results are presented in Eurostat's Urban Audit database. Other publishers of municipal data, who mainly use statistics produced by others, are, among others, the Association of Finnish Local and Regional Authorities and the regional councils.

74. By law, Statistics Finland has the duty to use primarily data collected by other authorities. Data are collected from data providers directly when data are not available from elsewhere. Hence the majority of the data needed for the production of statistics is derived from existing administrative registers of general government and requires no input from municipalities.

75. The statistical production process in Statistics Finland is centralized and follows the Generic Statistics Business Process Model (GSBPM). Data is aggregated from unit-level data to coherent, high-quality statistics that are presented by different regional divisions when possible. Data protection is a fundamental principle of official statistics, by which the availability of reliable basic data and the confidence of data suppliers is ensured.

76. Only when the necessary data cannot be obtained from elsewhere, Statistics Finland collects it with inquiries. The municipalities are a target group for collections on a large number of topics, from local government finances, jobs and education to renovation of buildings

77. Statistics Finland produces most variables from the EU data collection for sub-national statistics, but the cities included in the data collection also contribute to the collection with a few variables on city level.

78. Statistics are published yearly, quarterly or monthly, depending on the subject. All statistics free of charge are published on Statistics Finland's web-page www.stat.fi. The site includes databases and other tables, releases, articles and blogs.

79. Regardless of the producer, all OSF are listed on Statistics Finland's web-page with a short description of each data set. The descriptions include links to the statistics released on the web pages of the organisations producing them.

80. One of the Finnish government's key projects is the digitalisation in the public sector. As a governmental institute, Statistics Finland tries to promote digitalisation and easy access to statistics by offering all its official statistics free of charge as open data. In addition to the more traditional use of databases, Statistics Finland also makes the retrieval of data available through API interfaces and geographical interfaces.

D. Netherlands

81. CBS (the Dutch abbreviation for Statistics Netherlands) produces 100 per cent of official national statistics in the Netherlands. The Netherlands has statistics on a broad array of relevant subjects. These are published on StatLine, an open data source and open data

portal. A lot of data is also visualised on www.cbsinuwbuurt.nl, where a lot of statistical data is mapped geospatially. Furthermore, there is a dedicated department answering statistical questions from various organisations including cities, which provides tailor-made solutions. Under strict conditions, cities can be granted access to a remote access environment to work on CBS microdata. In general, only municipalities with their own research department are able to get such a clearance.

82. CBS uses three major data sources. The first source are around 20 national surveys. The second source are 200 national administrative (register) data sources coming from (semi) governmental organizations. Under the Dutch statistics law, all these organizations are obliged to provide CBS with their administrative data. The third source, and of fast-growing importance, are "big data". One of the CBS major innovation objectives is to create official statistics by using more and more sensor data sources. Enormous amount of data created daily by companies, governments and citizens is a potential rich source of information that, when needed and possible, in combination with survey data and administrative data, can create a vast and solid based for evidence-based policy making. It is the vision of CBS that in the future big data will become more and more important for all NSOs worldwide and for the international statistical community as a whole. For this reason, in September 2016, CBS initiated the CBS Center for Big Data Statistics.

83. In the Netherlands, national statistics are standardized and harmonized according to international (European and UN) standards. This process of standardization and harmonization is increasingly linked to SDGs. CBS is a member of the IAEG-SDGs (Inter-agency and Expert Group on SDG Indicators) and has been one of the first NSOs to publish a national report on SDGs (October 2016). In May 2018, the second report has been published.

84. In addition, there is a growing need and desire amongst Dutch municipalities and provinces to standardize and harmonize their data with national and international standards. This is also an important reason why Dutch municipalities and provinces seek intensive collaboration with CBS (through the concept of the CBS Regional Data Centers and otherwise) as "Bureau of Standards"'. It is the ambition of CBS to standardize and harmonize international, national, and subnational (local and regional) statistics and the SDGs. Some Dutch municipalities and provinces are, supported and advised by CBS in a process of "strategic data-redesign" with the aim of standardizing and harmonizing all municipal or provincial data with national and international (SDG-related) standards. CBS feels that NSOs could play a role in this process of standardizing and harmonizing their data with national and international standards.

85. CBS has searched for international organizations that could, in collaboration with CBS, support this process. In order to monitor the progress of cities on the SDGs and support the global benchmarking of cities on this topic, CBS in 2016 started working with WCCD (World Council on City Data) based in Toronto, Canada, which uses the ISO37120 standard. In addition, in 2018 CBS started working with the UN global initiative United for Smart Sustainable Cities (U4SSC), described in section III E. If Dutch cities have a desire to use either the WCCD or USC KPIs, CBS can support them since CBS can customize roughly 50 to 60 per cent of KPIs from national to city level.

86. As in the Netherlands there is no official definition of city, most city statistics are in fact municipal statistics. Municipalities can vary from being predominantly urban to rural and a large variety of hybrid situations in between. On a larger scale, the Netherlands as a whole could be seen as one big urbanized region, linking to and with large urbanized regions in the bordering countries of Belgium and Germany.

87. In the Netherlands a distinction is made between data *on* and *for* municipalities.

88. Statistics *on or about* municipalities are used for official, predominantly obligated, national and international statistical purposes. CBS publishes a lot of data on small areas such as municipalities and provinces. Other, common aggregations are: neighbourhood level, 500-by-500-meter and 100-by-100-meter grids and postal/zip codes.

89. In addition to these (official) data *on or about* municipalities (and provinces) CBS also produces data *with and for* municipalities (and provinces). In the Netherlands, there is a

tendency of the national government to delegate more and more tasks to local and regional governments. This has increased the need of these governments for information (statistics) in order to come to real evidence-based policy making. To intensify its interaction with society and adapt its services to users' needs more, CBS is looking at ways of translating national data to regional and local levels. The underlying idea is that this will result in a broader and better basis for decision-making at municipal level and provide a solid basis for municipal forecasts. For this reason, in the summer of 2016 the concept of the CBS Regional Data Centers (Urban, Rural and Provincial) has been created leading to a total of 12 Urban, Rural and Provincial Data Centers in early 2019. Many additional municipalities and provinces are seeking similar support from CBS. CBS data and expertise support municipalities and provinces in their drive and ambition to become more data driven, evidence based smart cities, smart villages and/or smart regions.

V. Issues and challenges

90. This section presents issues and challenges emerging from sections I to IV and proposes recommendations arising from these issues. Section VI summarizes these conclusions and recommendations.

A. Issue 1: Standardising, harmonising and benchmarking

91. There is a strong need for standardisation, harmonisation and benchmarking on all levels: local, national, regional, global, and there is a strong effort to connect these activities to the SDGs. In addition to the statistical community's focus on the SDGs, cities and regions are looking for tools and guidelines to benchmark themselves against other cities in the most efficient and most effective way. In some countries, there are projects in which data of cities or municipalities are standardised and harmonised with regional, national and international data so benchmarking – related to the SDGs – becomes a feasible option. NSOs can be stimulated to share such experiences and create joint pilot projects as CBS and Statistics Canada are already doing.

92. Regarding standards there seems to be several options. Some have been developed at national level taking into account local needs and possibilities while other have been developed by thematic domain experts. Eurostat has been developing and harmonising methodologies at the European level for city statistics which led to the recently published manual (Eurostat, 2017), allowing for data collection and comparison at the European level. Standards have been also developed on a global scale. It is recommended to make further efforts to standardize and harmonize city data with national and international/global data in line with the SDGs. A task force could be set up to work on this topic.

93. In addition, there is a clear need for harmonised spatial definitions. The international statistical community is already working on this topic (see Issue 2).

B. Issue 2: Harmonising definition of cities and settlements to enable international statistical comparisons

94. A group of international organisations (European Commission, FAO, ILO, OECD, UN-Habitat, World Bank) has committed themselves to develop a global, people-based definition of cities and settlements to support the monitoring of the SDGs for cities, urban areas and rural areas. The goal of this group is to have the harmonised definition approved by UNSC in 2020 as a recommended definition for international comparisons and the monitoring of SDGs.

95. Several of the SDG 11 indicators are highly sensitive to where the boundary of a city is drawn. For example, access to public transport tends to be higher in the city centre than in the outskirts of a city. A city boundary excluding the outskirts will make the access to public transport seem much higher than if the outskirts were included.

96. The same is true for many SDG indicators to be monitored in rural areas. For example, the share of population within 2 kilometres of an all-season road will be much higher if settlements with up to 100,000 inhabitants are defined as rural, as it is the case in China, than if only settlements with less than 5,000 are defined as rural, as it is the case in India.

97. The creation of a joint, shared and globally accepted official definition of a city and functional urban area for international statistical comparisons is imperative for monitoring of progress in achieving SDGs and for meaningful comparisons.

98. Results of this work and of the pilot projects testing the global definitions in national contexts should continue to be presented in international conferences and workshops. NSOs should be encouraged to attend workshops in Africa, Asia and South America that UN-Habitat is organizing to present this definition, provide clarification and gather feedback. NSOs should be encouraged to participate in a pilot project to test these definitions in their country.

C. Issue 3: Need for indicator development using novel methods and new data sources like big data, open data and geospatial data

99. The domain of city statistics is very broad in terms of topics: ranging from governance, city finance, spatial planning, environment, economy, demography, social aspects, poverty, homeless, etc. The new data sources like big data, open data and geospatial data open up new possibilities to develop new statistical indicators on cities. Big data, administrative data and geo-spatial data are key sources to provide comparable measures at the city level in an economically sustainable and geographically detailed way. Particularly useful is development of statistical data production based on regular grids, with which it is possible to produce indicators for any geography of interest.

100. In many countries and also on European and global scale many new initiatives and plans are being explored, developed and implemented already. The CBS Center for Big Data Statistics is only one of those country level examples in which big data are being used to improve city data and support cities in becoming more data driven while the Global Human Settlement Layer produced by the European Commission is another example at the global scale.

101. It is recommended to focus new indicator development on topics close to the core competences of the national statistical systems and UNECE, and at the same time considered relevant by cities. The ambition would be to develop indicators which are relevant, based on accessible new data sources, and their production can be accomplished with limited resources.

D. Issue 4: How are cities supported by national statistical offices to become more data-driven?

102. Many city data are created *for* cities. This feeds into the ambition of many cities to become smart, data driven and evidence-based cities. In this field, NSOs can play an important role. Cities want and need to work with data in order to become data-driven organizations. But statistical data is not the core business nor is it the core competence of cities. It is however the core business and core competence of NSOs.

103. Some NSOs have developed substantial experience and expertise in supporting cities to become more data driven while other NSOs are not (yet) active in this field nor had any experience with this while others are making first steps. However, the drive of cities to become smart, data-driven organizations seems to be an ambition present worldwide. Almost on a weekly basis, conferences, seminars, workshops and summits are organized on the topic of smart cities (and smart villages) all over the world. So, there seems to be a need and desire of cities to be supported by NSOs in realizing this ambition.

104. Best practices of NSOs with regard to supporting cities and villages to become more data-driven can be shared amongst NSOs, e.g. through seminars and conferences. In addition, programs including sufficient budgets could be organized to stimulate NSOs with substantial

experience and expertise in this field to share their knowledge with other NSOs by organizing pilot projects in interested countries. Experts from NSOs that are experienced in this field could be invited to manage these pilot projects.

E. Issue 5: Create data *with* cities

105. City data are often created *without* cities. It is recommended to complement these and create data *with* cities. NSOs can make more efforts towards combining data with cities, for cities and about cities so harmonization, standardization and benchmarking becomes possible from city to national to global level. By doing so cities are in the same time supported by NSOs and the international statistical community in their ambitions to become smarter, data-driven, evidence-based.

106. The concept of the CBS Urban Data Centers in which an NSO and cities/municipalities interact intensively and collaborate in a structural way can serve as an example that CBS is eager to share.

F. Issue 6: City statistics versus municipality statistics

107. Country practices indicate that many NSOs do not produce *city statistics* but *municipality statistics.* On a national and even more, sub-national (local and regional) level this makes a lot of sense since municipalities and regional authorities (like provinces) are the legal entities that can decide to produce municipal data and statistics and can take formal, democratically embedded decisions to become smart and data driven. Many municipalities, urban, rural or mixed, want to monitor their own achievements with regards to SDGs, since this is linked to the territorial boundaries of the municipality within which they have a legal role and obligation. But they can only assess their performance or compare their performance taking into account their degree of urbanisation.

108. NSOs can support municipalities in achieving both the ambition of monitoring their performance and comparing it to similar areas both inside their own country and other countries. Best practices of NSOs supporting municipalities in monitoring their progress on SDGs should be shared with other NSOs and the international statistical community.

109. It should be studied if and how a connection can be made between NSOs and the international statistical community on one hand and organizations outside the official statistical community on the other hand to support municipalities in realizing positive results on the SDGs and monitoring the progress in this field.

G. Issue 7: Reporting mechanisms of cities statistics from city level to national level

110. International community and NSOs collect and disseminate many statistics and data on cities in a consistent and professional way. On the other hand, reporting mechanisms from city level to national level seem to differ between countries. Some countries have created a well-functioning system while others are in the process of exploring ways of improvement.

111. Best practices of such reporting mechanisms can be shared amongst NSOs. This can be done through international conferences and creation of a knowledge base including an inventory of activities and experiences of NSOs in this area.

H. Issue 8: Limited knowledge about content, level of involvement and connectivity of the “unofficial” community on city data with the international statistical community

112. There is no complete inventory of city statistics and data produced, collected and disseminated by non-governmental international organizations, think-tanks, academia, networks of local governments, businesses etc. Also, it is unclear what is the level of

involvement and connectivity of this “unofficial” community on city data with national level official statistics.

113. It is recommended to make an inventory and/or network analysis of the city data activities of this community. Representatives of this “unofficial” city data community could be invited to connect and become involved with the international statistical community as well as NSOs.

VI. Conclusions and recommendations

114. This section summarizes all conclusions and recommendations formulated in section V and groups them in four main categories.

A. Need for further harmonisation

115. The international statistical community, NSOs as well as cities and regions are looking for tools and guidelines to measure their progress towards SDGs and benchmark themselves against other cities. NSOs can be stimulated to share their experiences in this area and create joint pilot projects.

116. It is recommended to make further efforts to standardize and harmonize city data with national and international data in line with the SDGs. A task force could be set up to compile good practices in this area.

117. Creation of a joint, shared and globally accepted official definition of a city and a functional urban area for international statistical comparisons is imperative. The results of the work and the results of the pilot projects, testing definitions in national contexts, should continue to be shared in international meetings. Furthermore, NSOs should be encouraged to participate in the regional workshops organised by UN-Habitat and in pilot projects to test these definitions in their country.

B. Need for developing existing indicators and creating new ones

118. Many novel methods and data sources are being explored, developed and used to improve statistics and data on cities. The development of geospatial statistics such as statistics disseminated on statistical grids would allow the production of indicators for any geography of interest, including cities. Integrating geospatial information with grid-based statistics would allow the calculation of indicators like population exposure to noise, air pollution, etc. or accessibility of services (education, transport, etc.).

119. The range of topics and potential new data sources are very broad. It is recommended to focus new indicator development on topics which are close to the core competences of the national statistical systems and UNECE, relevant for urban policy makers, based on accessible new data sources, and their production can be accomplished with limited resources.

C. Improve co-operation and create partnerships with cities

120. Some NSOs have developed substantial experience and expertise in supporting cities in fulfilling their ambitions to become more data driven. This experience should be shared through seminars and conferences. In addition, programs could be organized to stimulate NSOs with expertise in this field to share their knowledge with other NSOs by organizing pilot projects in interested countries.

121. It is recommended to create data also *with* cities. The concept of the CBS Urban Data Centers, in which an NSO and cities/municipalities interact intensively and collaborate in a structural way can serve as an example that CBS is eager to share.

122. Many NSOs produce municipality statistics. Although many municipalities want to monitor their own achievements with regards to the SDGs, they can only assess their performance or compare their performance taking into account their degree of urbanisation. NSOs can support municipalities in both monitoring their own performance and comparing it to similar areas both inside their own country and other countries.

123. Best practices with regards to reporting mechanisms of statistics from city level to national level can be shared amongst NSOs through international conferences and/or the creation of a knowledge base providing an inventory of activities and experiences of NSOs in this area.

D. Improve co-operation with the "unofficial" city data community

124. There is only a limited knowledge about involvement of non-governmental international organizations, think-tanks, academia, networks of local governments, businesses etc. in activities related to city statistics. It is recommended to make an inventory of such activities. Representatives of this "unofficial" city data community could be invited to connect with the international statistical community as well as NSOs.

125. It should be studied if and how a connection can be made between NSOs and the international statistical community on one hand and organizations outside the official statistical community on the other hand to support municipalities in realizing positive results in the SDGs and monitoring the progress in this field.

VII. Discussion and decision by the CES Bureau

126. The Bureau reviewed in-depth statistics and data on cities in October 2018 based on a paper by the Netherlands and Eurostat, and comments prepared by UNECE. The Bureau raised the following issues:

(a) The demand for data describing cities is growing, spurred by local and international policy interests. The theme will be also taken up in the 68th UNECE Commission in April 2019 and at the UNECE Regional Forum on Sustainable Development in March 2019;

(b) It is important to look at the needs of policy makers at subnational level, how such data are, or could be used, and how NSOs can make the data more accessible (through data hubs, secure research services, training on how to use the data, etc.);

(c) A key challenge is the lack of harmonized definitions and consistent use of terminology. For example, there is no single, internationally agreed definition of urban/rural although this breakdown is used frequently in official statistics;

(d) It may not be possible to agree on common definitions applicable to all countries. Rather, agreeing on a taxonomy of related terms and their use may be a more fruitful approach. Different countries could use different thresholds for defining towns, cities, human settlements, etc.;

(e) Partnerships with cities can be challenging, and it is essential to maintain objectivity. Cities may be interested in data for political purposes and may create their own standards undermining official statistics. Furthermore, providing data and statistics on small areas can increase risks to data confidentiality. Data generated by cities are not typically considered part of official statistics and the cities sometimes do not want to cooperate with NSOs. At the same time, the data may look very "official" as it is created by local governments;

(f) On the other hand, many municipalities are looking for support from NSOs as they do not have the expertise in statistics. Especially, small municipalities have very low capacities;

(g) It is important for NSOs to be involved in statistics on cities, to develop methodology and set standards to improve quality and international comparability. Otherwise there will be a problem of data coherence, and outputs may be duplicated;

(h) There is a strong link between city statistics and financial statistics as cities need to be financially sustainable. IMF has issued standards on financial statistics for provincial and municipal governments;

(i) For a broader view it would be useful to collect more country practices, including on the use of data on cities. A survey should look at types of partnerships of NSOs with cities, nature of data/statistics of interest, and collect case studies.

Conclusion

127. The CES Bureau decided on the following next steps:

(a) The authors will update the paper to reflect the CES Bureau discussion. NSOs active in this area will be encouraged to contribute to the UNECE Housing and Land Management Unit's activities related to statistics on cities;

(b) UNECE will carry out a survey on the involvement of NSOs in the production of statistics on cities (and other subnational units), and their engagement with cities in this area;

(c) The Bureau will consider further follow up regarding the harmonization of definitions and terms after the UNSC discussion in March 2019.

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