



Economic and Social Council

Distr.: General
7 March 2016

Original: English

Economic Commission for Europe

Conference of European Statisticians

Group of Experts on National Accounts

Fifteenth session

Geneva, 17-20 May 2016

Item 1 of the provisional agenda

Adoption of the agenda and election of officers

Annotated provisional agenda for the fifteenth session

To be held at the Palais des Nations, Geneva starting on 17 May at 9:30 in Salle XI.

I. Provisional agenda

1. Adoption of the agenda and election of officers

A. First Module: Special Session for Eastern Europe, Caucasus and Central Asia (EECCA), South East Europe (SEE) and other interested countries

2. Development of Supply and Use Tables
3. Further work to support implementation of the System of National Accounts 2008 (2008 SNA) in the region

B. Second Module: Expert Group on National Accounts

4. Measuring Global Production
5. Use of Statistical Units in National Accounts
6. Valuation of Natural Resources and Mineral Exploration
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II. Annotations to the provisional agenda

Item 1. Adoption of the agenda and election of officers

1. The meeting is organized following a decision of the Conference of European Statisticians (CES) in June 2015 and the recommendation of the previous biennial Meeting of the Group of Experts on National Accounts in May 2014.
2. The proposed provisional agenda will be presented for the approval by the participants of the meeting.

A. First Module: Special Session for Eastern Europe, Caucasus and Central Asia (EECCA), South East Europe (SEE) and other interested countries

Organisers: European Free Trade Association (EFTA), Eurostat, UNSD and UNECE

Contributions by: State Statistical Committee of the Republic of Azerbaijan, National Statistics Office of Georgia, Central Bureau of Statistics of Israel, Statistics Netherlands, Federal State Statistics Service of the Russian Federation, Statistical Office of the Republic of Serbia, State Statistical Office of the Republic of Macedonia, State Statistics Service of Ukraine, Eurostat, OECD and UNSD

3. This module is devoted to issues related to the implementation of the 2008 SNA in the EECCA and SEE countries.

Item 2. Development of Supply and Use Tables

4. In 2012 the EECCA and SEE countries prepared their national implementation plans for the 2008 SNA in accordance with the 3-stage approach proposed by the Intersecretariat Working Group on National Accounts (ISWGNA). In spring 2014 these national implementation plans were updated. On this base UNECE with the help of the Steering Group on National Accounts developed a set of regional recommendations for the implementation of the 2008 SNA, which aim to help countries to strengthen the quality and international comparability of their national accounts statistics.

5. The production of supply and use tables (SUT) and using the supply-use framework to balance and crosscheck information coming from different data sources was identified as one of the priority areas for countries. This framework is a powerful tool for ensuring consistency, coverage and quality of the accounts, including Gross Domestic Product (GDP). In recent years many countries from the region have launched the work on developing SUT and the session will give a possibility to share experience and learn from each other.

6. *Supply and Use Tables in the National Accounts of Azerbaijan* describes the work, conducted by the State Statistical Committee of the Republic of Azerbaijan in the area of compilation of SUT, and introduces the information sources and basic methodological approaches. One of the main information sources for compilation of SUT is the survey of the costs structure of enterprises which is carried out every five years. The paper presents the structure of questionnaires, describes the basic tables and matrices and emphasizes the perspectives and future directions for improvement of the SUT.

7. *Supply and Use Tables in Georgia* presents the history of SUT, which are published by the National Statistics Office of Georgia since 2006. It describes the sources and methods used and shows that it is possible to compile detailed SUT even with the limited number of staff and limited data sources. Special surveys of the structure of intermediate

consumption and gross fixed capital formation were conducted in Georgia in order to obtain data in SUT format. The SUT framework contributes to the improvement of non-observed economy (NOE) estimates, and respectively the quality of GDP, and shows the weaknesses of data sources. The paper colludes by indicating the problems in the current Georgian SUT and the challenges for the future, especially the need to increase the number of products and to implement Input-Output Matrix.

8. *Implementation of the SNA 2008 in compiling Supply and Use tables for Israel* illustrates the experience of compiling SUT for the Israeli economy. It provides an overview of the framework and applied classification. Additionally, it presents the data sources used to compile SUT and describes the balancing process. Several changes in SUT were adopted due to the implementation of the 2008 SNA recommendations, such as changes in the measurement of the output of services of the central bank and capitalization of research and development expenses. In conclusion, the paper provides an assessment of the impact of these changes on the GDP.

9. *The Role of SUTs in the Dutch National Accounts* by Statistics Netherlands focuses on the rationale for compiling SUTs, characteristics of the Dutch SUT, use of basic data sources, balancing process, automation tools and other innovations recently pursued. SUTs are an integral part of the Dutch National Accounts compilation cycle and constitute the basis for the estimation of annual and quarterly GDP and its components. The presentation concludes with a summary of the challenges ahead such as increasing the timeliness and limiting the number of revisions.

10. *The development of 2011 benchmark input-output tables* by Rosstat introduces this major achievement of modern Russian statistics, which contributed to significant improvement of the quality and reliability of the GDP estimates and other macroeconomic indicators. The previous benchmark tables were designed in 1995 and mainly followed national classifications of economic sectors and products produced that did not fully meet the international classifications. A large-scale survey of the cost of goods' production and sales of produced goods for the year 2011, carried out by Rosstat in 2012, served as an information basis for the 2011 input-output tables, in addition to the official statistics of other ministries and departments. For the first time, the 2011 tables fully comply with international standards, not only from a conceptual point of view, but also from the standpoint of the classifications used. The methodological basis for their design was the updated 2008 SNA, which meets the requirements for their integration into the OECD global database.

11. *Implementation of the 2008 SNA* by the Statistical Office of the Republic of Serbia (SORS) introduces the results of this large exercise that was conducted simultaneously with GDP revision (1995-2013) aimed at important improvements regarding quality of GDP estimates, exhaustiveness, reconciliation of the production and expenditure approaches, and constant prices measurement. This work was based on several improvements concerning data availability, especially censuses of agriculture, population and dwelling, and input-output survey. Moreover, new methodological procedures (introduction of processing tables), together with expert support from Eurostat and International Monetary Fund (IMF) resulted in considerable improvements of the national accounts system as a whole.

12. *The Input-Output Survey in Serbia* by SORS presents the comprehensive survey that was successfully conducted in 2012. This was the largest business survey ever conducted by SORS. It collected information on the structure of tangible and intangible costs and operating expenditures of economic entities, and their operating income and other value indicators at the detailed level of the Classification of Products by Activity (CPA). The collected data forms the basis for the calculation of production and technical coefficients needed for the compilation of SUT but also contributed for further improvements of the

national accounts such as compilation of sector accounts, estimation of GDP in constant prices and validating reliability of GDP estimates.

13. *Supply and Use Tables for the former Yugoslav Republic of Macedonia* provides an overview of the work of the State Statistical Office of the Republic of Macedonia on compilation of supply and use tables for the years 2005-2012 and input-output tables for 2005 and 2010. The compilation was based on the available data from regular statistical surveys and administrative data sources. The first aim of the tables was to check the availability and reliability data sources needed for the detailed breakdown of GDP aggregates by primary and secondary activities and by products. SUT were used for the first time as a tool for balancing of GDP 2012 preliminary estimates and for the revision of the 2005-2012 national accounts. The paper describes the data sources used for compilation of the SUTs, balancing of the SUTs, their use in the GDP balancing process and compilation of the input-output tables.

14. *Ukrainian Experience in Compiling Supply and Use Tables* by the State Statistics Service of Ukraine will provide historic overview of SUT tables and the main changes in the applied methodology and classifications. It also presents the impact of the transition to 2008 SNA and the main uses of SUT for statistical purposes and economic analysis.

15. *Review of the compilation of Supply, Use and Input-Output Tables in European countries* by Eurostat presents the results of a survey of European countries in 2014 on their national practice in compiling supply, use and input-output tables (SUIOTs) in accordance with the European System of Accounts 2010 (ESA 2010). The review covers six main areas: organisation, data sources, production process, methodology, dissemination and quality, applications and satellite systems. The review is publicly available on Eurostat website. The document gives insights to compilers and users on how those tables are build up in each European country (for which information is available), what are the primary data sources needed, how National Statistical Offices (NSOs) are organised, what are the IT tools and the methodology underlying SUIOTs. It is a useful tool for countries developing SUTs to position themselves in comparison to some European countries.

16. *Global SU and IO tables: Specific requirements for national tables* by OECD provides an overview of the OECD-WTO Trade in Value Added (TiVA) database and describes the national data sets required at the national level for the inclusion of countries within the global SU and IO tables that underpin TiVA. The presentation primarily focuses on the SUT required (in particular the level of detail required and the breakdown into import and domestic transactions), but also provides an overview of the bilateral trade data required and their consistency with national SUT. The presentation also provides an overview of the OECD Expert Group on Extended Supply-Use tables that looks to the future and the SUT required to continue improving the quality of TiVA as well as providing insights into the trade and investment nexus and jobs and global value chains.

17. *Handbook on Supply, Use and Input-Output Tables with Extensions and Applications* by UNSD will present the underlying aims and principles forming the drivers and content of this new Handbook. They cover: (i) incorporation of the revised recommendations of the new international standards for macroeconomic accounts and classifications, (ii) focus on SUT, (iii) focus on practical compilation guidance rather than a more theoretical elaboration of the methodology, (iv) recommended best practice and acceptable alternatives, (v) extension of the scope to include an environmental dimension, (vi) integration theme – SUT, IOT and the corresponding physical tables, (vii) attention to compilation issues of countries with a less developed statistical system and (viii) focus on use of General Statistical Business Process Model.

Item 3. Further work to support implementation of the System of National Accounts 2008 (2008 SNA) in the region

18. This item will include a round table discussion where countries could express their technical assistance needs in order to achieve the priorities identified in the national implementation plans for the 2008 SNA and in the regional recommendations.

19. The recommendations focus mainly upon items that substantially affect GDP and its main components such as measuring of services and particularly financial services, improving the estimates of NOE and the exhaustiveness of GDP, estimates of gross fixed capital formation and consumption of fixed capital including estimates of R&D, military expenditures and mineral exploration, improving of constant price estimates, production of SUT and balancing through SUT framework.

20. At the same the recommendations call for review of supporting statistics compiled outside the national accounts departments and strengthening of the overall quality and scope of source data for national accounts. This work concerns the following main areas: adoption of new relevant classifications and improvements in business registers; Review of related source statistics compiled by the statistical office (sampling methods, business surveys, short-term statistics, coverage of services, price indices); macroeconomic data sets compiled outside the statistical office (balance of payments, government finance statistics, monetary and financial statistics); use of administrative data sources; IT and staff issues.

21. Participants will identify common priorities for regional technical assistance and methodological guidance, as well as on follow-up activities to support and monitor the implementation of the 2008 SNA in the region.

B. Second Module: Expert Group on National Accounts

Item 4. Measuring Global Production

Organiser: OECE and UNECE

Contributions by: Statistics Canada; Statistics Denmark; Statistics Finland; Finnish Customs; German Bundesbank; Central Bureau of Statistics of Israel; Central Statistics Office of Ireland; National Institute of Statistics, Geography and Informatics (INEGI) of Mexico; Statistics Netherlands; Statistics Sweden; Eurostat; OECD and UNSD

22. This agenda item will follow up on the implementation of the recommendations of the Guide to Measuring Global Production and decisions of the fourteenth meeting of the Group of Experts on National Accounts: Global Production. The discussion will focus on the following topics.

(a) Country experience with surveys, data collection and compilation techniques

23. *Towards measuring global production* by Statistics Canada describes difficulties in developing a standardized approach to collecting the information required to properly account for global production in national accounts. Over the last year, Statistics Canada has undertaken cognitive testing with Canadian businesses on questions related to global production and is using the results of this testing to develop a strategy to collect global production related information. The paper presents the questions that were tested, the results of the cognitive testing as well as how Statistics Canada is using these results to adapt and refine its survey collection and administrative data processes.

24. *Data collection for 'manufacturing services on physical inputs owned by others'* by German Bundesbank briefly describes how the data on fees related to manufacturing services are collected from manufacturers and owners of the processed goods. This monthly

data collection is part of the national direct reporting system enabling BOP compilers to adequately comply with the new international requirements. The paper considers the necessary adjustments to International Merchandise Trade Statistics (IMTS) data and elaborates on how purchases of raw materials and sales of final goods abroad are collected to compile the goods account in line with the new treatment of processing.

25. *Data collection on 'merchandising' and 'production by a subcontractor abroad'* by CBS of Israel explains how these data are collected through an international trade in services survey. The questionnaire includes a separate part for measuring the international trade in goods that have not passed through the borders of the Israeli customs. The main data source for the international trade in goods – the goods' export and import data – are transmitted from the customs to the statistical office on an ongoing basis, but there is no registration of goods bought and sold abroad, if they do not cross the borders of Israel.

26. *The Supply and Use Tables in Mexico* are the main source for the construction of international and domestic input-output tables, in terms that allow identification of the involvement of the main sectors in Global Value Chains (GVC). Currently the fragmentation and heterogeneity in production require the grouping of economic entities into two samples, the first one contains all the establishments which exports processing goods (maquila), and the second one considers the exporter establishments. This contribution shows the scope in the construction of extended SUTs based on the information generated by the INEGI, the Economic Census, foreign trade records and economic surveys, as well as its work program and future steps.

27. *Implementation of the new guidelines concerning processing activities* by Statistics Denmark focuses especially on the identification of the flows of goods for processing and the changes to the Danish survey questionnaires that have made it easier to compare data across statistical domains and check its quality. This exercise revealed significant inconsistencies across statistical domains, especially regarding large multinational enterprises (MNEs) and has been a “game changer” for the quality assurance work. The paper also describes a consistency analysis of the BOP to ensure correct accounting for the various ways of firms' international organization. The paper highlights the methods, results and implications for the future consistency work in Statistics Denmark, where a large cases unit (LCU) is being established. In addition the presentation will show how SUT can help reveal inconsistencies in primary statistics and how the LCU work via the SUT can improve the estimate of GDP.

(b) Global Production Research Agenda

28. This session will focus on two unresolved conceptual issues that were identified in the Guide to Measuring Global Production: advancing the typology of global producers, particularly factoryless goods producers (FGPs), principles of economic ownership and price and volume measurement in relation to global production.

29. *Identification of FGPs* by Eurostat presents the work of an EU Task Force (TF) that was set up to follow up on the work of the UNECE Task Force on Global Production and develop rules for detection of FGPs. The presentation focuses on challenges in the identification of this type of enterprises. It will describe the methodology developed by the EU TF for the identification of FGPs based on the data sources of the European Statistical System and for flagging them in the business register.

30. *National and foreign multinationals operating in the Dutch economy* by Statistics Netherlands presents the methods used by the Large and Complex Cases Unit to identify enterprises that are involved in global production arrangements; both new cases (recent change in economic ownership within MNE) and existing cases (change in economic ownership occurred in the past, but was not yet identified within the statistical system).

Following the typology in the Guide to Measuring Global Production, the paper provides cases of processing, merchanting and FGPs and discusses challenges in applying the concept of economic ownership in practice. It shows how information helps decide where the economic ownership of the goods and services is located within an MNE and how the criteria relate to the recommendations given by the Guide.

31. *Goods, services and the excluded third* by Statistics Sweden deals with the new division of products into three categories as introduced in the International Standard Industrial Classification (ISIC) Revision 4. Intellectual Property Products (IPPs) which are a new category besides goods and services have characteristics from both production of goods (output can be stored and used later) and services (immaterial). The paper suggests a more harmonised treatment of IPPs in ISIC. This can be achieved by grouping all activities leading to IPP output into goods and services in the classifications. The distinction between goods, IPPs and services is exemplified by the publishing and printing industries.

32. *Price and volume measures for global production arrangements* by Eurostat presents the methods and recommendations for measuring prices and volumes of merchanting and processing abroad activities which have been developed by an EU Task Force on Prices and volumes measurements.

(c) Exchange of economic data and data sharing

33. The July 2015 meeting of the Expert Group on National Accounts concluded that new cooperation mechanisms, data exchange and confrontation among producers of official statistics, both nationally and internationally, are required to introduce efficiencies in statistical production and improve the coherence and relevance of statistics. The meeting agreed that a follow-up session should be organized to address aspects related to different institutional arrangements, legal requirements, confidentiality practices and constraints. Furthermore, the CES Bureau decided to conduct an in-depth review of this topic and discuss the findings in October 2016 and the session aims also to collect inputs and country examples for the review.

34. *In-depth review on exchange of economic data and data sharing* by Statistics Finland presents the structure of the report and first results of the work. To enrich the review, a small survey on country practices among UNECE countries will be conducted in March-April.

35. For many years, international organizations have been collecting and exchanging among each other macro-economic statistics from countries to provide easy access to data for economic analysis and decision making. *Data sharing for macro-economic statistics* by Eurostat introduces the set-up of international exchange of statistics to make selected macro-economic figures more readily available and will share the benefits of this collaboration and future plans for working together in a better way. It also presents data exchange activities undertaken by Eurostat and some EU Member States.

36. *Data confrontation and data sharing - an Irish perspective* by CSO of Ireland presents why data confrontation is a very useful tool in quality assessing trade and Foreign Direct Investment data in particular with reference to a recent case study. The implications and next steps arising from this approach are then discussed with a particular focus on the structure of the Irish economy and the impact that a small number of MNEs have on the overall statistical aggregates for the economy. This discussion will also address the risk factors that must be managed by an NSO in these data confrontation exercises.

37. *SIMSTAT* by Eurostat presents the outcomes of the project, which aims at reducing statistical reporting burden on businesses in the area of intra-EU trade statistics. The project deals with the exchange of micro-data on intra-EU exports in goods through a pilot project

between 20 EU Member States. The presentation focuses on statistical and technical aspects of data exchange.

38. *Country viewpoint to the SIMSTAT project* by Finnish Customs reveals the benefits received from international data sharing on micro level. It also discusses issues related to data confidentiality and data provider relationships.

(d) Global accounts and analytical use of SUT

39. The purpose of this item is to provide update on new global initiatives and on work done at various fronts to appropriately capture globalization and internationalization activities.

40. *A European Inter-Country Supply, Use and Input-Output Tables (IC-SUIOT)* by Eurostat and DJ Joint Research Centre (DJ JRC) will introduce the FIGARO project (Full International and Global Accounts for Research in Input-Output Analysis), which aims to establish an annual production of EU IC-IOTs and a five-yearly production of EU IC-SUIOTs. Currently Eurostat and DJ JRC are developing the 2010 tables in ESA 2010 methodology. The FIGARO project started in October 2015 and will end by December 2017. Eurostat and the DJ JRC will report on the two first tasks of the project. The European IC-SUIOTs should be used by international agencies when representing European Union countries and as such will participate to the OECD Global ICIO Table and UN initiative.

41. *Extended Supply-Use Tables* by OECD presents an accounting approach that is used in the frame of the OECD-WTO TiVA initiative. TiVA database has developed a wide range of indicators that provide improved insights into the participation of countries and industries within GVC, compared to traditional trade statistics. It has helped shape a strong narrative on the implications of GVCs. However, its current application in other areas remains limited, notably with respect to the trade and investment nexus, and the integration of SMEs within value chains. Many statistical offices typically produce data that provide insights in parts of these areas. However, such stand-alone datasets tell only part of the GVC story, and coherence across the different datasets remains an important problem. The accounting approach presented in the paper responds to these challenges, whilst also directly leading to improvements in the quality of TiVA.

42. *System of Extended International and Global Accounts Handbook* by UNSD will introduce the Handbook that is aimed to serve as a measurement framework for international trade and economic globalization. It will build on existing work in this area, in particular by the UNECE, the OECD and Eurostat, and address issues of micro-data linking of business and trade statistics, as well as the integration of economic, environmental and social dimensions of trade and globalization as an extension of the 2008 SNA and the System of Environmental-Economic Accounting (SEEA) 2012.

Item 5. Use of Statistical Units in National Accounts

Organiser: OECD and UNECE

Contributions by: Australian Bureau of Statistics (ABS); National Institute of Statistics and Economic Studies (INSEE) of France(tbc); Federal State Statistics Service of the Russian Federation; Office for National Statistics of UK; US Census Bureau (tbc) and OECD

43. The SNA 2008 basically distinguishes two types of statistical units: establishments for the compilation of supply and use tables, and institutional units for the compilation of institutional sector accounts. In creating registers for the appropriate statistical units countries often start with administrative data that is based on a legal entity concept. This agenda item will review country practices and problems encountered in applying the

current SNA guidance. It will also present how countries register, observe and compile data for the most complex enterprises by establishing a relationship with those companies through company visits. The discussion will provide inputs to the research agenda of the newly established ISWGNA Task Force on Statistical Units in National Accounts (TFSU).

44. *Reassessment of the role of the statistical unit in the SNA* by OECD discusses and questions the statistical units (both the establishment and the institutional unit) recommended in the 2008 SNA. A possible reassessment of the role of the statistical is considered important, due to the substantial changes in the economic environment in the last decades and the related difficulties of appropriately describing all relevant new phenomena in the accounts. It also concerns a potential further streamlining of the current definitions of statistical units presently leaving quite some room for divergent interpretations. The presentation will address some of the problems and the considerations feeding into a possible change of the definitions for statistical units in the current statistical standards and will introduce the terms of reference of the TFSU.

45. *Measurement challenge posed by MNEs - Profiling in the UK* by ONS briefly describes some of the UK practices and findings, covering visits to large and complex companies to improve the measurement of their activities. In a rapidly changing world, businesses are continually changing the way they are structured and operate, embracing the opportunities generated through globalisation to remain highly competitive and maximise profitability. This poses one of the largest “measurement” challenges to the NSOs. In recent years, the UK statistical office has been undertaking an increasing amount of detailed profiling and visiting MNEs. These efforts have involved staff from the Business Register and National Accounts generating: i) changes to the structure and coverage of the enterprise as well as classification of some the legal units held on the Business Register; ii) changes to the estimates in the business surveys, and in turn, the National Accounts and Balance of Payments; and iii) much better understanding of the activity of the enterprise.

46. *Units of production in the national accounts of Russian Federation* by Rosstat discusses the relevance of the statistical units problem, which is stipulated both by the necessity to improve the quality of statistical data and the leading role of the production account for the Russian national accounts. It is highlighted that there is no statistical unit which could be equally applied in the compilation of all the accounts. In Russia the choice of statistical units is done with respect to their impact on national and regional production indicators, as well the use of transfer prices by enterprises with vertically integrated production structure. In the Russian Federation introduction of a uniform statistical unit for the production account is now carried out on both national and regional level on the basis of a local unit.

47. The agenda item will also include contributions by ABS and other country experience with complex MNEs may also be included in this agenda item.

Item 6. Valuation of Natural Resources and Mineral Exploration

Organiser: United States Bureau of Economic Analysis (US BEA)

Contributions by: Australian Bureau of Statistics, Statistics Canada, National Bureau of Statistics (NSB) of China, Statistics Netherlands, Statistics Norway and OECD

48. This agenda item will focus on describing practical methods for implementing SNA guidance for valuing natural resources, including land, mineral and energy reserves, non-cultivated biological resources, and water, and for measuring related transactions such as rent and mineral exploration. The discussion will encourage countries to provide more complete coverage of non-financial assets in developing their national balance sheets.

49. *How wealthy are Canadian businesses and governments? Measuring natural resource wealth* describes the concepts, methods and data sources associated with the incorporation of natural resource wealth into Statistics Canada's quarterly sector balance sheets. Canada is endowed with substantial reserves of natural resources, from energy and minerals in the ground to accessible stands of timber in forests. Natural resources are considered non-produced non-financial (tangible) assets in the 2008 SNA and should be included in the calculation of national wealth and sectoral net worth.

50. *Pilot Compilation System of Asset Accounts for Natural Resources* by NSB of China provides an overview of the background and methodological framework for developing of assets accounts for China. It uses the SEEA 2012 - Central Framework and presents considerations for its application in the Chinese assets accounts. Currently these accounts cover land, timber and water resources and focus on physical estimates. The NBS of China will explore valuation techniques for compiling the monetary asset accounts of natural resources in the near future.

51. *The valuation of oil and gas reserves* by Statistics Netherlands provides an overview of the practice of valuation of oil and gas reserves in the Netherlands in the light of the ESA 2010 revision. Building upon the framework established in 2009 the paper discusses the methodology and changes implemented since then. Measuring the oil and gas reserves at Statistics Netherlands combines the use of physical balance sheets that show remaining reserves, physical future extraction scenario's and national accounts data so that together with unit resource rents calculations, monetary balance sheets can be compiled representing the net present values of the resources that remain. The changes in relation to the previous method are highlighted and a sensitivity analysis is added.

52. *Valuation of oil and gas resources* by Statistics Norway present the measurements of Norwegian oil and natural gas wealth, based on national accounts data. As an open economy, Norwegian export is about 40 per cent of GDP, and in recent years more than 45 per cent of total export is raw oil and natural gas. A good measure of the oil and natural gas wealth is of significant importance for understanding economy growth, but also sustainable development, and not least, the environmental protection, given that these are typically non-renewable fossil fuels. By means of a prediction about the future production and price, the streams of resource rents generated from extracting oil and natural gas are calculated, and the Net Present Values (NPVs) approach is then applied to yield the estimates for Norwegian oil and natural gas wealth for the period of 1970 to 2014.

53. *Valuation of mineral and energy resources* by OECD clarifies how the 2008 SNA and the SEEA 2012 - Central Framework relate to each other when it comes to the valuation of mineral and energy resources. Practical guidelines for the computation of NPVs, already discussed in the context of the OECD SEEA Task Force, will be discussed. In particular, working at the mine/well level seems to be key in order to address the extraction cost heterogeneity issue and often allows making the assumption that mineral extraction flows remain constant over a mine's service life, thus simplifying the computation of future resource rents.

54. The agenda item will also include contributions by ABS.

Item 7. Measuring Human Capital

Organiser: Statistics Norway

Contributions by: Statistics Canada, Statistics Norway, UNECE Task Force on Human Capital

55. Understanding human capital is of significant interest to policymakers. Statistics on human capital may help to understand the drivers of economic growth and the functioning

of the labour market, as well as to assess the long-term sustainability of a country's development path. This agenda item will present the Guide on Measuring Human Capital, developed by the respective UNECE Task Force and will illustrate the satellite accounts proposed in the Guide through actual country examples.

56. *Guide on Measuring Human Capital* by UNECE will provide an overview of the content and the main recommendations of this new guide. The guide discusses the concept of human capital, methodological and implementation issues, and challenges related to its valuation. It provides recommendations aimed at producing estimates that are as consistent as possible with national accounting concepts and proposes the set up of two satellite accounts - Satellite Account on Education and Training and an extended Human Capital Satellite Account. The results from the electronic consultation of the guide and the conclusions from the Plenary of the Conference of European Statisticians, where the guide will be presented for endorsement in April 2016 will be presented as well.

57. *Satellite Account for Education and Training* by Statistics Norway will present the setup of a Norwegian satellite account for education. The proposed scheme in the new Guide includes a set of main tables and other supplementary tables. The Norwegian country case will include detailed information on financial transactions, thus distinguishing between who is producing and who is financing the total expenditure on education services. The expenditure data will be linked to other indicators on human capital such as proportions of students enrolled by gender, age and education level. Supplementary tables, e.g. employment broken down by educational attainment and industry are included. In this respect, it can be noted that labour is the most important factor of production, which means that such analysis is crucial for the enhanced study of multifactor productivity.

58. *Human Capital Satellite Account* by Statistics Canada will show how more extensive integration of human capital might influence the sequences of accounts. The account presented in the Guide goes beyond the current SNA and treats expenditures on education and training as investments rather than current expenses. The empirical estimates used to illustrate this approach will be based on human capital investments made in Canada that are recorded in the Canadian System of National Account (CSNA) or derived from the survey and administrative-data collection systems that form the source data for the CSNA. The presentation will show how this additional information will allow to link human capital with economic performance, while simultaneously retaining the core strengths of SNA estimates.

Item 8. Future work and adoption of the report

59. In this session, the proposals for future work will be presented and discussed. The report containing main decisions of the meeting will be put for adoption.

Item 9. Other business

60. Participants wishing to propose points under this item are requested to inform the secretariat as soon as possible.
