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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

**on the implementation of Regulation (EU) No 691/2011 on European environmental
economic accounts**

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

on the implementation of Regulation (EU) No 691/2011 of the European Parliament and of the Council on European environmental economic accounts

1. INTRODUCTION

Regulation (EU) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts¹ (the Regulation) introduced a common framework for the collection, compilation, transmission and evaluation of European environmental economic accounts. Article 10 of the Regulation stipulates the following:

By 31 December 2013 and every 3 years thereafter, the Commission shall submit a report on the implementation of this Regulation to the European Parliament and the Council. That report shall evaluate in particular the quality of the data transmitted, the data collection methods, the administrative burden on the Member States and on the respondent units, as well as the feasibility and effectiveness of those statistics.

The report shall, if appropriate and taking into account the findings referred to in Article 4(2), be accompanied by proposals:

- for introducing new environmental economic account modules, such as Environmental Protection Expenditure and Revenues (EPER)/Environmental Protection Expenditure Accounts (EPEA), Environmental Goods and Services Sector (EGSS), Energy Accounts, Environmentally Related Transfers (subsidies), Resource Use and Management Expenditure Accounts (RUMEA), Water Accounts (quantitative and qualitative), Waste Accounts, Forest Accounts, Ecosystem services Accounts, Economy-Wide Material Stock Accounts (EW-MSA) and the measurement of unused excavated earthen materials (including soil),

- designed to further improve data quality and data collection methods, thereby improving the coverage and comparability of data and reducing the administrative burden on business and administration.

The first report prepared under this Article was published in 2013.² This is the second report. Section 2 provides an overview of environmental economic accounts. Section 3 reports on the developments that have taken place since the last report. Section 4 discusses the measures taken to improve the implementation of the Regulation.

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02011R0691-20140616>

² <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52013DC0864>

2. ENVIRONMENTAL ECONOMIC ACCOUNTS

Environmental economic accounts are a statistical system bringing together economic and environmental information, in order to measure on the one hand the contribution of the environment to the economy and on the other hand the impact of the economy on the environment. They offer a means of monitoring the pressures exerted by the economy on the environment and of exploring how these might be reduced. Environmental economic accounts organise environmental data from a large number of different fields using the same concepts and terminology as the national accounts. They thus show the interaction between economic, household and environmental factors and are consequently more informative than national accounts alone.

Environmental economic accounts provide information on a broad spectrum of environmental and economic issues. In particular, they can be used to assess trends in the use of natural resources, the level of emissions and discharges to the environment resulting from economic activity, and the extent of economic activity undertaken for environmental purposes. Environmental economic accounts show the amount of pollution produced by industries and households and allow this to be evaluated in the context of the employment and value of output produced by these sectors, and of their expenditure on reducing pollution.

The environmental economic accounts provide an integrated framework for producing data, calculating indicators and performing analysis. Integrating environment-related data into the national accounts framework makes the indicators calculated more consistent and allows analysis to include the social aspects of sustainable development and the employment aspects of green growth.

The Regulation establishes the European environmental economic accounts. The Regulation structures the accounts in modules. It originally created three modules (Annexes I to III to the Regulation), as follows:

- **Air emissions accounts:** the emissions into the atmosphere of six greenhouse gases (including among others: CO₂ and CH₄ from biomass used as a fuel) and seven air pollutants, with a breakdown covering 64 emitting industries plus households.
- **Environmentally related taxes by economic activity:** environmental taxes for four broad groups: energy, transport, pollution and resources, with a breakdown covering 64 paying industries plus households and non-residents. All tax revenue figures are consistent with national accounts and can be compared with GDP, total taxes and social contributions, and other economic aggregates.
- **Economy-wide material flow accounts:** the amounts of physical inputs into the economy, material accumulation in the economy and outputs to other economies or back to the environment.

The European environmental accounts are compiled according to the international standard System of Environmental-Economic Accounting 2012 – Central Framework.³ This framework was produced and released under the auspices of the United Nations, the European Commission (Eurostat), the United Nations Food and Agriculture Organisation, the Organisation for Economic Cooperation and Development, the International Monetary Fund and the World Bank group.

3. DEVELOPMENTS SINCE THE LAST REPORT

3.1. LEGAL FRAMEWORK

One major development since the last implementation report was the amendment of the Regulation with the addition of three further modules (Annexes IV to VI),⁴ as follows:

- **Environmental protection expenditure accounts:** expenditure incurred by economic units (private entities, public entities and households) for environmental protection purposes.
- **Environmental goods and services sector accounts:** information on the production and export of goods and services that have been designed and produced specifically for the purpose of environmental protection or resource management. The employment associated with these activities is also reported.
- **Physical energy flow accounts:** flow of energy from the environment into the economy (extraction of natural inputs), within the economy (manufacture and use of energy products) and from the economy to the environment (discharge of energy residuals).

The data required under Annexes IV to VI is to be sent to the Commission (Eurostat) for the first time in 2017 (with time series to be provided starting from 2014).⁵ In preparation for this, the Commission (Eurostat) is promoting pilot studies and voluntary data collection exercises.

3.2. OTHER LEGISLATION TO IMPROVE QUALITY

In 2015, the Commission adopted one Implementing Regulation and one Delegated Regulation to complement the general framework established in the Regulation. Both

³ <http://unstats.un.org/unsd/envaccounting/seea.asp>

⁴ Regulation (EU) No 538/2014 of the European Parliament and of the Council of 16 April 2014 amending Regulation (EU) No 691/2011 on European environmental economic accounts (OJ L 158, 27.5.2014, p. 113).

⁵ A number of Member States benefit from derogations under Commission Implementing Decision (EU) 2016/335 of

⁷ March 2016 granting derogations from Regulation (EU) No 691/2011 of the European Parliament and of the Council on European environmental economic accounts with regard to Spain, France, Italy and Cyprus (http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.L_.2016.062.01.0018.01.ENG).

Regulations were designed to ensure comparability across countries and to enforce quality standards. They were as follows:

- *Commission Implementing Regulation (EU) 2015/2174 of 24 November 2015 on the indicative compendium of environmental goods and services, the format for data transmission for European environmental economic accounts and modalities, structure and periodicity of the quality reports pursuant to Regulation (EU) No 691/2011 of the European Parliament and of the Council on European environmental economic accounts.*⁶

This act establishes rules implementing the Regulation in relation to three separate topics: the indicative compendium of environmental goods and services (pursuant to Article 3(5) of the Regulation), the technical format in which data are to be sent to the Commission (pursuant to Article 6 of the Regulation) and the modalities, structure and periodicity of the quality reports (pursuant to Article 7(3) of the Regulation).

In respect of the first of the three topics, the act defines the scope of the environmental goods and services accounts (Annex V to the Regulation), in order to facilitate that this Annex is applied in the same way in all countries.

The second and third topics are relevant to all the modules in the Regulation. Implementing standards on the technical format in which data for the European environmental economic accounts are to be sent to the Commission (Eurostat) (the second topic) will create efficiency gains and reduce the administrative burden on the national authorities. The same standards can also then be used when sending statistical data for international purposes, e.g. to the OECD and to United Nations agencies. Those standards lead to efficiency gains, e.g. data transmissions between institutions can be done machine-to-machine without human intervention. Introducing specifications for the quality reports (modalities, structure and periodicity) (the third topic) will, meanwhile, ensure the elements for the Commission (Eurostat) to monitor statistical quality. The quality reports, required by Article 7 of the Regulation, are essential for the Commission (Eurostat) to be able to assess the quality of the data provided by the Member States. They are also necessary for validating the data and identifying areas where further quality improvements are needed.

- *Commission Delegated Regulation (EU) 2016/172 of 24 November 2015 supplementing Regulation (EU) No 691/2011 of the European Parliament and of the Commission as regards specification of the energy products.*⁷

This act specifies the energy products to be used for the physical energy flow accounts (Annex VI to the Regulation). The list of energy products determines the

⁶ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.307.01.0017.01.ENG

⁷ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.033.01.0003.01.ENG&toc=OJ:L:2016:033:TOC

scope and the classification to be used which ensures the international comparability of the data.

3.3. DATA COLLECTION METHODS AND ADMINISTRATIVE BURDEN

Environmental economic accounts do not generally require any new data to be collected, but instead make use of existing data. This is because they collate data from a wide range of sources, e.g. statistics on energy, transport, agriculture, government expenditure and taxation, and other non-statistical sources, in addition to the national accounts data. Member States can adjust existing data to bring it into line with the concepts used in national accounts, and thus fulfil the requirements set out in the Regulation.

The fact that environmental economic accounts re-use existing data means that the additional response burden placed on businesses and households is kept very small, provided that data sources exist and are maintained. Countries can also choose to set up specific data collection exercises for the purposes of the environmental economic accounts, which will help to improve data quality. One example of where this has been done is the environmental goods and services sector accounts (Annex V to the Regulation), for which some countries have set up small, dedicated surveys to complement their other sources of data. These surveys have annual or multiannual periodicity and the burden placed on businesses is low.

The work required to produce the accounts is largely performed by the national authorities (typically the National Statistical Institutes) and involves processing existing data and improving their analytical potential. The number of staff required to compile the accounts in each national authority is estimated at, on average, four to six full-time equivalents in total for the six Annexes to the Regulation. This staff cost adds considerable value to the basic data and increases the potential for analysing mutual interactions. Several national authorities used pilot studies (co-financed by the Commission) to set up the methods for processing and analysing the data.

3.4. FEASIBILITY AND EFFECTIVENESS

The modules laid down in the Regulation are tested and piloted before the Commission proposes a legal framework, thus ensuring their feasibility (see section 4.2 below). The testing is carried out in cooperation with the Member States so as to benefit from their expertise and ensure there is a common understanding of the feasibility of the modules. Pilot studies of further potential new modules are currently being carried out.

The effectiveness of the environmental economic accounts depends on two factors: first, how existing information can be re-organised into a common framework; and second, how and to what extent the accounts are used.

As regards the first point, the air emissions accounts (Annex I to the Regulation) provide one example of how existing information has been re-organised. The air emission accounts use information already gathered for the air emission inventories required for reporting under the United Nations Framework Convention on Climate Change (UNFCCC) and under the United Nations Economic Commission for Europe (UNECE) Convention on Long-range Transboundary Air Pollution (CLRTAP). Further information is then added to the data to bring them into line with the classifications and concepts of the supply-and-use and input-output tables used in the national accounts. They can then be used together with similar accounts for, e.g. energy, environmental taxes and economic sectors. This information can be used in causal frameworks for describing the interactions between society and the environment, like the framework 'Driving forces, Pressures, State, Impact and Responses (DPSIR)' adopted by the European Environment Agency.

As regards the second point, the environmental accounts underpin the seventh EU Environmental Action Programme that is to guide EU policy over the period to 2020, 'Living well, within the limits of our planet'.⁸ They are also used in the Europe 2020 flagship initiative 'A resource-efficient Europe',⁹ as the headline indicator 'resource productivity' is taken from the material flow accounts (Annex III to the Regulation). That Annex may also play a role in the EU action plan for the Circular Economy,¹⁰ in particular for calculating recycling rates. Environmental taxes (Annex II to the Regulation) are used in environmental fiscal reform studies on 'greening' the European Semester.¹¹ The environmental economic accounts are expected to be used to monitor the UN Sustainable Development Goals.¹²

Whilst the environmental accounts are already contributing to a number of policymaking initiatives, they have not yet achieved their full potential. The accounts are new and still relatively unknown among institutional users. Statisticians can accelerate the growth of awareness by better communicating and promoting the data already available. Explaining the analytical power of environmental economic accounts is also part of the initiatives currently being implemented. Efforts to raise awareness run alongside measures to consolidate the accounts and provide assurance of their quality.

3.5. QUALITY OF THE DATA PROVIDED

This section briefly discusses the quality of the data submitted by Member States for Annexes I to III to the Regulation in the years since the last implementation report, i.e. 2013 to 2015. Member States will be required to submit data for Annexes IV to VI to the Regulation as of 2017.

⁸ <http://ec.europa.eu/environment/action-programme/>

⁹ <http://ec.europa.eu/resource-efficient-europe/>

¹⁰ <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1453384154337&uri=CELEX:52015DC0614>

¹¹ http://ec.europa.eu/environment/integration/green_semester/news_en.htm

¹² <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

2015 was the first year in which all 28 Member States submitted data according to the Regulation. Norway and Switzerland also provided data, but Iceland did not (the Regulation has EEA relevance). In addition, a number of candidate and potential candidate countries for EU membership also submitted some data. Eurostat makes these data publicly available on its website,¹³ together with technical explanations (metadata) and a dedicated section¹⁴ with background information.

The quality of the data received showed a significant improvement between 2013 and 2015. This is for two reasons: first, the temporary derogations¹⁵ granted to six Member States for the transmission of data under Annexes I to III to the Regulation came to an end. This means that data were available for all Member States in 2015, which simplified the production of aggregates for the EU. Second, some difficulties experienced in 2013 and 2014 in completing the questionnaire on time had been resolved by 2015.

A further aspect is the completeness of the questionnaires. As regards Annex I to the Regulation, most countries provided reasonably complete questionnaires in 2015. The coverage of Malta's data was insufficient and the Commission (Eurostat) estimated most of the data published. As regards Annex II to the Regulation, all tables were reported for all the years required. Croatia did not, however, allocate all tax revenue by economic activity. As regards Annex III to the Regulation, all mandatory tables were reported by all countries in 2015. In previous years, several countries were not able to deliver data on extra-EU trade consistently and instead reported extra-EU27 trade, for at least some statistics.

A number of areas and specific items have been identified for which countries struggle to ensure that data are of good quality. The quality reports allowed the following technical issues to be identified, in relation to which further improvements are required:

- Annex I: the main difficulties involve the reconciliation of the data with the estimates produced to meet the reporting obligations set by the United Nations Framework Convention on Climate Change and the UNECE Convention on Long-range Transboundary Air Pollution ('bridging items'), the coverage of emissions of fluorinated gases and the allocation of road transport emissions to NACE industries.
- Annex II: the main difficulty for around half the Member States is estimating the taxes paid by non-residents. Furthermore, some countries allocated tax revenues to economic activities using administrative data that are not suitable for this purpose. These issues are in the process of being resolved. Improved cooperation with the authorities producing the National Accounts will facilitate consistency.
- Annex III: the items that present difficulties are those that need to be estimated, at least partly, due to a lack of available statistics. These include: crop residues, fodder

¹³ <http://ec.europa.eu/eurostat/data/database>

¹⁴ <http://ec.europa.eu/eurostat/web/environment/overview>

¹⁵ Commission Implementing Decision 2012/691/EU of 6 November 2012 (<http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32012D0691>).

crops and grazed biomass, sand and gravel extraction, and the adjustment to the residence principle.

The statistical data submitted by Member States under the Regulation is, overall, of high quality. There are still a number of areas where improvement is needed, and the Commission (Eurostat) continues to work with the Member States to resolve issues at a technical level. A number of measures are being implemented or are planned to improve quality, as explained in section 4.2.

4. IMPROVEMENT ACTIONS

This section discusses proposals for introducing new environmental economic account modules (subsection 4.1) and measures being taken for improving data quality and data collection methods (subsection 4.2), as required under Article 10 of the Regulation.

The initiatives presented in this section are the result of two main strategies. The first is the implementation strategy¹⁶ that was approved by the United Nations Statistical Commission in February 2013 for the System of Environmental-Economic Accounting Central Framework, which is the international statistical standard which the European environmental economic accounts adhere. This worldwide implementation strategy recommends a flexible and modular approach, in order to accommodate different policy needs and levels of data availability.

The second is the European Strategy on Environmental Accounts for the period 2014 to 2018.¹⁷ This is a programme of further work agreed by the Commission (Eurostat) and the Member States in the European Statistical System Committee. The Strategy co-ordinates European efforts and paves the way for possible new modules in the Regulation. The Strategy programme of work for the period 2014 to 2018 focuses on:

- consolidating the quality of the accounts in Annexes I to III to the Regulation (air emissions, environmental taxes and material flows);
- promoting the use of existing environmental economic accounts;
- improving timeliness of the accounts, including by developing early estimates, in order to make environmental policy aspects more prominent in economic planning;
- implementing the accounts in Annexes IV to VI to the Regulation (expenditure on environmental protection, the environmental goods and services sector and physical energy flow accounts);
- investing in statistical infrastructure (i.e., reference methodologies, classifications, specialised software, etc.) to improve the availability, quality and usefulness of the environmental accounts;

¹⁶ <http://unstats.un.org/unsd/statcom/doc13/BG-SEEA-Implementation.pdf>

¹⁷ <http://ec.europa.eu/eurostat/documents/1798247/6079569/ESSC-2014-21-EN-24-EuropeanStrategy-env.pdf>

- developing methodologies for and launching voluntary data collections in other areas (water and forests, environmental subsidies and similar transfers and expenditure on resource management).

The European Strategy on Environmental Accounts does not prevent individual Member States from additionally developing other streams of work, according to their national circumstances, policy needs and financial means.

4.1. PROPOSALS FOR NEW MODULES

Since the last progress report, three of the areas proposed as topics for new modules, in accordance with Article 10 of the Regulation, have been adopted, as explained in section 3.1. They are set out in Annexes IV to VI to the Regulation, and are: environmental protection expenditure accounts, the environmental goods and services sector, and physical energy flow accounts.

There have also been developments in other areas listed in Article 10 of the Regulation, including:

- A task force of experienced Member States developed a framework for collecting data on environmental subsidies and other transfers. Eurostat published guidelines and a first data collection took place in 2015. Those framework and guidelines explain the relevant concepts and reporting tables and indicate how to compile the data. Environmental subsidies is a more demanding area than environmental taxes because record-keeping in public finance statistics is more complex.
- The Commission (Eurostat) is preparing a handbook on resource management expenditure accounts. There are some similarities between this and the legal module on environmental protection expenditure accounts (Annex IV to the Regulation), meaning that the experience gained in the latter area after 2017 will help in deciding how to proceed with the former.
- The Commission is working on an experimental project on integrated natural capital and ecosystem services accounting. This is a long-term project scheduled to produce results by 2020. The main objectives are to integrate existing EU-level data sets (satellite images, land use and cover surveys and models) and to capitalise on the expertise of the project partners to develop a consistent EU framework compatible with more detailed accounts at national level.
- The Commission (Eurostat) has streamlined and simplified the existing framework and the voluntary data collection exercise for forest accounts. This exercise was necessary because past pilots did not meet users' expectations and there was not sufficient demand.
- The Commission (Eurostat) has carried out basic conceptual work on physical water flow accounts for the water accounts. This is documented in a draft manual. No data collection has been launched.

The Commission (Eurostat) is gaining experience in the areas mentioned above, with a view to possible improvements that could be introduced in the future, but has not yet proposed any changes in the Regulation. The development of new modules continues but at a slower pace. The modules that produce most benefits at lowest cost were those already introduced in the Regulation. The remaining potential new modules have proportionally less benefits and are more costly. Producing accounts can be costly, e.g. if the underlying data sources do not yet exist or do not provide sufficient information and must therefore be created or supplemented.

Of the areas where new developments are taking place, environmental subsidies accounts is perhaps the most promising in the short term. A regular, annual voluntary data collection exercise was introduced in 2015, with the agreement and cooperation of the Member States. Experimental work on ecosystem accounts will also be a focus. Monitoring progress towards a circular economy as stated in the Commission Communication 'Closing the loop - An EU action plan for the Circular Economy'¹⁸ requires a set of indicators based on several sources, among which environmental accounts (economy-wide material flow accounts) and waste statistics.

At the same time, work is also being carried out to further improve the quality of the existing modules, on the basis of the experience gathered to date.

The technical discussions held in DIMESA¹⁹ between the Commission (Eurostat) and the Member States concluded that some of the areas listed as potential future modules in Article 10 of the Regulation would not, in fact be suitable areas for development. This is the case for 'economy-wide material stock accounts' and 'unused excavated materials (including soil)'. The relevance of these accounts is limited in most countries, and it is difficult to produce sufficiently accurate estimates to make them fit for policy making.

4.2. QUALITY IMPROVEMENTS: RECENT DEVELOPMENTS

In accordance with the European Strategy on Environmental Accounts, improving the quality of the accounts has been a main area of focus in recent years, and is to remain so over the coming period. The quality improvements also have indirect benefits, as they increase the relevance of the statistics and make efficiency gains possible, which in turn reduces the administrative burden.

The Commission (Eurostat) continues to assist the Member States in improving the quality of accounts in a variety of ways, including:

- a) **Providing grants for pilot studies and quality improvements.** Article 4 of the Regulation calls on the Commission to draw up a programme of pilot studies to be carried out by Member States on a voluntary basis. The aim of the studies is to develop reporting

¹⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1453384154337&uri=CELEX:52015DC0614>

¹⁹ Meeting of Directors of sectoral and environmental statistics and accounts, June 2015.

methods and improve data quality, to establish long time series, to develop the methods used for processing the data and to test the feasibility of introducing new environmental economic account modules. The Commission (Eurostat) has co-financed pilot studies every year (up to 70 % of the costs) and has published the results on the CIRCABC site.²⁰ These findings are taken into account when planning quality improvements and the introduction of new environmental economic account modules.

- b) **Reducing the time delay in the availability of data by producing early estimates.** The environmental accounts have, to date, been regarded as fairly detailed, structural data. The Commission (Eurostat) is working with the Member States to assess whether environmental accounts could be compiled earlier, and considerable progress has been made on this point. The Commission (Eurostat) is also examining ways of producing early estimates for some of the main indicators. These estimates would have a higher margin of error and would be less detailed than the estimates required under the Regulation, but would offer valuable early information to users. Eurostat has now started producing and publishing early estimates of economy-wide material flow accounts (Annex III to the Regulation) seven months after the end of the reference year. This is a considerable improvement, as the deadline given in the Regulation for the transmission of data is 24 months. Similarly, the Commission (Eurostat) is also looking to start producing early estimates for environmental goods and services accounts (Annex V to the Regulation). The Commission (Eurostat) is combining the data collected on environmental taxes (Annex II to the Regulation) with data on national tax lists compiled under the National Accounts ESA2010 transmission programme.²¹ This allows statistics to be produced a few months earlier, without increasing the burden on Member States. Possible options for compiling estimates for air emission accounts (Annex I to the Regulation) one year earlier are currently being explored.
- c) **Setting up voluntary annual data collection exercises** in preparation for obligatory reporting. Data are currently collected on a voluntary basis for Annexes IV to VI to the Regulation (environmental protection expenditure accounts, environmental goods and services sector accounts and physical energy flow accounts). A new data collection exercise on environmental subsidies and similar transfers was launched in 2015.
- d) **Producing EU aggregates even where some Member State data are missing.** Having EU estimates is very important for European policy makers. The default method for producing EU-level statistics is aggregating Member States' data. Where this is not possible, due to there not being sufficient national data, the Commission (Eurostat) uses alternative techniques. This is particularly the case for environmental goods and services accounts (Annex V to the Regulation) and environmental protection expenditure accounts (Annex IV to the Regulation), for which Member States are still sending data on a voluntary basis.
- e) **Publishing handbooks and providing methodological guidance.** Since 2013, the Commission (Eurostat) has published the following manuals and guidelines:

²⁰ <https://circabc.europa.eu/w/browse/322c6d18-a4d8-4771-ba7c-3432b8da31c1>

²¹ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013R0549>

Environmental taxes²² (2013), environmental subsidies and similar transfers²³ (2015) and air emission accounts²⁴ (2015). In addition, a number of other methodologies have been made publicly available as working documents (economy-wide material flow accounts²⁵ (2013), physical energy flow accounts²⁶ (2014), resource management expenditure accounts²⁷ (2014) and environmental goods and services sector accounts²⁸ (2015)). A further three methodological publications are being prepared for 2016 (environmental goods and services sector, environmental protection expenditure accounts and economy-wide material flow accounts). This reference material facilitates the production of statistics and is used by statisticians both within and outside the EU.

- f) **Provide compilation tools.** The Commission (Eurostat) makes tools for compiling accounts available to Member States and other countries. For example, it provides an IT tool, called PEFA-Builder, that compiles physical energy flow accounts (Annex VI to the Regulation) on the basis of energy statistics. The Commission (Eurostat) also maintains up-to-date lists (classifications) of the products and activities needed to compile the accounts. The Commission (Eurostat) provides tools for calculating footprints, which measure the impact of the economic actors in the environment when using natural resources. Footprints are derived by combining environmental economic accounts with other statistics like input-output tables.
- g) **Facilitating training courses** under the European Statistical Training Programme. The Commission organises around four courses a year on environmental economic accounts. The material used in past courses is published on the CIRCABC site.²⁹
- h) **Promoting the exchange of experience between countries.** The Commission (Eurostat) organises two working groups that meet every year to share experiences, identify best practices and coordinate improvements. There are also several task forces that study specific methodological issues and propose recommendations. The Commission (Eurostat) participates in the international initiatives organised by the OECD, the UNECE and the UN.
- i) **Developing solutions to outstanding methodological problems.** In addition to the work being undertaken to improve the quality of Annexes I to III to the Regulation listed in sections 3.5 and 4.2, the Commission (Eurostat) identified the methodological challenges associated with the new Annexes IV to VI to the Regulation, and is working to resolve

²² <http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-GQ-13-005>

²³ <http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-GQ-15-005-EN-N>

²⁴ <http://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-GQ-15-009>

²⁵ <http://ec.europa.eu/eurostat/documents/1798247/6191533/2013-EW-MFA-Guide-10Sep2013.pdf/54087dfb-1fb0-40f2-b1e4-64ed22ae3f4c>

²⁶ <http://ec.europa.eu/eurostat/documents/1798247/6191537/PEFA-Manual-2014-v20140515.pdf/12d7dcb3-cc66-46fd-bcb7-45bbbe9ba541>

²⁷ <http://ec.europa.eu/eurostat/documents/1798247/6191545/1-Resource-management-expenditure-accounts---draft-guidelines-2014.pdf>

²⁸ <http://ec.europa.eu/eurostat/documents/1798247/6191549/Practical-guide-towards-compiling-EGSS-statistics-March2015.pdf/f0f8c6c1-0ae9-4f53-9c94-afcc190cc5ba>

²⁹ <https://circabc.europa.eu/w/browse/6ade1ca8-6a06-44bd-bff0-498217d0ec05>

these issues. The main challenges for Member States are determining the allocation of emissions and the use of natural resources by NACE industry and developing an integrated framework for the monetary environmental accounts modules (environmental protection expenditure, resource management expenditure, the environmental goods and services sector and environmental taxes and subsidies). An integrated framework for the monetary environmental accounts would allow the different modules to be produced in the same way from a set of common data sources, and thus has the potential to reduce the administrative burden.