

Procedure file

Basic information	
COD - Ordinary legislative procedure (ex-codecision procedure) Decision	2001/0197(COD) Procedure completed
Science and technology: production and development of Community statistics	
Repealed by 2017/0048(COD)	
Subject	
3.50 Research and technological development and space	
8.60 European statistical legislation	

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ITRE Industry, External Trade, Research, Energy		10/10/2001
		PPE-DE NISTICÒ Giuseppe	
	Former committee responsible		
	ITRE Industry, External Trade, Research, Energy		10/10/2001
		PPE-DE NISTICÒ Giuseppe	
	Former committee for opinion		
	ECON Economic and Monetary Affairs		
Council of the European Union	Council configuration	Meeting	Date
	Agriculture and Fisheries	2494	17/03/2003
European Commission	Commission DG	Commissioner	
	Eurostat		

Key events			
03/09/2001	Committee referral announced in Parliament, 1st reading		
18/06/2002	Vote in committee, 1st reading		Summary
18/06/2002	Committee report tabled for plenary, 1st reading	A5-0236/2002	
02/07/2002	Decision by Parliament, 1st reading	T5-0338/2002	Summary
27/03/2003	Committee referral announced in Parliament, 2nd reading		
23/04/2003	Vote in committee, 2nd reading		Summary
19/06/2003	Decision by Parliament, 2nd reading	T5-0279/2003	Summary
22/07/2003	Final act signed		
22/07/2003	End of procedure in Parliament		
16/09/2003	Final act published in Official Journal		

Technical information	
Procedure reference	2001/0197(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Decision
	Repealed by 2017/0048(COD)
Legal basis	EC Treaty (after Amsterdam) EC 285; Rules of Procedure EP 66_o-p4
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/5/16440

Documentation gateway					
Document attached to the procedure		COM(2001)0489	24/08/2001	EC	Summary
Legislative proposal		COM(2001)0490 OJ C 332 27.11.2001, p. 0238 E	27/08/2001	EC	Summary
Committee draft report		PE316.243	08/05/2002	EP	
Amendments tabled in committee		PE316.243/AM	06/06/2002	EP	
Committee report tabled for plenary, 1st reading/single reading		A5-0236/2002	18/06/2002	EP	
Text adopted by Parliament, 1st reading/single reading		T5-0338/2002 OJ C 271 12.11.2003, p. 0028-0147 E	02/07/2002	EP	Summary
Modified legislative proposal		COM(2002)0554 OJ C 045 25.02.2003, p. 0042-0042 E	07/10/2002	EC	Summary
Council statement on its position		15315/2002	06/12/2002	CSL	
Council position		14089/1/2002 OJ C 125 27.05.2003, p. 0058-0062 E	17/03/2003	CSL	Summary
Commission communication on Council's position		SEC(2003)0144	24/03/2003	EC	Summary
Text adopted by Parliament, 2nd reading		T5-0279/2003	19/06/2003	EP	Summary
Implementing legislative act		32004R0753 OJ L 118 23.04.2004, p. 0023-0031	22/04/2004	EU	Summary
Implementing legislative act		32004R1450 OJ L 267 14.08.2004, p. 0032-0035	13/08/2004	EU	Summary
Follow-up document		COM(2007)0801	14/12/2007	EC	Summary
Follow-up document		COM(2011)0184	11/04/2011	EC	Summary
Follow-up document		COM(2014)0211	07/04/2014	EC	Summary
Follow-up document		COM(2018)0769	28/11/2018	EC	Summary
Follow-up document		COM(2020)0738	18/11/2020	EC	

Additional information

Final act

[Decision 2003/1608](#)

[OJ L 230 16.09.2003, p. 0001-0003](#) Summary

Science and technology: production and development of Community statistics

This document consists of the final report to the European Parliament and to the Council according to Article 8 of the Council Decision (94/78/CE, Euratom) establishing a multiannual programme for the development of Community statistics on research, development and innovation. This report calls for two main conclusions. The comparison of the situation with what was the state of the European statistical information system on R&D and Innovation five years ago shows impressive improvements (user needs systematically reviewed, methodological framework has been improved or extended, more comparable data is available at the European level, pilot surveys have been launched in numerous domains). This progress was only possible because of co-ordinated actions of the Member States and international organisations propelled by the Council decision. However, in spite of all these efforts and achievements, the current state of availability of statistics at the European level is not yet sufficient to meet the demand and to back decision making, for instance, domains are unexplored from a statistical viewpoint, available data are incomplete, timeliness is still poor: regional data are typically available 1.5-2.5 years after the end of the reference year, etc). The Commission considers that the efforts stimulated by the Council decision should be continued. The main axis of the developments to be carried out are the following: · broader use of administrative sources (which has proved promising in the study of patent applications); · better co-ordination between R&D and innovation aspects in existing data collection (as started in the structural business statistics regulation); · measurement and improvement of the quality of the available data. To achieve these objectives, a legal frame seems to be necessary: it will foster national efforts and guarantee the provision of the needed resources. This legal framework should ideally take the form of a regulation which will consolidate the existing data production at the European level in the areas of funding, performance and output measurement of R&D. If a regulation does not prove possible or desirable, a new Council decision on the improvement and completion of R&D and Innovation statistics should be taken. This decision would push forward the developments mentioned above.?

Science and technology: production and development of Community statistics

PURPOSE: to develop a new generation of statistical variables for Community science and technology purposes. CONTENT: since the expiry in 1997 of the former Council Decision on statistics a legal vacuum on the definition and clarification of statistics has existed. Given the importance of statistics on defining EU science and technology policies as well as their importance on EU businesses a harmonised set of statistics is considered both relevant and important. The new draft European Parliament and Council Decision is based on the former Decision and on research into statistics which has taken place in the interim period. Users comments, the views of Member States and the advice of the SPC have all been taken into account when drafting the Decision. The objective of this Decision is to maintain and improve the Community statistical information system on science, technology and innovation. Such a system would be able to support and monitor Community policies. Developing a legally defined set of statistics would be of further use to a wide range of users. Care has been taken to ensure that any burden on the national statistical authorities should be limited and that any additional costs should be kept to a minimum. It is hoped that the response burden of units surveyed, especially enterprises will be confined. Specifically, the draft Decision envisages the implementation of individual statistical actions, the aim being: - to continue working on existing Community statistics based on the delivery of data by the Member States as well as from other sources; - to develop new statistical variables to be produced on a permanent basis. Under this specific action, priority will be given to statistics on innovation, human resources devoted to science and technology, patent statistics, high technology statistics and general gender statistics on science and technology. - to improve and update existing standards and manuals on concepts and methods and to improve data quality in specific comparability and timeliness. The specific objectives of the Decision are as follows: - to consolidate and improve the Community reference framework for statistics on science and technology defining the most appropriate concepts and methods; - to consolidate and extend the Community statistical information system for science and technology of regular delivery and dissemination of existing and new indicators. In particular statistics in the service industry and gender statistics on science and technology will require closer examination; - to promote and support comparability and coherence of statistics on science and technology in the Member States; - to improve the timeliness of data and to facilitate the accessibility of the statistical information.?

Science and technology: production and development of Community statistics

The committee adopted the report by Giuseppe NISTICO' (EPP-ED, I) broadly approving the proposal under the codecision procedure (1st reading), subject to just a few amendments. The committee wanted the Community to step up cooperation with the OECD and other international organisations, especially for the purposes of patents and high-technology statistics. As regards gender statistics on science and technology, it felt that these should be developed in collaboration with the Helsinki group (which was set up under the 'Women and Science' project by the Commission's DG for Research). Lastly, the committee felt that the five-year interval proposed by the Commission for reporting back to Parliament and Council on the implementation of the decision was too long. It accordingly proposed that the first report be prepared four years after the entry into force of the decision and that subsequent reports be submitted every three years.?

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The European Parliament adopted the resolution drafted by Giuseppe NISTICO (EPP-ED, Italy) with a few amendments. (Please refer to the document dated 18/06/02.) Parliament used its procedure without debate.?

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The amended proposal from the Commission accepts the amendment, which stresses the importance of taking account of the regional dimension, in accordance with the NUTS classification, if possible. The Commission also accepts an amendment, which underlines the importance of cooperation with the OCDE and other international organisations. The Commission accepts the amendment, which calls for more frequent reports. The Commission cannot, however, accept the amendment that calls for closer cooperation and increased consultation with the Helsinki group, for legal reasons. The Commission nevertheless acknowledges and stresses the importance of the statistical work of that group and undertakes to continue its fruitful cooperation with it. The Commission will also reaffirm this commitment by having a Commission declaration included in the Council minutes when the Decision is adopted.?

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In its common position, the Council incorporated substantively the amendments tabled by the European Parliament, which sought to: - state that data to be gathered and provided should be broken down by region, relying upon the NUTS classification; - shorten the interval by which the Commission reports to the European Parliament and to the Council on the implementation of this decision, both for the initial report (now four years after entry into force) and for the periodic reports (now every three years); - better focus on the purpose of the intensified cooperation with the OECD and other international organisations, now stated as 'with a view to ensuring comparability of data and avoiding duplication of efforts'. The Council did not incorporate the amendment on cooperation and consultation with the Helsinki Group. In one recital, however, the Council welcomed explicitly the work of the Helsinki Group, adding that gender specific data should be gathered to monitor progress in equal opportunity policy implementation. This recital maintained the importance of the Helsinki Group and underlined the intentions of continued cooperation with the group, which was also considered important by the Commission. Lastly, it should be noted that the management procedure has been changed to a regulatory procedure. ?

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The changes introduced in the amended proposal by the common position adopted by unanimity are mainly in the nature of technical clarifications and thus do not pose any particular problem for the Commission. The Commission can accept the common position.?

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The committee voted unanimously to adopt the Council's common position without amendment under the 2nd reading of the codecision procedure.?

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The European Parliament adopted a resolution approving the common position.?

Science and technology: production and development of Community statistics

PURPOSE : to establish a Community statistical information system on science, technology and innovation to support and monitor Community policies. **LEGISLATIVE ACT** : Decision No 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on science and technology. **CONTENT** : the objective of this Decision which is to establish a Community statistical information system on science, technology and innovation to support and monitor Community policies shall be implemented by individual statistical actions as follows: - delivery of statistics by the Member States on a regular basis and within specified deadlines, in particular statistics on R& D activity in all sectors of performance and on the funding of R& D activity, including government budget appropriations for R& D, taking into account the regional dimension by producing whenever possible science and technology statistics based on NUTS classification; - development of new statistical variables to be produced on a permanent basis that can provide more comprehensive information about science and technology, in particular for the measurement of the output of science and technology activities, the dissemination of knowledge and more generally the performance of innovation. This information is needed for the formulation and assessment of science and technology policies in the increasingly knowledge-based economies. The Community shall give priority, in particular, to the following domains: innovation (technological and non-technological); human resources devoted to science and technology; patents (patents statistics to be derived from the databases of the national and European patent offices); high-technology statistics (identification and classification of products and services; measurement of economic performance and contribution to economic growth) and gender-disaggregated statistics on science and technology; - improvement and updating of existing standards and manuals on concepts and methods, with particular regard to concepts in the service sector and coordinated methods for measurement of R& D activity. In addition, the Community will intensify cooperation with the OECD and other international organisations with a view to ensuring comparability of data and avoiding duplication of efforts; - improvement of data quality, specifically comparability, accuracy and timeliness; - improvement of the dissemination, accessibility and documentation of statistical information. Available capacities within the Member States for data collection and processing and development of methods and variables will be taken into account. **ENTRY INTO FORCE** : 06/10/2003.?

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LEGISLATIVE ACT : Commission Regulation 753/2004/EC implementing Decision 1608/2003/EC of the European Parliament and of the Council as regards statistics on science and technology. CONTENT : this Regulation defines measures for implementing Decision 1608/2003/EC with regard to Community statistics on science and technology shall be as set out in this Regulation. This Regulation shall cover the following domains: - statistics on research and development; - statistics on government budget appropriations or outlays on research and development (GBAORD); - statistics on human resources in science and technology, including gender and mobility statistics (HRST), statistics on patents, statistics on high-technology industries and knowledge-based services and other statistics on science and technology. ENTRY INTO FORCE : 13/05/2004.?

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LEGISLATIVE ACT : Commission Regulation 1450/2004/EC implementing Decision 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on innovation.

CONTENT : This Regulation sets up the necessary measures for implementing Decision 1608/2003/EC with regard to Community innovation statistics. For these statistics, the list of statistical variables, the activities and sectors covered, the breakdowns of the results, the frequency, the deadlines for data transmission and the transitional period is described in the Annex. They may be revised at regular intervals.

Member States will acquire the necessary data using a combination of different sources such as sample surveys, administrative data sources or other data sources. The other data sources shall be at least equivalent in terms of quality or statistical estimation procedures to sample surveys or administrative data sources.

The Community innovation statistics listed in the Annex must be based on harmonised concepts and definitions, contained in the most recent version of the Oslo Manual.

Member States will transmit the aggregated statistics as listed in the Annex on a compulsory basis and the individual data records on a voluntary basis, to the Commission (Eurostat), using a standard transmission format to be determined by the Commission.

ENTRY INTO FORCE : 03/09/2004.

Science and technology: production and development of Community statistics

This Commission report concerns the implementation of Decision No 1608/2003/EC on the production and development of Community statistics on science and technology. The first part of the report focuses specifically on the Decision's implementation. The subsequent chapters concern data quality and the costs/burden of statistics. The final chapter looks ahead to future strategic actions.

Implementation:

Decision No 1608/2003/EC has been implemented alongside two Regulations, which were adopted in 2004. These Regulations concern, firstly, statistics on science and technology and, secondly, Community statistics on innovation. The main achievements of these Regulations have been:

- Reorganising and increasing data production and quality.
- Harmonising the data collection questionnaire and time series with that of the OECD.
- Establishing and implementing quality reports on R&D statistics for various institutional sectors.
- Preparing the fourth Community Innovation Survey with a harmonised survey questionnaire and methodology.
- Collecting and disseminating tabulated CIS4 data and indicators in late 2006, together with CIS4 quality reports.
- Releasing the 2005 Eurostat/OECD Oslo Manual which also covers organisational and marketing innovation.
- Preparing the CIS 2006, which repeats CIS4 in many Member States.
- Opening access to CIS micro-data to more than 50 research institutes.

In 2004, the EU also adopted two further Regulations on R&D statistics, statistics on human resources in science and technology (?HRST statistics) and on innovations statistics only. The main achievements of the HRST Regulation and the Regulation on innovation statistics only are as follows:

- Increasing the regular production of high-tech statistics based on both official and unofficial sources.
- Assessing the underlying classification with a view to any revision, relating to the revision of the Nace nomenclature of economic activities.
- Improving PATSTAT (together with the European Patent Office and the US Patent and Trademark Office).
- Producing an automated method for harmonising the names of patent applicants. The application of this method allows the production of additional patent statistics (such as patent concentration ratios).

To conclude the Implementation Chapter of this report the Commission finds that considerable progress has been made with the implementation of Decision No 1608/2003/EC covering all domains of STI statistics. In addition the launching of additional projects such as the CDH statistics was justified by their relevance with regard to the strength of the underlying policy needs. At an international level, most individual countries have complied with the provisions of the Decision as well as stepping up their efforts to make any national adaptations or investments. This alone has led to an increase in the availability of STI statistics.

STI Statistics: Data quality:

R&D statistics: The quality of European R&D statistics improved following implementation of Regulation 753/2004. As from 2003 the availability of R&D statistics has increased. The accuracy of the data collected and its comparability between countries is also good.

Community innovations statistics: The quality of CIS4 data has also improved considerably, when compared to previous CIS data. This is due to the shorter, clearer questionnaire, stronger production and implementation process at national level and greater familiarity of the CIS with respondents. The timeliness, completeness and comparability of the national CIS 4 data sets have also improved.

Other STI statistics: In other domains quality improvements often depend on progress made with the source data. Considerable progress has

been made in this respect with data from the Community Labour Force Survey or from PATSTAT.

The Commission concludes this heading by noting that the quality of R&D statistics and of Community innovation statistics has improved considerably in recent years due, in large part, to the adoption of Regulations No 753/2004 and 1450/2004. The Commission believes that further improvements in data quality are, however, necessary in the years ahead and as such intends to monitor statistical data quality in the various domains.

STI Statistics: Costs and burdens

No firm overall conclusions can be drawn on the costs and burden imposed by R&D statistics and the CIS given that not all countries responded to requests for information on this matter. In the case of Estonia and Italy, two countries that did respond, the report finds that the costs and burden of R&D statistics and Community Innovation statistics on enterprises is very heterogeneous. The Commission, therefore, finds that the costs imposed on enterprises and public bodies is rather varied. At the same time it does believe that these costs can be reduced further in many countries purely by using a more sophisticated application of statistical methods.

Future developments

The further development of STI statistics should relate to the STI system as a whole: scientific input, linkages, output and impact. In future the Commission intends to:

- improve the quality of STI statistics as a whole;
- revise certain concepts and definitions of human resources in science and technology;
- evaluate and stabilise statistics on the career development of doctorate holders and to make better use of PATSTAT for internationally comparable patent statistics through the creation of new indicators;
- revise the definition of high-tech industries and knowledge-based services by making them more relevant;
- internationalise STI statistics;
- improve Community Innovation Survey to make them more relevant;
- improve access to STI micro-data by making transmission of CIS micro-data to Eurostat compulsory;
- improve STI indicators on knowledge flows, linkages, STI output and impact;
- screen the STI input indicators to check their relevance;
- investigate the handling of STI data related to higher education institutions or enterprise groups;
- integrate statistics on biotechnology, nanotechnology and other emerging sciences into STI statistics;
- revise Regulation No 753/2004 and 1450/2004; and
- adopt a third Commission Regulation on the statistics on the career development of doctorate holders.

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The Commission presents a report on the implementation of Decision No 1608/2003/EC of the European Parliament and of the Council on science and technology statistics. The quality of the statistical data has become more essential because of policy orientation and monitoring and in particular the fact that policy targets are set through statistical information. The [Europe 2020 strategy](#), like its predecessor the Lisbon strategy, has set a precise target for R&D intensity (spending 3 % of EU GDP on R&D by 2020) and it is therefore of the utmost importance that the quality of the measurement is and stays at a high level.

Official statistics on science, technology and innovation (STI statistics) in the EU are largely based on Decision No 1608/2003/EC. This report evaluates the implementation of the individual statistical actions listed in Article 2 of the Decision. These actions aim at establishing a statistical information system on science, technology and innovation to support and monitor EU policies. The report also examines data quality, costs and the statistical burden, and looks ahead to strategic actions that should be taken in the years to come.

It states that the adoption of Commission Regulations (EC) No 753/2004 and No 1450/2004 implementing Decision No 1608/2003/EC has stabilised STI data quality. This has been followed by gradual and ongoing improvements and close monitoring of quality. Agreeing and implementing international standards and methodology and constant discussion of their relevance in a dynamic measurement framework aim to keep the statistics up to date and of first-class quality.

In further development work on STI statistics both the priorities set by the policy needs and the development of the ESS as a whole will be taken into account. Given the priorities already set by the Europe 2020 strategy and its flagship Innovation Union initiative, a balance will be sought between new work and actions to further improve the existing STI statistics. The following issues in particular will be addressed with high priority:

- R&D statistics: this involves ensuring that the underlying data are measured by all R&D performers or at least estimated when needed, whether or not they are known beforehand, and cover all economic sectors and sub-sectors and all sizes of operating units ? therefore covering the totality of R&D (expenditures and personnel) in the economy at a given time. In this context, a core set of indicators to monitor the ERA will be developed.
- European innovation statistics: the measurement issues of innovation in its different concepts need to be addressed. This covers in particular the numeric variables, innovation expenditures and turnover from innovation. A strategy for using an integrated survey on R&D and innovation will be evaluated and an assessment will be made of what would be the impact particularly on the data quality and comparability.
- CDH statistics: a thorough evaluation will be made in 2011 of the implementation of the statistics on the careers of doctorate holders (CDH) data collection in 2006 and 2009 with a view to assessing the future of this data compilation.
- Patent statistics: richer use of the underlying administrative source will be investigated, in particular in connection with other existing sources for adding the new information and variables. Full use will be made of the improved methodology for name harmonisation.
- Improvements in existing STI statistics will be made in close cooperation with the OECD and other international organisations with which coordination has already been stepped up. This covers work towards revised international methodological manuals.
- New indicators, new data sources: development work which goes beyond using the existing data sources, including new indicators, new data sources and even further breakdowns of the existing data (as they may involve larger sample sizes or methodological work), will take place only after thorough screening and analysis. This may concern work on patents in technologies or data on other intellectual property rights related to Societal Challenges. Feasibility studies and pilot surveys will also be utilised in this context.

- Updating the legal framework for STI statistics: adoption of the Europe 2020 strategy and its various flagship initiatives together with monitoring of the European Research Area call for agreement on the statistical monitoring framework for the EU policies set. Eurostat therefore aims to review both Regulation (EC) No 753/2004 and Regulation (EC) No 1450/2004 with a view to revising them, taking into account in particular the most recent policy monitoring needs. The emphasis will remain on the relevance and quality of the data. New legislation will be considered with particular care.

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The Commission presents a report on the implementation of Decision No 1608/2003/EC of the European Parliament and of the Council on science and technology statistics. It has implemented this Decision in close cooperation with Member States through regulatory measures, voluntary data collections and through the Union's statistical authority (Eurostat)'s own data production.

This third report evaluates the implementation of the individual statistical actions listed in the Decision. These are aimed at establishing a statistical information system on science, technology and innovation to support and monitor EU policies. The report mainly covers developments since the [previous report in 2011](#).

Implementation of the Decision: the Commission has implemented the Decision through regulatory measures and voluntary data collections in the Member States and through Eurostat's own statistical production.

In 2012, two 2004 Regulations were replaced by Commission [Implementing Regulation \(EU\) No 995/2012](#)¹⁰, which also amended the detailed requirements for R&D, other science and technology, and innovation statistics. By specifying the statistical unit required and the uniform quality reporting, the Regulation also took a further step towards harmonising R&D and innovation statistics and strengthening the link with general business statistics.

The main achievements in the period covered by this report were as follows:

- continued growth in the data production volume of R&D expenditure and personnel data, compiled in various dimensions and breakdowns based on the Frascati Manual (OECD 2002);
- conclusion of an agreement on a further breakdown of data on R&D funded from abroad;
- development of a methodology was developed for measuring trans-nationally coordinated research in Europe;
- initiation of a more complete collection of information on public funding to ICT R&D from the business enterprise sector;
- preparation of the 2012 Community innovation survey on the basis of the Oslo Manual (OECD, Eurostat 2005) to measure the innovation performance of enterprises using a harmonised survey methodology;
- faster access to Community innovation survey data at individual enterprise level (microdata) via Eurostats SAFE Centre and CD-ROM releases for external researchers; access now also includes the 2010 data set;
- improvement of the quality and harmonisation of STI data through established quality reporting and the introduction of new quality measures;
- beginning of work on streamlining national data and metadata transmissions by working towards the use of the common ESS tools to support a more efficient and standardised production process;
- improved data production processes in the ESS and more robust follow-up routines;
- setting up of regular data production on employment in knowledge-intensive activities, using an agreed methodology for classification of such activities;
- beginning regular data processing of statistics on Community trade marks and Community designs in 2013;
- publication of She Figures, the Commission's 2012 report on women's role in science, facilitated by gender breakdowns of data, where appropriate.

Data quality, cost and burden: in terms of data quality, the report stresses that constant efforts are required to convey concisely but precisely to enterprise respondents what they are being asked for (new or significantly improved products and processes) and encourage them to process the desired information. Similarly quantification of the turnover from innovative products and the innovation expenditures remain challenging to be measured.

Eurostat's most recent overall analysis of response burden and production costs in the Member States, launched for 2010, assessed the costs of producing STI (R&D and innovation) statistics as medium and the response burden as medium/high.

Continuing the development of STI statistics: in its [Communication on the Innovation Union Flagship Initiative](#), the Commission proposed an additional indicator reflecting R&D and innovation intensity as well as an annual Innovation Union Scoreboard for monitoring overall progress in innovation performance.

Changes in the environment : the next step will be to strengthen the link with other business statistics by including R&D and innovation statistics in a future Framework Regulation integrating business statistics, currently under discussion within the ESS.

On various occasions in recent years, national statistical authorities have reported a lack of

Resources. The Commission considers that priority setting is therefore more crucial than ever, for existing and planned statistical operations alike.

Improving and evaluating existing STI statistics: statistics need to be sound and fit for purpose. Existing data collections, on R&D and innovation in particular, will be kept under constant relevance and quality review through the full use of regular compliance monitoring and systematic collection of quality reports.

For European innovation statistics, an assessment will be made as to whether extending the coverage (to all business activities, the entire

economy) would add sufficient new information to justify the additional resources needed and if this would be methodologically feasible.

New indicators, new uses: new indicators and new data sources will frequently be requested by the user community. In light of tighter budgets, development work which goes beyond using the existing data sources, including new indicators, new data sources and even further breakdowns of the existing data (as they may involve larger sample sizes or methodological work), will take place only after thorough screening and, to the extent possible, cost/benefit analysis.

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The Commission presents a report on the implementation of Decision No 1608/2003/EC of the European Parliament and of the Council on science and technology statistics. The report evaluates the implementation of the individual statistical actions listed in Article 2 of the Decision. These actions are aimed at establishing a statistical information system on science, technology and innovation to support and monitor EU policies. The report mainly covers developments since the previous report in 2014.

In 2012, the Commission adopted [Implementing Regulation \(EU\) No 995/2012](#), which lays down the rules for the implementation of the Decision, and focuses in particular on statistics about: (i) research and development (R&D); (ii) government budget allocations for research and development (GBARD); (iii) innovation; (iv) other relevant aspects, namely human resources in science and technology; patents; high-technology industries; and knowledge-based services. The Decision and the Implementing Regulation have improved statistics on R&D and innovation, which will be very helpful in the implementation of EU actions relating to the Europe 2020 strategy, the European innovation scoreboard, and the setting of the Multiannual Financial Framework 2021-2027.

The report takes stock of the implementation of the statistical information system on science, technology and innovation (STI), and discusses the most important developments in the implementation of measures. It covers data quality, and looks at costs and statistical burden.

Most important developments since 2014

- Adaptation of the data collection on R&D to the Frascati Manual. European statistics on R&D and GBARD are consistent with the guidelines contained in the OECDs Frascati Manual ? Guidelines for collecting and Reporting on Research and Experimental Development, because this allows for international comparison beyond the EU. In 2015, the OECD released a new version of the Frascati Manual (FM2015). Subsequently, Eurostat, in close cooperation with the Member States, adapted its data collections on R&D and GBARD statistics in order to ensure continued alignment with the guidelines of the FM2015;
- Review of the EUs Community Innovation Survey (CIS) and aligning the latter with the Oslo Manual: European statistics on innovation are aligned with the Oslo Manual ? Guidelines for collecting and interpreting innovation data, a co-publication of the OECD and Eurostat. The fourth edition of the Oslo Manual (OM4) will further clarify concepts used in innovation statistics and cover new topics related to business innovation. To make the most of the new fourth edition of the Oslo Manual, Eurostat has changed the CIS extensively during the years 2016 to 2018. The CIS reports now better about innovation activities and capabilities, knowledge flows, external drivers and enablers, and innovation output. These changes will increase the quality and policy relevance of the results. In addition, Eurostat has redesigned the CIS in order to provide more information on all enterprises, i.e. on both innovative enterprises and non-innovative enterprises. This will help policy makers to better understand what distinguishes strong innovators from weak or non-innovators and design appropriate policies.

Quality of data and administrative burden: constant monitoring of compliance and quality of the R&D and CIS statistics required by EU legislation shows that the quality of the data it produces is good. However, the data that Member States send to Eurostat on a voluntary basis is not always complete. This is mainly due to resource restrictions in the Member States. Precise estimates of the cost and burden related to the production of these statistics are hard to obtain from Member States. However, Eurostat, in co-operation with the Member States, is taking several measures to increase cost efficiency and reduce the administrative burden of producing these statistics, and to increase their completeness

Future developments: a major goal for the future development of EU statistics on science and technology will be to strengthen the link between these statistics and other business statistics further. To achieve this, R&D, GBARD and innovation statistics will be included in the forthcoming new [framework regulation](#) integrating business statistics (FRIBS). This will increase the consistency and comparability of data, and help to reduce cost and burden at the same time. The Commission will also launch a series of pilot studies and feasibility studies, and aims to better measure the impact of EU policies, in particular the impact of the forthcoming framework programme for research and innovation, in order to compare the performance of projects that receive EU funding and projects that do not receive EU funding.