EUROPEAN COMMISSION

Report on cooperation models within the ESS

Prepared by: Resource Directors' Group Task Force on Cooperation Models within the ESS

Status: Final version for the May 2016 ESSC meeting

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EXECUTIVE SUMMARY

Statistics play a decisive role in our society and demand for them keeps growing and evolving. Eurostat and the national statistical authorities of the EU and EFTA — the European Statistical System (ESS) — face a number of common challenges. These range from the current pressure to reduce resources at both national and European levels, to the requests for new data in domains such as globalisation and sustainability, to the data revolution and digital transformation.

To address these challenges and continue to produce statistics of the highest quality, the ESS agreed to modernise the production of European statistics. The aim of the 'ESS Vision 2020' is to produce European statistics more efficiently, make them more responsive to user needs, harness new data sources and optimise dissemination.

To support the implementation of Vision 2020 successfully, national statistical institutes (NSIs) need to strengthen and renew the cooperation both between them and with Eurostat. Cooperation is at the very heart of the ESS and is crucial to address its challenges successfully.

In line with Vision 2020 and to support its objectives, the Resource Directors Group established in June 2014 the task force on cooperation models within the ESS as a forum for ESS partners to discuss detailed arrangements for setting up innovative and flexible cooperation models within the ESS.

The goal of the task force is to identify, examine and recommend the building blocks of these cooperation models, including legal, financial and organisational aspects. The cooperation models should enable effective collaboration and support implementation of the ESS Vision 2020. In order to ensure a real European approach an integrated and coordinated process across the ESS is recommended, with adequate involvement of all stakeholders and taking into account national circumstances.

The task force started by reflecting on the type of cooperation needed: Do we mean bilateral or multilateral cooperation? Should cooperation be only within the ESS or should the system reach out to other statistical authorities and international bodies? The task force focused its work on the ESS, though best practices outside the ESS in statistics and non-statistical domains have also been explored.

Given the multidimensional nature of cooperation, the success of any cooperation model depends on strong coordination, a clearly defined set of rules between participating members and the ability to address certain recurring issues effectively. The main such issues are exchange of microdata, provision of safeguards on data confidentiality and sharing of knowledge among all members of the ESS. Combining the legal, financial or governance aspects of any cooperation model may result in a large number of options. Chapter 2 elaborates on building blocks for cooperation models including the instruments to choose from.

Based on the findings of a survey on challenges and constraints conducted among ESS partners, the task force reflected on the conditions needed for any successful cooperation model: it should be flexible enough to accommodate the needs of potentially over 30 members, while sufficiently agile to respond to current or new challenges. It was highlighted that implementation of results and knowledge-sharing are crucial to reap the benefits of cooperation.

Chapter 3 highlights practices used in the ESS and beyond. The task force analysed current ESS cooperation practices such as the ESSnets, centres of excellence or the pioneering Census Hub with a view to see if, and how, they could be made more efficient. In addition, the task force looked beyond the statistical field and globally, to learn from successful cooperation initiatives in place, whether in the EU customs field, OECD or UNECE.

In the search for the innovative aspect, Chapter 4 proposes exploring two new cooperation practices worth further analysis. As with any new investment, and especially in the context of austerity, the need for a strong business case with benefits outweighing risks is needed beforehand.

Finally, Chapter 5 summarises the recommendations for improving the existing models and the task force requests the opinion of the ESS Committee on the way forward on the improved models proposed.

THE ARCHITECTURE OF COOPERATION

The overarching objective of any ESS cooperation approach is to add value to the ESS. This can be done by addressing common challenges effectively, avoiding duplication, developing capabilities and promoting the exchange of knowledge between the members of the ESS.

The task force proposes a framework for cooperation that brings together the various instruments already available in a sort of toolbox. To facilitate coordination with the ESS and globally, this framework is aligned with the UNECE overarching model — the Generic Activity Model for Statistical Organisation (GAMSO)[1] — and the ESS Enterprise Architecture Reference Framework (ESS EARF)[2] developed to support the implementation of the ESS Vision 2020.

The cooperation model to address any specific situation should be chosen on the basis of a strong business case, taking into account the context and the purpose of the cooperation. The model would be customised based on the following 'dimensions': the area of cooperation, legal and financial instruments, and an adequate governance structure to run the model.

For each dimension there are a number of instruments readily available to choose from. The customisation offers flexibility to set up more or less agile models adapted to the needs and the context. Some of the instruments presented here are currently used in the ESS by the portfolio[3] of projects and frameworks implementing the ESS Vision 2020. For instance, much of the work of the national members of the ESS within ESS Vision 2020 implementation projects (ESS.VIPs) is done through ESSnets (see page 19).

Purpose of the cooperation

The general purpose of the cooperation is to successfully develop, operate and support capabilities that underpin the ESS's ability to conduct its business. Sharing knowledge is inherent to cooperation. Although it is not part of GAMSO or any standard model, it can be seen as a way to operate, maintain and promote a capability.

A capability is formed by a combination of people (skills) and organisation, methods and tools, and standards and frameworks.

Purpose of the cooperation

P1. What is affected

[1] GAMSO: http://www1.unece.org/stat/platform/display/GAMSO/GAMSO+Home .

[2] https://ec.europa.eu/eurostat/cros/content/ess-ea-rf_en .

[3] VIP portfolio: http://ec.europa.eu/eurostat/web/ess/about-us/ess-vision-2020/implementation-portfolio.

P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2. How is it affected	
P2.1	Develop and build
P2.2	Operate, maintain and promote
P2.3	Support implementation

Dimension 1: Area of cooperation

The scope of the cooperation can be further characterised by specifying the business capability as defined in the ESS Enterprise Architecture Reference Framework (ESS EARF). Thus, for each individual cooperation project, this additional dimension would be specified[4]:

Area of cooperation	
A1	New statistics development
A2	Statistical design
A3	Statistical data collection
A4	Information resources (data and metadata) management
A5	Statistical processing
A6	Statistical analysis
A7	Statistical dissemination
A8	Quality assessment, control and improvement

Dimension 2: Legal instruments

Legal instruments	
L1	Letter of intent/statement of intent
L2	Gentlemen′s agreement/ESS agreement[5]
L3	Memorandum of understanding or service level agreement
L4	Bilateral/multilateral agreement
L5	Convention
L6	Commission Decision (e.g. annual statistical programme; ERIC)
L7	Regulation (Regulation 223/2009; European Statistical Programme; specific regulations)

[4] A matrix mapping current models to this architecture can be found in annex iv. In order to avoid a restrictive description of all possible situations, dimension 1: Area of Cooperation has been left out of the visuals under each model.

[5] In 2012, the gentlemen's agreements were renamed as ESS agreements.

Dimension 3: Financial instruments[6]

Financial instruments	
F1	In-kind contributions (exchange of staff members, etc.)
F2	Membership fees
F3	Grants: Co-financing from the European Commission and Member States[7]
F4	Public procurement[4]

Dimension 4: Governance structure

Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

The task force proposes to decide the governance structure best suited for each cooperation model on a case-by-case basis. For example, under 'G1 — Operational level: Project management', the governance for a given model could look like this:

G1.1. One Member State as coordinator
G1.2. A group of Member States as coordinators
G1.3. Eurostat as coordinator
G1.4. Contact point at Eurostat
G1.5. Contact partners in all Member States

The same goes for 'G2 — Strategic level: Accountability':

G2.1. Reporting to the ESSC
G2.2. Reporting to Directors' Group
G2.3. Reporting to a steering committee

6 The meaning of the term 'instruments' in this context is different from the one in the Financial Regulation.

7 Decisions on the award of grants and procurement contracts are the prerogative of the European Commission.

EXISTING COOPERATION PRACTICES

Over the years, several models of cooperation have evolved. They range from very simple to complex types, and from the informal to the highly institutionalised; they include only few or all EU statistical authorities, and may function on a temporary or permanent basis.

Regardless of type, all cooperation models usually share some common elements. They enable the sharing of knowledge; provide opportunities to work in an international environment and learn from best practices; contribute to professional development; and facilitate quality improvements in statistical work and its results in all dimensions.

Bilateral and regional cooperation models

Bilateral cooperation between ESS countries[8] exists mainly on an informal basis. It allows their experts to learn from each other's experiences and cope with new challenges or opportunities. It is often established as technical assistance to enlargement countries and takes on the form of missions, study visits, twinning projects or agreements for country-specific issues.

Regional groupings are groups of statistical authorities, generally from neighbouring countries. They work together to pursue common interests, exchange knowledge, and build partnerships/alliances.

Such initiatives or groupings can exist in the framework of institutionalised cooperation, with statistics being one of the areas of cooperation. Alternatively they can be of a technical nature, with statistical authorities joining forces to address similar challenges and pursue similar interests.

Examples include the Nordic Cooperation[9] in the field of statistics (Iceland, Norway, Sweden, Finland, and Denmark); the Baltic Steering Committee for Statistics[10] (Estonia, Latvia, and Lithuania); and the cooperation between the members of the Greater Region SaarLorLux or the Budva initiative.

Elements of success

The best practices of bilateral and regional cooperation, especially in the area of governance, can be adjusted to manage more complex projects using an applied fractal structure. This entails clearly defined goals, communication patterns, management roles and responsibilities.

All the strengths of bilateral and regional cooperation models seem to outweigh the recognised general threats to cooperation, such as lack of a commonly recognised goal, lack of measurable benefits, communication and application failure, etc.

[8] In this report, the term 'ESS countries' and 'countries' designates all members of the ESS, including EFTA countries.

[9] http://www.norden.org/en/theme/tidligere-temaer/theme-2012/nordisk-statistik-i-50-aar-1/nordic-statistics.

[10] https://www.stat.gov.lt/en/bendradarbiavimas-su-kitu-saliu-statistikos-tarnybomis.

Working together to develop the ESS

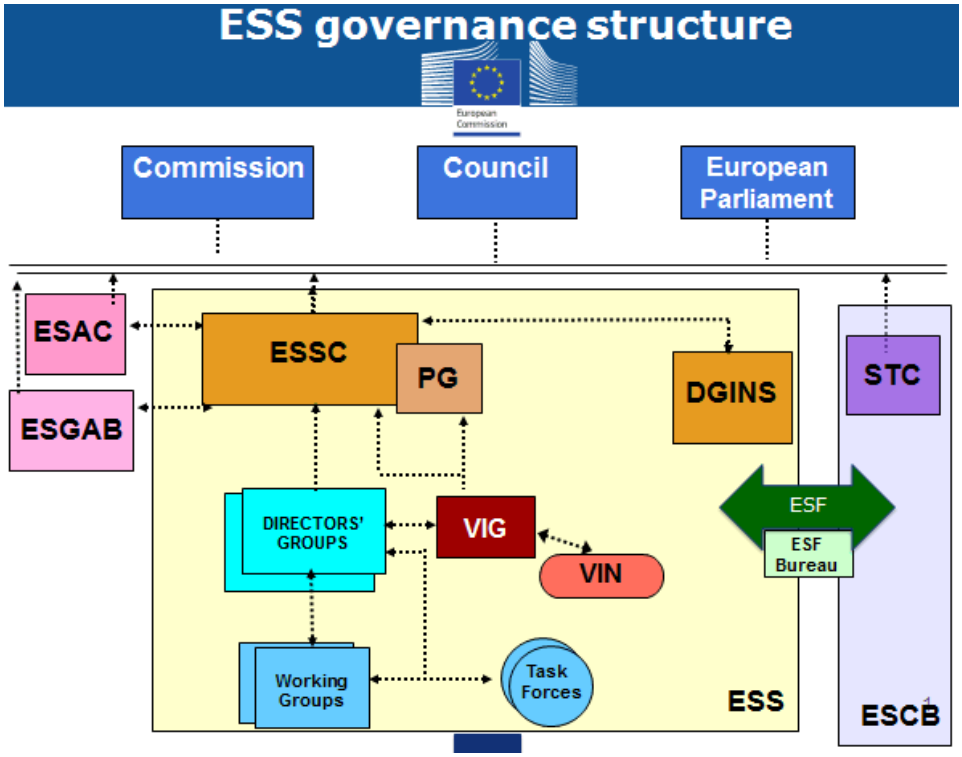
ESS organisational functioning

The functioning of the ESS provides its first layer of cooperation. The system is based on getting together at different hierarchical levels to develop, produce and disseminate European statistics. The European Statistical System Committee (ESSC) is the highest body, bringing together the heads of the statistical authorities and Eurostat. It is supported by domain-specific Directors' Groups and by specialised working (expert) groups.

Moreover, the Vision 2020 Implementation Group (VIG), supported by the Vision 2020 Implementation Network (VIN), steers the implementation of the ESS Vision 2020, reporting to the ESSC. Both these implementation bodies have been operational since January 2015.

Some of the governance bodies (usually, the highest strategic level) are created by a legal act, with a very formal set-up and working procedures. Others (usually, at operational/expert level) are more flexible and do not take binding decisions.

All ESS countries attend the Directors' and working group meetings and their travel expenses are reimbursed by the European Commission. On the other hand, task forces are established on an ad hoc basis to develop a solution to a particular statistical issue. They exist for the duration of their mandate and are composed of a small number of countries, without automatic reimbursement of travel expenses.



a) Benefits and challenges

The main benefit of this cooperation is that it contributes to harmonising the development, production and dissemination of European statistics, on a legally binding or voluntary basis.

This allows for continuity in activities: it helps develop relationships and facilitates working together, thus improving the quality of the production process. In addition, developing a governance structure promotes a positive attitude among partners, enhancing trust and commitment.

b) Legal instruments

Treaty on the Functioning of the European Union; European statistical law (Regulation (EC) No 223/2009[11] as amended by Regulation (EU) 2015/759[12]); European statistical programme;[13] domain-specific regulations.

c) Financial instruments

The organisational functioning of the ESS is financed by Member States and the European Commission (travel and subsistence costs).

d) Example

- Directors' Groups.

e) Elements of success

Trust, commitment and ownership by all ESS partners are crucial elements of success.

f) Recommendations

The organisational setting of the ESS functions well, though some improvements can be suggested.

To find synergies between the various groups' work, networking, increased interaction and sharing of knowledge among the expert groups should be actively promoted.

To maintain an overview of existing structures, the ESSC should be regularly informed on progress by all expert groups, based on the reporting from the Directors' Groups. The Directors' Groups should take a more strategic role in reporting the work of expert groups to the ESSC to avoid duplication and redundancies. In addition, reporting should happen in both directions (from and to senior management) and in a timely manner (minutes should be circulated *shortly* after the meetings).

Finally, the success of the working group depends on the quality of experts attending the meeting. The mandate of working groups should be carefully evaluated so that it fits into the regular organisational functioning of the ESS and to avoid mixing topics which require expertise from different fields. A clear division of labour and competences is important.

European Statistical Training Programme

[11] http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1435820363605&uri=CELEX:02009R0223-20150608.

[12] http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=uriserv:OJ.L_.2015.123.01.0090.01.ENG.

[13] Regulation 99/2013 http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1440770229098&uri=CELEX:32013R0099.

The need to maintain a high level of competence and quality throughout the ESS requires that statisticians continuously receive training in new methods, techniques and best practices.

Purpose of the cooperation	
P1.1	People and organisation
P2.1	Develop and build
Legal instruments	
L2	Gentlemen's agreement/ESS agreement
L7	Regulation
Financial instruments	
F1	In-kind contributions
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

Eurostat has therefore invested in specialised training for European statisticians by providing statistical courses in line with training requirements identified as important within the ESS.

The European Statistical Training Programme (ESTP)[14] is primarily addressed to staff from the national statistical systems and Eurostat. It offers the opportunity to share knowledge and expertise existing in the ESS by providing training courses, workshops and seminars organised either at Eurostat premises in Luxembourg or at national training sites in any ESS country.

The programme is coordinated by Eurostat and comprises courses in official statistics, IT applications, research and development, and statistical management.

a) Benefits and challenges

Courses under the ESTP have a truly international dimension in order to meet the challenges of comparable statistics at European and international level. Courses focus on harmonised European concepts and legislation, as well as the implementation of practices at national level.

The expertise of the NSIs and Eurostat is made available to the whole system.

In general, places are limited. The maximum number of places available depends on the nature of the course. Frequently only one participant per country can be admitted. In case of multiple applications per country, the national ESTP contact points provide a ranking of applicants.

b) Legal instruments

The legal basis for the ESTP is the Regulation on the European statistical programme 2013-2017 (objective 5.1).

c) Financial instruments

The training courses are provided under framework contracts as well as by Eurostat, EFTA and private experts.[15]

[14] http://ec.europa.eu/eurostat/web/ess/about-us/estp.

[15] EFTA participates since 2005 on the basis of gentlemen's agreements; private experts are funded from Eurostat administrative credits.

There is no enrolment fee for ESTP courses. Travel expenses and daily allowances are paid by the participant's home organisation.

d) Example

- European Statistical Week

e) Elements of success

The ESTP is tailored to meet the specific needs of the ESS by taking into account the different levels of statistical knowledge and working experiences.

Training sessions provide appropriate solutions through a balanced combination of theory and practice including, in some cases, the simulation of real work situations.

f) Recommendations

The ESTP will continue in its current form until 2019. Models such as the German example described in the annex and the current practice of EFTA contributing courses to the ESTP should be further explored to look for more innovative and cooperative models.

The feedback from ESTP courses should feed systematically into the design of future courses to improve the course offer. In addition, the possibility of making ESTP courses available on-line should be explored. This would save travel costs for NSIs and increase the number of staff benefitting from the courses.

European Master in Official Statistics

The EMOS project was selected by Eurostat as a Vision 2020 Infrastructure Project, with the objective of creating a true European research and training facility in statistics.

Purpose of the cooperation	
P1.1	People and organisation
P2.1	Develop and build
Legal instruments	
L7	Regulation
Financial instruments	
F1	In-kind contributions
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

EMOS is the first EU project that promotes cooperation between statistical offices and universities aimed at offering content in official statistics in regular Master programmes and building a European community in this field.

a) Benefits and challenges

As the stakeholders' analysis revealed, Eurostat, national statistical institutes (NSIs), other national statistical authorities in the ESS and users of official statistics will benefit from the enhanced Master programmes including official statistics.

Firstly, data producers in Europe will get better qualified employees. Secondly, the EMOS network and courses could be used for training ESS staff. Finally, the ESS will benefit from better qualified users of official statistics.

b) Legal instruments

European statistical programme 2013-2017:[16] satisfy learning and development needs in the ESS based on a combination of training courses and learning and development opportunities as provided for in the Regulation on the European statistical programme 2013-2017.[17]

The EMOS concept was approved by the ESSC in its meeting of 14-15 May 2014.

c) Financial tools

Procurement for EMOS summer schools.[18]

d) Example

[16] See Objective 5.1; OJ L 39, 9.2.2013, p. 28.
[17] Regulation (EU) No 99/2013 of the European Parliament and of the Council of 15 January 2013.

[18] https://ec.europa.eu/eurostat/cros/content/emos-spring-school-2015_en

There are good examples of cooperation between NSIs and universities in some European countries.

e) Elements of success

The active participation of NSIs, by giving courses, evaluating master theses, offering internships and promoting EMOS in their countries, is crucial for the success of EMOS.

For universities, looking into ways to attract students, the participation of NSIs, e.g. via internships, as well as the European dimension of EMOS, are quoted among the most attractive elements.

f) Recommendations

Awareness raising is to be continued at all levels. Even though the ESSC is the top body in the EMOS governance structure with the EMOS Board reporting to it, cooperation within NSIs and with universities is to be reinforced to implement the written agreements to support EMOS.

Exchange of staff

Purpose of the cooperation	
P1.1	People and organisation
P2.2	Operate, maintain and promote
Legal instruments	
L3	Memorandum of understanding
L6	Commission Decision
L7	Regulation
Financial instruments	
F1	In-kind contributions
F3	Grants: Co-financing EC and MS
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

A tradition of exchanging staff already exists in Eurostat. Eurostat offers secondments and traineeships to professionals in EU and EFTA NSIs with a background in a national, regional or local public administration.

Eurostat also offers its staff the possibility of secondment to another EU institution and also to/from other international organisations, such as the UN or the IMF.

In addition, Eurostat offers an ad hoc staff exchange with NSIs. This type of exchange is done on a case-by-case basis. For each case, a specific agreement defining the terms of the exchange is signed between the Commission and the NSI. The Commission's Representation office in the country is also involved when the exchange takes place in a Member State. In 2016, for example, Eurostat will undertake such an exchange with Destatis (Germany's Federal Statistical Office). Eurostat will send an expert to Destatis and will receive one from them.

The length of exchanges varies from two to three weeks for those with the UN to long-term secondments of NSI experts.

The impact of secondments is evaluated through an assessment done at the end by the seconded national expert and his or her immediate manager.

a) Benefits and challenges

The benefits of exchanges observed are: creation of a labour force with multinational experience; better understanding of the ways the institutions involved work; and improved coordination of activities in the global statistical system.

Language can pose a major challenge, as not all working documents are available in the languages spoken by the seconded expert. The different living standards and salaries throughout the ESS may also make it challenging for some offices to participate in the exchange of staff with other NSIs. However, the long-term benefits of trust building and expertise sharing among the ESS outweigh these challenges.

b) Legal instruments

Memorandum of understanding; Commission Decision C(2008) 6866, Guidelines on External Mobility C(2013) 5554, Commission Decision on Administrative Aspects of External Mobility C(2013) 5555, IPA II Regulation (EU) No 231/2014, C(2012) 3665 final, C(2013) 4884, Regulation No 31 (EEC), 11 (EAEC).

c) Financial instruments

Special statistical cooperation programmes (e.g. Instrument for Pre-Accession Assistance, IPA), Erasmus for officials, national budgets.

d) Examples

- Secondments and traineeships

- Staff exchange with the United Nations Statistical Division and UN-family organisations

e) Elements of success

Crucial elements are exchange of knowledge, expertise and best practices, as well as improved communication and understanding of issues at global level.

Eurostat counts a large number of seconded national experts. When the initial two-year period of the secondment is extended to four (and exceptionally to six) years, it allows the acquired knowledge and best practices to be further strengthened.

f) Recommendations

To extend the practice of exchanging staff between Eurostat and NSIs and to foster such exchanges also between NSIs. This would enhance the sharing of knowledge and increase the understanding of each other's working conditions and constraints.

This practice may draw on experiences from Eurostat and the national secondment programmes.

European User Support Network

The European User Support Network was created in 2004 to answer queries on European statistics. Since then, the network has grown from the initial 16 participating countries to more than 30 support centres in EU and EFTA Member States as well as in candidate and potential candidate countries.

Purpose of the cooperation	
P1.1	People and organisation
P2.2	Operate, maintain and promote
Legal instruments	
L2	Gentlemen's agreement/ESS agreement
Financial instruments	
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

The user support network answers more than 15 000 requests per year. These are received via the web, email or telephone from users all over the world.

The user support service is free of charge and is accessible via the 'Help' tab on Eurostat's website[19] and through the NSIs' websites. It operates on three levels: i) self-service — using the online Help function; ii) national support centres acting as a first-level helpdesk; iii) Eurostat user support is consulted when needed.

a) Benefits and challenges

The main benefits of the service are:

- helping users find Eurostat data, products and services fast and accurately. Users can choose their preferred language of communication and a national phone number;
- coordinating interaction with users;
- analysing requests and users' feedback in order to improve the quality of the statistical information; and
- promoting Eurostat's products and services, also through training in the countries of the network members.

The main challenges are how to avoid creating a big workload for Eurostat units answering the queries and how to comply with the tight response times agreed (24 hours for standard requests and five working days for complex requests).

b) Legal instruments

The members of the support network work under a gentlemen's agreement and contracts in some cases.

c) Financial instruments

[19] http://ec.europa.eu/eurostat/help/support .

Procurement contracts for 10 language lots. The network consists mainly of NSIs but a private company is also contracted.

d) Elements of success

The production of frequently asked questions (FAQs) and other online help functions has been cited as a very useful aspect of the network. So has the fact that user requests are analysed with the aim of improving the service.

National support centres provide support in their own language, a big advantage for users. In addition, the fact that centres are located in member countries increases buy-in and ownership by all ESS partners, which enhances trust.

Eurostat provides regular updates on its tools and services to the national support centres.

Requests are managed through the online communication tool Assist. Users can select a support centre according to their language preference and, after simple registration and login, create a new request. With this tool users are able to consult the status of their requests at any time.

f) Recommendations

The task force recommends that networks such as this be created in other areas to provide support on common topics. For example, one could envisage creating a network of legal experts to provide advice on issues related to the other national authorities in the national statistical systems.

Cooperation models in the ESS

The ESS started to develop cooperation models more than 15 years ago.

From 1999 to 2001, the Leadership Group on Quality, established by the Statistical Programme Committee (the predecessor of the ESS Committee) of the EU, analysed the state of the art of quality work in the ESS[20] based on a proposal by Statistics Sweden. This was followed up by implementation actions supported by multi-beneficiary grants, which could be viewed as precursors to the current ESSnets.

The 2002 Palermo conference of Directors-General of national statistics institutes introduced the idea of the CENEX (centres and networks of excellence) concept. This aims to encourage the sharing of expertise in the ESS by developing actions for the benefit of the whole ESS.

In 2004 the Statistical Programme Committee decided to establish a Centres of Excellence Task Force to discuss how to implement CENEX in the ESS. It also agreed to launch pilot studies. A first pilot on statistical disclosure control was launched in 2005. Following positive results, two more pilots were launched, on integrating survey and administrative data and on the use of administrative and statistical data and hedonic prices.

In 2006 the term CENEX was replaced by 'ESSnet' (Collaborative ESS Network), which reflects the concept more accurately.

The existing cooperation practices in the ESS — ESSnets, centres of excellence and data hubs — are described in the sections below. The analysis highlights the key success elements for each model and presents some recommendations to make them more effective.

[20] Quality on Its Way to Maturity: Results of the European Conference on Quality and Methodology in Official Statistics (Q2004), Journal of Official Statistics, Vol. 21, No 4, 2005, pp. 747-759, http://www.jos.nu/Articles/abstract.asp?article=214747.

ESSnets

ESSnet's purpose is to develop solutions to issues of common ESS interest. ESSnets aim to identify good practices, develop methods and tools for producing and disseminating statistics, and transfer this know-how across the entire ESS.

Purpose of the cooperation	
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.1	Develop and build
Legal instruments	
L7	Regulation
Financial instruments	
F3	Grants: Co-financing EC and MS
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

An ESSnet is a network of several NSIs and in some cases other organisations; Eurostat cannot be a partner in the ESSnets.

The most typical outputs of ESSnets are inventories of existing practices, standards, manuals, architecture projects, software, tools and training materials.

a) Benefits and challenges

ESSnets help to harness synergies, to save costs and to share good practices while developing specific actions beneficial for the whole ESS.

Transferring results and knowledge to non-participating partners is a main objective of the ESSnets. This works well during the life of the ESSnet through the dissemination and training actions typically included. However, once the ESSnet is over there are no measures to help implement the results throughout the ESS. To overcome this, the centre of excellence (CoE) concept was introduced, with piloting taking place from 2013 onwards.

The dissemination of ESSnet project results is thus a crucial issue for the success of the whole initiative.

The coordination of an ESSnet may prove challenging, especially when the scope and nature of the activities is quite broad, many partner countries are involved or expertise from different areas is needed. This may lead to a lack of leadership by the coordinators.

Moreover, there is a risk of lack of ownership by individual NSIs, as none of the participants feels that they actually own the results. This is aggravated by the fact that Eurostat cannot be involved in the ESSnets.

Finally, the lack of input from non-ESS qualified bodies (research centres, universities etc.) has also been reported as a real challenge for ESSnets, which could benefit more from collaboration with other communities.

b) Legal instruments

ESSnets are based on Article 15 of Regulation 223/2009[21] on European statistics. They should also be included in Eurostat's annual work programme and, when relevant, be in line with the ESS Vision 2020.

c) Financial instruments

ESSnets are co-financed by EU grants. There are two types of grant agreements:

- Multi-beneficiary grant agreements (MBGAs) and
- Framework partnership agreements (FPAs), supplemented by specific grant agreements (SGAs) to implement the partnership.

An MBGA is typically used when the project is well-defined and its duration is normally up to two years.

An FPA is used for cooperation projects lasting up to four years. The FPA sets up the collaboration environment and defines the main lines and the technical provisions of the project. The specific actions are defined in steps, for instance where the next phases of the work depend on previous results or on external events. Individual actions are financed by SGAs concluded under each FPA.

For both MBGAs and FPAs, beneficiaries are jointly responsible for carrying out the action in accordance with the terms and conditions of the grant agreement. The roles and tasks of the partners are described in the grant agreements and one partner has to take the role of coordinator. For long-duration projects, not all partners need to participate in each specific action.

The actions are co-financed and the co-financing rate is specified in each MBGA and SGA. EU funding can reach as high as 95 % for collaborative networks including ESSnets.

d) Examples of recent ESSnets:

- ESSnet on SIMSTAT: Exchange of micro-data on intra-EU trade between Member States;
- ESSnet on validation;
- ESSnet on the European system of interoperable statistical business registers (ESBR).

e) Elements of success

Developing a sound business case and establishing a clear plan of activities is key.

The role of NSIs in ensuring coordination and doing preparatory work is crucial. Another key to success is that NSIs decide to cooperate on a voluntary basis (by replying to the ESSnet call for grants). This is a more flexible tool than a regulation.

The evaluation of the ESSnets carried out in 2014 and 2015 highlights that the system of ESSnets has contributed significantly to modernising the ESS by producing knowledge. All ESSnets contribute to a higher level of standardisation and harmonisation, at least in some specific areas, although in a rather isolated way (without consistent cross-references to other ESSnets or other ongoing activities).

[21] http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1435820363605&uri=CELEX:02009R0223-20150608.

However, the findings show that they have been less successful in transferring this knowledge and in keeping it up-to-date. In addition, the quality of the reporting of results differs considerably between ESSnets.

f) Recommendations

Sustainability needs to be guaranteed. ESSnets should not be stand-alone projects. More emphasis is needed on integrating them into the overall statistical architecture and in reaching out to the academic community more actively.

The reporting and dissemination of results remain the key issues to be improved if the ESS wants to keep them sustainable. The task force recommends that the dissemination of results is built into the model and actively promoted by all ESS partners. Ensuring the results are used is paramount, as highlighted in the ESS 2016 Modernisation Workshop in Bucharest.[22]

Special efforts should be made to extend the benefits to all ESS stakeholders and not only those who participate in the projects. With this aim, and to help reuse the results/knowledge, common principles on how to document the results should be embedded in the ESSnet model. Greater involvement of non-participant countries in reviewing the results of the ESSnets is also recommended.

In addition, most of the ESSnets and CoEs are stand-alone projects. There is no master plan and the 'stovepipe principle' is visible in many respects. Participation is quite concentrated on certain Member States. This strong concentration calls for a very efficient dissemination of results if the objective of sharing knowledge is to be attained. The task force recommends that ESSnets results should be integrated into the common ESS architecture and then introduced under the guidance of CoEs. Results should also be fed into the design of new ESTP courses for the benefit of the whole ESS.

The CROS portal[23] (collaboration between researchers and official statistics) in its present form does not facilitate adequate access to the results achieved. The task force therefore recommends launching a reflection on how to guarantee the exchange of results by creating a knowledge repository to support modernisation in the ESS, going further than the current CROS portal.

To address the risk of lack of clear ownership of ESSnets, the Directors' Groups should play a stronger role in strategic decision-making. The task force also recommends that Eurostat's oversight and facilitation role is clearly described in the grant agreement terms of reference and that it is closely monitored. The position of Member States should be assessed beforehand and the ESSC should consider only launching ESSnets for which there is strong commitment to implement results.

To enhance coordination, a carefully designed governance structure with a clear division of roles and reporting lines should be put in place.

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[22] European Modernisation Workshop Bucharest, March 2016. https://ec.europa.eu/eurostat/cros/content/essnets-and-centres-excellence_en; https://ec.europa.eu/eurostat/cros/content/cros-portal-%E2 %80 %93-drowning-deliverables-starved-knowledge_en

[23] Further information on collaboration in research and methodology for official statistics, CROS Portal: http://www.cros-portal.eu/.

Centres of excellence

Centres of excellence (CoEs) are cooperation models which focus on implementing results and maintaining methodological and technical solutions. In some cases, CoEs are a natural evolution of an ESSnet, so their role can be seen as putting the results of ESSnets into practice and further advancing them.

Purpose of the cooperation	
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.2	Operate, maintain and promote
P2.3	Support implementation
Legal instruments	
L7	Regulation
Financial instruments	
F3	Grants: Co-financing EC and MS
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

Typical activities are training, coaching and consultancy, managing of knowledge repositories, running of a helpdesk, and raising of awareness, but also incremental development of previously achieved results. The services could be seen as continuous.

CoEs can be part of general ESS initiatives. One example is the CoE on seasonal adjustment,[24] which is linked to the ESS and ESCB activities on seasonal adjustment monitored by the Seasonal Adjustment Expert Group.[25] CoEs can also be part of a larger project like the CoE on administrative data sources, which is part of the ESS.VIP ADMIN project.[26]

ESSnets and centres of excellence are both financed by grants, with a maximum duration of four years and co-financed by the partners involved.

The distinction between the two models lies in the purpose of the work: ESSnets focus on development and innovation, while CoEs focus on implementing results. As a consequence, a typical ESSnet project has a scheduled end whereas a CoE has a continuous character requiring long-term commitment.

a) Benefits and challenges

Benefits are similar to those of the ESSnets. Moreover, CoEs manage statistical services at ESS level and thus guarantee the sustainability and continuous modernisation of the production process.

As regards challenges, the risk of lack of leadership by the organisation responsible for ESSnets also applies to CoEs.

Regular assessment of the EU-added value and results should be ensured.

There could also be duplication of work with other institutions or agencies. Depending on the type of tasks to be performed, there is a need to check to which extent existing agencies or bodies could

[24] http://ec.europa.eu/eurostat/cros/content/seasonal-adjustment-centre-excellence-0

[25] http://www.cros-portal.eu/content/sa-expert-group-saeg.

[26] http://ec.europa.eu/eurostat/web/ess/about-us/ess-vision-2020/implementation-portfolio#ADMIN.

undertake the work, e.g. CEN/Cenelec for standardisation, Joint Research Centre and Joint technology initiatives.

b) Legal instruments

CoEs as collaborative networks have the same legal basis as ESSnets: Article 15 of amended Regulation 223/2009 on European statistics. They should also be included in Eurostat's annual work programme.

c) Financial instruments

Entities cooperating in the framework of a centre of excellence can receive EU funds as described above for ESSnets, see section 3.3.1.f.

d) Examples

- Centre of excellence on data warehousing
- Centre of excellence on seasonal adjustment
- Centre of excellence on statistical disclosure control

e) Elements of success

One advantage of CoEs is the implementation of activities which otherwise would remain only as results, without being used and implemented.

Another advantage is having a pool of specialised experts working on the subject over time, strengthening relations and becoming a reference point in that particular subject.

CoEs also ensure the sustainability of the ESSnets' results by contributing to their longer term application and continuation.

f) Recommendations

CoEs should be even more strategically coordinated to serve the purposes of the ESS Vision 2020 and of the modernisation of the ESS. Therefore, topics to be considered for a CoE should be a priority for the ESS, and should contribute to innovation, achieve integration, promote excellence beyond its membership and guarantee sustainability of the results in terms of their application.

A clear governance structure, both at national level and in Eurostat, should be established.

CoEs should not be stand-alone projects. More emphasis should be put on the interrelations between CoEs and other projects and their integration into the overall ESS statistical architecture.

CoEs should focus on common ESS areas such as:

- providing methodological expertise to ESS members;
- keeping methodological knowledge within the ESS up-to-date;
- providing common IT solutions for statistical production systems;
- providing best practices and training courses for ESS members; and

- building communities within the ESS.

The ESS could consider establishing an additional financing tool by working out compensation schemes. These would involve some forms of direct payments by NSIs using a service to the CoEs providing it (e.g. helpdesk services). This additional financing tool should be discussed among the members of the ESS. Its pros and cons should be weighed carefully, taking into account the particularities of smaller NSIs.

Mechanisms for providing feedback should be set up to allow ESS members that are not part of the CoE to guide the orientation of the services provided by the CoE. An example of this is the Seasonal Adjustment User Group currently in place for the CoE on seasonal adjustment.

Finally, the CROS portal should play a bigger role in disseminating results. In this respect it might be helpful to install a coordinator who checks the documents for comparability and user-friendliness before they are shared in a knowledge repository. The coordinator should also be responsible for keeping the information up-to-date.

Data hubs

Data hubs are warehouses of data produced by NSIs that are accessible to the whole system through a central application. The data structure and format are standardised, physically stored in each country and fetched dynamically by each user request.

Purpose of the cooperation	
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.2	Operate, maintain and promote
Legal instruments	
L2	Gentlemen's agreement/ESS agreement
Financial instruments	
F3	Grants: Co-financing EC and MS
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

This is a new approach to data transmission and dissemination.

a) Benefits and challenges

Data hubs enable the sharing of practices and reduce costs in the case of repeated transmissions. One important feature is also their user-friendliness: transmission is instantaneous and no templates need to be filled in. However, the performance and response of the transmission depends on the IT capacity of the NSIs.

Leadership can be a big challenge: who has overall responsibility (for the content, infrastructure and coherency) within and between datasets?

b) Legal instruments

The existing Census Hub[27] was developed under a gentlemen's agreement, without the need for a legally binding instrument

c) Financial instruments

The development costs of the Census Hub were supported by grants.

Data hubs can in principle be financed by procurement and grants.

d) Example

The Census Hub is currently the only example of this type of cooperation model.

e) Elements of success

On first examination, it might sound counter-intuitive to include data hubs among cooperation models; data hubs can be seen rather as a tool. However, the task force was of the opinion that this model provides a good example of cooperation as partners participate without the need for a specific legal basis.

A data hub can be very flexible when relying on gentlemen's agreements (like the Census Hub): informal, non-legally binding agreements can be tailored to specific needs and put into effect without requiring formal, time-consuming approval.

Ownership by the countries is another important element. The countries retain full control over the data, dissemination takes place directly from the countries, there is no filter from Eurostat and costs are reduced by avoiding repeated transmissions.

Data hubs enhance standardisation and harmonisation because each ESS country uses the same agreed standards to produce, and the same software to retrieve and dispatch, the data.

Moreover, this software or solution can be reused in other domains by simply replacing the data structure. The Census Hub was developed as a generic solution to be customised (applied with adjustments) to other domains (solutions) based on data sharing.

f) Recommendations

To ensure the success of hub-like systems of data collection and dissemination, a high level of performance and availability of the whole warehouses network needs to be ensured. This is especially the case as the system is used as a dissemination tool.

Moreover, a common ESS approach towards data validation should be developed. Since data made available via the hub are validated by the countries and a second validation by Eurostat is generally

[27] http://ec.europa.eu/eurostat/web/population-and-housing-census/census-data/2011-census.

not envisaged it is important that the quality standards applied by the ESS countries are harmonised to the maximum possible extent. Synergies should be found with the current work on ESS-VIP validation.

The data hub model could be applied in other data transfers and for other common tasks and services.

Cooperation models in the EU

This section explores some EU models that have not been used in the ESS so far but whose application to the statistical field could be explored further: the European Research Infrastructure Consortium, public-private partnerships and the EU Customs Union.

European Research Infrastructure Consortium (ERIC)

The European Research Infrastructure Consortium[28] is an entity with legal personality and full legal capacity recognised in all EU and EFTA states. The principal task of ERIC is to establish and/or operate an existing research infrastructure on a non-profit basis.

The members of an ERIC can be Member States, associated states (including EFTA states), third countries and intergovernmental organisations.

A member may decide to be represented by one or more public entities or private entities with a public-service mission, e.g. research organisations or research councils, to exercise specified rights or fulfil specified obligations on its behalf. The European consortium is recognised by the EU but not 'governed' by the EU. The partner of the European Commission is the ERIC, not its members.

Purpose of the cooperation	
P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.1	Develop and build
P2.2	Operate, maintain and promote
P2.3	Support implementation
Legal instruments	
L7	Regulation
Financial instruments	
F1	In-kind contributions
F2	Membership fees
F3	Grants: Co-financing EC and MS
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

An ERIC may carry out limited economic activities related to its principal task. Staff may work without any change in their employment status; they also may be seconded by the members to the ERIC (e.g. contributions provided in kind). Moreover an ERIC may also recruit its own staff.

a) Benefits and challenges

ERICs have high political acceptance and visibility, but the countries have to take the lead and propose the creation of the consortium. Their basic internal structure can be kept flexible as members can set down membership rights and obligations, the bodies of ERIC and their competences in internal regulations and statutes.

[28] https://ec.europa.eu/research/infrastructures/index_en.cfm?pg=eric .

Moreover ERICs were designed primarily to facilitate cross-border research activities and set up such research infrastructures between EU countries, which is why the existing ERICs mainly consist of universities and ministries.

On the downside, it has been seen that an ERIC can be quite cost-intensive. In addition, access by ERICs to NSIs' confidential data and their potential competition with NSIs in producing and disseminating statistics are areas of concern which need further clarification.

b) Legal instruments

ERICs' legal basis is the 2009 Council Regulation on the legal framework for a European Research Infrastructure Consortium (ERIC).[29]

An ERIC is a legal tool which is appropriate only for high-profile research infrastructures with a European dimension. Therefore, only a limited number of ERICs are expected to be set up.

c) Financial instruments

The statutes of the ERIC must include the commitments of each member (at ministerial level) to contribute to it. Part of the contributions may be in kind, but there must be sufficient financial contributions to ensure that the ERIC is able to meet its objectives. Contributions may come from its members as well as from third parties, such as industry, third countries or private foundations.

The statutes must include a provisional budget showing each member's commitments for the first three to five years, depending on the nature of the ERIC's activities. In addition, ERICs may apply for EU funding (e.g. under research or health programmes).

In the current legal framework, an ERIC, even if created with specific statistical aims, would in principle not be eligible for direct financing through grants since it would not be possible to include it in the list of predefined beneficiaries under Article 5 of Regulation 223/2009. As a consequence, it could only receive funds from Eurostat through open procurement or grant procedures.

An ERIC cannot receive a permanent subvention from the EU budget.

d) Examples

Currently, only two ERICs with a statistical component are operating:

- ESS ERIC (European Social Survey)[30] explores social attitudes in a changing Europe. The participating countries are represented by their ministries.

- SHARE-ERIC (Survey of health, ageing and retirement in Europe)[31] is built around a cross-border database on health, ageing and retirement. Except for France, all European countries participating are not directly involved through their NSIs but mainly represented by universities.

f) Recommendations

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[29] Council Regulation (EC) No 723/2009 of 25 June 2009. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2009.206.01.0001.01.ENG.

[30] http://www.europeansocialsurvey.org/.

[31] http://www.share-project.org/.

Monitor existing ERICs with a statistical component and further explore the potential use of ERICs for the ESS.

Public-private partnership (PPP)

Public-private partnerships[32] are commonly defined as 'a form of cooperation between government authorities and the private sector/business agents — sometimes involving voluntary organisations (NGOs, trade unions) or knowledge institutes — that agree to work together to reach common goals or out a specific task, while jointly assuming the risks and responsibilities sharing resources and competences'. latter usually cover funding, construction, renovation, management maintenance of infrastructure associated with the provision of a service.

Purpose of the cooperation	
P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.1	Develop and build
P2.2	Operate, maintain and promote
P2.3	Support implementation
Legal instruments	
L7	Regulation
Financial instruments	
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

Different types of partnership can be distinguished, on a scale from public private:

- Service contract
- Management contract
- Lease contracts
- Concession
- Build-operate-transfer and similar arrangements
- Joint venture

a) Benefits and challenges

The key elements of success of a sustainable PPP seem to be objectives that are shared by all stakeholders, collaboration in an interdependent and interactive way, and the sharing of risks.

[32] http://www.oecd-ilibrary.org/sites/gov_glance-2013-en/04/05/index.html?contentType=&itemId=%2Fcontent%2Fchapter%2Fgov_glance-2013-30-en&mimeType=text%2Fhtml&containerItemId=%2Fcontent%2Fserial%2F22214399&accessItemIds.

IOB Study No378: Public-Private Partnership in developing countries, June 2013. https://www.government.nl/documents/reports/2013/06/13/iob-study-public-private-partnerships-in-developing-countries.

The partnership is in principle beneficial to both parties: i) NSIs could get access to data (e.g. Big Data[33]) and/or outsource certain services, thereby better engaging with the private sector and NGOs; ii) the private sector could benefit from statistical expertise and statistics which are more detailed or which better suit their interests.

There are some risks and challenges in partnering with third parties, particularly regarding quality assurance and potential risks to an NSI's reputation as a fair, impartial, objective, and neutral provider of high quality outputs.

Moreover, PPPs are usually relevant only for cost-intensive infrastructures/projects involving private and public interests. The difficulty can be identifying projects which would attract private sector interest.

Finally, the necessary structure and governance for PPPs can be quite heavy to design and implement.

However, in view of the ongoing data revolution and increasing availability of Big Data, it makes sense to explore the possibility of entering into public-private partnerships.

b) Legal instruments

The design of PPP legal frameworks[34] varies across EU countries depending on legal traditions and existing laws. It is necessary to ensure that, both in substance and in terms of formalities, public bodies enter into PPP contracts only within the scope of their powers, particularly in the case of authorities which are not part of central government.

Under EU law, there is no specific system governing PPPs. There is, however, EU legislation which is relevant to certain aspects of PPPs.

Under the future data protection regulation, there is an exception for usage of data for statistical purposes. If private companies provide data, it must be under either a contract or a legal obligation (it remains to be seen whether it would be microdata or aggregated statistics). The exact nature of the legal and regulatory framework applicable to a particular PPP transaction also depends, among others, on the financing mechanisms contemplated and the scope of responsibilities transferred to the PPP company.

c) Financial instruments

The procurement procedures provided for by EU legislation are not designed specifically for PPPs since they apply to all goods, works or services contracts. As far as procurement of PPP is concerned, the procurement options to choose from may be more limited under national laws and specific legal advice is required for each jurisdiction.

d) Example

- PPP on Big Data between the European Commission and the European data industry.[35]

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[33] http://www1.unece.org/stat/platform/display/bigdata/Guidelines+for+the+establishment+and+use+of+partnerships+in+Big+Data+Projects+for+Official+Statistics.

[34] http://www.eib.org/epec/g2g/annex/2-legal-frameworks/.

[35] Ballivian A, Hoffman W. (2015) Public-Private Partnerships for Data: Issues Paper for Data Revolution Consultation. [Online] World Bank; 2015. http://data.worldbank.org/sites/default/files/issue-paper-financing-the-data-revolution-ppps_0.pdf; http://discoversociety.org/2015/07/30/what-does-big-data-mean-for-official-statistics/.

f) Recommendations

Monitor the results from the existing PPP on Big Data, to consider whether such a model could be used in other ESS domains.

EU Customs Union

Cooperation in customs covers two main areas: trade, and people's safety and security with the aim of protecting the financial interests of the Union as well as of society.

Since the entry into force of the Treaty on the Functioning of the European Union, Member States' customs administrations have worked to improve their cooperation.

With the establishment of the single market in 1992 and the abolition of checks on goods moving within the EU, Member States developed a fraud mechanism to prevent and prosecute operations and to strengthen detect customs cooperation in order to and prosecute violations of customs provisions. This was accomplished notably by strengthening cross-border information exchange.

Purpose of the cooperation	
P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.2	Operate, maintain and promote
P2.3	Support implementation
Legal instruments	
L5	Convention
L6	Commission Decision
Financial instruments	
F3	Grants: Co-financing EC and MS
F4	Public procurement
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

National customs officials work together with EU colleagues to enable a smooth passage of goods from the border to their final destination. They verify whether they comply with standards, guard against illegal drugs, pornography, fake and unhealthy goods, and support the work of police and immigration services to fight organised crime.

Joint actions — such as seminars, working visits, training, monitoring actions and benchmarking — allow them to work together and strengthen their cooperation on topics of common interest.

Besides customs cooperation, and to contribute to the fight against terrorism, this approach includes close cooperation between customs and other law enforcement authorities and bodies such as Europol, Eurojust and the Commission's European Anti-Fraud Office, OLAF.

b) Legal instruments

The main instruments are the Union Customs Code, the 2008 Decision on a paperless environment for customs and trade[36] and the 1997 Convention on mutual assistance and cooperation between customs administrations (Naples II Convention).

[36] Decision n° 70/2008 of the Council and European Parliament.

c) Financial instruments

Cooperation between customs authorities is supported by several EU programmes which complement the action undertaken by Member States (e.g. joint actions, training, IT systems).

The management of the coordination and steering groups is ensured by the European Commission and funded under the Customs programme.

d) Elements of success which could be used in the ESS

Customs is an exclusive EU competence but the responsibility for implementing customs legislation lies primarily with the Member States. The benefits are commonly shared. Through the Customs Union, 28 customs administrations act as one, applying common customs tariffs and common customs procedures, formalities and controls. They thus implement and enforce the Union's legislation on external trade.

Cooperation at international level between the customs authorities is an important tool for providing a balance between the necessary trade liberalisation and the increasing international trade with the world's large trading partners. This cooperation should help customs authorities to use new instruments or increase the efficiency of existing tools to control trade flows and the fight against fraud and illegal activities.

The backbone of the electronic exchange of information is the secured Common Communication Network/Common Systems Interface (CCN/CSI), which ensures the interoperability of all national information systems. Through the CCN/CSI, national and Union records are made available Europe-wide in a highly secure way.

Statistical cooperation beyond the EU

The task force has also explored statistical practices within the global statistical system. Similar to the form and content of existing cooperation structures within the ESS, there is cooperation under the umbrella of international organisations, for example the UN and the OECD.

Their principal aim is to promote and to contribute to the development and production of international statistics. The benefits from these forms of cooperation are very similar to benefits from working together in the ESS (see previous chapters). On the other hand, they operate in a less regulated legal environment and have much greater diversity.

The task force explored aspects of existing practices that could be used within the ESS to build efficient and flexible models. These are the OECD Statistical Information System Collaboration Community and the UNECE Community for modernisation of statistical production and services.

OECD Statistical Information System Collaboration Community

The OECD Statistical Information System Collaboration Community (SIS-CC) is a community of users of OECD.Stat, the OECD's corporate-wide unified data warehouse. SIS-CC was officially set up in 2010 so that participating members could benefit from a broad collaboration and sharing of experiences, knowledge and best practices, thus enabling cost-effective innovation in the shortest time possible. It has been recognised in several international fora as the reference collaboration community for software co-development.

Purpose of the cooperation	
P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.1	Develop and build
P2.2	Operate, maintain and promote
Legal instruments	
L3	Memorandum of understanding
Financial instruments	
F1	In-kind contributions
F2	Membership fees
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

The community has three objectives:

a) to collectively produce and develop software based on .Stat solution, and in so doing to build a robust, component-based and scalable architecture;
b) to share experiences, knowledge and best practices through multilateral collaboration and building a collective capacity; and
c) to contribute to international collaboration, by promoting the use and implementation of common standards and contributing to the international 'plug and play' architecture vision.

The SIS-CC has 10 members, including NSIs, national banks, universities and international organisations; the OECD is the lead organisation.

Members: Australian Bureau of Statistics
International Monetary Found
Italian National Institute of Statistics

National Bank of Belgium
Organisation for Economic Cooperation and Development
Statistics Estonia
Statistics New Zealand
UNESCO Institute for Statistics
University of Manchester (Mimas)
UK Data Service

Among the challenges to be addressed are the following: meeting needs across a growing community; managing code changes and ensuring that agreed standards are followed by all partners; supporting a community across multiple locations and time zones; and coordination.

b) Legal instruments

The bilateral memorandum of understanding between the OECD and each community member is the principal legal foundation. There are two types of memorandum: one with no end date and another with a fixed period. In addition, specific statements of work and possibly grant requests can be agreed bilaterally, covering direct contributions to product development.

c) Financial instruments

One type of funding comes from members' annual contributions, as defined in the bilateral memorandum of understanding between the OECD and each member. This recurring and equal financial contribution by all members is reviewed on an annual basis to ensure it covers all 'run' costs for coordination and support functions and the community remains sustainable.

The funding for 'build' activities (promotion, product development) depends on the members' willingness to invest more into the community, through either direct funding or in-kind contributions. So far these activities have been directly funded mainly by the OECD, while in-kind contributions have been provided by members.

d) Elements of success that could be used in the ESS

The use of an international standard framework for data exchange — of a platform for open data projects and data sharing across organisations — contributes to improving data accessibility and quality, and to reducing costs.

The leveraging on community capacities, building of a collective capacity through the sharing of experiences and best practices, is also a crucial element.

From the legal point of view, the memorandum of understanding is a more flexible tool than a contract.

From the financial point of view, the advantage is the mixed funding model: part of the costs, namely 'run cost', are covered by an annual contribution, equal for all community members; and part of the 'build costs' are borne by the OECD (mostly) and by members either through voluntary funding or in-kind contributions.

Another factor for success is the strong governance, organised on four different levels: strategic, management, operational, and the architecture task force. The governance is composed of qualified and competent people (executives), with roles and responsibilities clearly defined and clear lines of accountability established among the four layers, including written mandates for each layer setting out their duties and accountabilities.

UNECE — Statistical Modernisation Community (ModernStats)

The community is a voluntary collaboration framework overseen by the High-level Group for the Modernisation of Official Statistics (HLG).[37] It aims at supporting the modernisation of statistical organisations. Participating organisations are members of the community.

Purpose of the cooperation	
P1.1	People and organisation
P1.2	Methods and tools
P1.3	Standards and frameworks
P2.1	Develop and build
Legal instruments	
L1	Statement of intent
Financial instruments	
F1	In-kind contributions
Governance structure	
G1	Operational level: Project management
G2	Strategic level: Accountability

It aims at driving new developments in the production and organisation of official statistics; ensuring effective coordination and information sharing within official statistics, and with relevant external bodies; and improving the efficiency of the statistical production process, and the ability to produce outputs that better meet user needs.

The projects of this community are open to all national and international statistical organisations that want to contribute. They are complementary to other initiatives, including those of the European Statistical System and the United Nations Statistical Division.

b) Legal instruments

The Statement of intent publicly endorsed by participating organisations is the legal basis for this community. It is an informal agreement (less binding than a memorandum of understanding) on a set of common principles that each organisation agrees to apply.

c) Financial instruments

Projects are mainly financed through voluntary contributions by participating statistical organisations, both in cash or in kind, and by UNECE. A strategy is currently being developed to ensure sustainability, maintenance of shared outputs and further developments.

e) Elements of success that which could be used in the ESS

The community is a voluntary collaboration framework that draws on the breadth and depth of skills across the statistical world. Belonging to an international community reduces the risks of new developments for individual organisations through additional scrutiny and testing. The main factors for the success of the community are working together in an open, fast and flexible environment and the engagement in activities.

[37] High-level Group for the Modernisation of Official Statistics, working paper 2015/9, 25 April 2015.

From a legal point of view, the Statement of intent is a very flexible tool, not legally binding but highly customisable, depending on the organisation needs. Specific agreements for deeper collaboration in certain areas can be reached by sub-groups of community members.

Financially, the main advantage is the possibility to contribute either in cash or in kind without a fixed level of contribution. The possibility for a Member State to contribute in kind to activities has several strengths. There are benefits for all individual members of the community, as experts provide a specific expertise from which all members can benefit. It is also an advantage for the NSI itself: members of staff can enhance their knowledge from the experience of working together for the community and this increased knowledge can later be used at home.

Another key element is the development of a community branding and logo which clearly identifies each product as a community product/result.

STRONGER COOPERATION

The ESS Vision 2020 puts a strong emphasis on enhancing collaboration among NSIs as a way to achieve efficiency gains needed to meet the ever increasing user demands, while faced with shrinking resources.

Under the Vision 2020, the ESS committed to exploring new modes of collaboration between NSIs, possibly based on sustainable pooling and sharing of human resources and of the expertise acquired at the national level.

Therefore, the task force decided to go beyond describing existing cooperation models and to invest in exploring the possibilities to further advance collaboration between ESS partners. It did so by discussing possible enhancements to the centre of excellence model in two different directions: pooling of staff (focus on human resources) and specialisation (focus on processes and/or products).

The task force is fully aware that this direction of thinking is new to the ESS. It might raise many questions and necessitate further investigations if there is appetite in the ESS to pursue progress down this path. It is clear that respect of the subsidiarity principle and proper consultation are crucial for this discussion.

Furthermore, Vision 2020 states that 'the form the collaboration will take and whether it will be on a voluntary or mandatory basis will be decided on a case-by-case basis.

Pooling of staff

The pooling of human resources offers an innovative aspect of cooperation that is yet to be institutionalised. The ESS Vision 2020 envisages international mobility of staff as an efficient way of spreading best practices and ideas among the ESS. In the long term, the aim is to make the labour forces of NSIs truly multinational through pooling and sharing of human resources.

The task force proposes to continue to engage in the current cooperation among experts. It could promote, for example, better understanding of the methodology of the production of statistics in Member States.

Modernisation could be sought regarding technical issues; meetings do not need to be only physical and experts could connect with each other remotely. This would require compatible videoconference systems to be available in all NSIs.

To be truly innovative, this pooling should go beyond the secondments currently taking place in the ESS. It could also go beyond the pooling of staff that is being piloted in the centres of excellence. In the seasonal adjustment CoE, for example, experts from four NSIs — France, Italy, Luxembourg and the UK — run the ESS Seasonal Adjustment Helpdesk.[38] The experts are located in their individual NSIs and the helpdesk is financed through grants.

Going further, this practice could be further developed by pooling a group of experts in a common location in the ESS — though not necessarily Eurostat.

[38] http://www.cros-portal.eu/content/ess-seasonal-adjustment-helpdesk .

The advantages of this approach would be for experts to be immersed in a common corporate culture and to facilitate communication and exchange of expertise both among them and with their host NSI.

This practice could be based on some aspects of the existing exchange of staff model. One approach to investigate could be to introduce a physical component to centres of excellence: instead of being together virtually, the experts would be in the same location.

For this kind of pooling of staff to be successful, there should be a demonstrable benefit of bringing experts together. In practical terms, the length of the mobility period should be established, common guidelines for bilateral exchange should be drafted and appropriate compensation should be considered for the partners from which the experts come. The issue of contributions by NSIs not participating in the work but benefiting from the results would also need to be examined.

Specialisation

The task force also examined a new option for cooperation, which can be perceived as a further advancement of the centres of excellence model and a response to the ESS Vision 2020 plea to explore further ways of sharing human resources.

Enhanced specialisation would see one or several ESS countries carrying out work on a limited set of European statistics, or on a defined step in the production chain of European statistics as mentioned in the Generic Statistical Business Process Model (GSBPM), and the possible advantages and risks of this model.

This model corresponds to a higher level of ESS integration, which appears to be the direction favoured by ESS Vision 2020. A new body would take over a specific process currently performed at each NSI and achieve harmonisation and economies of scale by performing it for several or all NSIs in the ESS.

The new body would therefore also be accountable for output quality of that process. Typically, this body would be composed of one or more ESS NSIs that have particularly deep expertise in the particular process.

In case the input to that process requires confidential data, the latter would have to be transmitted in a secure manner from the respective country to the new body for processing, respecting all safeguards for that transmission.

The starting point for the specialisation could be the surveys based on the EU sample.

To demonstrate the novelty of this new model (in relation to the current pilot CoE), seasonal adjustment is taken as an example. Supposing that a new body is set up for seasonal adjustment, this would actually conduct seasonal adjustment on the time series of all NSIs and have, as their output, seasonally adjusted time series for each NSI. This contrasts with the current CoE on seasonal adjustment, which provides advice to NSIs on how to seasonally adjust.

a) Benefits

Substantial potential efficiency gains for the system.

Close link to the primary objectives of ESS Vision 2020: sharing of capabilities related to the management of production.

b) Challenges

Production in the whole ESS would be disrupted in the case of any malfunction of this specialisation in a process or domain.

If the interface for the transmission of input/output to the process between ESS members is cumbersome, efficiency gains may evaporate.

Reputational risks if the model does not respect confidentiality rules when processing confidential data of ESS members.

Even if the model is formally accountable for output quality, the reputational risks in the case of poor output quality for a country will still affect that country's NSI.

This specialisation could lead to a decrease in the variety of knowledge and expertise of EU statisticians, and there will be less opportunity for improvement based on comparison with other NSIs. On the other hand, this can also be seen as a stimulus to go beyond the ESS and compare expertise with statisticians outside the ESS.

Moreover, in some ESS countries, there are certain constraints (e.g. legal issues) preventing them from delegating part of their responsibilities to other countries' statistical authorities. As already observed, there are difficulties with sharing microdata.

c) Examples

- UK Statistics: Coordination in a devolved and decentralised statistical system
- Work sharing in the German system of official statistics.
- Specialisation of statistical production in Poland.

d) Open issues

As this new type of model goes beyond anything so far attempted in the ESS, it raises a number of questions that will need to be addressed if the ESSC decides to proceed with the idea. The following list tries to be as exhaustive as possible.

In order to keep the text easier to read, only the option 'set of statistics' is mentioned below, but it should be understood to cover also the option 'step in the production chain'.

Legal and governance aspects

– EU regulations imposing upon Member States (and on EFTA states through the EEA and the CH-EU agreements) the obligation to contribute to the development, production and dissemination of European statistics are addressed to the countries. Will the new type of centre (new form of work-sharing) require a new type of legislation? If yes, what kind? Who will be the addressees of this new type of legislation? NB: new type does not mean something in addition to regulation, decision, directives, but new substance, new ways of writing statistical legal acts.

- Who will be accountable and responsible for producing particular statistics for a particular country? Will it be the country to which the statistics relate, or the one that will produce the particular statistics for several ESS countries?

- Who will decide which statistics or steps will be done in such a way? Eurostat? ESSC? NSIs among themselves?

- How will the countries arrange these relationships? Under a contract, or agreement (or EU regulation, see above)?

- Would only NSIs be involved in such a model, or could other national authorities also take part if they are interested or if they are responsible for a specific set of statistics?

- What is the sustainability of such solutions? Will it be possible to have long-term arrangements? Or they will need to be arranged frequently (for example every four to five years)?

- The new arrangements will have to be in accordance with the subsidiarity principle under the Treaty, which needs to be respected.

- Will statistics produced under this model also be used to cover national needs? Will national stakeholders understand the statistics for one country produced by another one? Will there be political will to support such approach?

- What would be the role of Eurostat under the new model?

Aspects linked to statistical production

- What will be the criteria to decide which statistics or which process steps will be done in such a way? Will the decision be based on costs? If so, will lower costs prevail? Will it be based on quality? If so, how do we measure this? What elements will be taken into account to agree that there is a positive business case?

- What will be financial arrangements? Will the work be paid directly by Eurostat? Or by benefiting NSIs?

- If the country producing particular statistics for several ESS countries fails to provide data, what will be consequences and who (which country) will be accountable?

- How to ensure that '…individual NSIs have responsibility over all aspects of the production of national statistics'? (Vision 2020, chapter 4.1)

- How to handle the fact that some activities in the production process require specific national knowledge, such as national law or the local language.

CONCLUSIONS AND RECOMMENDATIONS

Given the internal and external challenges that the industry of official statistics faces, the only way forward is collaboration. It requires an open mindset, commitment and the participation of all actors in the statistical system.

After analysing some of the cooperation practices in the ESS and beyond, the task force proposes to give first priority to making the current models more efficient by focusing on the lessons learnt. The improvement recommendations made for each model would help optimise current practices and better support the process of modernising the ESS.

The implementation of these recommendations could be ensured by the governance bodies in place for each model, or as decided in the European Statistical System Committee (ESSC) whose monitoring would be ensured through established reporting lines.

In addition, the task force invites the ESSC to consider two models for deeper analysis: the pooling of staff and enhanced specialisation. While these models trigger a number of considerations, the task force suggests a reflection on the benefits of developing new collaboration scenarios to adapt to and successfully operate in an ever-changing globalised context. Any development in this direction should be based on rigorous evaluation and approval of business cases, clearly stating the potential benefits and the risks of such models.

Furthermore, following consultation of the Resource Directors Group, one Member State suggested to look into and find a common approach to IT procurement. National offices each acquire individually hardware, software solutions and licences from multinationals and this could be addressed through a common platform.

The task force proposes to explore the possibility of joint procurement between Eurostat and NSIs, notably for IT licences, in view of realising economies of scale. In the case of joint procurement with one or more NSIs, procurement should in principle be carried out by the EU institution (Eurostat) using its procedures.

Practical arrangements should be agreed in advance in a joint procurement agreement, to be signed by the parties before launching the procedure. These arrangements include, for example, the evaluation of tender requests, the award of the contract, the law applicable to the contract and the competent court for hearing disputes.

Recommendations to improve current cooperation practices

ESS organisational functioning

Networking and sharing of knowledge among expert groups should be actively promoted.

The ESSC should be regularly informed on progress of all expert groups, based on the reporting from Directors' Groups. To avoid duplication and redundancies, Directors' Groups should take a more strategic role in reporting the work of expert groups to the ESSC. In addition, timely reporting should happen in both directions.

The mandates of working groups should be carefully evaluated so that they fit into the regular ESS organisational functioning. A clear division of labour and competences is important.

European Statistical Training Programme

Models such as the German example described in Annex iv of this report[39] and the current practice of EFTA contributing courses to the ESTP should be further explored in an attempt to find a more innovative and cooperative model.

The feedback from ESTP courses should systematically feed into the design of future courses to improve the supply of courses. In addition, the possibility of making ESTP courses available on-line should be explored. This would save travel costs for NSIs and increase the number of staff benefitting from the courses.

European Master in Official Statistics

Awareness raising is to be continued at all levels. Even though the ESSC is the top body in the EMOS governance structure — with the EMOS Board reporting to it — enhanced cooperation within NSIs and with universities is to be reinforced in order to implement the written agreements to support EMOS.

Exchange of staff

To extend the practice so that it takes place between Eurostat and NSIs and also to promote these exchanges between NSIs.

European User Support Network

Networks such as this one should be created in other domains. For example, it could be envisaged to create a network of legal experts to provide advice on issues related to the other national authorities in the national statistical systems.

ESSnet

The task force recommends that the dissemination of results is built into the model and actively promoted by all ESS partners. Common principles on how to document the results should be embedded in the ESSnet model.

The task force recommends that ESSnet results should be integrated in the common ESS architecture and then introduced under the guidance of centres of excellence. Results should also be fed into the design of new ESTP courses for the benefit of the whole ESS.

The CROS portal (collaboration between researchers and Official Statistics) in its present form is not sufficient to facilitate access to the results achieved. The task force recommends launching a reflection on how to guarantee the exchange of results by creating a knowledge repository to support modernisation in the ESS, going further than the current CROS portal.

The Directors' Groups should play a stronger role in strategic decision-making. The task force also recommends that Eurostat's oversight and facilitation role be clearly described in the grant agreement terms of reference and that it be closely monitored. The ESSC should consider launching ESSnets only for which there is strong commitment to implement results.

To enhance coordination, a carefully designed governance structure with a clear division of roles and reporting lines should be put in place.

[39] Joint training of Destatis and the Länder statistical offices

More emphasis is needed on the integration of projects in the overall statistical architecture and reaching out to the academic community more actively.

Centres of excellence

The ESS could consider establishing an additional financing tool by designing compensation schemes that would involve some form of direct payment by NSIs using a service to the centre of excellence providing it.

Centres of excellence should be even more strategically coordinated to serve the purposes of the ESS Vision 2020 and of ESS modernisation. Therefore, topics to be considered for a centre of excellence should be a priority for the ESS, contribute to innovation, achieve integration, promote excellence beyond its membership, and guarantee sustainability of the results in terms of their application.

A clear governance structure, both at national level and in Eurostat, should be defined.

The following specific criteria are proposed for centres of excellence: provision of methodological expertise for ESS members; keeping methodological knowledge within the ESS up-to-date; provision of common IT solutions for statistical production systems; provision of best practices and training courses for ESS members; and community-building within the ESS.

The involvement of non-participant countries is crucial.

More emphasis should be put on the roles of projects in relation to other projects and their integration in the overall statistical architecture.

The CROS portal should play a considerably bigger role in disseminating results. In this respect, it would be helpful to designate a coordinator who checks documents for their comparability before they are uploaded to the CROS portal. The coordinator should also be responsible for keeping information up-to-date.

Data hubs

A high level of performance and availability of the whole network of warehouses should be ensured.

A common ESS approach towards data validation should be developed, so that the quality standards that are applied in the various countries are harmonised to the maximum possible extent. Synergies should be found with the current work on ESS-VIP validation.

This model should be applied in other data exchanges and for other common tasks and services, such as validation.

European Research Infrastructure Consortiums

Monitor existing ERICs with a statistical component and further explore the potential use of ERICs for the ESS.

Public-private partnerships (PPP)

Monitor the results from existing public-private partnerships on Big Data, to consider whether such a model could be used in other ESS domains.

General recommendations

The following suggestions for improvement are seen as key factors for the success of any cooperation model:

Before cooperation starts:

1. Develop a common approach and positive mindset for collaboration.
2. Make a thorough analysis of business cases for projects.
3. Consider test or pilot projects (in a controlled environment) before wider application.
4. Take into account the diverse capacities of ESS countries.
5. Prepare a clear statement of intent defining the scope of collaboration, ownership of results and usage by non-members.
6. Build a clear project structure, with strong project management and coordination — clear roles and responsibilities.

During cooperation:

7. Establish more collaboration with the European and international research community, and with the private sector.
8. Use simple and user-friendly financial instruments.
9. Design clear contribution schemes (both in terms of human and financial resources) for ESS partners.
10. Explore possibilities for electronic media in the cooperation.

After cooperation:

11. Consider the protection of ESS products: need to reconcile ownership with sharing of products as well as to clearly define elements such as intellectual property and copyright.
12. Build knowledge exchange into the model.
13. Disseminate and implement the results.

ANNEXES

i. Members of the Task Force on Cooperation Models within the ESS

ii. Working methods of the task force

iii. Survey on challenges and constraints on existing cooperation models

iv. Dimensions of the architecture of cooperation

v. Selected examples of existing cooperation models in the ESS

i. Members of the Task Force on Cooperation Models within the ESS

Country	Name	Position
Eurostat	Pieter Everaers	Chair. Director of Cooperation in the ESS; Resources
Austria	Werner Spitzer Ana Djordjevic	Head of Controlling International Relations officer
Germany	Christian Gehle Sabine Köhler	Head of Section 'Controlling, Process Management' Head of Section 'Education and Training'
Hungary	Gábor Csutorás Tamara Pal	Responsible for human resources Head of International Relations
Italy	Marina Gandolfo Immacolata Fera	Coordinator of President's Secretariat for International Relations President's Secretariat for International Relations
Poland	Anna Borowska Agnieszka Komar-Morawska	Civil Service Director Director of the Office of the President
Slovenia	Karmen Hren	Deputy DG; VIG member
Eurostat	Cristina Pereira de Sá	Head of Unit A1 'ESS governance and external relations'
Eurostat	Daiva Norkeviciene	Statistical officer
Eurostat	Beatriz Fernández Nebreda	Communication officer
Eurostat	Véronique Wasbauer	Head of Unit A4 'Financial management'
Eurostat	Susanne Taillemite	Financial team leader
Eurostat	Lorenzo Fedel	Financial officer
Eurostat	Martin Karlberg	Team leader
Eurostat	Szymon Bielecki	Statistical officer; VIG member

Eurostat	Thomas Gfoeller	Legal officer

ii. Working methods of the task force

In June 2014, the Resource Directors Group (RDG) established the Task Force on Cooperation Models within the ESS as a forum for discussion between ESS partners on the modalities for the setting up of innovative and flexible cooperation models within the ESS.

The goal of this task force is to identify, examine and provide recommendations for building blocks (including e.g. legal, financial and organisational aspects) necessary for the establishment of innovative and flexible cooperation models within the ESS.

These cooperation models should support the implementation of the ESS Vision 2020 by creating conditions for the ESS to share resources in a sustainable way and to collaborate effectively.

The task force was composed of representatives of six NSIs: Austria, Germany, Hungary, Italy, Poland and Slovenia, and Eurostat. It was chaired by Eurostat's Director of Resources.

Meetings were held back-to-back with RDG meetings — in December 2014, and June and December 2015. A physical meeting was also held in Wiesbaden, in October 2015. In addition, videoconferencing was used as a means of communication for deliberations.

The final report was drawn up based on: task force discussions; feedback received from ESS countries; the results of a survey on challenges and constraints on existing cooperation models in ESS countries carried out by Statistics Poland; and the experience of previous discussions in this field at both national and European level.

The RDG was consulted in December 2015 and again by written procedure in January and April 2016. The Vision Implementation Group was invited to provide comments in January 2016.

iii. Survey on challenges and constraints on existing cooperation models

In order to have a sound recognition of the needs, expectations and attitudes of the ESS towards building cooperation models, the task force conducted a survey to identify NSI opinions on existing cooperation models and to give them the opportunity to express their concerns about the challenges and threats with regard to future cooperation models.

The respondents were asked three questions and were at complete liberty to provide information in the form and scope they desired.

The questions were as follows:

1. What has been your experience so far — best practices, whether multilateral or bilateral — regarding cooperation arrangements over the last decade?

2. What challenges can you identify and define at your domestic level as possible opportunities or threats for future cooperation models?

3. What definitive constraints that represent a substantial risk to cooperation perspectives can you identify now or in the near future?

Fifteen NSIs[40] responded to the questionnaire. Their observations and comments on best practices, expected challenges and feared constraints are summarised in the survey findings below.

NSIs referred mainly to practices in the last decade concerning bilateral and regional forms of cooperation within the ESS. Multilateral forms of cooperation within the ESS were also mentioned as evolving and promising — though not yet fully recognised — forms of cooperation.

Survey findings

The survey findings have been organised in two parts: geographically and by area of concern (or cooperation enablers). Geographically, we can distinguish between bilateral and regional cooperation on the one hand, and multilateral cooperation on the other.

As for cooperation enablers, the findings have been classified according to the need for a clear business case, trust and commitment issues, a strong legal basis and an efficient allocation of resources.

Bilateral and regional cooperation

[40] Fifteen ESS countries participated in the survey: Belgium, Croatia, Cyprus, Denmark, Greece, Germany, Iceland, Italy, Latvia, Netherlands, Poland, Romania, Slovenia, Spain and Sweden. The authors of the survey reiterated their sincere gratitude for their commitment and participation.

Respondents pointed out various formal and informal bilateral agreements. The regional cooperation examples were mainly given by the Nordic and Baltic countries.

Strengths	Weaknesses
Very useful; brings about a practical approach; countries share their expert knowledge Usually, concrete and well-defined subject Suitable for smaller NSIs or as a model for cooperation among practitioners Flexible; lack of administrative & financial burden Use of electronic means of communication Potentially smaller overall investment needed for making general progress	Lack of supporting instruments Lack of technical assistance Limited or small scale (e.g. not suitable for Vision 2020 implementation

Multilateral cooperation

Multilateral forms of cooperation within the ESS were mentioned in the survey, namely various forms of ESSnet and data hubs.

Strengths	Weaknesses
Suitable for developing particular areas of statistics or related activities (IT, methodology) Programmes are developed in one country and shared with other countries Good for sharing knowledge and know-how, assisted development in a wider circle of participants Facilitates initiatives to increase quality and efficiency in NSIs and the sharing of knowledge and experience within the wider statistical community Ensures growing consistency of statistical outputs and results Helps in devising standards for official statistics	Institutional complexity Time-consuming activities High organisational burden for smaller NSIs

Business case for cooperation

Respondents to the survey identified the need for a clear business for cooperation as an important element underpinning any future collaborative activity.

Opportunities	Threats
Identification of a common goal (definition of what, how and when) Win–win policy as the primary entry condition of cooperation models Fair cost-benefit balance for all partners preceded by a sound and realistic cost-benefit analysis taking into account not only the initial costs of cooperation but also permanent operating costs of a project Take into consideration the countries' particular needs, possibilities and national approaches as well as a positive balance of competence (expertise) exchange Ability/capacity to implement the potential outcomes on national grounds Revision of administrative requirements and adjustment to circumstances accordingly Ensure integrated project management with permanent staff — Eurostat has to manage the coordination with the countries	Diverse requirements among ESS countries, discrepancy between evolving national conditions and project outcome products Lack of measurable benefits at national level as a substantial obstacle to allocating a proper share of resources and a threat to cooperation mechanisms Communication (including linguistic) issues make it difficult to apply some ESS products/tools Duplication and overlap of existing projects, a risk that could diminish a country's readiness to participate in ESS projects In cases where the fundamental needs of a country are not met, it might seek alternative cooperation perspectives beyond ESS on more suitable terms

Trust & commitment issues

Opportunities	Threats
Positive mindset as proof of willingness to cooperate and as an essential condition for successful cooperation Fair distribution of costs between countries and the European Commission and fair share of benefits Effective information sharing among ESS countries Competent and transparent decision-making	Issue of trust with regard to respondents and users — data protection is of crucial importance for official statistics Outsourcing of important statistical processes could lead to the loss of trust if quality standards not respected Criticism of sharing tasks and responsibilities in the production chain

Legal basis

Opportunities	Threats
European statistical law and its recent revision provides ways for sharing Need to work out common pan-European provisions concerning access to confidential data and administrative data sources as a preliminary condition for carrying out common projects Need to legally protect the joint statistical production results 'What can we do approach' instead of thinking about what we cannot do from a legal point of view at a national legal perspective	Legally binding collaboration would hurt the principle of subsidiarity —production processes especially have to be determined by Member States based on the principle of subsidiarity Discrepancies between national legislative systems Differences in interpretation and application of Regulation 223/2009, especially its Article 21 as domestic standards of data protection create difficulties for cooperation Need for effective communication channels on legal issues

Allocation of resources

Opportunities	Threats
Participation according to each participant's (limited) human and financial resources — need to respect the organisational capacity determining the absorption capacity From a country's perspective, projects are attractive where one's own contribution is largely financed by EU Clear rules for reimbursement and legal conditions of secondment of staff need to be fixed on sound and common grounds Need to find a way to prioritise tasks, balancing national and European priorities in the context of national institution's strategic goals Concept of 'reuse' and 'customise' what already exists instead of reinventing the wheel Employment of all possible tools (e.g. the use of webinar or video/teleconference, webspace to share experiences) Possibility of reducing costs as a result of common projects due to the economies of scale and synergies	NSI's limited budgetary potential is a constraint for areas of cooperation requiring considerable resources such as acquisition and maintenance of specialised IT or specialised skill sets Limited access to experts at national level Guarantee of financing is the essential condition for initial decision-making Particularities of each national administration system as a source of specific demands to be taken into account Administrative formalities as a burden

iv. Dimensions of the architecture of cooperation

	P1	What is affected		P2	How is it affected			Which area is affected – Areal/field of cooperation
EA RF "People"	P1.1	People and Organisation	GSBPM "Design", "Build"	P2.1	Develop & Build	EA RF, GSBPM Phase 1	A1	New Statistics development
EA RF "Methods"	P1.2	Methods and Tools	GSBPM Phase 4-7	P2.2	Operate, maintain and promote	EA RF, GSBPM Phase 2	A2	Statistical Design
EA RF "Standards"	P1.3	Standards and Frameworks	GSBPM "Build"	P2.3	Support implementation	EA RF, GSBPM Phase 4	A3	Statistical Data Collection
						EA RF, GSBPM Metadata	A4	Information Resources (data and metadata) Management
						EA RF, GSBPM Phase 5	A5	Statistical Processing
						EA RF, GSBPM Phase 6	A6	Statistical Analysis
						EA RF, GSBPM Phase 7	A7	Statistical Dissemination
						EA RF, GSBPM Quality	A8	Quality Assessment, Control & Improvement
European Statistical Training Programme (ESTP)								
		People and Organisation			Develop & Build			
European Master in Official Statistics (EMOS)								
		People and Organisation			Develop & Build			
Exchange of Staff								
		People and Organisation						All Areas
European User Support Network								
		People and Organisation			Operate, maintain and promote			Statistical Dissemination
ESSnets								
		Methods and Tools			Develop & Build			All Areas
		Standards and Frameworks						
Centres of Excellende								
		Methods and Tools			Operate, maintain and promote			Information Resources (data and metadata) Management
		Standards and Frameworks			Support implementation			Quality Assessment, Control & Improvement
Data hubs								
		Methods and Tools			Operate, maintain and promote			Information Resources (data and metadata) Management
		Standards and Frameworks						
European Research Infrastructure Consortium (ERIC)								
		People and Organisation			Develop & Build			New Statistics development
		Methods and Tools			Operate, maintain and promote			
		Standards and Frameworks			Support implementation			
Public Private Partnership (PPP)								
		People and Organisation			Develop & Build			Statistical Data Collection
		Methods and Tools			Operate, maintain and promote			
		Standards and Frameworks			Support implementation			
EU Customs Union								
		People and Organisation			Operate, maintain and promote			Information Resources (data and metadata) Management
		Methods and Tools			Support implementation			
		Standards and Frameworks						
OECD Statistical Information System Collaboration Community (SIS-CC)								
		People and Organisation			Develop & Build			Information Resources (data and metadata) Management
		Methods and Tools			Operate, maintain and promote			
		Standards and Frameworks						
UNECE – Statistical Modernisation Community (ModernStats)								Information Resources (data and metadata) Management
		Methods and Tools			Develop & Build			
		Standards and Frameworks						

v. Selected examples of existing cooperation models in the ESS

A. Examples of cooperation practices in Member States

Sistan community in Italy

In Italy, a new way of working together has been experienced since 2012 within the national statistical system (Sistan). A Sistan community has been set up for official statistics to promote collaboration and partnership between the various bodies belonging to the system. It aims to facilitate the sharing of good practices, to cooperate in interinstitutional projects and to promote discussion on issues of official statistics not only between actors of the system but also between them and representatives of businesses, trade associations, universities, research institutions and the media.

Benefits: increases the relational capital; creates sensitivity to different organisational cultures; promotes analysis and collaborative solution of problems; allows for a more effective socialisation of knowledge; improves organisational management and operational groups; and reduces logistics costs (trips for meetings). There are over 30 professional groups already operating in the Sistan community.

Governance aspects: the community has its 'rules of procedure' for accessing, being a member and quitting the professional groups. Access to the community is granted by the Istat leading team, which is made up of portal coordinators, editorial staff and webmastering staff. Any participant who has been granted access to the community can propose a new group. Then the leading team decides whether to effectively launch the group, relying on the strategic objectives of both the Istat governing body (the council) and Sistan's development objectives outlined by Comstat (the policymaking and coordinating committee for statistical information). Group members may play different roles: group manager/group founder, leader/participant in long-term activities or participant in on-the-spot/short-term initiatives.

Statistical education system in Poland

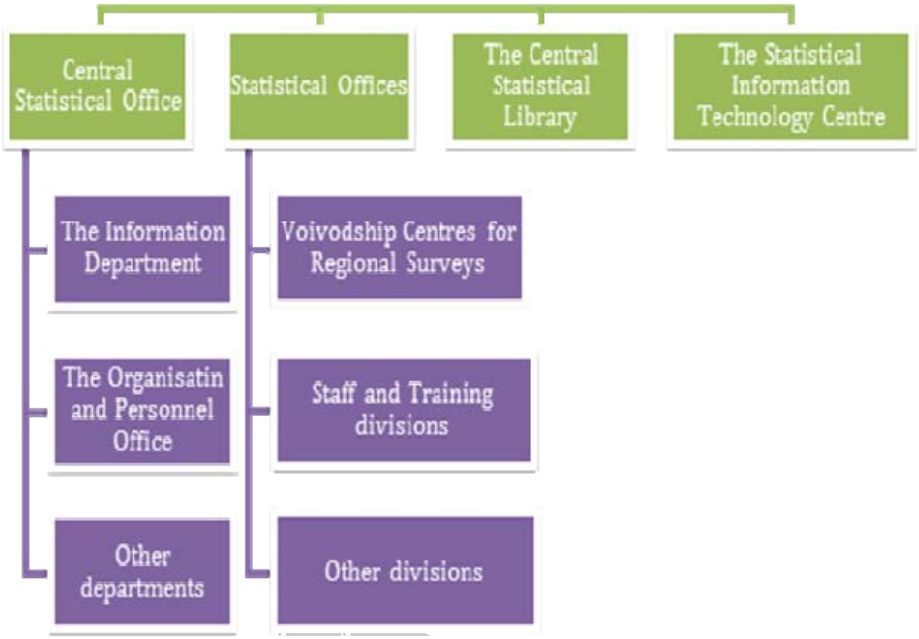
In 2012, 'The concept of the statistical education system implemented by official statistics services until 2017' was created in the Central Statistical Office (CSO). The document includes the diagnosis of the current status (in 2012), the mission, the vision and the expected outcomes of the statistical education system, the concept and the implementation of SES.

According to the concept, statistical offices may conduct a wide array of educational activities in many different ways. A statistical education plan is decided every year and developed on an annual basis, based on the results of a training and educational needs survey and the recommendations given by the Statistical Education Council. The reference plan takes into consideration the official statistics priorities in the field of statistical education.

It provides basic information about specific objectives and assumptions, along with summary lists of activities presented by forms of education addressed to various groups of external and internal beneficiaries. The structure of the plan also comprises a division of educational activities into national and regional ones.

The 2016 statistical education plan is a response to the obligation arising from the CSO strategy document entitled 'Development Directions of the Polish Official Statistics until 2017'.

According to the current organisational division, the tasks related to statistical education are implemented mainly by the following organisational units: the Information Department and the Organisation and Personnel Office within the CSO, and statistical offices.



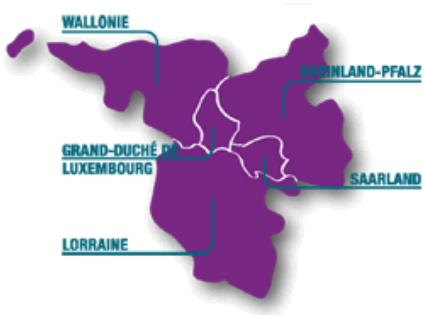
The coordinator of activities in the area of statistical education until December 2012 had been the Office of the CSO President. Since 2013, this function has been performed by the Organisation and Personnel Office.

B. Examples of cooperation practices by model

3.1. Bilateral and regional cooperation models

SaarLorLux or the Greater Region

SaarLorLux, a grouping of Saarland, Lorraine and Luxembourg, comprises five different regions located in four different Member States. Sometimes, instead of SaarLorLux, the term Greater Region Saar-Lor-Lux-Rhineland-Palatinate-Wallonia is used.



The term has also been applied to cooperation of several of these authorities or of their subdivisions. Member regions represent various political structures: the sovereign state of Luxembourg; Belgium's Wallonia region, comprising the French and German-speaking parts of Belgium; Lorraine, a region of France; the French departments Moselle and Meurthe-et-Moselle; and the German federal states of Saarland and Rhineland-Palatinate.

There is no well-defined structure for SaarLorLux or even an exclusive definition of its size. Instead, there exist multiple forms of cooperation and contractual relations among all or several members.

The Budva initiative

The Budva initiative refers to cooperation in the field of statistics among the Balkan countries (Albania, Bosnia and Herzegovina, Montenegro, Kosovo, former Yugoslav Republic of Macedonia and Serbia) including also some EU Member States such as Bulgaria, Croatia, Romania and Greece.

The cooperation is mainly characterised by the organisation of joint conferences and seminars with the aim to learn from each other, and the publication of common leaflets.

3.2.1. ESS organisational functioning

Directors' Groups

Directors' Groups prepare decisions to be taken by the ESS Committee, assist with the development of new legislation, address technical issues arising from statistical law, represent the coordinated view of the Member State on a specific matter, and provide high level coordination appropriate for the ESS. They are therefore essential to the development of statistical activities and the execution of the statistical programme. They report directly to the ESSC.

Directors' Groups are chaired by the Eurostat Director responsible for the relevant domain and composed of all Member States. EEA/EFTA countries participate fully in the group meetings on all EEA-relevant matters. For matters that are only EU-relevant, they have the status of observers. Switzerland participates fully in group meetings on all Swiss/EU-relevant matters. For matters that

are only EU-relevant, it has the status of observer. Some Directors' Groups also have other observers, such as other Directorates-General in the Commission, enlargement countries, and international organisations.

Almost all Directors' Groups have established sub-groups (steering group, partnership group, board or bureau) to prepare their work. Moreover, other structures work under their responsibility and report directly to them (working groups, task forces, etc.)

The network of other national authorities in Italy

The network of other national authorities was established in 2012 to comply with Article 5 of Regulation EU 223/2009. Its aim is to promote collaboration among other national authorities and between them and Istat, as well as to strengthen Istat's coordination role.

Benefits: improves coordination at the national level; facilitates monitoring of Italian participation in European activities to better coordinate a common position on European statistics issues; and enhances the exchange of information on new items discussed at European level.

Governance: the network is led by Istat. Regular meetings are held.

3.2.2. European Statistical Training Programme (ESTP)

European Statistical Week — Study visit for young statisticians of NSIs

The European Statistical Week (ESW) — study visit to Eurostat is organised every second year in Eurostat, Luxembourg. The programme is targeted at junior staff working in national statistical offices.

The study visit aims at providing participants with the opportunity to learn more about the set-up and functioning of Eurostat — as part of the European Commission and the European Statistical System (ESS). It also provides a forum for discussion, exchange and learning on themes of common interest regarding European statistics. Moreover, two days of job shadowing in a Eurostat unit gives the participants a more practical experience in specific subject matters.

Joint training of Destatis and the Länder statistical offices

Very similar to the European Statistical Training Programme, the German federal office (Destatis) has developed a joint training policy to serve its training needs and those of the independent regional statistical offices (Länder offices). In place since 1993, the goal of this initiative is to improve the advanced training opportunities for staff, with a focus on modern statistical methods and tools and on new statistical developments.

All statistical offices cooperate closely to organise and give the courses, with overall responsibility lying with Destatis. Lecturers come from the federal statistical office and the Länder offices. External lecturers are occasionally invited.

The programme of courses is agreed every year by the Conference of the Presidents of Destatis and of the Länder offices (similar to the ESSC), taking into account the needs and proposals of all offices involved. In 2015, some 50-60 seminars were held in federal and regional offices.

The process has been functioning very well since 1993 without any official contract or grants. Offices share the costs of external trainers (cost per participant). Internal trainers get a very small amount per training-hour as well; these costs are also shared between the offices.

3.2.3. European Master in Official Statistics (EMOS)

Cooperation between NSIs and universities in the context of EMOS

One of the requirements for the EMOS label is that the university has set up cooperation with the respective NSI, national central bank, other national authority or international organisation when it comes to internships and other support, such as cooperation in teaching and Master theses in the context of EMOS. In May 2015, the ESSC gave 12 European Master programmes the EMOS label. All of them have varying degrees of cooperation depending on their previous experience of cooperation with the NSI.

3.2.4. Exchange of staff

Secondments

Seconded national experts (SNEs) are sent to Eurostat by an NSI or other national, regional or local public administration or an intergovernmental organisation. They bring with them their specialised expertise and take back to their home administration the knowledge of European issues acquired during their secondment. They enable Eurostat to benefit from their high level of professional knowledge and experience, in particular in areas where such expertise is not readily available. Their task is to assist Eurostat officials, carrying out the duties assigned to them under the work programme drawn up when they apply for the secondment.

The initial length of the secondment is usually two years. It can be extended to four years in the interest of the service, upon request of Eurostat and after agreement of the SNE's employer. In exceptional cases, the secondment can be extended to a maximum of six years.

Around 60 SNEs currently work in Eurostat. Most of them come from Member States although EFTA countries also second staff to Eurostat. Occasionally some non-EU countries also send their staff to Eurostat as agreed in bilateral memorandums of understanding. For example, in 2015 there was a staff exchange with the International Monetary Fund and a secondment from Statistics Korea (South Korea).

The SNEs are still employed by and receive their salary from their employer. Experts seconded from EU Member States receive a daily allowance from the Commission, while those from EFTA and other international organisations are cost-free for the Commission.

Traineeships

Twice a year, civil servants of national, regional or local administrations can receive training at Eurostat as national experts in professional training (NEPT). A small number of people working in government administrations in countries outside the EU and EFTA or working for international organisations can also benefit from this programme.

This is a traineeship of three to five months in the field of European affairs. These national experts are chosen at national level, through internal procedures in place in their country and they begin

their in-service training either in March or October. One national expert in professional training joined Eurostat in 2015 for a three month traineeship.

These professional traineeships are cost-free for Eurostat: the individuals concerned remain employed and paid by their home administration.

Furthermore, Eurostat runs a traineeship for statisticians under the statistical cooperation programmes or Instrument for Pre-accession Assistance (IPA) programme.

Twice a year, Eurostat's statistical cooperation unit launches a call for interest among Eurostat's units keen on hosting a trainee in the framework of this cooperation programme. If there is interest, the cooperation unit contacts the NSIs of pre-accession countries for the CVs of potential candidates for this programme. IPA trainees then work in Eurostat for a period of three and a half to five months.

Short-term staff exchange with the UN Statistical Division (UNSD) and UN-family organisations

In October 2006, Vice-President Siim Kallas, Commissioner Benita Ferrero Waldner and the UN Deputy Secretary-General Mark Malloch Brown exchanged letters formalising the cooperation between the European Commission and the United Nations Secretariat in sharing experience and information on administrative best practices.

One of the areas of implementation was the exchange of staff for short periods of time. The European Commission's DG HR created a specific budget line to finance the cost of these secondments and in April 2009 officially launched the short-term exchange of staff with the UN. Eurostat has made possible that 'statistics' were considered as one of the priority areas for this type of cooperation for the European Commission.

Since 2011, Eurostat and the UN have been exchanging staff for periods of two to three weeks. So far, these staff exchanges have been assessed as very useful, both by the UN and by the staff participating in the exchange.

The exercise has contributed to the exchange of expertise between the institutions, leading to a better coordination of statistical activities in the global statistical system. It also helps develop a better mutual understanding of the institutions involved, their mechanisms and ways of working. Moreover personal contacts established during the secondments contribute to improve communication and networking.

3.3.1. ESSnets

ESSnet on ESBRs: European system of interoperable statistical business registers

This ESSnet was launched in 2014, as part of the VIP.ESBRs project (which consists of a number of building blocks) and succeeding earlier projects such as EGR pilot project, EGR project, ESSnet EGR, ESS MEETS program and related ESSnets, profiling project, etc.

Its aims were: setting up business architecture and an interoperability framework for the ESBRs; establishing an overall process development and a common data quality programme for the ESBRs; sharing of relevant statistical services in the ESBRs.

As outputs, the following is expected: recommendations, concepts, guidelines, and dissemination activities (reports, training seminars, workshops, and newsletter).

The work was divided in two phases: Phase 1 (2014-2016), Phase 2 (2016-2017). Phase 1 was divided in three work packages; cooperation with cross-cutting VIP-projects such as SERV, IMS and ESDEN. In this phase, the NSIs involved were: AT (coordinator), DK, ES, FI, FR, IT, NL, PT, SE, UK, and CH.

Participation is voluntary. The formal commitment is ensured by grant, underpinned by the annual work programme and Regulation 223/2009 (Article 15).

3.3.2. Centres of excellence

Centre of excellence on data warehousing (2013-2014)

The centre of excellence on data warehousing was established as a follow-up to the preceding ESSnet. The virtual body has come together from the partners that were closely and actively working with the ESSnet.

This centre of excellence aimed at ensuring sustainability of the work, the results and the acquired expertise of the ESSnet on data warehousing and supporting ESS countries implementing those results.

Its outputs were defined as support to countries via a wide range of operational activities: ad hoc support and consultancy to ESS members (help desk), promotion of results (e.g. through workshops), keeping the handbook up-to-date; maintain the knowledge and expertise repository on the CROS portal.

The centre of excellence was financed through a multi-beneficiary grant agreement, on the basis of the annual work programme.

The NSIs involved were: NL (coordinator), EE, FI, IT, LT, UK.

Benefits of this centre of excellence were strengthening of the ESS information infrastructure, and a more integrated ESS data & metadata management, thereby reducing statistical burden (solution for storing, processing and redistributing shared data and metadata across partners and processes).

3.3.3. Data hubs

Census Hub

The project started in 2008 and was developed based on the EU 2011 census legislation. The system became operational in April 2014 and was launched in December 2014. The output is dissemination of the 2011 census database.

Its objectives were to better disseminate the results of the population and housing censuses in Europe, and to provide users with easy access to detailed census data that are structured in the same way and methodologically comparable across countries.

The Census Hub is based on the concept of data sharing with three elements:

- NSIs produce data according to agreed standard processes, methodologies and formats;
- Eurostat provides a common infrastructure for data exchange and data extraction;
- NSIs remain owners of the data — validation is done by NSIs (data, in principle, not re-validated by Eurostat). In the case of revisions or updates, NSIs upload the new data in their own system instead of sending a complete new data set to Eurostat.

The data disseminated by this means are not microdata; they are aggregated data structured according to the agreed tables defined in legal implementing rules.

The Census Hub deals with data sets provided for in the census legislation. NSIs provide access to their (aggregated) data (tables) according to standard processes, formats and technologies while Eurostat provides the IT structure. There is no data transmission to other NSIs, and no central repository — maintenance remains with Member States. NSIs remain 'proprietors' of the data and keep complete control over the data.

In addition, the Census Hub data are validated by NSIs and are not re-validated by Eurostat. In the case of any revisions or updates, NSIs need to upload the new data in their own system instead of sending a complete new data set to Eurostat.

All countries participate on a voluntary basis. The development costs are borne by Eurostat and the operational costs are borne by NSIs.

3.4.2. Public-private partnerships

Partnership between the European Commission and the data industry to master big data[41]

The European Commission and Europe's data industry have committed to invest EUR 2.5 billion in a public-private partnership that aims to strengthen the data sector and put Europe at the forefront of the global data race.

A memorandum of understanding to set up the partnership on big data was signed on 13 October 2014 by European Commission Vice-President Neelie Kroes and President of the Big Data Value Association, Jan Sundelin, who acts on behalf of companies including ATOS, Nokia Solutions and Networks, Orange, SAP, SIEMENS, and research bodies such as Fraunhofer and the German Research Centre for Artificial Intelligence. The EU has earmarked over EUR 500 million of investment over 5 years (2016-2020) from Horizon 2020, which private partners are expected to match at least four times over (EUR 2 billion).

The partnership will help focus public, private and academic research efforts to support research and innovation in game-changing big data ideas in fields such as energy, manufacturing and health to deliver services such as personalised medicine, food logistics and predictive analytics. By implementing its Strategic Research & Innovation Agenda and concentrating Horizon 2020 support on common priorities, the partnership will strengthen Europe's big data community and help lay the foundations for the thriving data-driven economy of the future. The partnership will also support 'innovation spaces' that will offer secure environments for experimenting with both private and open data. These will also act as business incubators and hubs for the development of skills and best practices.

[41] Press release IP 2014/1129, http://europa.eu/rapid/press-release_IP-14-1129_en.htm.

The partnership was launched on 1 January 2015 and is one of the first outcomes of the European Commission's recent policy and action plan to accelerate the development of Europe's data-driven economy (see European Commission press release IP/14/769 and MEMO/14/455).

4.2. Specialisation

UK Statistics: Coordination in a devolved and decentralised statistical system

UK has a decentralised statistical system, which is inherently strong in policy relevance in UK-reserved policy areas such as: defence; international relations, development and trade; fiscal and economic policy; and immigration and health.

In 2007, the UK Statistics Authority was created to promote and safeguard the independent production of all UK official statistics. Its executive office is the Office for National Statistics (ONS), which is the UK's national statistical institute.

The UK government departments and the devolved administrations in England, Scotland, Wales and Northern Ireland are responsible for the collection of evidence base in devolved/decentralised policy areas such as: agriculture and fisheries; education; housing; and regional transport. The community of all those involved in the production of official statistics in England, Scotland and Wales forms the Government Statistical Service (GSS).

As any decentralised system, this set-up requires investment in coordination and independence. The coordination between the GSS and the UK Statistics Authority is ensured by the National Statistician, who is both head of the GSS and of the ONS.

Work-sharing in the German system of official statistics

Traditional work-sharing between the Federal Statistical Office and the 14 regional statistical offices in Germany aims to avoid duplication of work regarding the production of federal statistics (from the collection of data to the processing of the German federal states, Länder, results). The statistical offices of the Länder are administratively and financially independent of the federation and not subject to directions from the Federal Statistical Office or the federal ministries.

Already in the 1960s, the statistical offices cooperated to develop common processing software. The cooperation has increased notably since then. As a response to a recommendation made by the Audit Offices in 2002, the Federal Statistical Office and the 14 regional statistical offices agreed to further cooperate in the processing of statistics. The system works in that one office processes the statistical data for other offices. This is based on Article 3a of the Federal Statistics Law. Article 16 of the Federal Statistics Law permits the transmission of individual data that is necessary for that purpose.[42]

This cooperation has led to a subject-matter specialisation of the statistical offices, which now act as 'patrons' for sets of statistical surveys for certain subjects. In addition, a strategic plan of main

[42] These provisions of federal legislation are legally supported by a framework agreement on the cross-office fulfilment of tasks in official statistics concluded by the Federation and the Länder in spring 2006, which combines the principle of 'make or buy' with competitive elements.

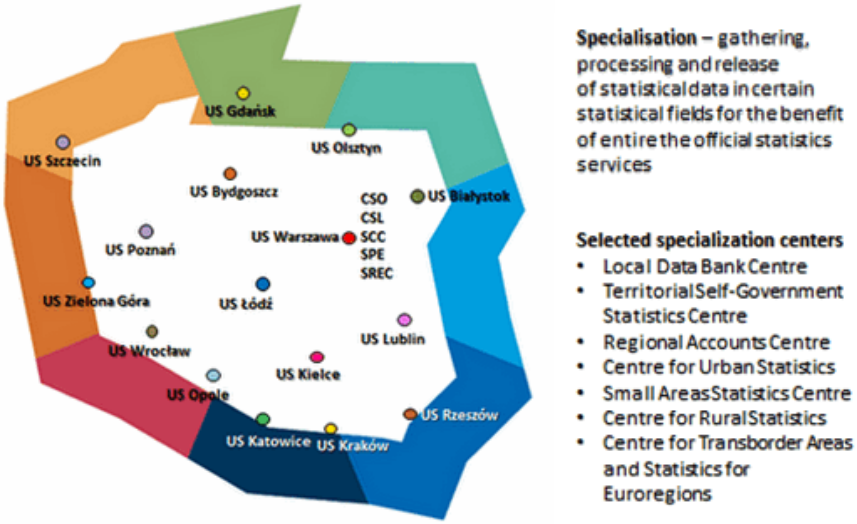
activities for the system of official statistics is jointly defined by the offices. Its implementation across the whole network of offices is managed by a Board of Directors, established in 2011.[43]

Of course, this system has **advantages and disadvantages**. On the one hand, duplication of work inside the system is avoided. On the other, it is not easy to find a fair division of burden among offices. The main challenge is to define a fair mechanism of balancing work and costs inside the statistical system. Therefore, an internal system of application for projects is used to divide work. For the division of costs, a key (based on the number of inhabitants and of the economic performance of the 16 Länder) is used for many projects.

All in all, the main goal is to achieve a good quality of statistics.

Specialisation of statistical production in Poland

Until 2009, the 16 regional statistical offices in Poland collected data from their region (voivodship). Today, each office specialises in a specific research domain and is responsible at national level for the collection, validation and quality of the data in that domain. Based on their specialisation, regional offices cooperate closely with the respective department of the Central Statistical Office.



Regional office	Specialisation domain
Białystok	Forestry, environmental protection statistics
Bydgoszcz	Labour market statistics, cooperation with local government units
Gdańsk	Education statistics, human capital statistics
Katowice	Regional accounts statistics, environmental protection statistics and statistics of the financial market and its entities
Kielce	'Hidden economy' statistics, and trade and services statistics
Kraków	Healthcare statistics, social assistance statistics, statistics on culture

[43] See: Federal Statistical Office, Strategy and Programme Plan, 2015 to 2019, page 12-13.

Lublin	Housing and utilities statistics, construction statistics
Łódź	Statistics of small and medium-sized enterprises and population living conditions; work related to the development of methodology, organisation of and technology used for questionnaire surveys, including those conducted by interviewers
Olsztyn	Demography and population migration, social statistics, statistics on agriculture, statistics on rural areas
Opole	Price statistics
Poznań	Short-term statistics, small areas statistics, product research statistics, STRATEG
Rzeszów	Sports and tourism statistics and statistics of the material and fuel and energy markets, cross-border surveys and euro regional statistics
Szczecin	Statistics of science, technology, innovation and information society, maritime statistics, inland waterway transport statistics
Warszawa	Statistics on non-financial enterprises, metropolitan statistics, maintaining and developing statistical registers
Wrocław	Statistics on local self-government bodies and product survey statistics
Zielona Góra	Business trends surveys