

TWINNING PROJECT

Support to Development Process in the State Statistics Service of Ukraine with the Objective to Enhance its Capacity and Production

Ukraine



MISSION REPORT

on

13 Communication

13.1 Assessment improvement of the website

Mission carried out by Ms Annegrete Wulff
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Version: Draft

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List of Abbreviations

CMS	Content Management System
CoP	Code of Practice
ToR	Terms of Reference
SSSU	State Statistics Service of Ukraine
SD	Statistics Denmark
QAF	Quality Assurance Framework

Executive summary

This activity was the first in component 13 and 15 dealing with internet dissemination and technology. The SSSU representatives and the MS experts discussed European / Eurostat requirements in relation to dissemination using internet technology. Although no legal requirements are defined by Eurostat, a number of recommendation /guidelines can be derived from the Code of Practice and the Quality Assurance framework. A template for self-assessment towards these two documents, are provided in Annex 3 to this report. And we would like encourage the SSSU to use it as a benchmark for its dissemination activities.

1. General comments

As experts we would like to thank the SSSU staff for having time to meet and discuss dissemination of statistics with great interest and passion in these quite difficult times for Ukraine. We would especially like to thank the interpreter for facilitating our dialog with the SSSU.

The views and observations stated in this report are those of the experts and do not necessarily correspond to the views of EU, SSSU or Statistics Denmark.

As activity was conducted over 2½ days and facilitated by interpretation the most issues were only touch and discussed briefly and from a management perspective. Some issues were raised that are related to the Prognostic supplied software that is planned for the coming integrated statistics portal. In these areas we can only provide general advice and references as the proprietary software is not used by any NSI's associated with the twinning project.

2. Assessment and results

The SSSU staff presented the current web site and how it was organized. This presentation was used as a starting point for discussion on how the electronic dissemination is organized in Denmark and which Danish lessons in this area that can be applied to the situation in Ukraine.

EU-legislation / requirements

Dissemination of statistics is not directly covered by the various legal agreements covering the production of statistics. However a series of recommendations are given in the Code of Practice (CoP) and in the Quality Assurance Framework (QAF). Both are considered binding for NSI's inside the European Statistical System. The Danish experts presented the indicators that can be used to measure compliance. A list of these is attached to the report as appendix 3. Working through the matrix will identify relevant action areas for development of dissemination policy and strategy. Some of the principles / indicators (e.g. quality and metadata) are not directly controlled by the unit(s) dealing with dissemination.

National requirements

It was not clear to the experts whether any national requirements in terms of "look and feel", accessibility and / or perhaps a common government technical platform would influence the future development of the coming web portal. However it is important to ensure that all development respects local technical guidelines and recommendations. If for various reasons it is not possible to follow such requirements all involved management level must be briefed on the consequences of non-compliance.

Lack of CMS

As presented to us the SSSU is running the current website without the use of a content management system (CMS) meaning that changes are done manually and centrally by dissemination / it staff and

not by subject matter staff. The lack of a CMS is in our opinion a major problem that should be solved as soon as possible. Significant savings can be achieved in the short run and the quality of the site can be improved as it will be easier to change and standardized the “look and feel”. Also the implementation of a CMS will make it possible for the SSSU to draw data from other systems (i.e. an Output database) and integrate these into website – thereby making updates easier.

Metadata / quality descriptions

Eurostat has a common framework for reporting metadata and quality information from member states to Eurostat. A subset of this information is also relevant for our users. In component 3: *Quality Reports* of the twinning project these requirements will be addressed. The twinning project is not expected to address IT solutions for the presentation of metadata / quality descriptions. However its important that users have access to well structured metadata whenever they are accessing a statistical indicator.

Multiple language support

The SSSU website supports 3 languages – Ukrainian, Russian and English. The Russian and English sites are equal but are less developed than the Ukrainian part. The differences are based on lack of resources. It's not possible to switch between the languages on a one to one basis. SSSU has been told that about 10% of all visits can be expected to come from outside Ukraine. But it seems that no reliable statistics are available for the use of the different language sections of the web site. The demo version of an updated web portal includes some functionality to allow users to change from one language to another without starting the navigation all over (content dependent language shift).

Web statistics /web metrics

SSSU has no systematic metrics on web usages generated. As users are beginning to shift from computers to mobile devices like tablets (iPad) and to mobile phones it is increasingly important that the site technologically can cope with different screen sizes and is light enough to load on limited bandwidth. Also consistent time series / web metrics are need for reporting the success / usefulness of internet dissemination to senior management.

Subject Areas / Navigation Structure

Two years ago the Danish subject structure was revised. The SSSU was briefed on the experiences from this process. It was discussed if the SSSU should follow the subject structure used by Eurostat in the future. Eurostat's structure is well known in the international domain and will help international users of Ukrainian statistics but on the other hand it may be less relevant or understandable for most users inside Ukraine. Never the less, when a structure is agreed, we would like to stress the need to use the subject structure consistently and across all media / platforms. This means that publications like press releases and the web site should use the same recognizable headings. And perhaps even more important the subject structure must be approved by senior management and fixed procedures / guidelines for making changes to it must be in place.

Aggregated output database – Possibility for self tabulation

No aggregated output database is in place. We consider this a major short coming of the SSSU web site. The dissemination unit spends much time manually creating tables required by users that need more than the ready-made indicators. The principles associated with Code of Practice compliance state that users must have the possibility of self tabulation, i.e. generating tables on demand and in various output formats. This is usually done through pre aggregated output databases. Various solutions are available from other NSI's, OECDand, Eurostat .The definition of self tabulation was briefly discussed. We believe it should be stressed that “self tabulation” is possible from pre aggregated cubes and should not be used as an argument for “on the fly aggregation” of micro data.

API – Application programming interface

The EU directive on reuse of public sector information often labeled open data¹ requires EU members must ensure that their data is freely available for use and reuse by others. Reuse can in our opinion only be ensured through having an API or application programming interface that allows external users to access our data on a machine to machine basis. It is therefore recommendable that the SSSU includes such requirements in a future dissemination system².

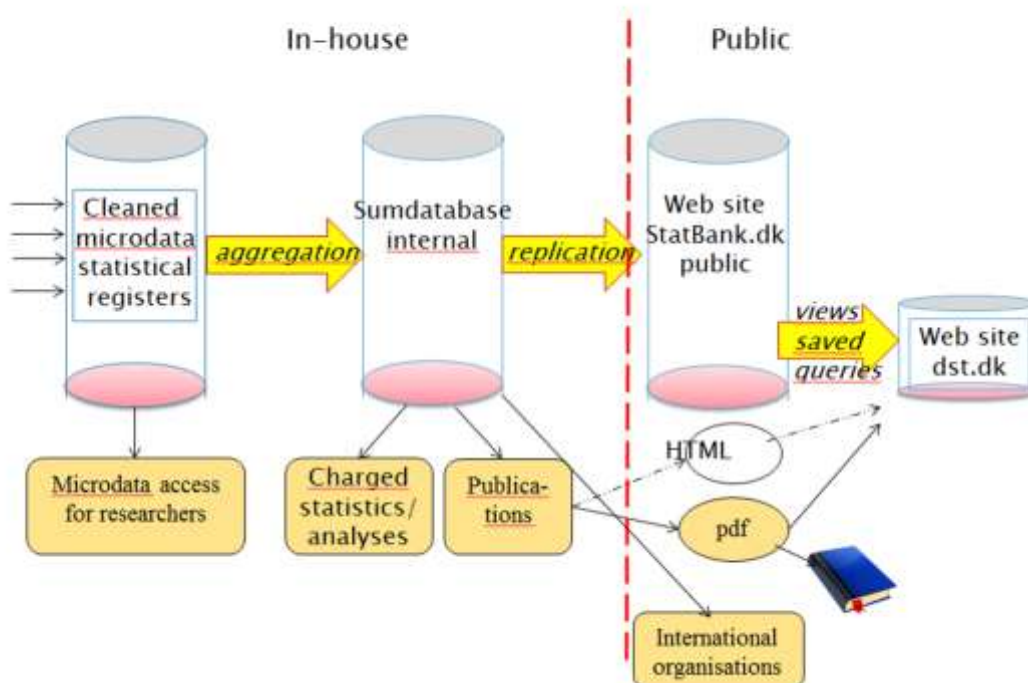
Updating the website

The different procedures and responsibilities / roles for updating the web site was briefly discussed. Since 1996 when the first version of DST.DK was launched Statistics Denmark has worked with various degrees of centralization / decentralization. At one time our vision was that the website should be updated by subject matter staff every time they published a statistical release. Today updating is more centralized with most content being sourced from either the aggregated output database (The statbank.dk) and from the publishing calendar system. This greatly reduces the manual workload on the dissemination unit and more importantly it makes for few errors and improves the timeliness. As a bonus it ensures that errors are consistent over platforms. The single source model and the calendar system ensure that both timeliness and punctuality is systematically measured and reported to management.

When planning a new system as an integrated web portal is important that the organizational aspects of the updating are discussed and decided before the IT solution is finalized. In general we strongly recommend that as much of the publishing process as possible is automated.

Illustration showing the single source Danish information flow model

Information flow



¹ See <http://ec.europa.eu/digital-agenda/public-sector-information-raw-data-new-services-and-products>

² The danish API to the statbank.dk can be access through <http://api.statbank.dk/console>

Future website

A demonstration model of a new website / web portal has been prepared and was presented by the SSSU. The plan is to have a common portal solution for the SSSU and for each of the regions in the Ukrainian statistical system. The portal is expected to be based on a software solution developed by Prognoz (www.prognoz.com and <http://www.prognoz.com/products/analytics/all/sdm>). Prognoz offers an integrated solution for the entire statistical process from data collection over cleaning and aggregation to dissemination.

Software from Prognoz is also used by the African Development Bank to display statistical information – see <http://dataportal.afdb.org/Default.aspx> to get a feel for the software's possibilities for visualizing data.

Confidentiality

In relation to the demonstration of the future website / web portal issues of confidentiality was briefly discussed. The SSSU indicated that they would like to learn more about this issue during the twinning project. The Danish experience regarding confidentiality and dissemination was briefly explained. The output database used by Statistics Denmark (The common Nordic model / PC-Axis³) for dissemination is based on aggregated multidimensional cubes. The statisticians / subject matter experts assumes responsibility for confidentiality when defining the cubes. Confidentiality was one of the reasons that the aggregated cubes model was originally adapted by the Scandinavian countries. Similar thinking is found behind the dissemination systems developed by Eurostat, Statistics Netherlands and the OECD. On the basis of the multidimensional cubes time series and indicators can be retrieved and presented. Manual oversight / control of confidentiality issues are generally considered necessary. The integrated system behind the planned statistical portal may revolve around “aggregation on the fly” thereby requiring that confidentiality is ensured entirely through mathematical methods.

Suggestions for the coming website – Linking data and metadata

It is difficult to give suggestions for the coming site based on the short time that we had to familiarize our self with it. However, we think it is important that any new site will provide direct linkage between data and metadata (*quality descriptions and methodologies*) and between data and release calendar information (When is the content generated? and when is the next expected release of the statistics in question?). The problem, we would like to address is also found in the present website.

Screen dump showing present web site



The screenshot shows the website of the State Statistics Service of Ukraine. The main content area displays a table titled "Indices of construction output in January-March 2014". The table compares data for March 2014 (to February 2014) and March 2014 (to March 2013) against the January-March 2014 average. The table includes categories for Construction, Buildings, out of residential, non-residential, and Civil engineering.

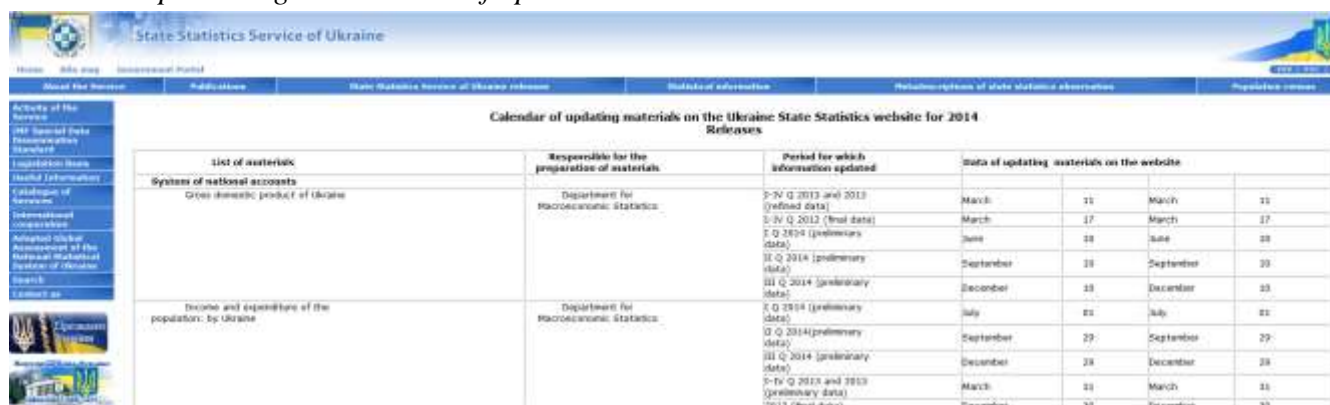
	March 2014 to February 2014	March 2014 to March 2013	January-March 2014 to January-March 2013
Construction	119,4	99,0	
Buildings	118,6	90,0	
out of			
residential	121,7	106,4	
non-residential	116,9	80,7	
Civil engineering	120,2	106,6	

In the illustration above it is clear to the user that March 2014 is the latest available data as the page is updated 22 of April (date of writing this). However there is no information on when this particular

³ The common Scandinavian model is used by the regional statistical office in Lviv and as such is understood by the BC

statistics is expected next time. The user interested in this will have to navigate to the section regarding Calendar of updating materials on the Ukraine State Statistics Website for 2014.

Screen dump showing the calendar of updates to web site



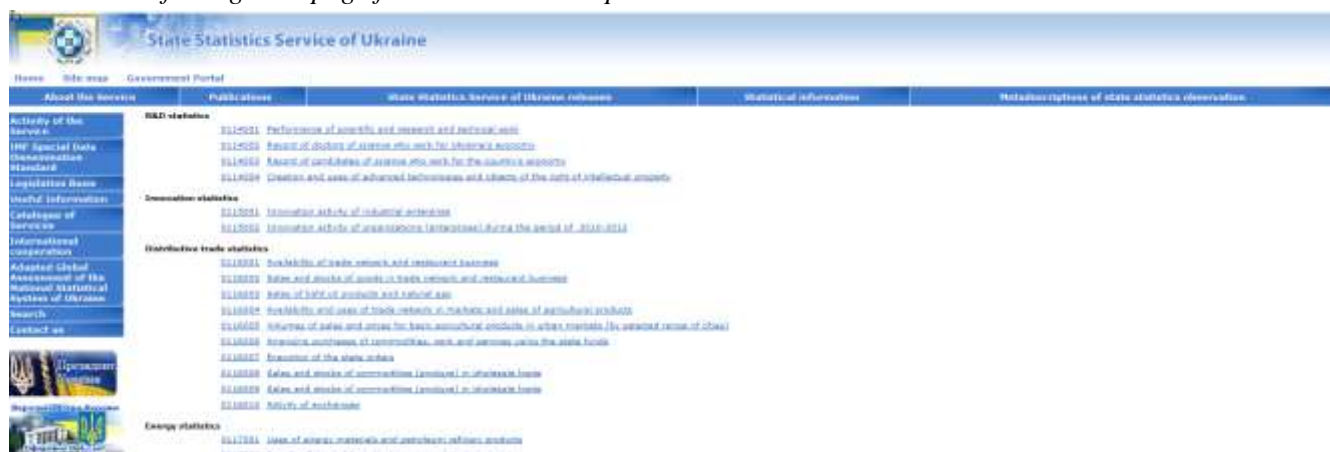
The screenshot shows the website of the State Statistics Service of Ukraine. The main content area displays a table titled 'Calendar of updating materials on the Ukraine State Statistics website for 2014'. The table has four main columns: 'List of materials', 'Responsible for the preparation of materials', 'Period for which information updated', and 'Data of updating materials on the website'. The table is divided into two main sections: 'System of national accounts' and 'Income and expenditure of the population, by Ukraine'. Each section lists various statistical indicators and their corresponding update dates for 2014.

List of materials	Responsible for the preparation of materials	Period for which information updated	Data of updating materials on the website
System of national accounts			
Gross domestic product of Ukraine	Department for Macroeconomic Statistics	2-IV Q 2013 and 2013 (final data)	March 11
		3-IV Q 2012 (final data)	March 17
		I Q 2014 (preliminary data)	June 18
		II Q 2014 (preliminary data)	September 18
		III Q 2014 (preliminary data)	December 18
Income and expenditure of the population, by Ukraine	Department for Macroeconomic Statistics	I Q 2014 (preliminary data)	July 18
		II Q 2014 (preliminary data)	September 18
		III Q 2014 (preliminary data)	December 18
		2-IV Q 2013 and 2013 (preliminary data)	March 11
		2013 (final data)	December 18

So to improve user friendliness and to avoid misunderstandings for users arriving through search engines to specific sub pages in the navigational tree pages showing data should also point to coming releases and previous releases. The calendar of expected updates should also allow direct navigation to the pages. As the calendar is for the year 2014 it is not possible to see updates planned for 2015 before the work planned for the coming year is approved. It is recommendable that a rolling list / schedule of updates is compiled and made public so that all products have a release time one year ahead.

Users interested in the methodological background information for any given statistics cannot find these by direct link from the page showing the statistical figures. Linking from the statistics (figures) to the metadata (descriptions and methodologies) greatly improves access and the user experience. However, it is also clear that such a level of integration can only be achieved through the use of content management software and is not possible in a “hand held” website. We strongly believe that a new integrated portal solution should include / facilitate this type of dynamic cross linking.

Illustration of navigation page for metadata descriptions



The screenshot shows the website of the State Statistics Service of Ukraine. The main content area displays a list of statistical indicators under the heading 'Navigation page for metadata descriptions'. The list is organized into categories: 'B&E statistics', 'Demographic statistics', 'Distributional trade statistics', and 'Energy statistics'. Each category lists specific indicators with their corresponding codes and descriptions.

Category	Indicator Code	Description
B&E statistics	1114011	Performance of scientific and research and technical work
	1114012	Balance of stocks of scientific and technical equipment
	1114013	Balance of expenditures of scientific and technical equipment
	1114014	Creation and use of advanced technologies and objects of the state of intellectual property
Demographic statistics	1115011	Information activity of industrial enterprises
	1115012	Information activity of non-industrial enterprises during the period of 2010-2014
	1115013	Information activity of non-industrial enterprises during the period of 2010-2014
	1115014	Information activity of non-industrial enterprises during the period of 2010-2014
Distributional trade statistics	1116011	Stocks of goods, services and equipment in trade
	1116012	Balance and stocks of goods in trade, services and equipment in trade
	1116013	Balance of goods and services in trade
	1116014	Balance of goods and services in trade, services and equipment in trade
Energy statistics	1117011	Balance of stocks of energy materials and equipment in trade
	1117012	Balance of stocks of energy materials and equipment in trade
	1117013	Balance of stocks of energy materials and equipment in trade
	1117014	Balance of stocks of energy materials and equipment in trade

Suggestions for the coming website – Searching

The search functionality of the coming portal was demonstrated and was used as a starting point for a discussion on how users find information and the challenges that we have in meeting their requirements. The SSSU intends to produce information material / videos explaining how the various section of the web portal works. Although such material is always a recommendable thing to have, we

believe that it is better to test the web site with various tools designed to improve the user experience so that users do not have to “learn” the website. In general it is our experience that users are not interested in learning how a web site works. Instead they might conclude that either the information is not available, look at different sources or contact you by mail or telephone. Neither is an efficient use of our limited resources. It is therefore important to monitor what the users are looking for and how they find it. This is clearly a job for dissemination expertise and not for IT staff.

Suggestions for the coming website – Responsive web design

It was discussed how the web portal would react to mobile devices. To our understanding the software can be adapted to provide a mobile / tablet friendly or compatible interface but this has not been included for financial reasons. It our experience that an increasing number of our users are using devices other than desktop computers forcing us to provide either truly responsive web designs or device specific solutions. It’s important that the use of browsers and platforms are systematically monitored so that the size of the problems is always understood and known not only in the IT and Dissemination departments but also at the Senior Management level. In the Prognoz software some problems must be expected due to a high dependence of Flash technology.

Suggestions for the coming website – User testing should be used

Usability testing is very useful when developing new navigation and functionality. Even the chosen labeling – naming- can be tested for “findability”. Several methods are at choice, some for a small price (usertesting.com), some free (Think aloud). Card sorting was mentioned as a method to check if users understand the structure and naming of statistical groupings. The twinning project can dedicate a workshop / seminar to demonstrating such techniques to the SSSU. If resource are available to the SSSU it would be beneficially to test the current web site for usability in order to establish a benchmark that the coming portal can be compare with.

Suggestions for the coming website – Archiving and revisions

The Danish experience regarding archiving and revisions of data and web site content was briefly explained to the SSSU. For both practical and political reasons it is important that internet users are fully aware of revisions and corrections to data.

Suggestions for the coming website – Change of website

When implementing a new web side including a new information architecture / navigation structure bookmarks and links external to your web site og specific links in your printed publications will become invalid. If functional addresses like www.dst.dk/price index is used it is important that such links are updated.

2. Conclusions and recommendations

Based on the discussions with the SSSU the following recommendations can be given:

An aggregated output database should be put in place in order to make self tabulation by the end users possible.. As the idea is to have a portal covering all 27 regional offices statistics, it is recommended that SSSU sets up the road map on how and in which format data from the regional offices shall be imported to the web store.

The Danish model on how data came from the web stor to the outputdatabase and from there is reused in different connections on the web site and publications were discussed and seemed to be a method to go for. (The Single source principle). As the Danish experts have no background knowledge of the Prognoz software, this should rather be addressed to the Prognoz developers instead.

A system for planing and management of releases should be put in place

A content management system (CMS) should be used⁴The CMSshould t use and reuse statistical information from an output database / central data storage

Web analytics should be implemented to generate systematic information on the use of the web site. Google analytics is a free possibility. However, experience in setting up reports besed on the logging will require some time.

Analyse and prioritize the users and their use

Develop a dissemination strategy according to Code of practice, e.g including release calendar, timeliness, correction of errors

The prototype of integrated web portal should be tested / screened for complianc with national ukrainian requirement for design and userfrindliness

⁴ A number of open source softwares are available like Drupal and Umbraco

Annex 1. Terms of Reference



European Union Twinning Project

Support to Development Process in the State Statistics Service of Ukraine with the Objective to Enhance its Capacity and Production

Twinning No.: UA/13/ENP/ST/38

Terms of Reference

for a short-term mission to the State Statistics Service of Ukraine

April 7-9, 2014

Working meetings between the experts of the IT Department (SSSU) and the EU experts within the framework of the Twinning Project “Support to Development Process in the State Statistics Service of Ukraine with the Objective to Enhance its Capacity and Production”, Component 13 Communication

Component 13 Communication

Activity 13.1 Assessment mission. Improvement of the website

Experts: Ms Annegrete Wulff (DK)

Mr Jesper Ellemose Jensen (DK)

Date: 7-9/04/2014

Working language: English

	Morning	Afternoon
Sunday 06/04/2014		12:40 Arrival to Kyiv (Boryspil airport) Transfer from the airport arranged with Vitaliy (+380934171888) (price: €25) You can pay on your way home, €50 roundtrip Reservation in the Hotel Rus: Mr Jesper Ellemose Jensen # 1128160 (room: business class) Experts: Ms Annegrete Wulff # 1128167 (room: business class)
Monday	10:00 Arrival to the SSSU	14:00 - 16:30

7/04/2014	<p>Address: 3 Shota Rustaveli Str., Press center</p> <p>10:00-13:00</p> <p>Familiarization with the SSSU website:</p> <ul style="list-style-type: none"> • main sections of the website; content of these sections • methods and formats used to post information on the website • documents regulating the content of the website 	To be continued
Tuesday 8/04/2014	<p>10:00 Arrival to the SSSU</p> <p>Address: 3 Shota Rustaveli Str., Press center</p> <p>10:00-13:00</p> <ul style="list-style-type: none"> • establishing interaction with users /getting feedback from users • studying information needs of the users (conducting questionnaire surveys, online surveys) • use of special software to define the most visited website pages 	<p>14:00 - 16:30</p> <p>To be continued</p>
Wednesday 9/04/2014	<p>10:00 Arrival to the SSSU</p> <p>Address: 3 Shota Rustaveli Str., Press center</p> <p>10:00-13:00</p> <ul style="list-style-type: none"> • ensuring easy access for users with special needs 	<p>17:55 Departure from Kyiv (Boryspil airport)</p> <p>Transfer to the airport arranged with Vitaliy (+380933203140)</p>

Participants:

Ms Annegrete Wulff (DK)

Mr Jesper Ellemose Jensen (DK)

Ms Olena Vyshnevskya, SSSU

Members of the Department for communications, access to public information and international cooperation

Members of the IT Department

Annex 2. Persons met

SSSU:

Ms Olena Vyshnevskya, Director, Department for communications, access to public information and international cooperation SSSU

Members of the Department for communications, access to public information and international cooperation and Members of the IT Department

A.Sultanova

O.Kostyrko

I.Verner

M.Korol

S.Pustovoytova

A.Zhuk

O.Babaryk

RTA Team:

Irina Bernstein , RTA

Olga Burbelo, RTA Assistant

Annex 3. Matrix of Code of Practice / Quality Assurance Framework

The table below states the principles relevant for dissemination. To each principle a number of indicators for compliance is defined. The matrix is a useful tool for benchmarking and identifying action areas related to Dissemination.

Principle:	Why we are compliant?	Why we are not compliant?	Steps that can make us more compliant
Principle 6: Impartiality and objectivity Statistical authorities develop, produce and disseminate European Statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably			
Indicator 6.1: Statistics are compiled on an objective basis determined by statistical considerations.			
Indicator 6.2: Choices of sources and statistical methods as well as decisions about the dissemination of statistics are informed by statistical considerations.			
Indicator 6.3: Errors discovered in published statistics are corrected at the earliest possible date and publicised.			
Indicator 6.4: Information on the methods and procedures used is publicly available			
Indicator 6.5: Statistical release dates and times are pre-announced.			

Indicator 6.6: Advance notice is given on major revisions or changes in methodologies.			
Indicator 6.7: All users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements			
Indicator 6.8: Statistical releases and statements made in press conferences are objective and non-partisan.			

Principle 11: Relevance

European Statistics meet the needs of users.

Indicator 11.1:**Processes are in place to consult users, monitor the relevance and utility of existing statistics in meeting their needs, and consider their emerging needs and priorities.**

1. Legislation on user consultation			
2. Users' consultation activities			
3. Analysis of the data on the use of statistics			
4. A classification of users.			
5. A list of key users and their data uses			
6. Users' consultation procedures			
7. Relevance measurement and assessment			

Indicator 11.2:**Priority needs are being met and reflected in the work programme.**

1. Work programme priorities			
2. Strategic goals and programme plans			
3. Agreements with most important users			
4. Evaluation of the work programme			

Indicator 11.3:**User satisfaction is monitored on a regular basis and is systematically followed up**

1. User satisfaction surveys			
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2. Improvement actions arising from the user satisfaction surveys			
3. Assessment of satisfaction of key users			

Principle 12: Accuracy and Reliability			
Indicator 12.1: Source data, intermediate results and statistical outputs are regularly assessed and validated.			
1. Systems for assessing and validation data			
2. Procedures and guidelines for data quality assessment			
3. Comparison of results with other sources			
Indicator 12.2: Sampling errors and non-sampling errors are measured and systematically documented according to the European standards.			
1. Procedures and guidelines to measure and reduce errors.			
2. Quality reporting on accuracy.			
3. ESS recommendations on quality reporting.			
4. Methods and tools for preventing and reducing errors.			
Indicator 12.3: Revisions are regularly analyzed in order to improve statistical processes.			
1. A Revision Policy.			
2. Explanations on revisions.			
3. Compliance of the Revision Policy with standard procedures.			

4. Information on the size and direction of revisions for key indicators.			
5. Use of analysis of revisions.			

Principle 13: Timeliness and Punctuality			
Indicator 13.1: Timeliness meets European and other international release standards			
1. Compliance with international standards on timeliness			
2. Publication of a release calendar.			
3. A procedure to monitor and follow-up divergences from timeliness targets.			
4. Quality indicator(s) on timeliness.			
5. Analysis and assessment of quality indicator(s) on timeliness			
Indicator 13.2: A standard daily time for the release of European Statistics is made public.			
1. A release policy.			
2. Publication at a standard daily time			
Indicator 13.3: The periodicity of statistics takes into account user requirements as much as possible			
1. Consultation of users on periodicity.			
Indicator 13.4: Divergence from the dissemination time schedule is publicized in advance, explained and a new release date set.			
1. Publication of a release calendar.			

2. A procedure to monitor and assess punctuality			
3. Publication of divergences from the pre-announced time, the reasons for divergence and a new release time.			
4. A procedure to calculate, monitor and disseminate quality indicators on punctuality.			
Indicator 13.5: Preliminary results of acceptable aggregate accuracy can be released when considered useful.			
1. Review of the possibility of disseminating preliminary results.			
2. Reporting of the quality of preliminary results			
3. A policy for scheduled revisions			
Principle 14: Coherence and Comparability			
Indicator 14.1: Statistics are internally coherent and consistent (i.e. arithmetic and accounting identities observed).			
1. Procedures and guidelines to monitor internal coherence.			
2. Procedures and guidelines to ensure combination of outputs from complementary sources.			
Indicator 14.2: Statistics are comparable over a reasonable period of time.			

1. Changes to concepts.			
2. Identification and measurement of changes in methods.			
3. Publication and explanation of breaks in time series.			
Indicator 14.3: Statistics are compiled on the basis of common standards with respect to scope, definitions, units and classifications in the different surveys and sources			
1. A mechanism to promote coherence and consistency			
2. Assessment of compliance with standards.			
3. Explanation of deviations from standards			
Indicator 14.4: Statistics from different sources and of different periodicity are compared and reconciled			
1. Comparison of statistical output with related data			
2. Identification and explanation of divergences			
3. Reconciliation of statistical outputs			
Indicator 14.5: Cross-national comparability of the data is ensured within the European Statistical System through periodical exchanges between the European Statistical System and other statistical systems. Methodological studies are carried out in close co-operation between the Member States and Eurostat.			
1. Institutionalization of assessment of comparability			

2. Collaboration in methodological studies			
3. Assessment by Eurostat of the comparability of data.			
4. Analysis of asymmetries			
5. Identification and corrections of discrepancies in mirror statistics			

Principle 15: Accessibility and Clarity.
Indicator 15.1:

Statistics and the corresponding metadata are presented, and archived, in a form that facilitates proper interpretation and meaningful comparisons

1. A Dissemination Policy			
2. Consultations of users about dissemination			
3. Training courses for writing interpretations and press releases			
4. A policy for archiving statistics and metadata			
5. Comparisons included in publications			

Indicator 15.2:

Dissemination services use modern information and communication technology and, if appropriate, traditional hard copy.

1. Website and statistical databases' conformity with universal guidelines.			
2. Website, statistical data bases and self-tabulation			
3. An information service/call center service			
4. A publication catalogue.			
5. Facilitation re-dissemination.			
6. Consideration of various forms of dissemination			

Indicator 15.3: Custom-designed analyses are provided when feasible and the public is informed.			
1. Communication about the possibility and terms of custom-designed analyses.			
2. Provision of custom-designed outputs.			
3. Publication of custom-designed analysis			
4. An information service for making requests for custom-designed analyses			
Indicator 15.4: Access to microdata is allowed for research purposes and is subject to specific rules or protocols			
1. Consultation of researchers			
2. Publication of the rules or protocols to access microdata			
3. Facilities to access microdata in a secure environment.			
4. Remote access facilities.			
Indicator 15.5: Metadata are documented according to standardized metadata systems.			
1. Dissemination of statistical results and metadata			
2. Metadata linked to the statistical product.			
3. Accordance of metadata with European Standards			

4. Metadata independent of the format of publication.			
5. Procedures to update and publish metadata			
6. Ability to clarify metadata issues			
7. Training courses for staff on metadata			
Indicator 15.6: Users are kept informed about the methodology of statistical processes including the use of administrative data.			
1. Planning of the production of quality reports			
2. Publication of quality reports and methodological documents			
Indicator 15.7: Users are kept informed about the quality of statistical outputs with respect to the quality criteria for European Statistics.			
1. Publication of quality reports			
2. Compliance of quality reports with ESS standards and guidelines			