TWINNING CONTRACT

JO/13/ENP/ST/23

Strengthening the capabilities of the Department of Statistics in Jordan

MISSION REPORT

on

Activity 4.6: Online Dissemination - I

Mission carried out by

Mrs. Annegrete Wullf, Statistics Denmark
Mr. Jesper Ellemose Jensen, Statistics Denmark

21-25 September 2014

Version: Final

STATISTICS DENMARK

Istat
Istituto Nazionale di Statistica

DOS 1949

Expert contact information

Annegrete Wulff
Statistics Denmark
Sejrøgade 11
DK-2100 Copenhagen Ø
Denmark
Tel: +453917 3155
Email: awu@dst.dk

Jesper Ellemose Jensen
Statistics Denmark
Sejrøgade 11
DK-2100 Copenhagen Ø
Denmark
Tel: +453917 3244
Email: jej@dst.dk

Table of contents

List of Abbreviations

CSS	Cascading Style Sheet
DoS	Department of Statistics of Jordan
ToR	Terms of Reference
CNMM	Common Nordic Metadata Model
CMS	Content Management System
NSI	National Statistical Institute

Executive summary

A number of activities / missions have now been used in the Twinning project to discuss / demonstrate and validate the possibilities for introducing an online dissemination tool / software in the form for PX-Web. This can be implemented with or without the CNMM (Common Nordic Metadata Model). To publish a database on the Internet before the end of the Twining project requires DOS to make a positive and firm commitment to this object.

In most Eurostat countries electronic dissemination is clearly identifiable in the organisational diagram of the NSI. Providing users with efficient and timely disseminated statistics on Internet requires dedicated staff that can formulate the requirements of the users and help IT staff and subject matter statisticians to turn data into user friendly and easily available on-line information. The required skills and the organisational power required for this job is often not found in IT or the communication departments. So this task can only be successfully done with a clear and strong mandate from the absolute top management.

1. General comments

This mission report was prepared within the Twinning Project ”Strengthening the capabilities of the Department of Statistics in Jordan”. It was the first mission to be devoted to the online dissemination within Component 4: IT and Online Dissemination of the project.

. Purpose of the activity

- To discuss organizational aspects regarding the maintaining of the dissemination tool
- To develop a roadmap for the dissemination process including the implementation of PC-Axis as the online dissemination tool
- To identify training needs regarding the proposed dissemination tools
- To present how PC-Axis can be used to present statistical information to users
- To discuss the tables for the Common Nordic Metadata Model (meta database), and to discuss each column in the tables and give example on each column to be shown in the PC-Axis
- Identify and discuss all CSS files for PX- Web and determine the responsibility of each file
- To discuss possibilities for changing the layout of the PX-web
- Discussion on how to deal with data security in relation to online dissemination

The consultants would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Jordan and which facilitated the work of the consultant.

This views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, DoS or Statistics Denmark.

2. Assessment and results

Most of the mission was devoted to the practical work with and understanding of the Common Nordic Metadata Model, CNMM and the relation to the web interface PX-Web.
This work will require contributions from and continuous cooperation between IT, Dissemination and Statistical units. The set-up of such co-operation will have to be approved by the management who will also have to follow up on the work with the public dissemination databank on the web.

Since the previous mission DoS IT staff had been working with input to the CNMM data model, and made a few files needed to link the metadata together. Caused by a few misunderstandings in the content and meaning of the data model tables, only one file was successful. However, we discovered an unusual enthusiasm and dedication in getting started.

To discuss organizational aspects regarding the maintaining of the dissemination tool
We would like to stress that the import focus is terms of dissemination through electronic means (Internet) is NOT the IT-tools / software’s employed. The main organizational aspect is that the organizational chart must clearly point out the unit / division / staff members that are responsible for dissemination.

Dedicated staff with specialist knowledge
In many NSI we see a tendency that everything about internet or even about producing printed publications is left to the IT department. Although common and seen in many countries this setup is not recommendable. To state it provocatively statistics that are not disseminated to the relevant users / stakeholders are a waste of the institutions resources. Proper dissemination requires staff that are in constant dialogue with users about their specifics needs for statistics and who understand how these needs can be turned into dissemination products like press releases, statistics bulletins, webpages, databases, yearbooks and all the other products that a NSI produce regularly. These staff members

must have a sufficient understanding of statistics to interact with both users and the staff of DOS subject matter divisions. In addition to this the staff must have sufficient IT knowledge to understand what's technically feasible or not inside a given resources allocation.

Ambassadors of users and agents of change
Among the member state countries in Eurostat the paper / printed publication is getting closer and closer to the end. Print is being replaced with output databases allowing users to define their own tables and make their own calculations. For DoS to follow this trend new working procedures and skills must be introduced. These changes will not come if DoS staff and management do not speak up for the needs of modern day users. So a group of staff must be given a mandate and management to support to speak for users and convince subject matter staff that something more is needed than printed publications.

Clear mandate from the management
Changing the thinking of statisticians from paper publications to databases requires hard work and dialog between staff working with electronic dissemination and the subject matter statisticians who are responsible for the statistical products. This dialogue is very difficult to have if senior management does not prepare the way with a clear mandate stating that all statistics produced by the NSI must be available inside a specific time frame.

Roadmap for the dissemination process including the implementation of PC-Axis as the online dissemination tool
Based on our discussions with DoS staff some major decisions are needed in order to implement PX-Web / PC-Axis as an online dissemination tool to:

- Principal agreement on the Goal
- Accept software limitations (enemy of good 'enough')
- Steering group / Project manager / Driving force
- PX-Edit Training in training Centre (Twinning activity)
- Customise PX-Web (incl. translate user interface) support / dialog from twinning
- In house info about database project
- Define roles and work shares
- Agreement on metadata, subjects etc. (Management).
- Prioritise tables / statistics (monthly first) (Management?)
- Launch of web site
- Start working on CNMM (Twinning activity)

Agree on Goal
We suggest that the Goal is - too launched before the end of Twinning project an aggregated output database- using PX-Web and PX-Edit. DoS and the Twinning project can accomplish this if there is sufficient motivation.

Accept software limitations
Management, Statisticians and IT all needs to accept the software as it IS. It is used in many countries adapting it should not be delayed by asking for functionality that is specific to DoS. Electronic dissemination IS NOT paper and attempting to make it look like paper will only decrease the value of the product. "Nice to have" functionality should not be used as an excuse for implementing new ways of working.

Steering group
Implementing PX-Web or any other tool is a project. A steering group is therefore necessary to drive the process and make sure that everyone knows and accept what they are required to contribute to the process. The steering groups mandate must be clear and supported by the absolute top management. IT or communication cannot handle such a project alone.

PX-Edit Training at the training Centre
A training course must be organized to train staff from DoS in the proper user of PX-Edit to prepare and update files for the PX-Web internet database. The initial training should be limited to a small number of staff with skills in Excel and a basic understanding of statistics.

Customise PX-Web
The look and feel of the software must be adapted to DoS needs. This work needs to be aligned with the work on the (new) website. 1 or 2 staff members with internet programming skills should be allocate time for this task.

In house info about database project
The Steering Group should organize an internal event to brief the staff of DoS about the project and make sure to explain the roles of each staff member in the process

Define roles and work shares
The most important task of the steering group is to too decide who does what and when they do it. This means that the mandate of the Steering group (and / or the position of its members) must be sufficiently strong to decide and allocate resources inside DoS.

Agreement on metadata, subjects, standardization, etc. (Management).
During the initial work on the database a need to standardized the names of subject areas, the spelling of units, definitions of contact information will appear. It is very important that this standardization work is not left to the technicians / programmers who does the actual implementation but presents clear decisions by DoS.

- Concepts (“terms”)
- Surveys (“studies”, “collections”, “data sets”, “samples”, “census”, “trials”, “experiments”, etc.)
- Dimensions (“variables”, “data elements”, “columns”)
- Codes & categories (“classifications”, “code lists”)
- Universes (“populations”, “samples”)
- Data files (“data sets”, “databases”)

Illustration of metadata issues that should be considered for standardisation

Illustration of different ways of writing a unit at Statistics Denmark before standardization.

Subject areas

The subject structure is usually an area's of debate inside all NSI's. The subject structure allows users to navigate the between the different statistical products and is usually a subject that can lead to inspired discussions. It is important the navigation structure and the subject names are understandable to users and reflect the way users mentally perceive and structure information. It should not reflect the organisational structure of the NSI. Subject areas and their naming must be coordinated and harmonized across all publishing platforms like website, database, Statistical Yearbook and metadata system.

Illustration of subjects used by Statistics Denmark before and after a change to the structure.

1. Level	2. Level	3. Level
Population and Housing		
	Surveys	
		Population & Family and Health
		Employment and Unemployment
		Job Creation
		Information Technology Use at Homes
	Censuses	
		Population and Housing 1994
		Population and Housing 2004
		Aqaba City Population & Housing 2007
	Demographic Statistics	
		Population
		Population estimation
	Vital statistics	
		Births and Deaths
		Mariage and Divorce
	Gender statistics	
		Women Statistics
		Gender Indicators
		Global forum on Gender statistics
Economic		
	Surveys	
		Economic surveys
		Employment in establishments
		Household Expenditures and Income Survey
		Domestic Tourism Survey
		Arrivals and Departures Survey
		Indicators for building Licences
	Censuses	
		Establishments Census 2006
	Economic statistics	
		External Trade
		National Accounts
		Price indices
Agriculture		
	Surveys	
		Livestock
		Crops Statistics
		Agriculture prices
	Agricultural census 2007	
		Agricultural census 2007
	Food Balance Sheet	
		Food Balance Sheet
Environment Statistics		
	Environment Surveys	
		Environment Surveys

Illustration of current subjects used by DoS.

DoS' current subject matter structure used on the website is shown above. It should be considered if this structure meets the requirements of the users.

Prioritise tables / statistics
Before launching the database a decision is need by the Steering Group on which statistics that are to be prioritized in the database. It is neither advisable nor possible to have all statistics available from the beginning. The general recommendation is prioritize statistics with a high demand and a high publishing frequency. This would prioritize items like Balance of Trade and the various price indices. Detail population statistics can be given a low priority but should be ready and coordinated with the next population and housing census. It is our suggestion that one or two key tables are defined for each of the statistical products produced by DoS[1]. The list should then be prioritized by the Steering Group.

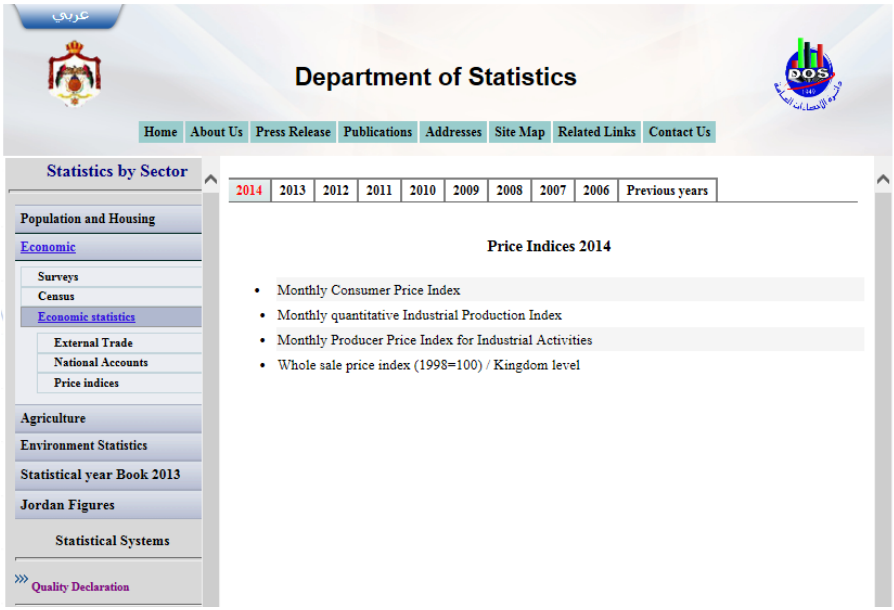

Illustration of tables regarding Price Indecies from present web sites

As experts we would like to stress that the present content found on the web site of DoS in the area of economic statistics can be covered with a manageable number of tables. It is our impression from other countries that especially economic statistics should be prioritized as it is in high demand by the international community.

Launch of web site
When a suitable number of tables has been created and the necessary procedures to ensure that they are continuously updated are in place, the database can be launched. The launched should happen no later than at the end of the twinning project. A communication / marketing plan to inform users about this new product should be defined and implemented.

Ready to launch – a loos definition
The database is ready to launch when the following items are in place:

- Staff trained in PX-Web and PX-Edit
- A localized version of PX-Web
- A sufficient number of tables added to PX-Web – (At least one for each subject area) the tables must be agreed and approved by Steering Group and the responsible subject matter person / division

[1] We assume that a one to one relation between quality / metadata descriptions and statistical products is found at that the list of quality descriptions already defined can be used as a starting point if a list of statistical products is not available.

- Quality descripts are available on the internet and the tables are linked to the quality descriptions
- Procedures for updating the tables every time new data is available is defined, agreed and tested
- Internal guidelines / procedures for the database is developed and approved by DoS management

Start working on CNMM (Twinning activity)
When the PX-Web solution is up and running and regularly updated with a number of key figures DoS can begin to consider using the CNMM. To use the CNMM in DoS Oracle database environment will require development of various software tools either by DoS or external sources. It is our opinion that the time frame for such activities are outside the scope of the twinning project.

Identifying training needs regarding the proposed dissemination tools
The derived training need depends on DOS decision to move forward or not with implementing PX-Web. If DOS do not wish to push forward a make an implementation inside the timeframe of the Twinning project the training needs can't be seen in the relation to the proposed dissemination tools. The following needs were apparent from the discussions:

PX-Edit:
To create and update a solution based on PX-Web and PX-files using PX-Edit DOS staff needs to be trained in the use of the PX-Edit software. This can / should be done as class room training. For such training a limited number of staff (4 to 6) should be nominated. The staff needs to be proficient in Excel to participate in this training. To make the training relevant to DOS production data in the form of Excel and / or CSV files must be made available before and during the training.

PX-Web
Providing training in PX-Web is difficult. The user interface is documented and generally intuitive. Adapting the interface to DOS needs and the look and feel of DOS can be done by staff with normal internet competences. We consider it outside the scope of activities related to dissemination databases to teach these skills. If they are not already present at DOS the activities related to the web site can include some training is this area.

Awareness of statistical concepts and methods
To turn information into understandable cubes / tables on the internet a basic understanding of statistical concepts and methodologies is need. This basic understanding ensures the electronic dissemination staff can understand and formulate the needs and requirements that DOS uses have. It also ensures that the electronic dissemination staff can have an open and equal dialog with the subject matter statisticians. It this type of competences is not present its difficult to ensure quality and have an open dialog. Providing such training is currently outside the twinning project.

How PC-Axis can be used to present statistical information to users
A demonstration of PX-web was made to the staff who participated in the activity. The demonstration was centred around the consumer price index. The illustration below shows how 16 different webpages each containing a year of monthly data can be turned into a single PX file and then presented as a graphical illustration, thereby giving a much better user experience to those who uses data from DoS.

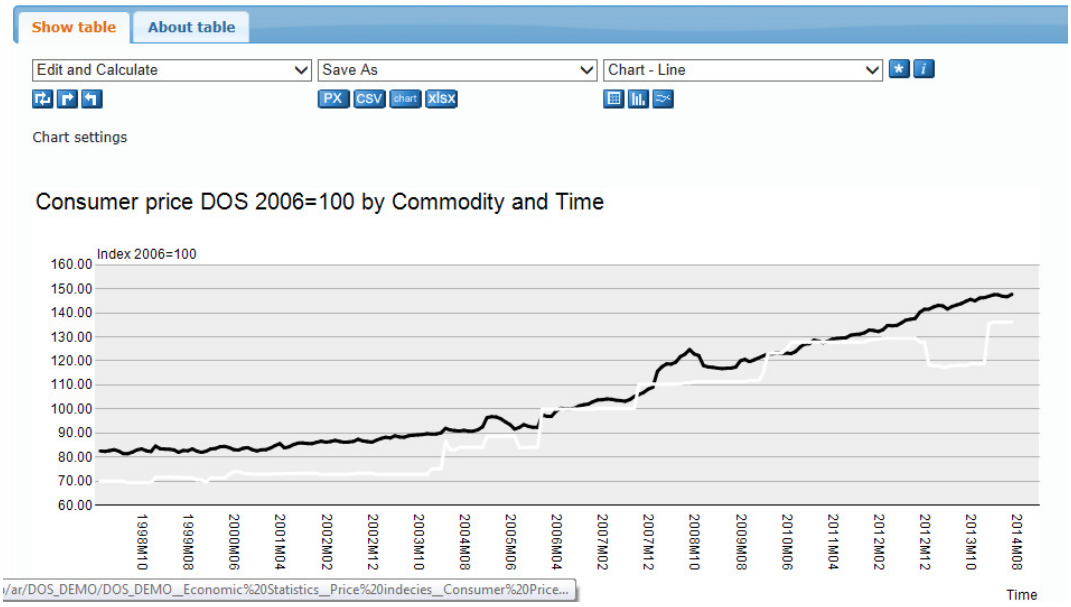

Illustration showing graph based on PX-Web test side.

No time series – 16 Years 16 Tables –
No Excel – No Graphs

Monthly Consumer Price Indices During 2014(2006=100)

Category and Items	Relative Imp.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
All Items	**100.00**	**146.33**	**146.93**	**147.52**	**147.55**	**146.89**	**146.74**	**147.74**						**147.10**
I- Food Items	**36.65**	**157.35**	**159.39**	**159.80**	**159.30**	**156.92**	**154.92**	**156.17**						**157.69**
Cereals and Products	3.80	141.92	142.46	142.77	142.85	144.03	143.88	144.10						143.14
Meats, Poultry	7.88	171.04	175.97	177.11	176.51	169.79	171.88	174.81						173.87
Fish	0.80	135.84	134.74	134.52	135.53	135.46	135.02	136.38						135.35
Dairy Products and Eggs	3.87	180.22	181.09	181.18	179.52	175.29	173.07	172.24						177.52
Oils and Fats	1.70	168.21	168.48	168.40	168.69	168.42	168.11	168.25						168.37
Fruits	2.08	157.43	161.42	163.86	168.58	174.98	159.67	158.95						163.55
Vegetables	3.51	181.61	168.12	166.89	160.79	150.05	135.76	141.69						157.84
Dry and Canned Legumes	0.48	174.15	177.52	178.41	178.94	179.11	178.87	177.80						177.83
Spices	0.83	154.99	156.14	156.48	156.85	157.28	157.61	157.32						156.67
Nuts	0.62	154.30	155.51	156.37	157.00	157.25	157.85	158.84						156.73
Sugar and Confectionaries	2.59	153.33	154.60	154.60	154.75	154.94	155.31	156.52						154.87
Tea, Coffee and Cacao	1.38	141.05	141.64	141.86	142.18	142.65	142.71	143.64						142.25
Other Food Items	2.30	149.02	149.63	150.18	150.87	151.14	151.39	151.45						150.53
Beverages	1.19	125.43	125.54	125.46	124.99	124.87	124.88	124.94						125.16
Alcohols	0.02	140.75	166.99	168.12	168.11	168.52	168.55	168.55						164.22
Cigarettes	3.58	118.79	135.67	136.09	136.11	136.15	136.15	136.15						133.59
II. Clothing and Footwear	**4.95**	**151.74**	**150.76**	**151.50**	**156.70**	**156.76**	**156.82**	**161.45**						**155.10**

Illustration of present presentation of CPI from the DoS website

Common Nordic Metadata Model (metadata base) and its content

Since activity 4.3 (Plan for database structure – II: Knudsen & Tininini) DOS has loaded data into the CNMM based on Oracle. Some tables worked and others did not work. The non working tables are related to a lack of understanding of the CNMM. DOS therefore wished to discuss the CNMM in detail. As experts we had warned against this subject when the ToR for this activity was defined.

It is clear from the discussion that we had that DOS staff is eager to press on with testing and implementing the model. The CNMM is described in some detail in the available documentation produced by Statistics Sweden[2]. It also became clear the available documentation is not sufficient for DOS to implement the model without support. The CNMM as subject is not suitable for class room

[2] Documentation is available from www.scb.se/pc-axis

training or for discussions in a bigger audience. If additional training is required the only meaningful way to provide it is through hands on training in a “one on one” set up. Then DOS would have to parse on the experience to additional staff members.

Tools for managing the CNMM
DOS experience and own work with adding data to the CNMM indicated that software tools is needed to make it easier and user friendly to work with adding data to the model. As it was explained in painstaking detail to DOS neither of the current CNMM users have management tools that can be disconnected from our internal production processes and passed on to DOS. A rough implementation working against MS-SQL server is available but still needs additional work and will not work on the Oracle databases preferred by DOS. Also adopting it to support Arabic will be necessary. It is not inside the scope of this activity to conclude if DOS is ultimately capable of developing the necessary tools to manipulate the CNMM. However we feel the time needed for such an effort is well outside the time limits defined by the Twinning project.

Recommendations / conclusions regarding CNMM
It is therefore recommended that DOS initially focuses on using PX-Web based on files produced by PX-Edit. This recommendation appears to be in direct disagreement to the conclusions in activity 4.3 (Plan for database structure – II: Knudsen & Tininini). However we feel that the work DOS has done on the CNMM and the problems they have encountered combined with an ambition to have working dissemination solution at the end of twinning project clearly needs that focus must be shifted to something that can be done without DOS undertaking a software development project from scratch. Deploying the CNMM in a production set up may require additional hardware and licences for Oracle databases. The licences situation regarding Oracle and Microsoft projects are not clear to the experts but should be investigated further by DOS. License fees regarding PX-Web are generally small – fees for exposing Oracle databases on the internet may be significant.

Possibilities for changing the layout of the PX-web
PX-web can be tailored to any look and feel that the DOS may need in order to make it a part of either the present or the planned upgraded DOS website. The techniques required are a basic understanding of layout in Dot.NET applications and confidence in the use of CSS. The main challenge regarding PX-Web and DOS is found in the bilingual nature of the site. The English version of PX-Web will need to be aligned for reading left to right and the Arabic version for reading right to left. This should be done in such a way that shifting the language in the middle of user session also changes the layout. Adopting PX-Web to handle a RTL and LTR language at the same time in a seamless will take some work / investigations either by DOS or the Twining project alternatively Statistics Sweden who is the author of the PX-Web software. DOS asked for the source code to PX-Web to work on the language aspect. We expect it to be possible to accommodate RTL and LTR only by making changes to the CSS. It’s important to emphasize that from the perspective of the expert’s and the Twinning Project doing this work is a waste of time / resources until DOS decides to implement PX-Web it should not be done for demonstration or testing purposes.

Identify and discuss all CSS files for PX- Web and determine the responsibility of each file
Ad briefing on the various CSS files was originally requested by DOS for this mission. Other issues prevented the experts for making a detailed adaptation of PX-Web to DOS layout. For programmers with basic understanding of CSS and the ASP.NET MasterPage the setup is basically self-explaining. If DOS wants to adapt PX-Web and needs to build the skills for this the only reasonable way to do this is for a programmer or (maximum two) to sit down with a consultant and work through the necessary changes. The subject is not suitable for class room training or discussions in a bigger audience.

Discussions on how to deal with data security in relation to online dissemination
Time did not allow for a detailed discussion of data security in relation to online dissemination. In terms of security the discussion can be broken down into (at least) two distinct sub discussions:
A discussion relating to IT security measures regarding protection of servers against attacks and attempts of non authorized access. This discussion should be left to experts in IT security and we do

not wish to elaborate further on it. The second discussion is related to confidentiality issues. ie- protecting persons or companies against being identified in tables. Internationally some basic rules of thumbs are found. The important issue / conclusion is that data exposed to external users must be aggregated and manually controlled for confidentiality issues before dissemination. A number of NSI's are doing research in the methods to combine "on the fly" aggregation of micro data with confidentiality protection but currently there are no satisfactory off the shelf solutions.

PX-web and data security
PX-web using PX files and NOT the CNMM is the easiest set up in terms of security. When using files DOS do not have to expose on or more database servers to the internet. This greatly simplifies IT security and ease of backup. Using "views" on tables in the Oracle database to contain / define the data part of the CNMM further complicates the IT security set up. The problems and solutions to this set of problems must be addressed by experts on IT infrastructure security.

3. Conclusions and recommendations

It is our recommendation that DoS needs to make a decision on moving forward to implement a solution based on PX-Web and that this must be ready to launch no later than at the end of the twinning project.

Due to the complexity and the need for software development by DoS related to the CNMM we recommend that this is only considered when the database is up and running and the sufficient resources are available. The combination of PX-Web and PX-Edit will allow DoS to sort out the organizational aspects of running a dissemination database while running a simplified IT set up.

Alternatively DoS and the Twinning project should give up on this activity and relocate the resources to other areas.

Regardless of the decisions regarding output databases we would like to recommend that DoS internally discuss the work share / internal procedures regarding dissemination and communication.

It is highly recommended that a unit / division is responsible for dissemination and that the staff of this unit have the skills and the authority to build a bridge between external users and the subject matter statisticians. This role or presenting / disseminating statistics according to the needs of users do not fit well into IT. It requires both skills in IT and Statistics together with the ability to transform the production and mind set of DoS staff from paper to electronic form.

Action	Deadline	Responsible person
Management decision to launch PX-Web using PX-Edit and postpone CNMM until system is up and running		
Define Steering Group for project		
Develop work plan for project implementation / ToR for Steering Group		
Initiate training in PX-Edit – ToR to Twinning project		
Initiate / complete translation of user interface of PX-Web to		

Arabic		
Conduct Internal awareness / orientation event		

Appendix 1

Terms of Reference

EU Twinning Project JO/13/ENP/ST/23

21-25 September 2014

Component 4: IT and Online Dissemination

Activity 4.6: Online Dissemination - I

0. Mandatory results and benchmarks for the component

- New database structure defined and online dissemination improved (Apr 2015)
- Assessment report on current situation (Jan 2014)
- Develop a plan for the database structure (July 2014)
- Improve the IT-security (Jan 2015)
- Improve the online dissemination (Apr 2015)

1. Purpose of the activity

- To discuss organizational aspects regarding the maintaining the dissemination tool
- To develop a roadmap for the dissemination process including the implementation of PC-Axis as the online dissemination tool
- To identify training needs regarding the proposed dissemination tools
- To present how PC-Axis can be used to present statistical information to users
- To discuss all the tables for the Common Nordic Metadata Model (meta database), and to discuss each column in the tables and give example on each column to be shown in the PC-Axis
- Identify and discuss all CSS files for PX- Web and determine the responsibility of each file
- To discuss possibilities for changing the layout of the PX-web
- Discussion on how to deal with data security in relation to online dissemination

2. Expected output of the activity

- A roadmap for implementation of a dissemination process and tool prepared
- Identify a list of training needs
- Recommendations on organization of work prepared
- Recommendations on principles for the tables to be disseminated
- Increased ability of Dissemination staff in (DoS) on how to publish aggregation tables on PX-web that meet the needs of the DOS
- Increased ability of Dissemination staff in (DoS) on how to improve and update the exterior design for PX-WEB that meet the needs of the DOS
- Transfer of the Danish and in general the European Union, experience regarding online dissemination
- A lining up of work programme for the next activity (4.7, scheduled for the 23. – 27. November 2014)

3. Participants

DoS
Mr Tayseer Deeb, Director of Information Technology (*Component Leader*)

Component team members…

MS experts
Mrs Annegrete Wullf, Head of Division, Web and Online Dissemination, Statistics Denmark
Mr Jesper Ellemose Jensen, Chief Adviser, International Consulting, Statistics Denmark

Programme for the mission

Time		Place	Event	Purpose / detail
Sunday, morning	08.30 – 10.00	Hotel /DoS	Meeting with RTA	To discuss the programme of the week
Sunday, morning	10.00 – 12.00	DoS	Meeting with BC Component Leader and BC Experts	Discussions of the weeks' programme Presentation by DoS on the current status regarding the installation of PX-web and PX-axis.
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Sunday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	To present how PC-Axis can be used to present statistical information to users
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Monday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	To discuss the tables for the Common Nordic Metadata Model (meta database), and to discuss each column in the tables and give example on each column to be shown in the PC-Axis
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Monday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Identify and discuss CSS files for PX-Web and determine the responsibility of each file
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Tuesday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	To discuss if and how the layout of the PX-web can be changed to meet the requirements of DoS
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Tuesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Discussion on how to deal with data security in relation to online dissemination
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Wednesday, morning	08.30 –	DoS	Preparations /	Preparations /

	09.30		Report writing	Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	To discuss organizational aspects regarding the maintaining the dissemination tool
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Wednesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Discuss and identify training needs regarding the proposed dissemination tools
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Thursday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 11.30		Meeting with BC Component Leader and BC Experts	Discuss the roadmap for the dissemination -process including the implementing PC-Axis as the online dissemination tool
			Ad-hoc meetings	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
Thursday, morning	11.30 – 12.30	DoS	Meeting with BC Component Leader	Presentation for BC Project Leader
Thursday, noon	12.30 – 01.00	DoS	Debriefing with BC Project Leader	Conclusions and decisions and their consequences for the next activity and the implied work programme for BC Experts

Appendix 2

Mr Tayseer Deeb, Director of Information Technology (Component Leader)

Rana A. Swaidat, IT/ Head of Development Unit
Rania Abu Dhaim, Head of programming and analysis
Abdullah Al –sous, Web Dissemination section/IT
Manal Khuffash, Web Dissemination section/IT
Mohammad Hasan Network Engineer/ IT
Hussam abu shukor

RTA Team:

Thomas Olsen, RTA
Christine Salman, RTA assistant
Abdualla Megdady, Interpreter