TWINNING CONTRACT

JO/13/ENP/ST/23

Strengthening the capabilities of the Department of Statistics in Jordan

MISSION REPORT

on

Activity 4.13: Website technology - III

Mission carried out by

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1st March 2015 to 5th March 2015

Version: Final

Expert contact information

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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 third mission to be devoted to Website technology within Component 4: IT and Online Dissemination.

The purposes of the component were:
o   Assessment and review on the current status of the current database structure, administration system as well as the current use of tools for online dissemination
o   Priority to be given to the topics in the component
  o   Database structure
  o   Online dissemination
  o   Website technology

The consultant 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 highly facilitated the work of the consultant.

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

Activity 4.13	Website technology – III (1st March 2015 - 5th March 2015)
Budget section	7
Subject	Discussion of change request for the website technology Develop a plan for launching the website
Methods	Workshop and discussion with DoS. Presentations by MS and DoS
Resources	MS: Massimiliano Amarone, class 2 (IT), Cecilia Colasanti, class 2 (IT), RTA BC: DoS staff of the Directorate of Information Technology, RTA Counterpart, Component Counterpart Others: RTA Assistant, Language assistance Venue: DoS
Duration	2 STEs x 5 working days
Output	Recommendation prepared on how to maintain content and security of the DoS website.
Time schedule	22th project month

2. Assessment and results

During the week discussions took place to let the experts have an overview of the activities:
1. Solve remaining technical challenges regarding DoS' new website
2. Discuss the procedures for the quality assurance of the content on the web site
3. Discuss the launching of the DoS website
4. Discuss organizational aspects of maintaining the DoS website in the future
5. Discuss website security

Below the assessment results are presented.

1. Recommendations prepared on organizational aspects regarding the quality assurance and maintenance of the content on the website
Organizational aspects to guarantee quality assurance and maintenance of a web site are strictly linked. Actually faulty governance is the single most frequent cause of portal failure. To develop and maintain a successful portal strategy, portal leaders must devise a strategically aligned and durable governance strategy.
Portal initiative leaders must:
- Define governance at the outset of portal initiatives. A clear understanding of governance and its relationship to management is crucial to success.
- Devise a management structure that supports compliance while providing the mechanisms to ensure ongoing communication and agility.
- Rightsize the governance model for the initiative. If it's large and expansive, then consider a tiered model comprising a central steering group and a **C**enter **O**f **E**xcellence (COE).
- Ensure that the governance fits the organization in terms of style, risk profile and culture.

Many organizations seek a reliable, unified point of access to information, business processes and people in order to attract and retain customers, engage and provide critical information, improve process efficiencies, and improve employee access to knowledge. This is the purpose of an enterprise portal.
Well-devised and -managed portals can foster better communications, collaboration and knowledge management; improve employee productivity; increase sales and customer loyalty; and support business transformation.
However, the enterprise is strewn with the barren hulls of portal failure. Many long-established portals, whether they're used to support intranets, extranets or customer-facing websites, have grown paltry with age and disuse.
See <u>Annex 3</u> for more details about the symptoms, causes and remedies for some of the most daunting portal problems:

1. Product fixation
2. Hidden complexity
3. Misuse
4. Content inertia
5. Management dysfunction
6. User neglect
7. Faulty governance

3. Recommendations prepared regarding website security

As World Wide Web (WWW) sites proliferate, so does the risk of penetration. A modifications that could change the DoS home page into a page with other contents is only one example of the type of breach that is possible to experience. Even more common are SYN-flood attacks (SYN-flood, or denial of service, attacks occur between two UDP services, usually by "flooding" the protocol with an excessively high number of packets produced with incorrect or nonexistent IP addresses. This causes the system to deny service to other client requests while it attempts to locate the missing "requester.").

Here, we look at six best practices for protecting and securing WWW sites.
Although security cannot be accomplished by policy alone, enterprises should use this set of best practices to begin to reduce their security risk.

1. Create a security policy framework. This is the foundation of an organization's security strategy. Without a security framework, tools and technologies will have little long-term effect on risk management. The framework consists of five levels of security practices (see Figure 1) and incorporates the policy statement, roles and responsibilities and risk management and analysis. It

applies equally to Internet, intranet and Web site security. Each of these policies should coordinate and dovetail with all other corporate policies and should include acceptable use practices.
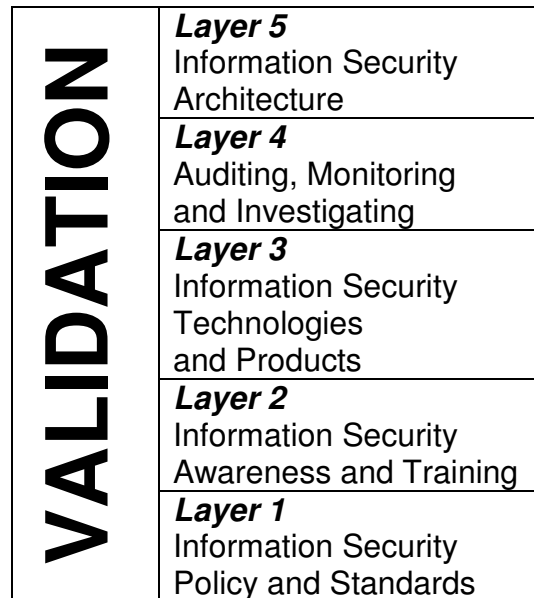
VALIDATION	**Layer 5** Information Security Architecture
	Layer 4 Auditing, Monitoring and Investigating
	Layer 3 Information Security Technologies and Products
	Layer 2 Information Security Awareness and Training
	Layer 1 Information Security Policy and Standards

Figure 1. Security Policy Framework
Source: Gartner Group

2. Provide security awareness training for "Web masters" Typically, Web masters are hired for their expertise and creativity in Web technologies, not for their knowledge of security. However, the Web master who has front-line access to the firewall, proxy server and Web usage and tracking tools is in an ideal position to identify potential vulnerabilities and breaches in the security perimeter as well as compromises to data stored on a Web server. There is, for example, a multitude of information in log files gleaned by WWW tracking tools to which the Web master has first and foremost access. All Web masters should be well versed in the organization's security policies and should be trained in detection, correction and prevention of security breaches on the internal WWW site.

3. Designate a Web security administrator. The Web security administer should have responsibility for inspection, resolution and recommendations in such areas as Web postings, examination of CGI scripts, directory trees and executables such as Java. Examination of this type helps to prevent inappropriate Web postings within the organization and to screen harmful executables and CGI programs, which are a common point of hacker breaches and vulnerabilities.

4. Maintain vigilant administrative and password control procedures. The most common vulnerabilities surround FTP, NFS, Sendmail and TCP/IP problems such as the recent multiple SYN-flood attacks. These vulnerabilities can best be reduced by strong administrative controls, detection and correction by doing the following Critical Administrative Procedures:

■ Creating secure password policies
■ Creating an HTTP server configured for least privilege
■ Separating developments and production systems via a firewall or packet filtering router
■ Maintaining active and accurate log files at all times and by authorized users only. Logs should be retained in a secure but retrievable format. Web usage/tracking tools are helpful in obtaining and presenting this data in a usable format
■ Following proper anonymous FTP setup
■ Having a valid password file accessible via anonymous FTP
■ Disabling wu-FTP when possible

Enterprises can reduce NFS vulnerabilities by doing the following:
- Forbidding NFS export to unprivileged programs
- Restricting NFS export via a port mapper
- Creating and aging privileged accounts for parent directory NFS export
- Reducing Sendmail vulnerabilities via password control and privileged access

Enterprises can reduce TCP/IP (SYN-flooding) vulnerabilities by doing the following:
- Disabling and filtering chargen, echo and other unused UDP features
- Securing the firewall

5. Centralize Web servers. Server administration, authentication and access control lists such as resolution of DNS entries and NIC addresses, can best be secured from a centralized Web site. Even when an organization adopts this security stance, rogue Web sites will continue to present a security risk, especially since they may be connected to the external Internet and may have circumvented the firewall via an IP tunnel or other mechanism. For these reasons, organizations that choose a decentralized strategy should, at minimum, identify all Web servers linked to their site with indexing/mapping tools to ensure that technical staff in all locations share a common set of security practices.

6. Offload critical security services. Security services, such as administration, auditing and firewall attributers, have become a core part of the bundled Web server. Although it is attractive to have a single solution for data retrieval, Web browsing and security services, service degradation and response time issues make it impractical in all but the smallest Web sites. Most enterprises will benefit from offloading transaction-intensive security services such as authentication and certification from their core Web site. This choice will increase the processing of Web requests as well as increase the security of the site's perimeter.

Acronym Key
CGI Common Gateway Interface
DNS Domain Name Service
FTP File Transfer Protocol
HTTP Hypertext Transport Protocol
IP Internet Protocol
NFS Network File System
NIC Network interface card
UDP User Datagram Protocol
URL Uniform resource locator

Due to the Wordpress website implementation, it is recommended to follow the best practices described here
http://www.acunetix.com/websitesecurity/wordpress-security-top-tips-secure-wordpress-application/
http://www.copyblogger.com/wordpress-website-security/

4. Transfer of the Italian and in general the European Union, experience regarding developing and maintaining a statistical offices website
The Istat website is based on different technologies: the main pages are made through the Wordpress CMS, the linked websites http://noi-italia.istat.it, http://www.misuredelbenessere.it,
http://seriestoriche.istat.it, ecc are made by Typo3 CMS and the I.Stat http://dati.istat.it is based on a OCSE product, based on Microsoft technology.
This web site is the result of a strong collaboration among the Directorates of the Istat Integration, Quality, Research and Production Networks Development Department (DIQR).

5. A lining up of work programme for the next steps towards improving the DoS website

5. A lining up of work programme for the next steps towards improving the DoS website	مخطط برنامج العمل والخطوات القادمة لتطوير الموقع الالكتروني في دائرة الاحصاءات
At the moment, referring to the new web site, it was already 1. consolidated on a stable server (IT task) 2. migrated all textual information (news, indicators, press review, ecc) from the current web site to the new web site (IT task) 3. put the national account in evidence on the home page, according with the new DoS organization (IT and National Account task) 4. removed the box with the main key indicators from the home page and put it inside each thematic page (IT task) 5. implemented the website Arabic version (IT task) 6. consolidated a layout and a content distribution compliant with the most important statistical website worldwide (experts task) 7. checked all comments and evaluated it (experts task) See annex 5 for more details	في هذه اللحظة، وبخصوص الموقع الجديد، كان بالفعل 1- مدمج في الخادم الجديد (مهمة ال **IT**) 2- ترحيل جميع المعلومات النصية (الاخبار، المؤشرات، نشرات صحفية، الخ) من الموقع الحالي الى الموقع الجديد (مهمة ال **IT**) 3- وضع الحسابات القومية في الأدلة على الصفحة الرئيسية، وفقا للتنظيم الجديد للدائرة (مهمة ال IT والحسابات القومية) 4- ازالة صندوق مفتاح المؤشرات الرئيسية من الصفحة الرئيسية ووضعه في كل صفحة انشائية (مهمة ال **IT**) 5- تطبيق الموقع الالكتروني بالنسخة العربية (مهمة ال **IT** 6- توحيد تخطيط وتوزيع المحتوى ليتوافق مع اهم المواقع الإحصائية العالم (مهمة المختصين) 7- تدقيق جميع التعليقات وتقييمها (مهمة المختصين)
For these reasons, the current version is ready to be put on line as soon as possible The guidelines to release the new web site are: - Check all technical and security aspects - Move the web site on the external server (for web security reasons) - Separate data from web site. That means: if data are presented on the current web site, it needs to maintain into the new website's inner pages the link to the current web site. The same for all contents that is not possible to move in a new style	ولهذه الاسباب يجب رفع الموقع الالكتروني على شبكة الانترنت في اسرع وقت ممكن: المبادئ التوجيهية الاطلاق الموقع الالكتروني الجديد هي: - فحص جميع الجوانب التقنية والامنية - نقل الموقع الجديد على الخادم الخارجي (لاسباب امنية) - فصل البيانات عن الموقع. هذا يعني، اذا كانت البيانات مقدمة على الموقع الحالي يجب ان تكون محفوظة على الصفحات الداخلية للموقع مع رابط على الموقع الحالي. ينطبق هذا الامر على جميع البيانات التي لا يمكن نقلها بالشكل الجديد.
The new website release has to be put on line as soon as possible for many reasons: (i) The new DoS website is perfectly aligned and comparable with the most important statistical websites in the world (ii) The cost of the new DoS website can be evaluated in 3 weeks * 3 people (Thomas Olsen, Massimiliano Amarone and Cecilia Colasanti) of EU Twinning Project and 7 months * 6 DoS IT staff people + the involvement of DoS Steering Committee and so in more or less 100.000 JD (iii) For the first new website release no other comments/remarks are necessary	ولهذه الاسباب يجب رفع الموقع الالكتروني على شبكة الانترنت في اسرع وقت ممكن: 1- الموقع الجديد مصفوف بشكل ممتاز بالمقارنة مع اهم المواقع الاحصائية في العالم. 2- تكاليف الموقع الالكتروني الجديد لدائرة الاحصاءات يمكن تقييمه في 3 اسابيع * 3 اشخاص (توماس اولسن، ماسيميليانو امارونه و سيسيليا كولاسانتي) من مشروع التوأمة في الاتحاد الاوروبي و 7 اشهر * 6 موظفي **IT** من دائرة الاحصاءات + بالاضافة الى اللجنة التوجيهية في الدائرة وهو ما يساوي تقريبا 100000 دينار اردني. 3- لنشر الموقع الجديد فانه لا يوجد اي تعليقات او ملاحظات
It needs to consider that a web site is a continuous work in progress because each day a healthy organization changes. So an updated stable web site version is intended as an updated stable web site version each day.	يجب الاخذ بعين الاعتبار ان الموقع الالكتروني هو عمل متواصل لان المنظمة السليمة تتغير بشكل يومي. بحيث يكون الهدف تحديث موقع على شبكة الإنترنت كما تحديث مستقر للموقع كل يوم.

To improve this version, different tasks are required. a. To decide which sort of statistical themes/surveys belong to Economic Sector and which to Social Sector (Strategy Department task). After having taken the decision, Strategy Dept communicates it at IT Staff. IT Staff translate it in a suitable menu into the website section 'Data by Sectors'	لتطوير هذه النسخة، هناك مهام مختلفة مطلوبة: 1- تحديد أي نوع من الاحصائيات الموضوعية/مسحية تنتمي الى القطاع الاقتصادي وايها الى القطاع الاجتماعي (مهمة الادائرة الاستراتيجية). بعد اخذ القرار، تقوم الدائرة الاستراتيجية بتوجيه فريق ال IT. وبدوره يقوم فريق ال IT بترجمته الى قائمة مناسبة على الموقع تحت قسم "البيانات حسب القطاعات"
b. To decide how, eventually, to re-arrange the economical data and statistic to improve the data usability (Economic Department task). After having taken the decision, Economic Dept communicates it at IT Staff. IT Staff translate it in a suitable menu into the website section 'Data by Sectors/Economic Sector'.	2- وفي اخر الامر يجب ان نقرر كيفية اعادة ترتيب البيانات الاقتصادية والاحصائيات لتطوير استخدام البيانات (مهمة دائرة الاقتصاد). بعد اخذ القرار تقوم الدائرة الاقتصادية بتوجيه فريق ال IT. وبدوره يقوم فريق ال IT بترجمته الى قائمة مناسبة على الموقع تحت قسم "البيانات حسب القطاعات/القطاع الاقتصادي"
c. To make a plan to migrate all DoS data from 'static data' to 'dynamic data'. To perform this task it is necessary to give a priority to the data migration. We recommend to start from data that already are into a suitable structure, then manage, in the end, the most complex situations (Statistical Depts task). After having written a priority list, IT staff gives the indications to Statistical Depts how to put their data in a convenient data structure to migrate them into the DB. To convert data in the right data structure is Statistical Dept task, under the IT supervision. After this step, IT staff put data into Web PX-Access to show them in a dynamic way and to allow to users a easier data research.	3- لعمل خطة لترحيل جميع بيانات دائرة الاحصاءات من بيانات ثابتة الى متغيرة. لعمل هذه المهمة من الضروري اعطاء الاولوية الى ترحيل البيانات. ننصح بالبدء الموجودة اصلا في اطار ملائم، ومن ثم ادارة، في النهاية، الامور الاكثر تعقيدا (مهمة دائرة الاحصائيين). بعد كتابة قائمة الاولويات، على فريق ال *IT* اعطاء المؤشرات الى الدوائر الاحصائية لكيفية وضع بياناتهم بطريقة ملائمة ولترحيلها الى بنك البيانات. لتحويل البيانات الى بناء البيانات الصحيح هو من مهام الدوائر الاحصائية تحت مراقبة قسم ال IT. بعد هذه الخطوة يقوم فريق ال IT بوضع البيانات على Web PX-Access لاظهارها بشكل متغير وليسمح للمستخدم سهولة البحث عن البيانات.

6. Other issues to be addressed (which are not included in the ToR)

According to the inner meaning to the EU Twinning Project, it was transferred not only a high level skill on Wordpress tool to DoS IT staff but also a new working style. DoS IT staff realized not only the new version of the DoS website, but also a new web site for Census in collaboration with the Director of Census.

See Annex 4 for more details and for the evaluation costs.

According to the last mission, during this mission the governance process was deeper examined again, at the DoS high-level management.

It is clear, at all organizational levels, the necessity to re-think the way to work together. To get more results it is required more flexibility with respect of the management of roles and responsibilities. The common sense has to drive the approach at a balanced mixture of formal and informal way to work.

In practice, referring, for example, to the migration from static to dynamic data, it is very important a high-level of collaboration among Statistical Depts and IT staff. This means work together to get a DoS goal.

3. Conclusions and recommendations

This mission was dedicated to define a stable version of the new DoS web site and to schedule the steps to put it on line, and to IT security issues.

A website represents the image of an Institution and its values, so it reflects DoS' mission and vision. The website's design and implementation has required the involvement of all component of the Organization. To improve this work, it is important to be focused on the DoS working style.

From this point of view, we faced both aspects: technical and organizational.
Technical aspects: the first stable release of the new website was produced and approved and it is ready to be launched
Organizational aspects: Formal meetings have been organized with General Director, IT Director, IT staff, IT Consultant to present the new DoS website.
Different informal meetings between Statistical Depts and IT staff were arranged to collect the comments and different point of views and put them into the web site. In particular, in this mission, the attention was focused on the Census web site.
Anyway, for both web site and security management a governance process for DoS must be implemented.
Referring to the previous two reports, 'Work programme for the next activity', all tasks have been performed.

4. Work programme for the next activity of the project

Organizational level
It should be important:
- to perform a stakeholder analysis and reputation survey for the DoS, also with the support of external experts on this subject
- to invest on communication sector to improve and facilitate internal and external communication and to build a DoS image immediately identifiable
Technical level
It should be important:
- to invest on the security server, for example by buying a new server to put the new website on line
- to separate test and production environments
- to install the 'web analyzer tool' or, better, 'google analytics' to trace the number of accesses to the new web site

Annex 1. Terms of Reference

Terms of Reference

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

1 March – 5 March 2015

Component 4: IT and Online Dissemination

Activity 4.13: Website technology - III

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
- Solve remaining technical challenges regarding DoS' new website
- Discuss the procedures for the quality assurance of the content on the web site
- Discuss the launching of the DoS website
- Discuss organizational aspects of maintaining the DoS website in the future
- Discuss website security

2. Expected output of the activity
- DoS website is fully functional in the English and Arabic language versions
- Recommendations prepared on organizational aspects regarding the quality assurance of the content on the website
- Recommendations prepared on organizational aspects regarding the maintenance of the content on the website
- Recommendations prepared regarding website security
- Transfer of the Italian and in general the European Union, experience regarding developing and maintaining a statistical offices website
- A lining up of work programme for the next steps towards improving the DoS website

3. Participants

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

Abdullah Al –Sous, Web Dissemination section/IT
Manal Khuffash, Web Dissemination section/IT

Component team members…

MS experts
Ms Cecilia Colasanti, Head of Staff Unit of the ICT Director, ISTAT
Mr Massimiliano Amarone, Project Manager, ISTAT

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 week's programme

Discussions of current situation regarding the organisational aspects as well as technical aspects regarding the website.

Discussions of the launching of the website. |
	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	Continued work on the website
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Monday, morning	08.30 – 09.00	DoS	Preparations / Report writing	Preparations / Report writing
	09.00 – 12.00		Meeting with BC Component Leader and BC Experts	Continued
	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	Continued.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Tuesday, morning	08.30 – 09.00	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	09.00 – 12.00			
	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	Continued.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing

Wednesday, morning	08.30 – 09.00	DoS	Preparations / Report writing	Preparations / Report writing
	09.00 – 12.00		Meeting with BC Component Leader and BC Experts	Continued.
	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	Continued
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Thursday, morning	08.30 – 09.00	DoS	Preparations / Report writing	Preparations / Report writing
	09.00 – 12.00		Meeting with BC Component Leader and BC Experts	Final discussions regarding the organisational aspects as well as technical aspects regarding the website.
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Thursday, afternoon	01.00 – 02.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
			Ad-hoc meetings	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
Thursday, afternoon	02.30 – 03.00	DoS	Meeting with BC Component Leader	Presentation for BC Project Leader
Thursday, afternoon	03.00 – 04.00	DoS	Debriefing with BC Project Leader	Conclusions and decisions and their consequences for the work ahead

Annex 2. People met

DoS:
1.   Dr. Qasem Al-Zubi, Director General of DoS
2.   AbdelWadood Matouk, Technical Assistant to the Director General, BC project leader
3.   Tayseer Deeb, Director of Information Technology (Component Leader)
4.   Ahmad Mowafi Head of the Statistical Analysis Division, RTA Counterpart
5.   Abdullah Al –sous, Web Dissemination section/IT
6.   Manal Khuffash, Web Dissemination section/IT
7.   Wafa Hasoneh, Web Dissemination section/IT
8.   Tamara Wadi, Web Dissemination section/IT
9.   Hussam abu Shukor, Head of Electronic Dissemination/IT
10.   Abdullah Al Zoubi, Director of Census
11.   Yasir Nasrallah, Head of Technical Support Division
12.   Mohammad Sakhrieh, Network Engineer

RTA Team:
Thomas Olsen, RTA
Christine Salman, RTA Assistant
Riham Beno, Interpreter

Annex 3. How to avoid the seven portal pitfalls: faulty governance

Faulty Governance Symptoms

"Everyone wanted to lead the portal initiative. No one wanted accountability."

"We have hundreds of portals. We don't know how many."

"Our portal steering committee spent months arguing over look and feel."

Faulty governance is the No. 1 cause of portal failure. In fact, faulty governance is rarely an isolated problem; it's more often the root cause of a number of other pitfalls (User neglect, Management dysfunction, Content inertia, Misuse, Hidden complexity, product fixation). Conversely, a well-defined and well-executed governance strategy can help organizations avoid the other problems that are typical of enterprise portal initiatives.

This may seem wrong to organizations with a narrow and tactical definition of governance, but the misunderstanding (and consequently poor execution) of portal governance is itself a problem.

Causes

Faulty governance takes a few forms, each with its own root causes:

Absence of governance: The portal landscape is strewn with chaos caused by absence of governance, but the problem is worsening as a result of product and tool proliferation in the enterprise and consumer markets. Modern portals, UX platforms (UXPs), enterprise social networks and socially oriented content management platforms offer a wide array of capabilities and tools geared for end-user appeal and viral adoption. While these are much-desired qualities, they tend to treat adoption as the end goal. Without governance, viral adoption can come at the expense of compliance and integrity.

Overly stringent governance: This can stifle portal efforts. In these cases, while governance may help to ensure alignment with enterprise goals — or at least mitigate security risks and the proliferation of redundant or conflicting software platforms and services — strict governance can lead needy individuals and groups toward unsanctioned alternatives.

Bureaucratic governance: Authoritarian governance can also impose cumbersome and superfluous processes on businesses, groups and individuals that require agility. Few companies have adapted their portal governance to accommodate the modern Web's consumer-influenced "free-range" mentality, wherein users and groups are given an array of capabilities atop portal and social software foundations. With more socially oriented portals, the governance burden shifts from extreme control and orchestration to an approach that promotes adoption, monitors use and cultivates positive practices, while weeding out use that damages or distracts from the portal initiative's mission. Like stringent governance, bureaucracy drives users toward alternatives.

Other universal causes include the following:

Faulty definition and scope: Portal governance is too often regarded as a tactical consideration that can be addressed with technology and tools alone. A tools-only approach tends to ignore the strategic purposes for which the portal is used. Portal initiatives fail when governance isn't treated as a comprehensive coordination of people, policy and process.

Misalignment with business value: There can be no success when there is no definition of success. The first task of every portal leadership group is to establish the overall mission, along with a set of measurable objectives required to accomplish the mission. Portal initiatives can easily go astray of business value when business stakeholders are poorly represented.

Deficiency of leadership: Designated leaders of portal initiatives often lack the skills, the requisite purview, the influence or clout, the persistence, or the empathy required to make a portal initiative successful. Lack of effective executive sponsorship leaves many portal initiatives without adequate impetus.

Lack of perseverance: Too many organizations treat portal initiatives as simple implementation projects rather than ongoing programs. They may or may not meet initial milestones and goals, but they're invariably unsuccessful over time when they fail to evolve with new demands.

Remedy

Avoiding the faulty governance pitfall requires a clear definition of the governance role and its responsibilities, finding an appropriate balance between control and flexibility, and organizing to sense and respond to changes in demand.

Define Governance

Getting portal governance right starts with an understanding of the fundamental role of governance versus related (but separate) factors, such as compliance and management. Gartner defines governance as, "The process by which policy and decision rights are set, maintained and effectively communicated throughout an organization." Here are some useful distinctions between these often-confused concepts:

- *Governance* uses people, policy and process to resolve ambiguity; to manage short-range and long-range goals; and to mitigate conflict within an organization.
- *Compliance* is a process used to ensure that governance is being followed.
- *Management* establishes strategy, design, transition, operations and continuous improvement for the portal initiative.

Portal governance pertains to a portal initiative. The scope of a portal initiative might encompass an intranet, a customer-facing portal, a collaboration and knowledge management initiative, or a unifying service for portals with various purposes and audiences. Portal governance focuses on three factors:

- **People (Who?)**: Lays out the scope of authority and assignments for the key roles involved in the portal
- **Policy (Why?)**: Articulates and justifies the intended approach
- **Process (How?)**: Determines procedure to execute and enforce each policy

Portal governance is not:

Portal management: Many organizations confuse portal governance with portal management. The two disciplines must work hand-in-hand toward a successful, vibrant and continuously improving portal strategy. However, confusing them can result in an organizational bureaucracy that encumbers efforts to evolve as business and user demands change. The role of portal governance is to determine people, policies and procedures in an effort to ensure alignment with enterprise goals; to set objectives and priorities that are in line with those goals; and to resolve conflicts or disputes before they happen. The role of management is to design, deliver and support a service that meets the needs of the organization. Governance creates an environment in which management can be effective.

A product: Portal governance is not a product, and it should not center on a product or platform. Portal governance should be focused on the goal of the organization, not a goal to implement a product. Product fixation leads organizations toward governance with no inherent sense of or accountability for business value. Gartner suggests identifying the governance effort with the business initiative or mission it is intended to serve, rather than with the name of the portal product.

A tool or a feature: Portal governance is not a software tool or a product feature. While some portal platforms and tools exist to help organizations create, manage, monitor and enforce responsibilities, policies and processes, governance itself cannot be purchased or installed.

However, governance groups should not occupy their time approving designs or setting design and branding standards.

Rather, they should determine:

- **People**: Who is responsible for User eXperience (UX) throughout the portal project phases? (see last document released on UX)
- **Policy**: Why should the organization institute User eXperience (UX) processes and methodologies?
- **Process**: How should User eXperience (UX) design be executed? What are the processes for changing or adapting User eXperience (UX)?

Portal Governance Considerations

In an effort to ensure agreement and alignment with enterprise goals, portal steering groups should define the following:

- **Mission** — that is, an overarching mission statement in line with the goals of the business. The mission statement should try to focus on perpetual or long-term goals, meaning timeless opportunities and risks.
- **Objectives** — that is, a set of measurable objectives to accomplish said goals (such as improving customer satisfaction, increasing online sales, improving employee retention and so on).
- **Scope and composition** — that is, the scope of governance, the composition of the governance team, the team's powers and its relationship to other IT governance groups and activities.
- **Vision** — that is, the desired future state of the portal experience, from the perspective of important end-user segments or personas.

Given the intended mission, objectives, scope, composition and vision, governance groups should consider a range of factors, which are enumerated below with some sample questions for resolution:

- **Management structure**: What responsibilities and standards should be centralized or distributed? What amount of autonomy should be provided to regions, divisions, brands, departments, working groups and end users?
- **Shared services**: How will the organization share and reuse knowledge, content, and applications? Will the organization employ a COE or a portal factory?
- **Funding**: How will portal projects, sites and projects be funded? What is the process for justifying projects and securing funding?
- **UX and design**: Who is responsible for design decisions? What policies will govern design or redesign efforts?
- **Development**: Who manages portal development? When should portal development be outsourced?
- **Architecture framework**: Who makes and enforces architecture and infrastructure decisions? What are the principles and policies regarding the use of a common architecture? When and how often should they be re-examined?
- **Products/vendors**: Who will decide what products and vendors will be used? What principles will guide decisions? When, if ever, will exceptions be allowed?
- **Content management**: Who is responsible for managing the quality and integrity of content in the portal(s)? Will content contribution be centralized or widely distributed?
- **Promotion and training**: Who will be responsible for promotion and training to help ensure adoption?
- **Measurement and analytics**: How and when should key performance indicators be used to measure the portal's effectiveness?
- **Timeline**: What is the timeline for implementing governance?

Once again, the task of governance is not to delve into the details of the above factors. Rather, its role is to designate people, create policies and define processes, and to ensure that they're in line with the portal initiative's goals.

Also, organizations should remember that different people, policies and processes may apply at various stages of a portal initiative — from initial planning, to development and rollout, to ongoing maintenance and refinement. For this reason, organizations should consider the nuances of each of these factors throughout the evolution of the portal initiative.


Balance Control and Flexibility

Governance is too often regarded as the antithesis of freedom in portal initiatives. In fact, governance should allow the appropriate level of freedom and flexibility to ensure that the portal can accomplish its mission and objectives. Some organizations favor centralized control over distributed flexibility, while others favor the opposite. Striking the right balance and being able to adjust it when needed are critical to enduring portal success.

Portal leaders must carefully consider the level of autonomy they will give to various parts of the business — that is, to divisions, regions, departments, project groups and individuals. Essentially, they must examine where to draw a line between factors that should be standardized across the portal (or multiple portals), and where individual entities are allowed to make choices according to their own needs and priorities. Moreover, the factors aren't just technology platforms or products (that is, "Everyone must use Portal Product X"). They include design and branding, security, content taxonomy, funding and provisioning, training, and more.

Meanwhile, social dynamics and consumerization require rethinking several aspects of portal governance. Users have higher expectations of control and interaction in every type of portal. Modern portal and emerging UXP products offer a wider array of capabilities that allow end users to manage their own experience. Accordingly, organizations want to create environments wherein employees, customers and partners can interact with each other as well as with the company. Such modern, free-range portal environments call for changes to the typical "top down, trickle down" portal governance model; they also call for the organization and skills required to comply with the model.

Figure 1 depicts a sample model identifying responsibilities at various levels of the business with a typical, hierarchical, top-down orientation. The Figure 2 model, which is in line with a more social or free-range approach, is oriented with the end users at the top. While one can be regarded as the simple inverse of the other, there are important implications (listed under "Principles") for how each model is governed.
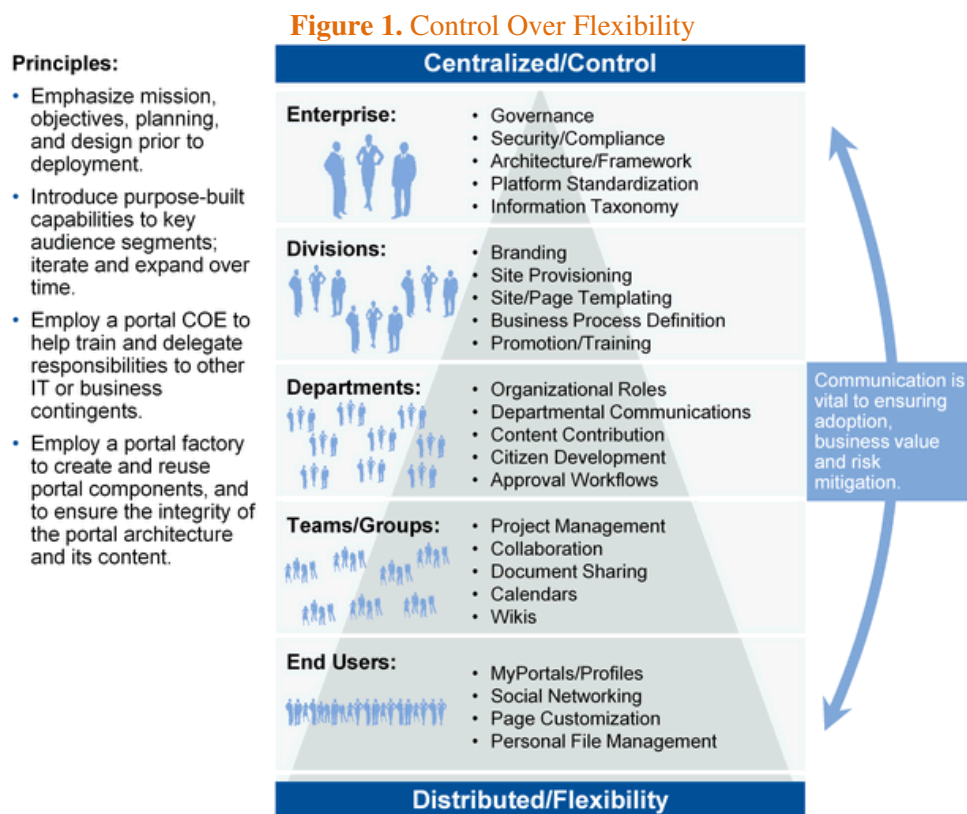
Figure 1. Control Over Flexibility

Note: The graphic is not intended to be comprehensive or prescriptive. Factors and designated responsibilities depend on the organization's culture and chosen strategy

Figure 2. Flexibility Over Control
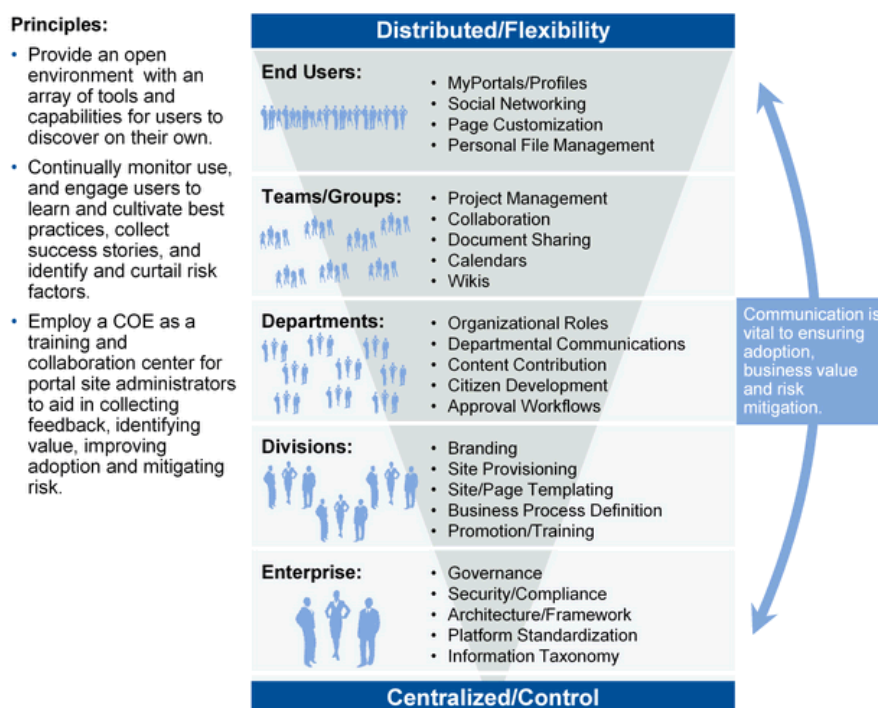
Note: The graphic is not intended to be comprehensive or prescriptive. Factors and designated responsibilities depend on the organization's culture and chosen strategy.

Build a Portal With a Sense of Purpose

Enterprises use portals to serve an enormous variety of purposes. Company cultures and attitudes about control vary widely, and companies have differing relationships with their employees, business partners, customers and other constituencies. Thus, no two statements of governance are exactly alike, and there is no plug-and-play template for portal governance.

No matter what the governance model is, organizations should keep the following principles in mind:

- **Account for variability**: The control characteristics may be different for every portal instance within the scope of your initiative. For example, your employee portal may offer users a great deal of independence and autonomy, while your customer portal might be a more controlled and orchestrated UX. In fact, the control characteristics may differ among individual audiences in these domains — for example, business customers versus consumers.
- **Detect the need for change**: Portal managers must use a range of mechanisms to sense and respond to the need for change in the control-versus-flexibility formula. They should use human mechanisms (such as surveys, feedback and interviews) in conjunction with objective data gathered through compliance tools and Web analytics.
- **Enable adjustment**: Part of the governance burden is recognizing and acting on the inevitable need to exert more control when necessary, and to release more flexibility when necessary, without disrupting user productivity or compromising the business's integrity.

Here is where portal technology comes into play. The best-constructed portal products and platforms support a variety of governance models, and are able to adapt to changes in demand.

Organize for Durability

The manner in which leaders organize portal responsibilities and tasks is vital to ensure business success, adoption and longevity. As we mentioned earlier, many portal initiatives fail just when leaders give up. However, portal initiatives require continual commitment and vigilance.

Therefore, portal leaders must organize to ensure not only the completion of the portal project or product, but also ongoing compliance, maintenance and communication of portal governance over

time. Communication, a fundamental element of the governance definition, is acknowledged by most organizations that implement portals, but it's not always understood or executed as going both ways — that is, most organizations regard communication of governance policies as one-way: from the governing body to the constituent.

A durable portal strategy requires constant two-way communication. Of course, governance policies must be instituted, communicated and enforced throughout the organization. However, to ensure that the portal continues to comply with governance, organizations must periodically examine the following:

- Are policies and processes being followed (compliance)?
- Are policies and processes adequate to address the needs of the business?
- Are they too strict? Are they stifling productivity or adoption?
- Are they too loose? What additional/new risks must governance address?

Thus, it's vital to build a portal organization that fosters continual two-way communication, ensures commitment and engagement over the long term, and allows for change.

Leadership and Steering

Most successful portal organizations employ a steering group comprising an initiative or project leader along with an executive sponsor, several business stakeholders (depending on the scope of the effort) and IT leaders. The inclusion of an executive sponsor adds clout, impetus and accountability to a portal initiative.

One nagging question regarding leadership is whether it should come from the business or IT. The conundrum is that IT leaders often lack an adequate business perspective to lead a strategic portal initiative, and it's often more likely that a business leader is better suited to ensure an ongoing business impact. However, for broad portal initiatives — those that include many business constituencies and goals — IT leaders often have a better purview of requirements across the business. Portal initiatives can quickly become too narrowly focused — thereby diminishing their overall impact — when led or sponsored by a department leader.

Titles matter far less than skills, track records and character. However, most organizations place too much emphasis on the titles or roles of portal initiative leaders and steering committee members, and not enough on their experience, project and communication skills, understanding of business goals, and empathy for end users.

Leaders of successful portal initiatives are skilled at project management. They're disciplined and they focus on the task at hand. They understand the culture of the business as well as the change management required to transform it. They understand business goals and priorities. They're empathetic; they can recognize and prioritize end-user needs and desires. They have influence with the business and IT communities.

The size and composition of a steering group depends on the goals and scope of the portal effort. As a rule, steering groups often fail to be effective with fewer than five people, and with more than 10.

Steering groups often solicit research and recommendations for various areas (such as architecture, measurement, ecc) to subcommittees with specific expertise and insight required. For larger projects, steering committees often create focus groups or subcommittees to help make governance decisions.

Portal COE

Large, multifaceted portal initiatives often benefit from a portal COE to help foster productivity and ensure that portals evolve in line with business and user needs. COEs are usually virtual communities including IT experts (such as developers, architects and designers) and people who operate and maintain portals (such as site administrators and content managers). Their ongoing role is to gather requirements; build portal applications; provision instances; train site administrators, contributors and users; and engage and employ "citizen developers" and power users. Portal COEs are particularly effective for large organizations that must delegate responsibilities and give a level of autonomy to regions, business units or brands.

More specifically, a COE may include two main functions:

- **IT shared services or "portal factory"**: This group manages the creation and implementation of portals and sites. It also ensures architectural and product compliance (as

well as reviewing). It creates templates, whether at the site level or page level, that are built for various purposes. It builds libraries of components and apps. It uses an application process to provision portals to departments, project groups or other entities. Many organizations tend to think of this as a "portal factory."

- **User community**: As these business entities submit applications for portal sites, they must commit human resources to the effort. These site administrators must submit to training as part of the provisioning process. They must also report to the COE, in a meeting among peers, to identify problems, risks and best practices that can be institutionalized for more consistent success across efforts.

Portal COEs are also effective as a means to cultivate productive portal adoption. This value derives largely from engaging the real key audience in ensuring the business success of the portal. Site administrators and middle managers tend to be in the best position to ensure compliance as well as adoption.

Again, the models will vary a great deal, but we recommend a COE to support portal governance when the portal initiative is expansive and complex in terms of the number of sites, audiences and business purposes that require addressing.

Annex 4. Draft version of the new DoS website for Census

Home page
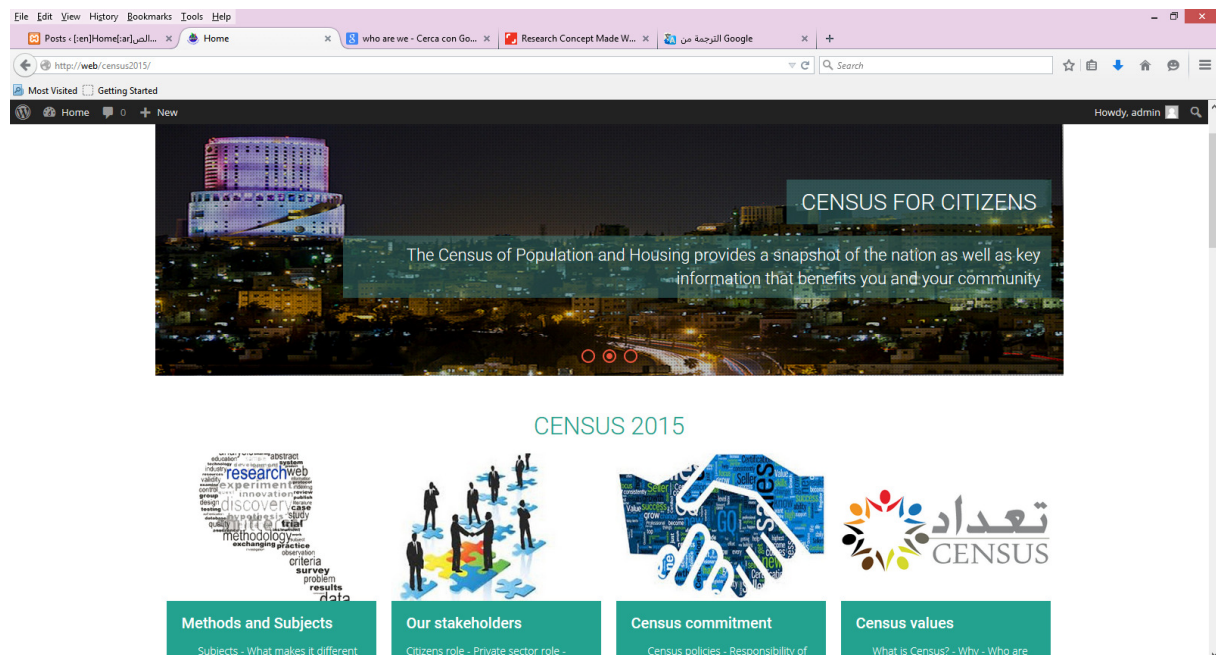
At the top of the page there are 3 statements in a slide show that represent the DoS approach at Census. A horizontal tool bar allows the navigation. In each page at the right top it is put a search engine box.
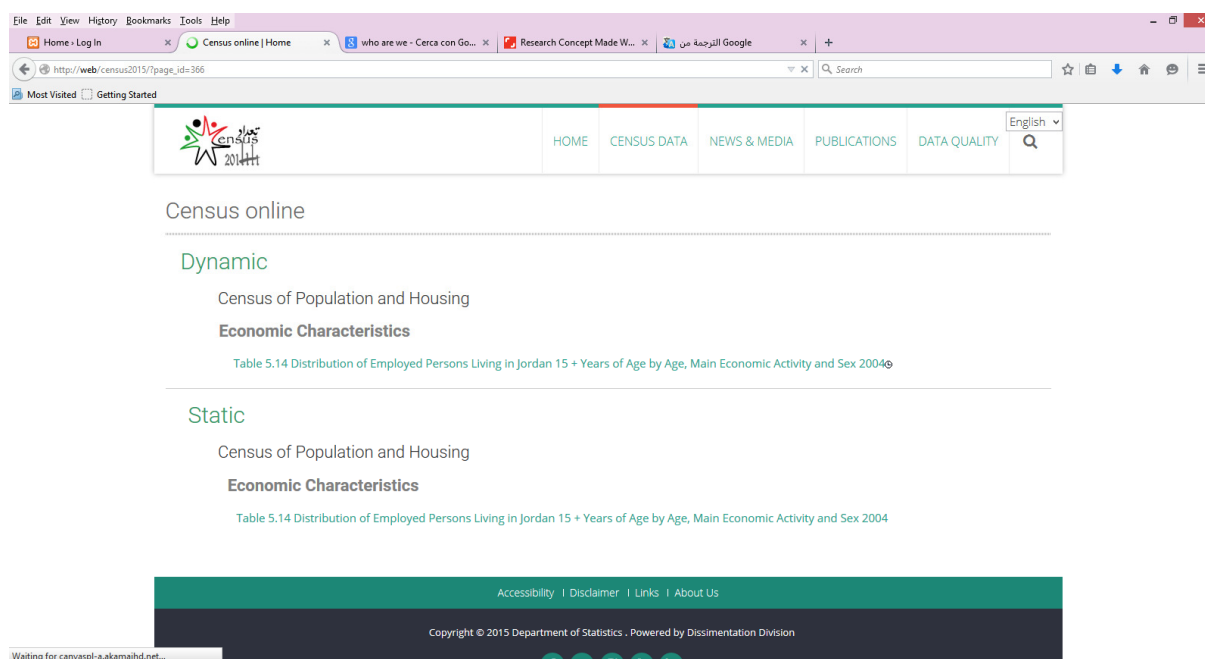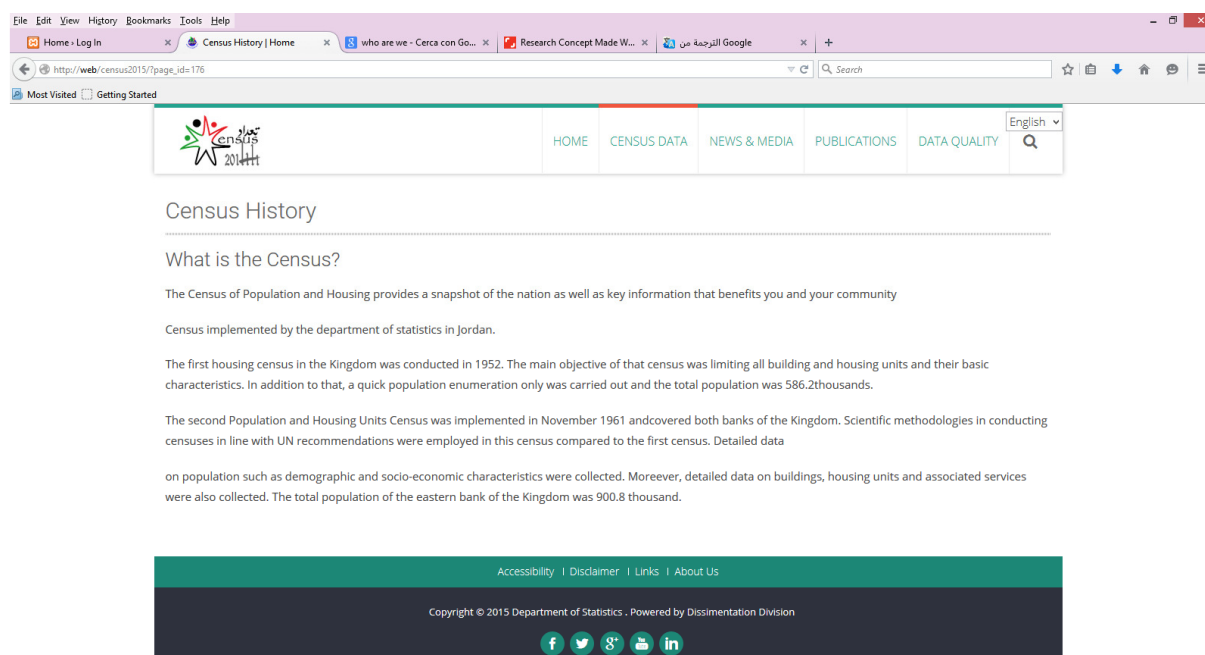

The body page is characterized by the Census key points and latest news, grouped in four main concepts, that are exploded in two pages as shown in figures below (as example).
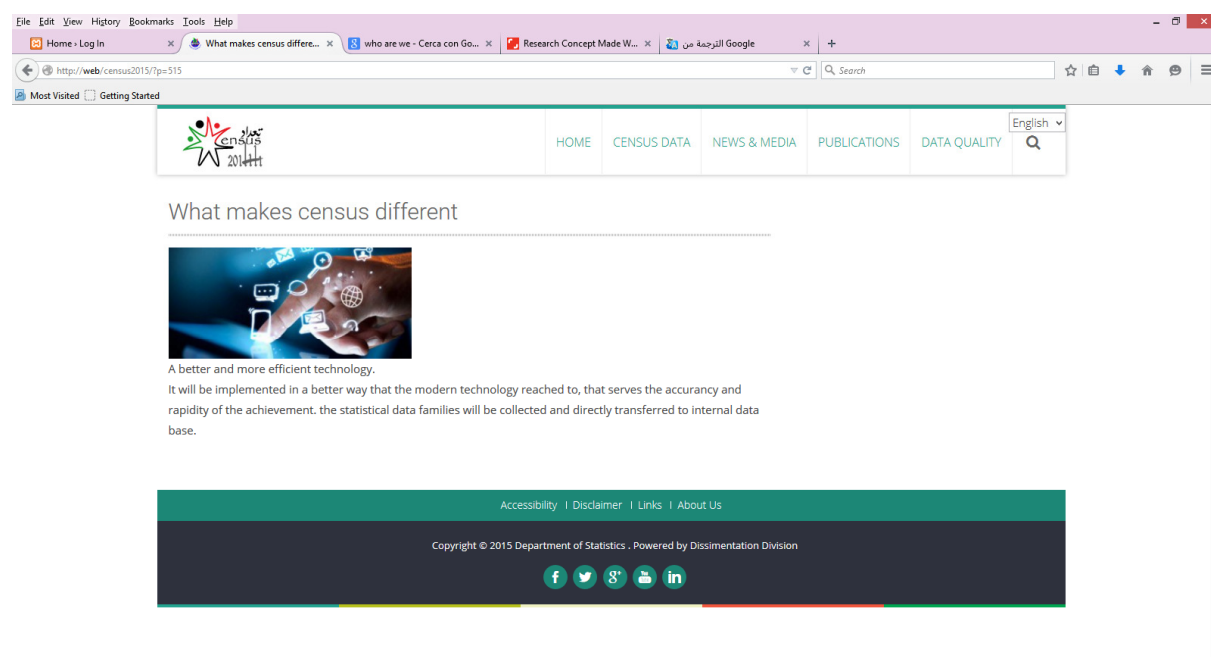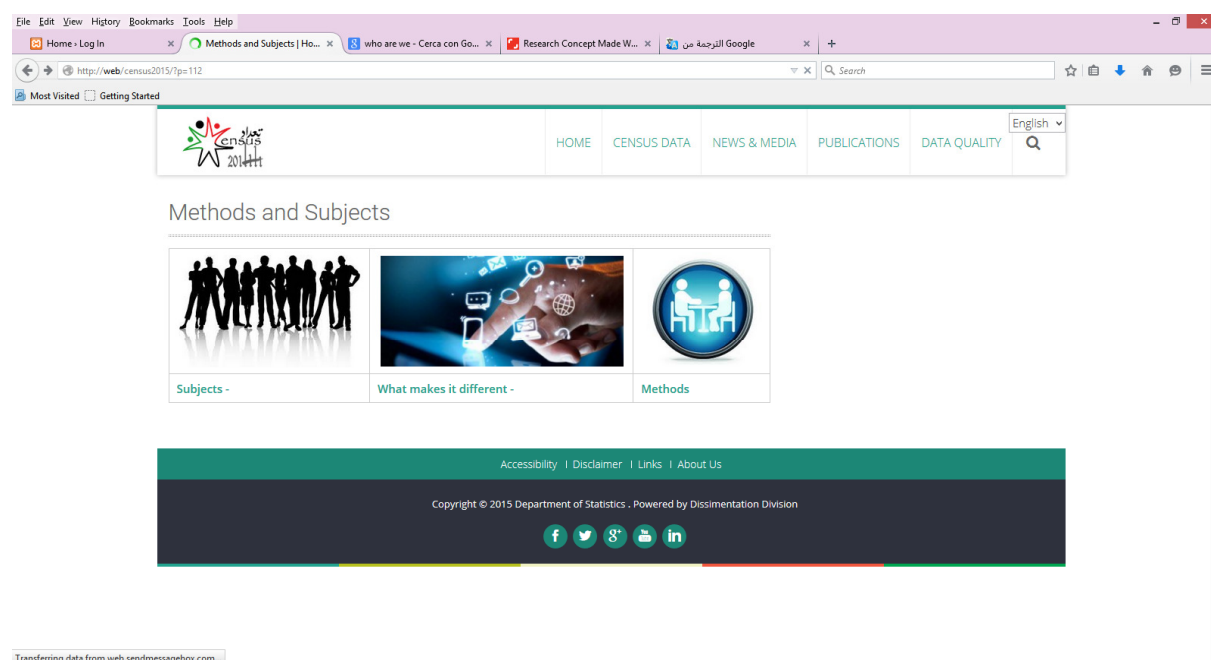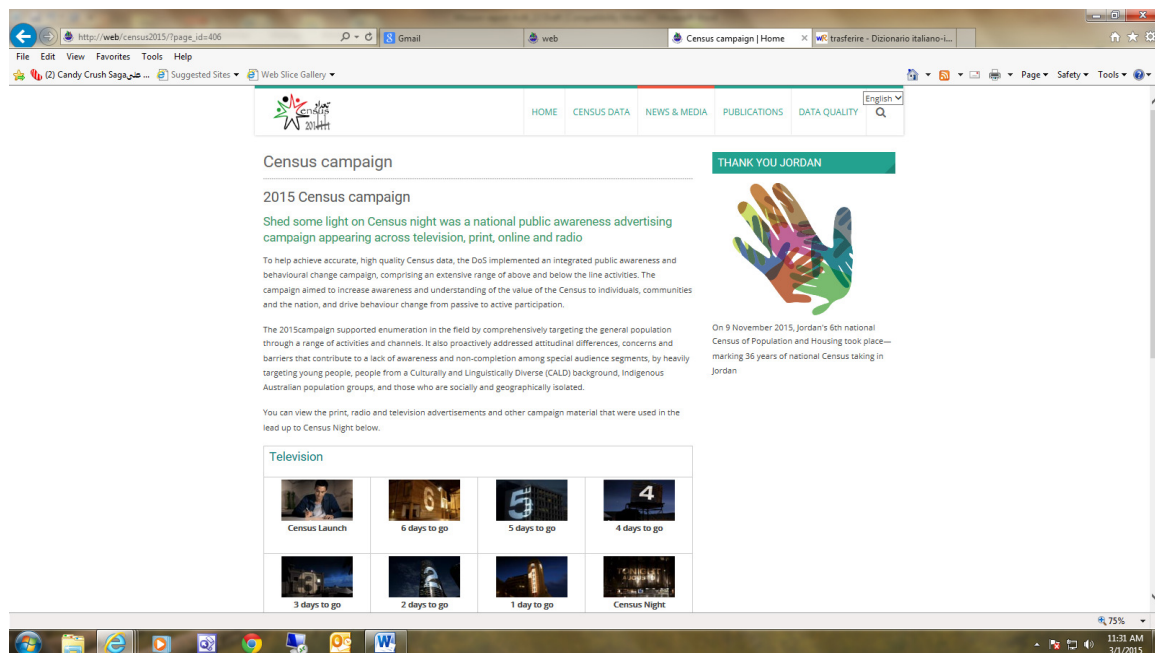
Census data

A menu is available to get information on DoS Census history and Census on line.
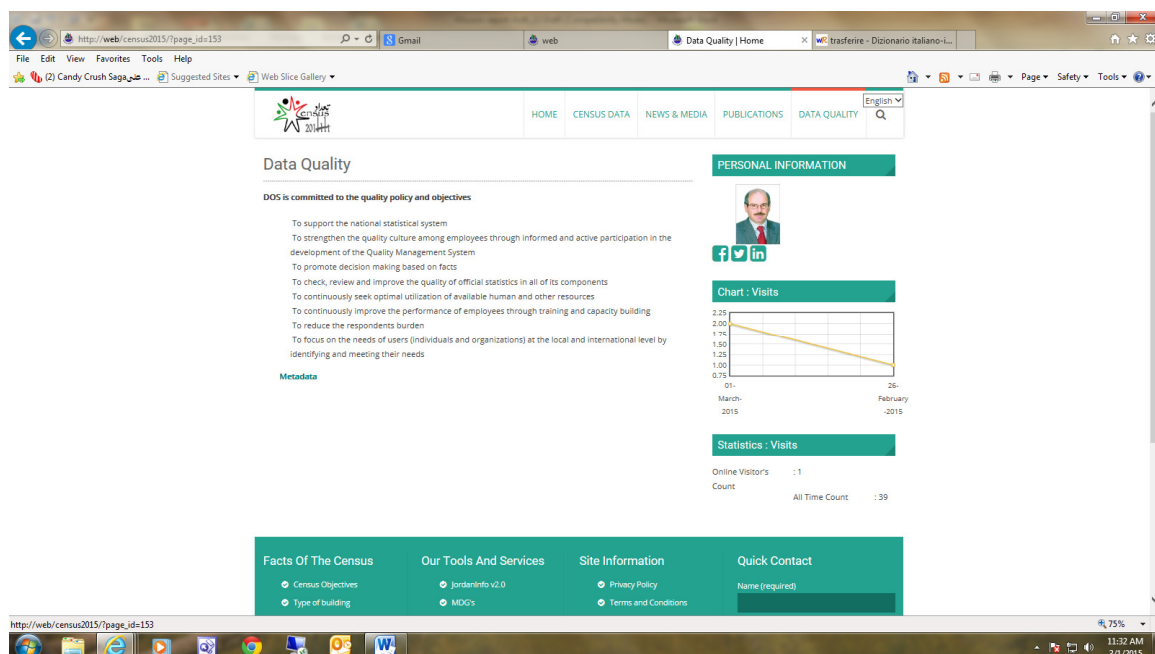
News and Media

Very important is the DoS census campaign for census. It is an appealing way to involve jordan people in a new way to see and collaborate with census procedures.

Publications and Data quality

Two specific sectors are dedicated to publications and data quality

Cost analysis

The cost of the new Census website can be evaluated from different points of view: time, organizational and economic costs. These three components are strictly linked as described below.

This project started around the 15th of February 2015 and, <u>under the right conditions</u>, can be concluded by the end of May 2015. Right conditions means:

1. The requirements for the Census website, given by the Census Director (and not given by IT staff), have to be clear and well defined, in terms of layout, contents and communication message for users.
2. The working style between Census and IT Directorates has to be flowing and efficient. It means that IT staff involved in this task (2 people) meets once a week the Census Director to evaluate the work done and plan the next activities.
3. When requirements cannot be implemented for technical reasons, Census and IT Directorates have to find a compromise together.
4. Census website shows clearly to Jordan people (citizens, journalists, policy makers, ecc) the census work, so it is important the strong involvement of Census Director to address this task in the right way. Obviously Census Director can take advantage of an internal Committee or external experts to better define the work, but it is important to have only one interface (Census Director) to bring the conclusions to the IT Staff.

By working in this way, it is clear how time and organizational components are linked, and time can be defined.

Referring to the economic aspect, this project is an:
- internal project if it is considered the involvement of DoS Census staff for the definition of contents and DoS IT staff for the implementation (n. DoS employees *14 weeks)
- external project if external experts for communication and stakeholders analysis will be hired (n. external experts * n. weeks).

Other costs can be evaluated in 2 weeks * 3 people (Thomas Olsen, Massimiliano Amarone and Cecilia Colasanti) of EU Twinning Project.

Annex 5. Comments and evaluation on the new DoS website

(Basim Shannak comments)

1. لا داعي لوجود أي شعار جديد ، ويكتفى بوضع شعار الدائرة المعتمد.
No need for new logo

Evaluation: OK

2. يوضع في المساحة الفارغة المحاذية للشعار رؤية ورسالة وقيم الدائرة.
Put DoS values, mission and vision in the empty space near the logo over the top

Evaluation: NO because 1. It is not aligned to the main statistical website worldwide and 2. An image reaches the users more deeply and directly than a text. So DoS values, mission and vision must be written in the inner pages as this current version

3. الصور المتقلبة تكون لمبنى الدائرة والمكاتب الاقليمية ولجولات باحثين وباحثات الدائرة في الميدان وللأعمال المكتبية داخل الدائرة والمكاتب الاقليمية.
Change the slideshow with pictures representing DoS building and working field for researcher and so on.

Evaluation: NO because 1. There is a problem with copy right images (this is a government website) and 2. The image resolution can be an issues for DoS. So it is suggested to put the original four pictures and slogans already agreed with General Director during the last meetings in the second mission (see the second mission report)

4. عند فتح أي قائمة منسدلة (مثلا عن الدائرة) يكون الشرح من بداية الصفحة وبخط واضح وكبير (16 font) وملون وهكذا لباقي القوائم وتكون
القوائم على يمين الصفحة بالعربي ويسار الصفحة بالإنكليزي في عمود طولي منفصل.
For inner pages:
1- the description must begin at the beginning of the page with 16 font size and colored .
2- menus on right sidebar for Arabic and left sidebar for English

Evaluation: NO because 1.It is not aligned to the main statistical website worldwide and this solution can create visualization problems on different browsers and 2. It is old-stylish

5. لا داعي لوضع الاستراتيجية الوطنية ويكتفى بذكرها وانه انبثقت عنها استراتيجية خاصة بالدائرة للأعوام 2012 – 2015 ويوضع لها رابط للاطلاع.

No need to have a national strategy plane just have a link for DoS strategy 2012/2015

Evaluation: OK – already done

(Moawiah Zghool comments)

المؤشرات الرئيسية: (على الصفحة الرئيسية)

كمؤشر رئيسي. اضافة معدل نمو الناتج المحلي الاجمالي بشكل ربع سنوي

1. Add quarterly GDP to main indicators .

Evaluation: NO. To avoid a too crowded main page the key indicators section has been removed from the home pages. All indicators are presented into the thematic pages.

القطاعات

القطاع الاقتصادي

إضافة الحسابات القومية بشكل منفصل عن (احصاءات اقتصادية)

إدراج (المدخلات والمخرجات) ضمن بنود الحسابات القومية

إعادة تقسيم الحسابات القومية على النحو التالي

الحسابات القومية

الحسابات الموحدة للدولة بالاسعار الجارية

الجداول والحسابات الاخرى (1) حسب التصنيف الصناعي الموحد التنقيح الثالث

الجداول والحسابات الاخرى (2) حسب التصنيف الصناعي الموحد التنقيح الثالث

الجداول والحسابات الاخرى (حسب التصنيف الصناعي الموحد التنقيح الثاني)

المدخلات والمخرجات

نتائج التقديرات الربعية للحسابات القومية

2. For economic sector add national accounts separated from economic surveys and add Input Output under national account to look like the following order:

National Accounts
1. Consolidated Account for the Nation (Current Prices)
2. Accounts and Tables (1)\(According to ISIC -rev.3
3. Accounts and Tables (2)\(According to ISIC -rev.3
4. Accounts and Tables (According to ISIC -rev.2
5. Input Output
6. National Accounts quarterly estimations

Evaluation: OK – already done.

ملاحظة عامة:

• تدقيق لغوي (اللغة العربية)

• إضافة الساعة السكانية على الصفحة الرئيسية.

3. General note :

1. Check spelling for(arabic language) - proofreading
2. Add population clock on main page

Evaluation: OK – both already done.

General evaluation: It is suggested:
1. to put the original four pictures and slogans as already agreed with General Director during the last meetings in the second mission (**see the second Mission Report**):
2. to put the original green color for labels on the toolbar as already agreed with General Director during the last meetings in the second mission (**see the second Mission Report**), because 1. green colour is more impressive for users than grey color, 2. the

current website labels are green and to maintain the same colour is a good link between old and new website:

3. to put the original flag to choose the arabic/english language instead of the menu as already agreed with General Director during the last meetings in the second mission (**see the second Mission Report**), because is compliant with the main statistical webside worldwide.