



## TWINNING CONTRACT

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# Strengthening the capacity of Jordan's Department of Statistics in terms of compilation, analysis and reporting of statistical data in line with International and European best practices

## MISSION REPORT

on

### Component 1

## Roadmap for the development of an integrated administrative data system in Jordan with pilots on Statistical Business registers (SBR) and population statistics

### Activity: 1.1.2:

## Roadmap for the Developing a SBR in Jordan

Mission carried out by

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**Amman, Jordan**

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## Strengthening the capacity of Jordan's Department of Statistics

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## Strengthening the capacity of Jordan's Department of Statistics

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## Strengthening the capacity of Jordan's Department of Statistics

**List of Abbreviations**

<b>SBR</b>	Statistical Business Register
<b>LeU</b>	Legal Unit
<b>LoU</b>	Local Unit
<b>KAU</b>	Kind of activity Unit
<b>Ent</b>	Enterprise
<b>MIT</b>	Ministry of Trade
<b>CCD</b>	Company Controller Department
<b>SSC</b>	Social Security Corporation
<b>Tax</b>	Income and Tax Department
<b>AD</b>	Administrative Registers (in total)

## 1. General comments

This mission report was prepared within the Twinning Project "Strengthening the capacity of Jordan's Department of Statistics in terms of compilation, analysis and reporting of statistical data in line with International and European best practices". This was the third activity related to MR 1.2 Pilot project to develop strategy for integrating administrative data sources for the purposes of creating an SBR.

The main purpose of this activity was to develop a roadmap for SBR in Jordan.

The following subjects were covered:

- Feedback and discussion on StatBus implementation experiences at DoS
- Status for the MoU's with AD suppliers - especially the Tax Authority
- Creation of a Roadmap for SBR in Jordan

The consultants would like to express their sincere 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 their work. The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, Statistics Finland, Destatis (Germany) or Statistics Denmark.

## 2. Assessment and results

### *Comment on the use of SBR*

The team around SBR has created a paper for the management of DoS. It is a paper about challenges using StatBus in the version 1.2. The experts take the problems to the steering group of StatBus. Many good recommendations were received and they will be included into the Backlog for StatBus development. It's also needed to stress that some of the issues are related to the data structure in the data from Administrative Sources. There is work to be done at DoS to clean the data. The experts' comments to the paper are found in Annex 5.

### *Challenges experienced in DoS with Addresses;*

There is an ongoing project to create GIS coordinates for buildings with businesses. It can over time help to improve addresses for units in the SBR. Also in the area of Population Statistics there is a project to build up an Address Register. It's important there is close contact between these two projects. The experts strongly recommend having only one Address Registry and a unique ID column added to it.

If this project is not finalised in the beginning of 2024, there is a need for the SBR and quality staff to work on the use of existing addresses. Identify to what level in the Address hierarchy it's possible to come.

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### *MoU with Tax*

The data from the Tax Authority is possibly the most comprehensive and most useful data for building a SBR. DoS needs to finalise the MoU with the Tax Authority as soon as possible in order to get access to Tax data. The experts consider it very important that DoS at the highest level works with Tax and does so in writing. It is important that DoS gets to know all the variables Tax has related to Companies.

The experts recommend that the DoS use both informal and formal channels to move forward the process of gaining access to Administrative Data from the Tax Authority. Information requests should be written and any setbacks should be accompanied with written justifications. DoS can use these written justifications to further their case through the Prime Minister's Office if needed. This information should include both achieved steps as well as those that were not achieved. The request for cooperation from the Prime Minister should be used as often as possible to further data access discussions. If needed, the discussions can be transferred to higher levels. The Prime Minister's office should also be kept informed of progress as well as of any possible problems that might arise.

### *MoU in general*

In general the MoU's must have an annex with the variables DoS must receive as well as a Metadata description of all variables. The Annex can be updated without changing the MoU.

The experts have created a list of possible Tax-variables in our countries. Annex 6

### *National Board for Data Suppliers to DoS*

The Experts recommend that DoS work for that Jordan sets up a National Board for Data Suppliers and Users. It's important to bring the AD suppliers and users together to strengthen the cooperation and the use of administrative registers in Jordan.

## **3. Conclusions and recommendations**

### **Recommendations: Use of Administrative Data**

- Jordan has different administrative data sources available that constitute a good base for building up a SBR.
- The quality of these sources needs to be explored and assessed further for each source.
- In order to achieve that DoS could compare data from different data deliveries of the same administrative source, identify changes in the data and discover quality issues.
- Information on systematic errors in a data source could be fed back to the respective administrative data owner.
- DoS should combine data from different administrative sources in order to assess comparative quality of the sources and improve quality of information that is fed into the SBR.
- For each variable in the SBR at least one source from administrative data has to be identified. If multiple sources are available, the source has to be identified that

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contains the most reliable data for that variable. This source should then be used to update SBR data for that variable. In case there is no information on a unit in that source, data from a second (or third) source is used to update the SBR.

- Survey data that are available on units and variables of the SBR can be used to validate data in the SBR that was filled in from administrative sources if needed.
- Some administrative sources contain very many units where it is not obvious, whether they are economically active or not. DoS needs to identify variables from the different administrative sources that indicate whether a unit is active or not. DoS needs to decide how inactive units ought to be treated.

### **Recommendations: Quality Assessment**

- Understanding data from administrative sources is key to using it effectively. Thus DoS should produce a profile for each administrative data source. Profiles should contain e.g. definitions of variables, quality of variables, frequency of data deliveries, contact persons. A template will be provided by the experts. DoS should work on these together with experts from the respective administrative source.
- DoS should compile detailed metadata for each variable in each administrative data source and for each variable in the SBR. The experts will provide a template (annex 7). In the Twinning project is also a metadata project and it can of course be advantageous to follow the decisions made there.
- Typically, different administrative data sources have different quality issues that have to be known in order to effectively work with the data. As of yet, the quality of the administrative data from the different sources has not been investigated sufficiently. DoS needs to further assess the quality of the available administrative data and DoS needs to find solutions to address and solve quality issues. Quality issues should not stop the use of administrative data.
- One possibility of solving quality issues of one data source could be to supplement data from another source. This requires merging and linking data from different sources. DoS needs to adapt methodologies for merging and linking data to its needs. Skills in SQL or R may be useful to enable SBR and quality management staff to do this.

### **Recommendation – Other**

- The data from the Tax Authority is possibly the most comprehensive and most useful data for building a SBR. DoS needs to finalise the MoU with the Tax Authority as soon as possible in order to get access to Tax data. DoS should absolutely use the momentum given by the letter from the Prime Minister. The MoU should consist of two parts: An agreement setting the general frame for cooperation should be signed by top management as soon as possible. This general agreement should later be supplemented by an annex that is elaborated by experts from DoS and Tax Authority and that defines all details of data deliveries (e.g. list of variables, frequency of data deliveries, contact persons etc.). Statistics Finland provided an example for a MoU.
- DoS should establish regular meetings on management as well as on expert level with owners of administrative data in order to discuss and agree on technical and other practical questions.

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- DoS staff should receive training in programming to enhance their possibilities to analyse the SBR data and received Administrative Data sets, e.g. in R and or SQL (maybe from Jordanian trainers).
- DoS and the experts consider StatBus a suitable platform for the DoS SBR. StatBus will continuously be developed. DoS should continue to use the current version in order to get familiar with the system and further assess its capabilities during 2023. DoS should go into production with the next version of StatBus in 2024.
- In case an address register is set up it should be done in close coordination with population statistics. Only one address registry should be created, with uniform data structures and an additional column for a Unique address ID.



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***Actions needed for moving forward as well as for preparing the next mission.***

The Actions are identified and timetabled in the Roadmap (Annex 3) on pages 7 - 8.

## Annex 1. Terms of Reference

### Component 1:

Roadmap for the development of an integrated administrative data system in Jordan with pilots on Statistical Business registers (SBR) and population statistics

### Activity 1.1.2:

Roadmap for the development of SBR in Jordan

*Dates: 24-27 July 2023*

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**List of abbreviations**

BC	Beneficiary Country
DoS	Department of Statistics
ESS	European Statistical System
MS	Member State
SBR	Statistical Business Register
STE	Short Term Expert
ToR	Term of References

## 0. Objective and Mandatory Results for the component

### **Objective**

*To prepare a roadmap for the development of an integrated administrative data system for Jordan, and conduct pilot projects on creating an SBR and strengthening population statistics.*

*To prepare a roadmap for the development of an integrated administrative data system for Jordan, and conduct pilot projects on creating an SBR and strengthening population statistics.*

As the development of a fully integrated administrative data system is a long-term project. The main focus of the Twinning project will be on specific pilot projects where the use of administrative records can address key challenges currently faced by the DoS. These pilot projects will constitute the first steps in rolling out a roadmap for the Jordanian statistical system by providing a template for expanding the use of administrative data across the wider statistical system over time. Specifically, the pilots for the Twinning project will focus on the development of a statistical business register (SBR) and improving the quality of population statistics. In relation to business statistics specifically, the development of a SBR it is essential to integrating different data sources, and providing additional analysis without increasing costs.

SBR is an essential component in supporting the coherence, consistency and quality of statistics produced as well as providing data on the population of business units. The SBR provides a basis for selecting and monitoring samples, integrating administrative and other data sources and providing a framework for deriving business demographics and National Accounts.

The lack of a comprehensive SBR was identified as an obstacle to future improvements of DoS statistics back in the 2015 Twinning project led by Statistics Denmark. This gap still remains - developing and maintaining an SBR for Jordan would, therefore, greatly enhance the ability of the DoS to monitor and analyse developments in a rapidly changing business environment. The pilot project will examine available administrative data sources on business entities.

Recently the [Jordan Economic Modernization Vision 2030](#) was launched and “[Smart Jordan](#)” was identified as one of the eight Growth Drivers to implement the Economic Modernization Vision. The ‘Smart Jordan Driver’ includes seven sectors where data is one of them. This indicates the national interest to ensure constant and reliable data sources, and robust statistical systems that contribute to timely and informed policy making. It is expected that one of the measures that will be taken is to transform Jordan's Department of Statistics (DoS) into an interactive National Statistical Center (NSC).

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### **Mandatory results and indicators for achievement for sub-components**

Component 1 is sub-divided in five sub-components each with a Mandatory Results (MR) and two to four indicators of achievements associated with the sub-component. This specific mission relate to in particular MR 1.1; MR 1.2 and MR 1.4. MR and Indicators are listed in Table 1.

*Table 1: Mandatory results and indicators for achievement (IA) for each sub-components within Component 1: an integrated administrative data system for Jordan. MR and Indicators of particular focus for this Mission appear in black whereas the rest appear in grey.*

<b>MR from the Twinning Fiche</b>	<b>Indicator</b>
<b>MR 1.1:</b> Compile an inventory of administrative data on business and households and an indicative roadmap for inclusion in an integrated system	<p><b>Indicator 1.1.A:</b> Inventory of administrative data variables and detailed supporting metadata prepared</p> <p><b>Indicator 1.1.B:</b> Tentative roadmap prepared for inclusion of data in integrated system</p>
<b>MR 1.2:</b> Pilot project to develop strategy for integrating administrative data sources for the purposes of creating an SBR	<p><b>Indicator 1.2.A:</b> Administrative data sources identified and assessed and plan developed for integrating these with Census of Establishments (CoE) information in an SBR</p> <p><b>Indicator 1.2.B:</b> Documentation prepared on database structures and compliance with statistical standards, classifications (e.g. ISIC, Rev 4) etc. and use of common identifiers etc.</p> <p><b>Indicator 1.2.C:</b> Explore how SBS can benefit other statistical domains in the DoS</p>
<b>MR 1.3:</b> Undertake pilot project on how administrative records can be used to strengthen population statistics and inform framing of the 2025 CoP questionnaire	<p><b>Indicator 1.3.A:</b> Inventory of data sources prepared and assessed and action plan for incorporation in DoS statistics developed</p> <p><b>Indicator 1.3.B:</b> Methodology developed for incorporating administrative data</p> <p><b>Indicator 1.3.C:</b> Documentation prepared on statistical standards, classifications, identifiers, mapping etc.</p> <p><b>Indicator 1.3.D:</b> Review of how administrative data can assist in developing the COP 2025 questionnaires</p>
<b>MR 1.4:</b> Develop strategy for ensuring flows of data between the DoS and counterpart institutions are established on an ongoing basis for pilot projects above	<p><b>Indicator 1.4.A:</b> Review of technical infrastructure for data transfers and action plan prepared based on 1.1 and 1.2 above</p> <p><b>Indicator 1.4.B:</b> MoUs agreed between DoS and partner institutions</p> <p><b>Indicator 1.4.C:</b> Agreement on statistical standards, classifications, identifiers etc. between DoS and partner institutions</p> <p><b>Indicator 1.4.D:</b> Review of data flows within the DoS</p>
<b>MR 1.5:</b> Implement training programmes and develop training materials both within DoS and with partner institutions on the use of administrative records for statistical purposes, based on pilot projects above	<p><b>Indicator 1.5.A:</b> Detailed documentation on statistical standards, classifications, identifiers etc. developed.</p> <p><b>Indicator 1.5.B:</b> Comprehensive training programs and workshops provided for DoS staff and partner institutions</p> <p><b>Indicator 1.5.C:</b> DoS leadership role in ensuring proper statistical standards applied across the Jordanian statistical system reinforced.</p>

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## 1. Purpose of the activity

The purpose of this activity is to draft a roadmap for enhancing a Statistical Business Register (SBR) in Jordan including a strategy for the cooperation with stakeholders.

In order to support the purpose of this Short Term Mission the following activity tracks will as a minimum be covered:

- 1) Strategy and means for cooperation with stakeholders;
- 2) Develop the road map for the SBR including:
  - a) Define activity tracks for an integrated administrative data system for a Statistical Business register in Jordan;
  - b) Breaking activity tracks into concrete activities that are Specific, Measurable, Attainable, Relevant, and Time-bound (SMART) – including: quality assurance, business demography, daily operations and maintenance, cooperation with stakeholders etc.

### **Background information for enhancing SBR at DoS**

*Data sources:*

As background information for building a roadmap for an enhanced SBR in Jordan. In brief, DoS has reach out to the following owner of administrative data where microdata has been already been received.

1. The Ministry of Industry and Trade (MIT)
2. Companies Controller Department (CCD)
3. Social Security Corporation (SSC)
4. Income and Tax department
5. Greater Amman Municipality
6. Ministry of Local Administration
7. Ministry of digital Economy and Entrepreneurship

Even though the Income and Tax Department has been identified as essential DoS has not been able to receive microdata data from Income and Tax Department. The obstacle for the lack of data from Income and Tax Department is that according to the law, the Income and Tax Department is only allowed to provide data to four institutions and DoS is not one of them.

*StatBuS – The supporting IT system for building a SBR in Jordan*

Currently, StatBuS is the supporting IT system being tested in Jordan. StatBus is the a client-server based system for statistical business registers which is an important backbone of any national statistical office. For additional information, please consult: <https://www.StatBus.org/>

The main features are:

- A tool for storing and maintain information on businesses from administrative sources, surveys and censuses
- Licensed as open source
- Based on UN international guidelines for development and maintenance of statistical business registers

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- Used for drawing samples and make national economic statistics
- Important for National Accounts

The status for StatBus currently is that StatBuS has been successfully installed on a DoS server and test populations and key classification was uploaded to the system. Furthermore, it has been proved that the system support both Arabic and English. Mission Report from former Mission can be found on the project webpage:

<https://www.dst.dk/en/consulting/projects/jordan-2022-2024/component-1-integrated-administrative-data-system>.

### 3. Expected output of the activity

- Activity report;
- First draft for a roadmap for a of an integrated administrative data system for SBR outlined including as a minimum the following activity track;
  - Cooperation with data provider
  - Evaluating the quality of administrative data for SBR
  - How to integrate address register

### 4. Participants

#### ***MS SHORT TERM EXPERTS (STE'S)***

- **Mr. Steen Eiberg Jørgensen**, Deputy Head of Division for Business Data Collection and Registers, Statistics Denmark (MS Component Leader). Mr. Steen Eiberg Jørgensen has more than 20 years' professional experience in official statistics administration. Since 2008 Mr. Jørgensen has strong expertise in all dimensions of business registers in particular - and of register based official statistics in general. This includes integration of administrative data within official statistics and knowledge of standardizing datasets, classifications and identifiers. In addition Mr. Jørgensen has extensive experience in delivering training programs both at national and international level and is active member of several Eurostat working groups. E-Mail: [sej@dst.dk](mailto:sej@dst.dk)

- **Mr. Ville-Matti Pilviö**, Senior Statistician, Information and Statistical Services, Data Resources, Statistics Finland. Mr. Ville-Matti Pilviö has more than 10 years' professional experience in official statistics administration. Currently, Mr. Ville-Matti Pilviö is responsible for The Business Statistics production System in Finland incl. Business, Register (SBR) used for the collection, analysis and production of Business Statistics. E-Mail: [Ville-Matti.Pilvio@stat.fi](mailto:Ville-Matti.Pilvio@stat.fi)

- **Mr. Thorsten Tümmmler**, Head of Division Business Register, Classifications, Earnings, Destatis, Germany. Mr. Thorsten Tümmmler has nearly 20 years' professional experience in official statistics administration and Statistical Business registers. Currently, Mr. Thorsten Tümmmler is responsible for a unit of 70 people in 7 sections ("Profiling, Enterprise Groups, Methodology of Statistical Units", "Business Register, Business Demography, Administrative Data Storage Units, Crafts", "Large Cases Unit, Globalisation", "Classifications", "Insolvencies, Business Notifications", "Labour Costs, Statistics of Agreed Earnings", "Earnings"). E-Mail: [thorsten.tuemmler@destatis.de](mailto:thorsten.tuemmler@destatis.de)

## Annex 2. Persons met

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#### *National Account project*

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## Annex 3. Roadmap for developing a SBR in Jordan






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**Day 4: Resume and Recommendations of Mission**

**Activity 1.2.5: Roadmap for developing a SBR in Jordan**

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Mr. Thorsten Tümmeler, Head of Division Business Register, Classifications, Earnings, Destatis, Germany

### Expectations presented by DoS

- Legal umbrella to facilitate access to AD
- Develop programs, sw, tools to enhance statistical production
- Develop and implement tools and processes for linking different dbs
- To build AD warehouses
- Prepare the needed infrastructure for the development, testing and operational processes
- Formal MoU's and agreements with AD suppliers including the technical meta data annexes
- Collect data from Administrative Registers and prepare Meta-data on these
- Develop data cleanup processes for arriving data to be reused
- Test systems and tools from both a IT and statistical perspective
- To replace future censuses with the use of a SBR



## Use of Administrative Data for SBR (Draft)

	Amount of use of register	Use of Registers	Advantages	Quality [1 low; 5 high]	Time Investment [1-5]	Level reached by now
Tax	😊	It's expected that data from Tax can replace information from MIT and CCD and also add more information for SBR	Cover all legal units. Must have more information and in better quality than MIT and CCD	?	4	0
MIT	😊	MIT is good source and covers all entrepreneurs. There are to many Units because they not close units and the quality of address is not good	MIT and CCD can together create all Legal units	3?	2	4
CCD	😊	CCD is a good source and covers all joint stock companies. There are to many Units because they not close units and the quality of address is not good. CCD has also problems with names and ISIC	MIT and CCD can together create all Legal units	3?	2	4
SSC	😊	SSC deliver information about employees and ISIC. These data can help to define active companies	Good and fast data about employees at Legal Unit level. Information about names and ISIC can improve the quality	5?	1	4
GrA	😊	Greater Amman can supply with information about Local units and also help to define active/not active due to the issuance of licenses	Good source there will be updated each year	4?	3	2
MoLA	😊	Ministry of Local administration can supply with information about Local units and also help to define active/not active due to the issuance of licenses	Good source there will be updated each year	4?	3	2

Currently, no data can be obtained from the Income and Tax Department. Existing available data sources can be used in case no data from Income and Tax Department are available. DoS still can work with dat for MIT and CCD. However, it expected that the best quality will be obtained by getting acces to data from the Income and Tax Department.

## Recommendations – Use of Administrative Data

- AD sources are available to build a SBR in Jordan.
- The quality of these sources needs to be assessed.
  - From the different AD sources, different deliveries need to compared in order to find changes in the data (that might be used to update the SBR) and discover quality issues.
  - By combining and comparing data, the SBR quality can be improved.
  - Source errors should be identified and feed back to the AD source.
- For each variable in the SBR at least one source has to be identified. If multiple sources are available, reliability prioritization needs to be defined.
- If needed survey data can be used to validate variables in the SBR populated by AD.
- Variables need to be identified that indicate whether a unit is active or not.

## Recommendation – Quality Assessment

- A profile for each AD source (Meta Data, descriptors, delivery frequencies, contact persons etc as per supplied example agreement) should be produced
  - together with contact persons at the AD sources
- Meta Data descriptors are needed for each variable in each AD source
  - and for each variable in the SBR
- Further assessment of quality of registers is necessary
  - Problems should not stop the use of AD, instead solutions should be found to address these problems
- Methodological work for merging/linking data is needed



## Recommendation – Other

- MoU and access to the Tax Authority AD needs to be finalized as a top priority
  - MoU signed by top management that sets the frame
  - Annex to MoU that defines all details (List of variables, frequency of data delivery) can be worked out later on expert staff level
- Regular meetings with data owners on technical and practical questions should be established
- Train DoS staff in programming, e.g. in R / SQL (maybe with cooperation from Jordanian trainers) would increase their data analysis possibilities.
- SBR and Quality dept. staff need access to the source data at DoS (database access, read only). This requires basic SQL training and knowledge. Examples of small sql scripts that can be rewritten by the staff themselves. Maybe there is a need for attract a staff member with knowledge of data analysis and management.
- StatBus is a suitable platform for the DoS SBR,
  - it is anticipated further development in the short term but is usable currently
  - DoS should practice the use of StatBus with test data and further assess its capabilities
- In case an address register is set up it should be done in close coordination with population statistics



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**Road Map (1)**

Nr.	Item	Start	End
1	Tax MoU (general memorandum)	asap	asap
2	Tax test data delivery	Aug. 2023	
3	Study of tax test data	Sept. 2023	
4	Agreed specifics of Tax data deliveries in Annexes	Oct. 2023	
5	Tax data delivery starts	Nov. 2023	
6	StatBus testing phase at DoS	asap	1. Q 2024
7	DoS initiates a test production version of StatBus	1. Q 2024	
8	StatBus into production at DoS	In 2024	

**Road Map (2)**

Nr.	Item	Start (month)	End
9	AD data analysis	asap	Oct. 2023
10	Quality testing of AD source data	Sept. 2023	Oct. 2023
11	Metadata of AD sources	Sept. 2023	Oct. 2023
12	Metadata of SBR	asap	Oct. 2023
13	A profile for each AD source	asap	Nov. 2023
14	Reliability prioritization /index of variables available from multiple sources	Oct. 2023	Dec. 2023
15	Integrate local units into SBR (multi-LU)	2024	
16	Frozen Frame 2023		2024



## Next Missions

- Oct. 2023 - Quality and Metadata
- Jan. 2024 - Identification of suitable sources for variables in SBR and finalizing the profiles for each AD source
- 1st half 2024 - StatBus V2.0, StatBus data analysis
- 2nd half 2024 - Producing Frozen Frames, creating quality report for SBR, extracts of populations

### Follow-up in each mission

- Tax data
- Training R / SQL
- StatBus
- Data analysis



**Annex 5. Experts comments for the Internal memo 2023/07/11****Comment to Internal memo 2023/07/11**

- Subject: The effectiveness of the software StatBus in building a Statistical Business Register in Jordan
- Based on the Assistant Director of Operations' follow-up on the added value and the usefulness and appropriateness provided by STATBUS software in building a SBR, the team came up with the following observations and challenges:



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**Cleaning of data**

The software requires cleaning all data before entering and arranging it specifically it forces the user to provide and build specific variables (properties) for the data to be uploaded into to the Statbus system

- For use of data all requirements goes for the need of structured data. If you don't have structured data the basis for creation of statistics will be more difficult.
- Yes, it will cost some working hours.
- The recommendations goes on that the data owner need to have better structure in their data.



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## Message explaining errors

StatBus does not give messages to the user explaining the type of error while uploading data into the Software

- It is a problem that is being worked on to be solved.
- Improvements have already been made in the version DoS has.



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## Show of errors

The software does not show errors directly during the upload process, but they appear after finishing uploading the file completely, which leads to waste of time and effort since the user has to wait to know if there is any errors.

- The system is still under development.
- It is possible to do other tasks when the machine is working – You don't have to look at it.
- When DoS know how to clean data and it's only update or few new units the problem will not be a big issue.
- If the data is cleaned is maybe 10 units with problem – but something we look at



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## User Interface

The user interface shows all the fields installed on the program, even if the user does not need it and if its values are empty in all records

- It is possible to hide some variables in screens in the settings. It's not for individual but for DoS.



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## Audit rules and descriptions

There is no file with audit rules and a description of the fields (Business Log Properties from Type, shape and area length to be included in the rules of data audit before entering it on the software)

- The experts will find a status on the Technical documentation and make sure this information will be here.



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## Statistical variables

StatBus forces the user to enter data that may not meet the purpose (examples: Allow entering only one phone for the facility, either mobile or landline. On the other hand other StatBus does not allow to upload variables that might be useful in a Jordanian context like for examples the number of the employees of the establishments by nationality or Jordanian and non-Jordanian, it is not allowed to enter Number of employees by sex .... etc). These variables lack some properties that may be needed for extracting statistical indicators or as inputs or as linking tools for other surveys

- It is known problems
- In the next version of StatBus there will be free number of statistical variables there can be uploaded
- It is possible to have more phone numbers in personal contacts.



## Integration purposes

StatBus lacks of tools used for integration purposes (such as filtering tools and condition tools) which makes it difficult for the Directorate of Records to search and merge

- StatBus has integrated some filters for search and merge.
- DoS ask for a filter on Share Capital – we will bring it to Norway
- The experts believe that there will always be new requirements for extracts and it is therefore also necessary to have some R/SQL skills, which means that SBR and Quality staff can make extracts outside StatBus



## Monthly Subscription

The StatBus is not completely free and contains a part that needs a monthly subscription

- It is less than 10 \$ per month for the Docker, maybe free
- The problem is how to pay on-line (a DoS issue)



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## Link to the databases

The program cannot be linked to the databases in the Department directly

- It's about upload is through CSV files.
- We are aware of these issue, but there is no solution in StatBus v2.0
- It shall be possible to create the input files in oracle in the same structure as CSV



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## Modifying of the program

The possibility of modifying the program is not available within the Directorate of Electronic Transformation

- It is open source
- In dialogue with StatBus Norway (Erik) DoS are welcome to develop on StatBus.
- It is not heavy paperwork, but of course a description of changes.

There is a google group for users of and experts in StatBus (link will come on statBus.org) [statbus@googlegroups.com](mailto:statbus@googlegroups.com) [Statbus SBR software peer support group](#)



## StatBus is it a gift?

### What can StatBus

- StatBus can change the units from establishment to Legal Units for creation of statistics
- StatBus can define (only) registered companies
- StatBus make it possible to drop Census for Business
- StatBus can give DoS a SBR with units over time following the recommendations
- StatBus is free software and if DoS has the resources to invest in the system to improve it, we will be grateful



Strengthening the capacity of Jordan's Department of Statistics

### Annex 6. Tax Variable: At least the following variables:

Variables from Tax					
Variables		Date	Date		
Legal ID					
Name					
Adress					
Adress code		Date from	Code list		
Start date					
Closure date					
Legal form		Date from	Code list		
ISIC		Date from			
Share Capital		Date from			
Active for					
	VAT	Date from	Date to		
	Income Tax	Date from	Date to		
	Corporatio n Tax	Date from	Date to		
	social security	Date from	Date to		
Turnover		Period			
employees		Period			
Insolvency	a marker	DateFrom		(blank = FALSE)	
Parent UID	Tax might have ownership info for taxation purposes				

Strengthening the capacity of Jordan's Department of Statistics

## Annex 7. Example on Metadata description:

### 1. Legal ID

Variable Name in SBR	LEGAL_ID
Short description	Official identification of a registered business in Jordan
DataSource	Primary source is the MIT and CCD files, but all sources has implemented the Legal_ID
Used on Unit type	Legal units Relations to Enterprise and Local units
General Description	When a business starts it will be represented by the Legal_ID number. The number is unique and can only represent one business. A business can over time change its activity.
Quality	High
Variable	Number, 10 digits

### 2. ADDRESS, street and house number

Variable Name in SBR	ADDRESS_STREET
Short description	Written address for a unit
DataSource	For Legal Unit primary source is the MIT and CCD For Local units Greater Amman Local Administration is the main source
Used on Unit types	Legal, Enterprise and Local unit
General Description	Free text felt, and not useful
Quality	Low
Variable	Text (64)

### 0: Template

Variable:

Variable Name in SBR	
Short description	
DataSource	
Used on Unit types	
General Description	
Quality	
Variabel	

## Annex 8. Next steps Power point

Prio 1

### Variables from Tax

Which variables is possible to receive and how often

- Get a list of possible variables
- Important to have so many variables and value lists/classifications as possible
- In the MoU to have the first draft on agreed variables DoS must receive in an annex
- If data from Tax, which data is needed, if some, from MIT and CCD



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Prio 1

### Variables from other sources

Which variables is possible to receive and how often

- Important to have so many variables and value lists/classifications as possible
- In the MoU to have the first draft on agreed variables DoS must receive in an annex



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Prio 1

## Prepare received data for StatBus

When a new file from a datasource is received, it must be compared with the last one received. It's work to prepare data for upload in StatBus.

- New Units
- Closed Units
- Changing in variables

Before next mission analyses of two files DoS should be made from any sources available MIT, CCD, Tax, SSC etc.



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Prio 1

## When active and not active (status)

Many of the 800.000 Legal units is not active, how do we identifier them and how do handle it in SBR

- Which variable can indicate active/not active
- Threshold from employees, annual report, Licenses from Greater Amman, Local Administration
- Delivery from SSC, does it include if no employees for a period, is owner employed?  
Is there a difference between Units from MIT and CCD.



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Prio 1

## Understanding of the database

How to work in a database with temporal historic – history in two dimensions

- DoS need to analyze the data and decide from when a change is active from the sources
- Information from surveys how and when for updating the frame
- Information found in quality works from when and how shall it be implemented in SBR



6

Prio 1

## Build up data analyzing competence

You need to be able to analyze the data you get?

- DoS (SBR and quality staff) needs to analyze the administrative data
- DoS needs to decide which program to use for analyses (R)
  - Training for SBR and quality staff
  - Basic sql for few persons with it skills in the quality section (few hours learning)
- DoS needs to enable staff to analyze data – training courses
- Only for analyze, not corrections or programming



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Prio 1

## Statistical information in statBus

DoS receive data monthly about employees from SSC. Which delivery is for the annual frozen version

- DoS must have contact to SSC for getting period for the data received
- DoS receive a total file in the beginning of the year. The next 11 deliveries is on for unit with changes in number of employees
- DoS must work with the received data as monthly deliveries for all units, to improve the quality of average on employees during the year.
  - To day 6 and 12 =  $18/2 = 9$  in average
  - New 6,6,6,6,6,6,6,6,6,12,12,12= $90/12 = 7,5$



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## Variables from “Ministry of Local Administration” and from “Greater Amman”

Prio 1

Which variables is possible to receive

- Important to have so many variables and value lists/classifications as possible



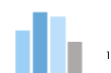
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Prio 1

## How to decide the main activity (ISIC)

Legal units is registrated with many ISIC codes, how can it be handled

- Which Units must be handled manually
- Which Units can be handled automatic
- Is there a ranking of some ISIC codes



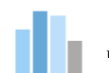
10

Prio 2

## Transformation in Statistics

How to go from Statistics on Branches/Establishments to statistics on Legal Units

- What is needed for the statistics to do this step
- Is there data you miss from the Surveys for Business



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Prio 2

## How can we improve the Addresses

What is the level for a good address in the SBR

- There are 7 levels for an Address, what is needed for good statistical production
- What can DoS do for improving the quality in administrative sources – Geo coding or ?
- Solution must be related to the solution in social Statistics
- Dos Informs that District level is the lowest level for dissemination. The work, until now, in StatBus has only made address on the level on Governorate. How can we get there



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Prio 3

## Variables and creation of Frozen version

When and what should be included in the frozen version for a year

- When do DoS have the best possible data for a year
  - For population
  - For making/public the statistics
- Which variables must be a part of the frozen version
  - Unit\_type, ID, ISIC, Legal\_Form, Sector\_code, Region, Governorate, turnover, employees etc.



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