TWINNING CONTRACT

Support to the Statistics

Kosovo

MISSION REPORT

on

Design of Database System for the Statistical Business Register (SBR)
Component no 3.5.2

Mission carried out by
Søren Netterstrøm, Statistics Denmark and
Steen Eiberg Jørgensen, Statistics Denmark
27-31 October 2014

Version: Draft no 1

IPA 2012

Author's name, address, e-mail (keep the relevant information)

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List of Abbreviations

GSBPM	Generic Statistical Business Process Model
KAS	Kosovo Agency for Statistics
KBRA	Kosovo Business Registration Agency
NACE	Statistical Classification of Economic Activities, latest version revision 2
SBR	Statistical Business Register
SBS	Structural Business Statistics
SIDA	Swedish International Development Cooperation Agency
SQL	Structured Query Language
STS	Short Term Statistics
TAX	Kosovo Tax Authorities
ToR	Terms of Reference
VAT	Value Added Tax

1. General comments

This mission report was prepared within the Twinning Project „Support to Statistics". It was the third mission to be devoted to the Statistical Business Register (SBR) within Component 3 of the project.

The purpose of this mission was to review work done by KAS since the last mission and to prepare KAS for the work to be carried out during the coming month. The basic data model and the planning of procedures for updating SBR from the administrative register should be finalised.

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 Kosovo, and which highly facilitated the work of the consultants.

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

2. Review of work done and preparation for next period.

During this mission another review of the database model and the procedures for update was performed taken the opportunity to draw on the expertise of Mr. Jørgensen, one of the leading experts in SBR in Statistics Denmark. Apart from some minor changes and corrections the focal point became how to handle enterprises and local units in the case of a takeover.
Toward the end of the mission the tasks for the coming period was discussed and agreed.
An SQL server has been setup.
A request for data from KBRA has been made and first data is expected within 2 weeks.

3. Meeting with users

A meeting was held with key users of SBR, both from business statistics and national account. The purpose of the meeting was to present to the users some of the basic concepts behind the new SBR and to ensure that SBR as planned will be able to meet the users need. It was also important to underline, that SBR can only be successful if there is a close cooperation between SBR and the surveys in order to update the register with the best available data.
It was also illustrated that the 75 largest enterprises in Kosovo covers around 25% of the economy. If these companies are followed closely to ensure that data about them are correct, this has a high impact on the quality of the statistics produces. The group should probably be expanding with some in order to cover all sections (A to Q) of NACE. However, care should be taken that it can be maintained with the limited resources available within KAS.
Another group of enterprises that are important are those that are selected from one or more surveys. Data about activity code and level of activity obtained through surveys should be used to improve the quality of these enterprises.
The remainder is a large group of small and very small businesses. Errors on these units are not likely to have any significant effect on the results of the statistics. For that reason no resources should be used to improve the quality of the data for these units.

4. Activity codes

The opportunity was taken to bring up the issues regarding activity codes that were discussed during the previous mission. The consultants strongly recommended to have only on activity code recorded on the statistical units in most cases, and only to introduce secondary activity codes if the information is available from a survey (statistical source) and the activity is large enough to have a real impact on statistics. After some discussion between the staff of KAS this model was adopted and will be introduced in SBR. It should be noted, that on the administrative units (the Legal Unit) all activity codes from KBRA will still be maintained.

It is also noted, that in general activity codes obtained through surveys takes precedence to activity codes from administrative sources.

5. Legal Units connected to same fiscal number

In KBRA several Legal Units may be combined to the same Fiscal Unit. The reason to establish several Legal Units that way rather than Legal Local Units may be, that in older legislation, each unit could then be below the threshold for certain type of taxes, something that has changed with current legislation where the thresholds are defined on the level of Fiscal Unit.

Anyway, the conclusion has been to select on of the Legal Units as the main Legal Unit. This is done by Tax and it will be examined if this data is available from KBRA (first choice) or TAX.

The remaining Legal Units will be treated the same way as Local Legal Units in respect to maintain statistical units (Enterprise and Local Unit)

6. User group

On the meeting with the users the need for a user group was discussed as well.

One role of such a group would be to discuss and agree on changes of activity codes for units that are used by more than one survey to ensure a common view and consistency in the statistics.

Another task could be to follow and prioritise the further development of the SBR system.

During the coming study visit to Copenhagen the rules for such a group in Statistics Denmark will be presented. These may be used as inspiration for setting up the group in KAS, but may need to be adapted to the actual situation in KAS.

7. Takeover, mergers and split up.

Data from KBRA will include information about succession of units. In the simple case, where a legal unit (not connected with other units and not having local units) is taken over by a new legal unit there is a reference from the old unit to the new unit and the other way round. However, it is not clear how a take-over by an existing legal unit is handled (merger) or if part of a unit (one or more local units) change ownership.

KBRA should be contacted in order to put further light on this issue. When data are obtained from KBRA it could also be examined in order to better understand how this could be utilized.

This seems to be a way of ensuring that Enterprises and Local Units are processed correctly over time. If a new legal unit is in fact just the continuation of an existing unit, then keeping the Enterprise unchanged is beneficial for the statistics. If part of a survey, it should still be part of that survey and the history of employment, turnover and other indicators can be continued.

8. Using statistical data

When the data base it loaded for the first time, data regarding activity codes for enterprises and local units should, when available be taken from statistical surveys. This includes but is not limited

to the SBS. It is suggested that the task of identify such sources are initiated (and completed) in the coming two month. During next mission it will be further discussed how this data may be loaded into SBR for Enterprises and Local Units.

It may also be considered to include data on employment and turnover if available.

9. Time plan and next mission.

This mission was delayed with one month, as the key person in KAS was given the task to develop a data entry system for one of the business surveys. As a consequence, the development of SBR is now behind the original time schedule. The time schedule has consequently been updated by moving all coming activities 1 month ahead and the estimated day of delivery is now November 2015.

It is anticipated that Mr. Kastrati will be able to use 50% of his time on the development of SBR, taken into account that he will have to run the existing system and give service regarding that. If that is not possible due to more urgent needs of KAS that will involve Mr. Kastrati, it will be necessary to lower the ambition level for this subcomponent.

The next mission, to be carried out by Søren Netterstrøm is scheduled to take place from 12-16 January 2015.

Follow-up actions to be finalised before next mission

Action	Responsible person
Create data base tables	Muhamet Kastrati
Create SQL Procedures for updates	Muhamet Kastrati
Load first set of data from KBRA	Muhamet Kastrati
SQL procedures (Querys) to create transactions	Muhamet Kastrati
Identify sources for statistical data regarding activity codes and other data	Muhamet Kastrati

Annex 1. Terms of Reference

EU Twinning Project
KS12 IB ST 01
Support to Statistics

Terms of Reference:

Component 3:   Business Statistics
Activity 3.5.2:   Support to improvement of Statistical Business Register (SBR)

Scheduling:
ToR –ready date: 13 October 2014
Start / end of activity: 27-31 October 2014
Reporting time: 7 November 2014

Mandatory result of the component:

Mandatory Result	Intervention logic	Benchmarks	Sources of information	Assumptions
Mandatory Result 3.5.2	**Support to improvement of Statistical Business Register (SBR)**	• Mission report stating the most prioritized action areas for improving the business register uploaded on project homepage • Adjusted timetable and road map for improvements developed • Recommendations for new procedures to ensure seamless updating of the SBR from available sources given • Draft of correspondence table between NACE Rev 1.1 and NACE Rev 2. Updated • Correspondence table between NACE Rev 1.1 and NACE Rev 2 finalized	• Twinning Quarterly reports • Mission reports • Roadmap • Timetable	• Sufficient absorption capacity • Low turn-over of staff involved in implementation • Staff works on project related tasks in between missions • A detailed Terms of Reference is developed in a timely manner detailing tasks (input), expected output, participants of the activity and agenda

Subject / purpose of activity: 3.5.2 activity
Improving quality and coverage of the Statistical Business Register. Setting up a data base model and plan further activities

Expected output of activity 3.5.2:
Mission report – describing the progress made since last mission.
A data base model set up and plan for coming missions described.
Suggestions for Terms of reference for other activities dealing with SBR.

KAS resources:
Mr. Muhamet Kastrati, Manager of database, muhamet.kastrati@rks-gov.net

Also meeting SBR key users at KAS:
Mr. Ilir Berisha,
Ms. Xhevrie Fetahu
Mr. Ismajl Sahiti
Mr. Nysret Sylejmani
Mr. Hasan Berisha
Mr. Hamdi Jupolli
Mr. Bekim Bojku
Ms. Luljeta Krasniqi
Mr. Muhamet Kastrati

KAS Twinning team:
Project Leader Mr. Ilir T. Berisha, Director of Economic Statistics and National Accounts,
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RTA Counterpart Ms.Teuta Zyberi, International Relations Officer, teuta.zyberi@rks-gov.net

Member state resources:
Mr. Søren Netterstrøm, Business Statistics Expert, Statistics Denmark, sne@viv.dk
Mr. Steen Eiberg, Deputy Head of Division (SBR), Statistics Denmark, sne@viv.dk

Twinning ressources:
Mr Per Knudsen, RTA, pkn@dst.dk
Ms Nora Zogaj, RTA Assistent, nzogaj@yahoo.com

Description of the background for the activity
This mission is based on the plan made by the MS expert and the expert from KAS during the last mission.

The report from the last mission stated:
That the next mission is to be carried out by Søren Netterstrøm and Steen Eiberg Jørgensen and is scheduled for October 2014. Steen Eiberg Jørgensen is a SBR expert from Statistics Denmark working on a daily basis with the Danish SBR. He will review the plans, the content and the functionality of the SBR at KAS.

Last time the following follow-up actions were agreed upon:

Description of missing procedures   22 September 2014   Muhamet Kastrati
Revision of DB model   22 September 2014   Muhamet Kastrati
Setting up SQL server and tools 22 September 2014   IT – department
Specify request for KBRA data 22 September 2014   Muhamet Kastrati
Procedure to create transactions 22 September 2014   Muhamet Kastrati

Activities to be undertaken in preparation for the mission:
- Report. 3.1.1 Overall Assessment of Business Statistics and Prioritization of Actions (Ottosen & Netterstrøm)
- Report 3.5.1a Assessment of current Statistical Business Register (SBR) (Netterstrøm)
- Report 3.5.1b Design of Database System for the Statistical Business Register (SBR) (Netterstrøm)

The expected activities are:

- Following up on activities since last mission
- Further development of the database
- Interviews with key users from KAS. E.g. National Accounts and Business Statistics
- Review of plans for content and functionality of the SBR

Expected output:

- Mission report – according to template
- Detailed plan for further activities to be completed regarding SBR in Kosovo by the twinning program

Annex 1. Program, - August 2014

Day	Place	Time	Event
1	KAS	09.00	KAS: Current status of the SBR
		10:30	Coffee break
		11:00	Planning the week. Hands on SBR
		12:00	Lunch break
		13:30-15:30	Hands on SBR
2	KAS	09:00-16:00	Hands on SBR
3	KAS	09:00-16:00	Hands on SBR Interviews with key users Review of content and functionality
4	KAS	09:00-16:00	Hands on SBR Interviews with key users Review of content and functionality
4	KAS	09:00	Report writing
		10:00	Debriefing: Expert, Component Leader, BC Project Leader, RTA
		10:30	Coffee break
		10:00	Report writing
		12:00	Lunch break
		13:00	Report writing

Annex 2. Persons met

KAS resources:
Mr. Muhamet Kastrati, Manager of database, muhamet.kastrati@rks-gov.net
Mr. Ismajl Sahiti, Head of Division, ismail.sahiti@rks-gov.net

KAS Twinning team:
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Member state resources:
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Mr. Søren Netterstrøm, , Business Statistics Expert, Statistics Denmark, sne@viv.dk
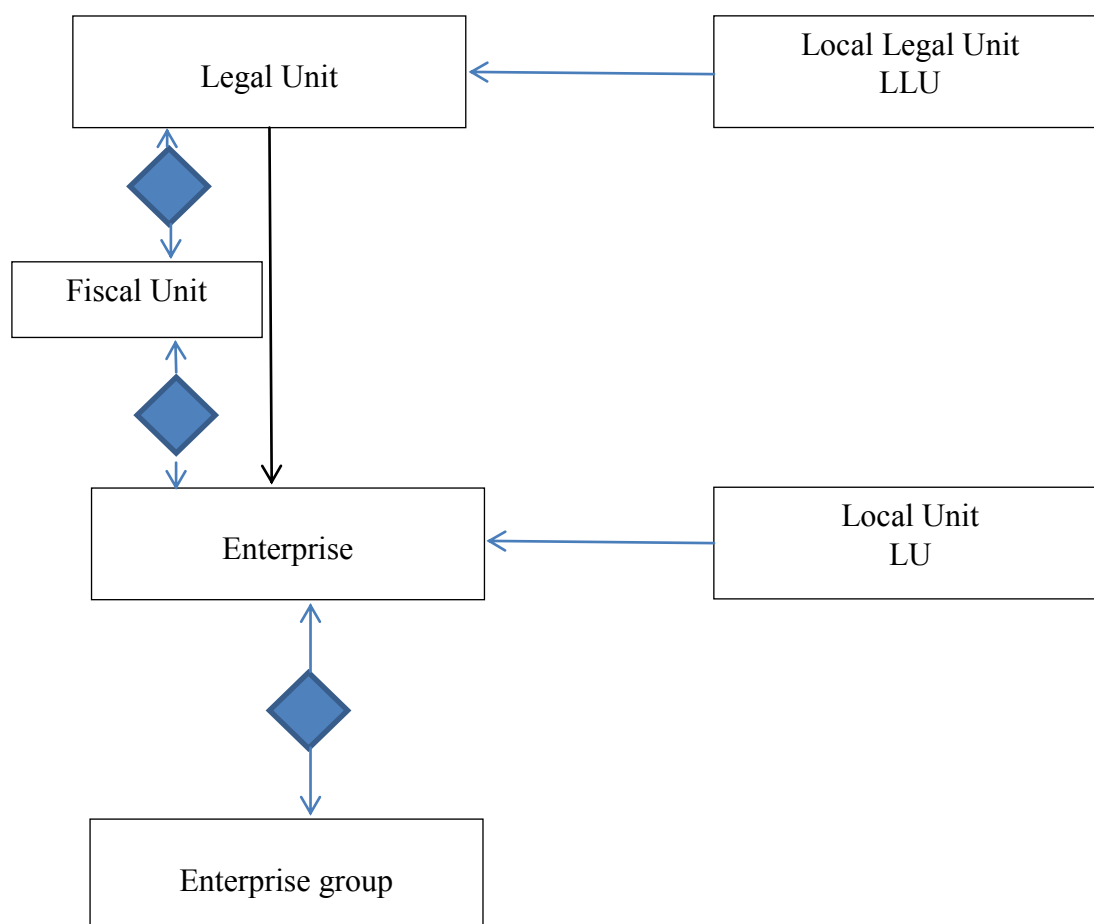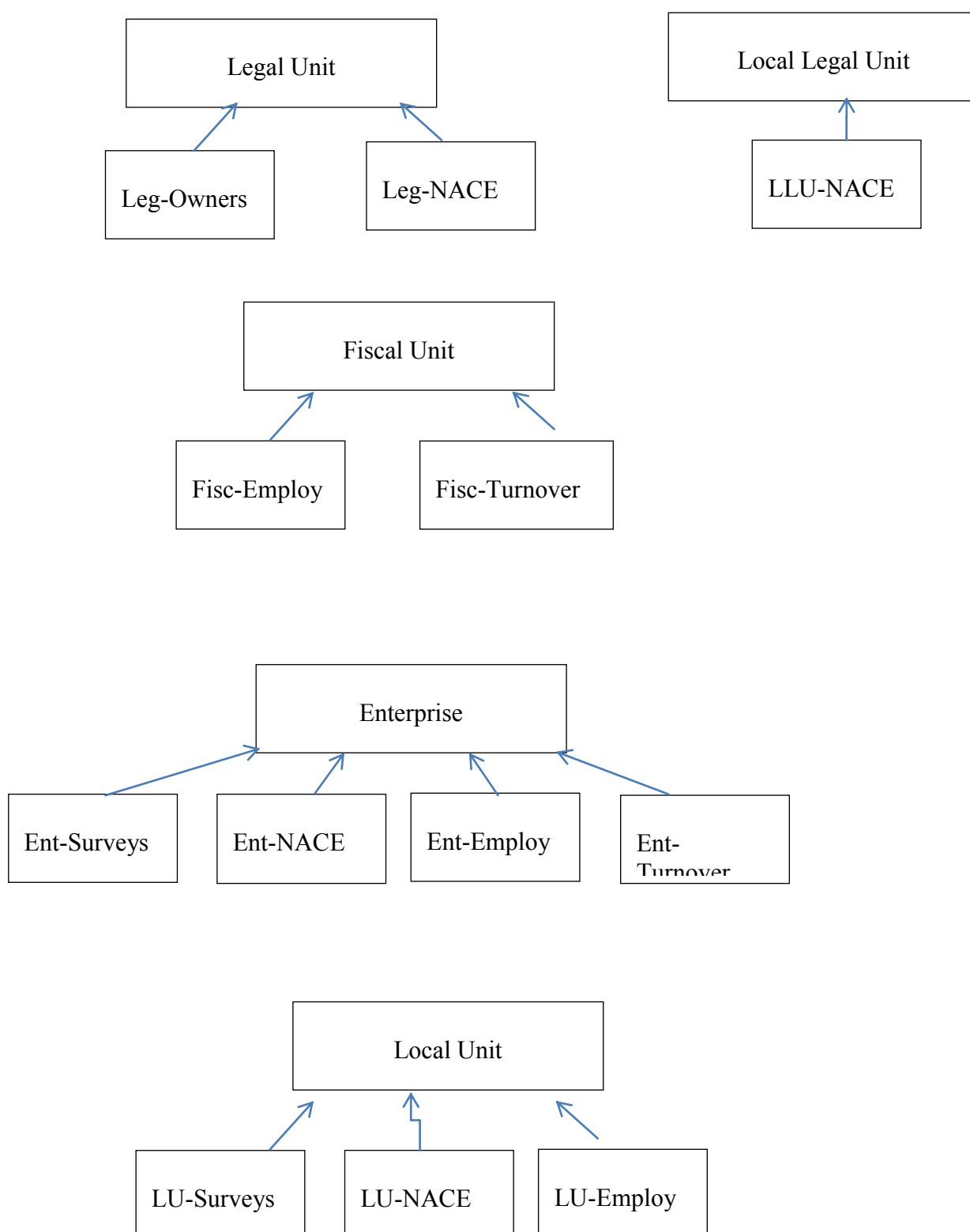
Twinning ressources:
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Annex 3. Database model

SBR – KOSOVO Overview

SBR – KOSOVO Details (revised August 2014)

```
┌──────────────────────┐              ┌──────────────────────┐
│      Legal Unit      │              │   Local Legal Unit   │
└──────────────────────┘              └──────────────────────┘
   ↑             ↑                                ↑
┌────────────┐  ┌────────────┐          ┌────────────┐
│ Leg-Owners │  │  Leg-NACE  │          │  LLU-NACE  │
└────────────┘  └────────────┘          └────────────┘

            ┌──────────────────────┐
            │      Fiscal Unit     │
            └──────────────────────┘
               ↑             ↑
        ┌────────────┐  ┌───────────────┐
        │ Fisc-Employ│  │ Fisc-Turnover │
        └────────────┘  └───────────────┘

            ┌──────────────────────┐
            │      Enterprise      │
            └──────────────────────┘
          ↑        ↑         ↓        ↑
┌────────────┐ ┌──────────┐ ┌───────────┐ ┌──────────┐
│Ent-Surveys │ │ Ent-NACE │ │Ent-Employ │ │   Ent-   │
└────────────┘ └──────────┘ └───────────┘ │ Turnover │
                                          └──────────┘

            ┌──────────────────────┐
            │      Local Unit      │
            └──────────────────────┘
          ↑          ↑          ↑
  ┌────────────┐ ┌──────────┐ ┌──────────┐
  │ LU-Surveys │ │ LU-NACE  │ │ LU-Employ│
  └────────────┘ └──────────┘ └──────────┘
```

SBR-KOSOVO Attributes (revised October 2014)

Legal Unit

NAME	Explanation	Remarks
UID	Number taken from a sequence that identifies a row in the database.	Internal to the database, never displayed. Used for references only. Primary Key
BRnumber	ID in KBRA	Not null
Fk_FiscalUnit	UID of Fiscal Unit	May be null
Name	Name, From KBRA	
Municipality	Code, From KBRA	
Settlement	Code, From KBRA	
Street	Name of street, taken from KBRA	
House Number	From KBRA	
Telephone number	From KBRA	
Fax	From KBRA	
e-mail	From KBRA	
Web-address	From KBRA	
Date created	Date created in SBR	
Data updated	Date of last update in SBR	
Constitution date	From KBRA	
Cessation date	From KBRA	
Legal form	Coded, From KBRA	
FK_Enterprise	UID of Enterprise	May be null?
MainUnit	0 No enterprise associated 1 Base of Enterprise (Main unit) 2 Linked to Enterprise	
Language Preferred		
Succession of	UID of Legal unit that this unit succeeds	From KBRA take over
Succeeded by	UID of Legal unit that succeeds this unit	From KBRA take over

Legal Unit-Owners

FK-Legal Unit	UID of Legal Unit	
TypeOfOwner	Legal/Natural Person	
Resident/Non Resident		May be part of TypeOfOwner?
ID_of_Legal Unit		May Include Country Code
ID_of_Natural_Person		May include Country Code
Name	Name of Enterprise or Person	Full name for Persons
Share	% of ownership	
FK_resident owner	If Legal resident person	??????????
Gender		
Valid from date		
Valid to date		

Note: all data taken from KBRA

Legal Unit-NACE

FK-Legal Unit	UID of Legal Unit	
Valid from date		Date when inserted in register
Valid to date		Date when terminated in register
NACEcode	NACE rev 2	From KBRA
Primary	1 of Primary, 2 if secondary, 3 if other	From KBRA

Local Legal Unit

UID	UID of Local Legal Unit	Se explanation for legal unit
ID Number	From KBRA	
FK-Legal Unit	UID of Legal Unit	
Name		
Municipality		
Settlement		
Street		
House Number		
Date created	Date created in SBR	
Data updated	Date of last update in SBR	
Constitution date	From KBRA	
Cessation date	From KBRA	

Local Legal Unit-NACE

FK-Legal Unit	UID of Legal Unit	
Valid from date		Date when inserted in register
Valid to date		Date when terminated in register
NACEcode	NACE rev 2	From KBRA
Primary	1 of Primary, 2 if secondary, 3 if other	From KBRA

Fiscal Unit

UID	UID of Local Legal Unit	Se explanation for legal unit
Fiscal Unit ID	From KBRA (TAX)	
Date created	Date created in SBR	
countNumber	Number of Legal Units using this Fiscal Number	

The only purpose of this table is to store the ID-number of a Fiscal Unit and be and anchor for data on employment and turnover obtained by fiscal Number

In most cases, a legal unit corresponds to one fiscal unit, however, a fiscal unit may have more than on fiscal unit and a fiscal unit may cover more than one legal unit.

An enterprise may correspond to one or more fiscal units or parts of a fiscal unit.

Fiscal Unit-Employment

FK-Fiscal Unit	UID of Fiscal Unit	
Source	Code for source	Source of data Fiscal, Tax ? ..
Period	YYYY or YYYYMM	Depending on source
Number of employed persons		

Fiscal Unit-Turnover

FK-Fiscal Unit	UID of Fiscal Unit	
Source	Code for source	Source of data Finacial statement, VAT …
Period	YYYY or YYYYMM	Depending on source
Turnover		

Fiscal Unit-Legal Unit

FK-Fiscal Unit	UID of Fiscal Unit	
Fk-Legal Unit	UID of Legal Unit	

Fiscal Unit-Enterprise

FK-Fiscal Unit	UID of Fiscal Unit	
Fk-Enterprise	UID of Enterprise	
Share of Employment	Part of Fiscal Unit Employment that is going to Enterprise	0-100
Share of Turnover	Part of Fiscal Unit Turnover that is going to Enterprise	0-100

Share is used when a fiscal unit is divided into several enterprises. Set to 100 in all other cases.

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Enterprise

UID		Se explanation for legal unit
ID Number	Assigned by KAS (Automated)	
Name		
Municipality		
Settlement		
Street		
House Number		
Source for NameAdress	0 From KBRA 1 From survey	
Telephone number		
Fax		
e-mail		
Web-address		
Date created	Date created in SBR	
Data updated	Date of last update in SBR	
Constitution date	From KBRA	
Cessation date	From KBRA or statistical source	
Cessation Reason	Reason for Cession (KBRA, No Activity according to..	
Legal Form		
Institutional Sector		In most cases generated Assigned by National Account
Language Preferred		

Enterprise-NACE

Fk_Enterprise	UID of Enterprise	Se explanation for legal unit
Valid from date		Date when inserted in register
Valid to date		Date when terminated in register
NACEcode	NACE rev 2	From KBRA
Primary	1 of Primary, 0 if secondary	From KBRA
Source		

Enterprise-Survey

Fk_Enterprise	UID of Enterprise	
FK_Survey	UID of Survey	
Response	0 No response from unit 1 Unit has responded 2 Unit removed from survey???	

Survey

UID		Se explanation for legal unit
Code		
Name		
Period		

The table survey is used to assign a Code, a Name and the period of Surveys that has taken there survey frame from SBR.

Enterprise-Employment

FK-Enterprise	UID of Enterprise	
Source	Code for source	Source of data Fiscal, Tax ? .. Survey
Period	YYYY or YYYYMM	Depending on source
Number of employed persons		

Enterprise-Turnover

FK-Enterprise	UID of Enterprise	
Source	Code for source	Source of data Finacial statement, VAT … Survey
Period	YYYY, YYYYQ or YYYYMM	Depending on source
Turnover		

Enterprise Group

UID		Se explanation for legal unit
ID Number	Assigned by KAS (Automated)	
Name		
TypeOf Group	All Resident, Truncated …	
Date created	Date created in SBR	
Data updated	Date of last update in SBR	
Cessation date		
NACE	2-digit NACE code	

EnterpriseGroup-Enterprise

Fk-Enterprise	UID of Enterprise	
Fk-EnterpriseGroup	UID of EnterpriseGroup	
Starting data	Start of relation	
Ending data	End of relation	

??? Is a UID needed in case an Enterprise is part of the group for more than 1 period???? Or Primary key may be FK_Enterprise, FK_EnterpriseGroup and Starting date.

Local Unit

UID		Se explanation for legal unit
Local Unit Number	Assigned by KAS (Automated)	
Name		
Municipality		
Settlement		
Street		
House Number		
Source of NameAdress	0 KBRA, 1 Survey	
Telephone number		Source ??
Fax		Source ??
e-mail		Source ??
Contact person		Source ??
Date created	Date created in SBR	
Data updated	Date of last update in SBR	
Constitution date	From KBRA	
Cessation date	From KBRA or statistical source	
BasicSource	Type of Source 0 Enterprise 1 Secondary Legal Unit 2 Local Legal Unit 3 Statistical source	
FK_Enterprise	If Enterprise is source	
FK_Legal Unit	If Legal Unit is Source	(Secondary Legal Unit)
FK_LLU	If Local Legal Unit is Source	

LocalUnit-NACE

Fk.Local Unit	UID of Local Unit	
Valid from date		Date when inserted in register
Valid to date		Date when terminated in register
NACEcode	NACE rev 2	
Primary	1 of Primary, 0 if secondary	
Source		
Fk_LLU		??????????

Local Unit-Employment

Fk.Local Unit	UID of Local Unit	
Source	Code for source	Source of data Fiscal, Tax ? .. Survey
Period	YYYY or YYYYMM	Depending on source
Number of employed persons		

Annex 4. Procedures (October 2014)   21

PROCEDURES FOR CREATING NEW ADMINISTRATIVE UNITS

P1. Procedure to handle creation of new Legal Unit of LEType in (2, 4, 5, 6) (Form A0):

Note: Handles transaction from KBRA
Note: This procedure is in general the same for Form B, E and K11. However input format may differ.
Create a new legal unit
        Obtain UID
        Fill in other data
        Set DateCreated date=NOW
         Set DateUpdated=NULL
         Set CesationData=NULL
        Set MAIN_UNIT = 0 (Not connected to an Enterprise yet)
Create_Activitycode in LEG-NACE(1)
FOR EACH Secondary Activity
     Create_Activitycode in LEG-NACE(2)
 NEXT
FOR EACH Other Activity
    Create_Activitycode in LEG-NACE(3)
NEXT
FOR EACH Owner
     Create entry in LEG-OWNERS
NEXT

IF Legal Unit has a FiscalNumber THEN
        IF Fiscal Number does not exist in Fiscal_Units THEN
                create row in Fiscal_Units
        ENDIF
        Create link between LegalUnit and FiscalUnit
         IF Legal Unit is a Takeover (contains reference to old Legal Unit THEN
            Create Transaction TakeOverEnterprise (Old LegalUnit ID, New Legal Unit ID) (P51)
         ELSE
            Create transaction CreateEnterpriseFromLegalUnit (P30)
        END IF
        Note: Legal units without a fiscal number will not create an enterprise
ENDIF

P1A: Subprocedure to Create_Entry in LEGAL-NACE (Type of Activity Code)

Note: It is assumed that NACE-codes are normalize (4 digits)

CREATE Legal Unit-NACE
       Obtain UID of Legal Unit
       Primary = Type of Activity Code
       ValidFromDate=NOW
       ValidToDate=NULL
       SET NACECode

P1B. Procedure to handle Legal Unit Owners (Form: A0, B, E, K11)

CREATE Legal Unit-Owners
       Obtain UID of Legal Unit
       Fill in other data
       Set ValidFromDate=NOW
       Set ValidToDate=NULL

CASE LENGTH(ID)=8 and LEFT(ID,2) in ('70','80') THEN
   TypeOfOwner =Domestic LegalEntity
   Set OwnerName=LegalEntity Name, Adress
CASE LENGTH(ID)=10 and LEFT(ID,2) in ('10','20') THEN
   TypeOfOwner = Domestic NaturalPerson
   Set Gender='M/F'
CASE ELSE
   DO NOTHING
END CASE

P2. Procedure to handle creation of new Local Legal Unit (Form: A0, B, E, K11)

Create a new Local Legal Unit
       Obtain UID of Local Legal Unit
       Fill in other data
       Set Creation date=NOW
       Set Updated date=NULL
       Set CessationDate=NULL
       Create link between Local Legal Unit and Legal Unit
       note: Local Legal units without a Legal Unit number will not create an Local LegalUnit
       Create Transaction CreateLocalUnitFromLegalLocalUnit (P52)

PROCEDURES FOR UPDATING ADMINISTRATIVE UNITS

P10. Legal Unit has new Name, Municipalty, Settlement, Street, House, Telephone, Fax, Email, Web, Language or LegalForm

```
    Set Updated date=NOW
    Update Fields
    IF Legal_Unit is MainUnit
        Create Transactions UpdateContactInfoForEnterpriseFromLegalUnit (P40)
    ELSE
        IF ExistLocalUnit Based on this Legal Unit THEN
            Create Transactions UpdateContactInfoForLocalFromLegalUnit (P61)
        END IF
    END IF
```

P11. Legal Unit has new Activity_Codes

```
    FOR EACH Existing Activity Code in Legal Unit-NACE WHERE ValidToDate is Null
        IF Activity Code (including Primary) Not in New Set of Activity_codes
            Set ValidTo Date=NOW
        END IF
    NEXT

    FOR EACH Activity Code in New Set of Activity_codes
        IF Activity Code (include Primary) Not in
                Existing Activity Code in Legal Unit-NACE WHERE  ValidToDate is Null
        Create_Activitycode in LEG-NACE(Type)  (Procedure 1A).
        IF MainActivity (Primary = 1)  THEN
            Create Transaction UpdateActivityCodeForEnterpriseFromLegalUnit (P41)
        END IF
        END IF
    NEXT
```

P5. Legal Unit has terminated

```
Set CessationDate=NOW (or date from KBRA?)

IF Legal Unit is Succeded by another Legal Unit
    Create Transaction CheckTakeOver (P91)
ELSE
    Create Transaction UpdateEnterpriseForCessation (P45)
    Note. Enterprise may not be terminated if there are another legal unit connected that is active
END IF
```

P12. Change in Fiscal Unit for Legal Unit

```
IF Fiscal Number does not exist in Fiscal_Units THEN
        create row in Fiscal_Unit (Count_Number=0)
ENDIF
Create link between LegalUnit and FiscalUnit
 Count_Number=Count_Number+1
Create Link between Fiscal Unit and Enterprise


Delete link between Old Fical Unit and LegalUnit
CountNumber of OldFiscalUnit=   CountNumber of OldFiscalUnit-1
 IF  CountNumber of OldFiscalUnit=0 THEN
     Delete Link Between Old Fiscal Unit and Enterprise
     Delete Old Fiscal Unit
     STOP
 END IF
IF Any LegalUnit Linked to OldFiscalNumber is linked to the same Enterprise as this LegalUnit
  THEN
    STOP
END IF
Delete Link Between Old Fiscal Unit and Enterprise
```

P20. Local Legal Unit has new Name, Municipalty, Settlement, Street, House, Telephone, Fax, Email, Web, Language or LegalForm

    Set Updated date=NOW

    Update Fields

    IF there is a Local Unit based on this LLU, then

      Create Transaction UpdateLocalUnitFromLLU (P60)

    ENDIF

P7. Local Legal Unit has new Activity_Codes

Similar to P4

P21. Local Legal Unit has terminated

    Set CessationDate=NOW (or date from KBRA?)

     IF there is a Local Unit based on this LLU, then

    Create Transaction TerminateLocalUnitFromLLU (P72)

    ENDIF

PROCEDURES FOR CREATING ENTERPRISES

P30. Procedure to handle Transaction CreateEnterpriseFromLegalUnit

IF Fiscal Number of LegalUnit is connected with more than one Legal Unit THEN

> IF all Legal Units (except the new one) is connected to same Enterprise THEN
>
> > Connect new unit to same enterprise
> > Set MAINUNIT = 2 in Legal Unit
> > Set FK_Enterprise in Legal Unit
> > note the Link to Fiscal unit should be there already
> > Create transaction CreateLocalUnitFromLegalUnit (P51)
>
> ELSE
>
> > Create Unfinished Transaction CreateEnterpriseForComplex
>
> END IF
> STOP

ENDIF

Create Enterprise

> Obtain UID and EnterpriseID
> Fill in other data from Legal Unit
> Set Creation date
> Set MAIN_UNIT = 1 in Legal Unit
> Set FK_Enterprise in Legal Unit
> Create FISCAL_UNIT Enterprise Link (shares = 100 %)
> Create transaction CreateLocalUnitFromEnterprise (P50)

P31. Procedure to handle Transaction TakeOverEnterprise

IF Fiscal Number of LegalUnit is connected with more than one Legal Unit THEN

> IF all Legal Units (except the new one) is connected to same Enterprise THEN
>
> > Connect new unit to same enterprise
> > Set MAINUNIT = 2 in Legal Unit
> > Set FK_Enterprise in Legal Unit
> > Create transaction CreateLocalUnitFromLegalUnit (P51)
> > Check for Termination of Enterprise connected to Old Legal Unit (P90)
>
> ELSE
>
> > Create Unfinished Transaction CreateEnterpriseForComplex
>
> END IF
> STOP

ENDIF

Update Enterprise of Old Legal Unit with Data from New Legal Unit (including Activitycodes)
Create FISCAL_UNIT Enterprise Link (shares = 100 %)

Create transaction CheckLocalUnitsForTakeOver (P92(

PROCEDURES FOR UPDATING ENTERPRISES

P40. Procedure to handle Transaction UpdateContactInfoForEnterpriseFromLegalUnit

If ContactInforSource is Null (Source is KBRA OR Enterprise is Not Part of an Active Survey THEN
    Update Name,address etc from Legal Unit (Main Legal Unit)
     Create Transaction UpdateContactInforForLocalUnitFromEnterprise (LU is based on Enterprise) (P62)
    If Enterprise is Part of an Active Survey
      Create Message ContactInfoForEnterpriseHasBeenUpdatedToSurvey
    END IF
   ELSE
    Create Message ContactInfoForEnterpriseHasChangedToSurvey
END IF

P41. Procedure to handle Transaction UpdateActivityCodeForEnterpriseFromLegalUnit

IF there is only one activity code and source is KBRA THEN
    Update ActvityCode For Enterprise
    Create Transaction UpdateActivityCodeForLocalUnitFromEnterprise (All local units??) (P63)
ELSE
   IF MainActivityCode for Legal Unit <> MainActivityCode for Enterprise THEN
    Create Unfinished Transaction CheckActivityCodeForEnterprise
   ENDIF
ENDIF

P45. Procedure to handle Transaction UpdateEnterpriseForCessation

IF Enterprise CessationDate is not Null THEN
   STOP
END IF
IF Exists Select * From LegalUnit where EnterpriseID = this And CessationData is Not Null THEN
  Select 'one of those' as new Main Unit
  Note- There sems not to be a proper way to select among multiple units (should this create a message?
  Update ContactInfo and ActivityCode
 IF Enterprise is Part of ActiveSurvey THEN
   Create Message PartOfEnterpriseTerminatedToSurvey
 END IF
 Create Transaction CheckLocalUnitsAfterCessation (P71)
ELSE
 Terminate Enterprise (Set Cessationdate = Cessationdate of Legal Unit)
 IF Enterprise is Part of ActiveSurvey THEN
  Create Message EnterpriseTerminatedToSurvey
 END IF
 FOR Each Local Unit (belonging to this Enterprise)
  Create Transaction TerminateLocalUnit (P70)
NEXT LocalUnit

Terminate any relations to EnterpriseGroups (Set termination date = CessationDate)

PROCEDURES FOR CREATING LOCAL UNITS

P50 . Procedure to handle Transaction CreateLocalUnitFromEnterprise

Obtain UID and LocalUnitID
Fill in other data from Enterprise (including main activity code)
Set Creation date
Set Source=Enterprise
Set LinkToEnterprise

P51 . Procedure to handle Transaction CreateLocalUnitFromLegalUnit

Obtain UID and LocalUnitID
Fill in other data from LegalUnit (including main activity code)
Set Creation date
Set Source=LegalUnit
Set LinkToEnterprise

IF Enterprise Has Another Legal Unit on same address THEN
    Create Message CheckLocalUnitsForEnterprise
ENDIF
IF Enterprise is part of an ActiveSurvey THEN
    Create Message NewLocalUnitForEnterpriseToSurvey
ENDIF

P52 . Procedure to handle Transaction CreateLocalUnitFromLegalLocalUnit

Obtain UID and LocalUnitID
Fill in other data from LegalLocalUnit
Activity code (from Enterprise?????)
Set Creation date
Set Source=LegalUnit
Set LinkToEnterprise

IF Enterprise Has Another Legal Unit on same address THEN
    Create Message CheckLocalUnitsForEnterprise
ENDIF
IF Enterprise is part of an ActiveSurvey THEN
    Create Message NewLocalUnitForEnterpriseToSurvey
ENDIF

Note. If will have to be seen to what extent   too many local units on the same address will be created that will have to be removed. The rules may be changed to not creating the new local unit in the first place, if one already exists.

PROCEDURES FOR UPDATING LOCAL UNITS

P60 Procedure to handle Transaction UpdateLocalUnitFromLLU

    Take new Name, address etc. fom Local Legal Units
    IF Enterprise is part of an ActiveSurvey THEN
      Create Message LocalUnitForEnterpriseChangedToSurvey
    ENDIF

P61 Procedure to handle Transaction UpdateContactInfoForLocalFromLegalUnit

    Take new Name, address etc. from Legal Units
    IF Enterprise is part of an ActiveSurvey THEN
      Create Message LocalUnitForEnterpriseChangedToSurvey
    ENDIF

P62 Procedure to handle Transaction UpdateContactInforForLocalUnitFromEnterprise

    Take new Name, address etc. from Enterprise

P63 Procedure to handle Transaction UpdateActivityCodeForLocalUnitFromEnterprise

    Take new activity code Enterprise
    Note. This is only called when there is just one activity code and Enterprise not part of a survey

P70. Procedure to handle Transaction TerminateLocalUnit

    Note. Created when enterprise is closed (not take over)
    Set cessationdate = cessationdate of enterprise

P71. Procedure to handle Transaction CheckLocalUnitsAfterCessation

  Note. Created when a legal unit is closed but the enterprise continues with a new Legal Unit as main Unit
Create Unfinished Transaction CheckLocalUnitsForEnterprise
Note. This may be refined at a later stage.

P72. Procedure to handle Transaction TerminateLocalUnitFromLLU

    Set cessationdate = cessationdate of LLU
Note. The unit may already be closed by P70, but it does not matter

PROCEDURES IN RELATION TO TAKEOVER

These procedures has not been finalised. They require a more in depth study on, have this matters are handled in KBRA. It is suggested to just let then issue an unfinished transaction in order to obtain experience in this area and then gradually create procedures for automated updates.

P90 Check for Termination of Enterprise connected to Old Legal Unit

P91 CheckTakeOver

P92 CheckLocalUnitsForTakeOver

Annex 5. Time plan including mission plan

Time plan and mission plan for development of SBR

JUNE 2014	DB-model revision	Plan update procedures	
JULY	DB-model revision	Plan update procedures	
AUG	DB-model revision	Plan update procedures	Mission to review work
SEP	DB-model revision	Plan update procedures	
OCT	Create database (Empty)	Create SQL Procedures	Mission to finalize DB-model and planning Prepare for next actions
NOV		Create SQL Procedures	
JAN 2015	First test load of SBR from KBRA	Plan handling of unfinished transactions	Mission to review SQL procedures and prepare for next actions
FEB		Plan handling of unfinished transactions	
MAR	Planning of Windows application	Create SQL procedures	Mission to review planning and load and prepare next actions
APR	Planning of Windows application	Test procedures for unfinished transactions	
MAY	Develop Windows application		Mission to review unfinished transactions and prepare next actions
JUNE	Develop Windows application		
JULY			Mission to review Windows application and prepare next actions
AUG		Establish procedures for Loading KAS data (from old business register)	
SEP	Load DB with KBRA and KAS data		Mission to review procedures and prepare next actions Presenting SBR for the users Establish rules for feedback
OCT	Testing	Rules for feedback from surveys established	
NOV	System goes in production		Final Mission