

**LMIS – Review of the current situation and recommendations**

October 2018

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# Project synopsis (fact sheet)

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Title:** | | Technical Assistance to the Skills for Employment and Social Inclusion Programme | |
| **Reference No:** | | EuropeAid136729/DH/SER/JO | |
| **Contract Number** | | N° 2017 / 389-106 | |
| **Project Duration** | | 25 months | |
| **Project Starting Date** | | 15th October 2017 | |
| **Project End Date** | | 15th November 2019 | |
| **Country:** | | Hashemite Kingdom of Jordan | |
|  | **Contracting Authority** | **Beneficiary** | **Consultant**  **(Contractor)** |
| **Organisations** | Delegation of the European Union to the Hashemite Kingdom of Jordan | Main beneficiaries:  Ministry of Labour  Ministry of Education  Ministry of Higher Education  Vocational Training Centre VTC  Accreditation and Quality Assurance for Higher Education Institutions. AQACHEI  Balqa Applied University BAU  Ministry of Social Development  ETVET Council Secretariat or MoL Technical Unit and the Technical Vocational Education and Training Council "TVETC"  Centre for Accreditation and Quality Assurance (CAQA);  NCHRD  NAF & ETVET Fund  Higher council for affairs of persons with disabilities  Department of Statistics  Social partners, private sector associations and civil society and TVET private providers  Governorates and municipalities | This project is implemented by  Deutsche  Gesellschaft für  Internationale  Zusammenarbeit  (GIZ) GmbH in cooperation with Mott MacDonald, UK and Dejani Consulting, Jordan |
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| **Date of review:** | | October,16th 2018 | |
| **Editor of report based on collected data from TAT documents** | | 1. Ivan Majerčák (Slovak Republic), NKE 2. Mohammad Ismail (Jordan), NKE | |
| **Technical Assistance Team (TAT)** | | 1. Luca Azzoni - Team Leader 2. Luba Pavlovova – KE4 | |
| **Approved by:** | | Signature: | |

# List of Abbreviations

|  |  |
| --- | --- |
| Abbreviation | Explanation |
| AQACHEI | Accreditation and Quality Assurance Commission for Higher Education Institutions |
| AG | Advisory Group |
| ALMMs | Active labour market measures |
| ALMPs | Active Labour Market Programs |
| BAU | Al Balqa Applied University; |
| CA | Contracting Authority |
| CoE | Centres of Excellence |
| CEQA | Centre of Accreditation and Quality Assurance |
| CS | Civil society |
| CSO | Civil society organisation |
| CMS | Content management system |
| DEF | Development employment fund |
| DEVCO | EC Directorate-General for Development and Cooperation (DG DEVCO) |
| DEU | Delegation of the European Union to the Hashemite Kingdom of Jordan |
| DG | Directorate General (of the European Commission) |
| DOS | Department of Statistics |
| EC | European Commission |
| ELARG | EC Directorate-General for Enlargement (DG ELARG) |
| ENI | European Neighbourhood Instrument |
| ENP | European Neighbourhood Policy |
| ETF | European Training Foundation |
| ETVET | Employment and technical vocational education and training |
| ETVET-C | ETVET Council |
| EU | European Union |
| EUBEC | European Blending and External Cooperation |
| GDP | Gross domestic product |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation) |
| GoJ | Government of Jordan |
| HDI | Human Development Index |
| HEAC | Higher Education Accreditation Commission |
| HR | Human resources |
| HRD | Human resources development |
| IS | Information system |
| IT | Information technologies |
| IPA | Instrument for Pre-accession Assistance |
| IPF | Infrastructure Projects Facility |
| JICA | Japan International Cooperation Agency |
| KE | Key expert |
| KILM | Key indicators of labour market |
| LM | Labour market |
| LMI | Labour market information |
| LMIS | Labour market information system |
| LMIMS | Labour market information management system |
| M&E | Monitoring and evaluation |
| MIS | Management Information System |
| MoE | Ministry of Education |
| MoHE | Ministry of Higher Education |
| MoL | Ministry of Labour |
| MoPIC | Ministry of Planning and International Cooperation |
| MoSD | Ministry of Social Development |
| MSCoE | Model Skill Centres of Excellence |
| NAF | National Aid Fund |
| NCHRD | National Council for Human Resources Development |
| NGO | Non-governmental organisation |
| NES | National Employment Strategy |
| NEES | National employment electronic system |
| NETVETS | National ETVET Strategy |
| NKE | Non-key expert |
| NMPF | National Policy for Microfinance Framework |
| NSHRD | National Strategy for Human Resources Development |
| NQF | National Qualification Framework |
| PC | Project (Steering) Committee |
| PCM | Project Cycle Management |
| PETS | Public Expenditure Tracking Survey |
| PMP | Performance management programme |
| PIU | Project implementation unit |
| PMU | Project management unit |
| PPF | Project Preparation Facility |
| PPP | Public-private partnership |
| PRS | Poverty Reduction Strategy |
| PWDs | People with disabilities |
| QSDS | Qualitative Service Delivery Survey |
| PSC | Project Steering Committee |
| RCC | Regional Cooperation Council |
| SME | Small and medium-sized enterprise |
| SC | Steering Committee |
| SS-C | Sector Skills Council |
| SSC | Social Security Corporation |
| STE | Short-term Expert |
| TA | Technical assistance |
| TAT | Technical assistance team |
| TVETC | Technical and Vocational Education and Training Council |
| ToR | Terms of reference |
| TOT | Teaching of Teachers |
| TVET | Technical Vocational Education and Training |
| UNDP | United Nations Development Programme |
| UNHCR | UN Refugee Agency |
| USAID | U.S. Agency for International Development |
| VTC | Vocational Training Corporation |
| WB | World Bank |

# 

# Executive summary

## Introduction

## Purpose of the document

The purpose of this document is to provide observations, key points and findings from the review of the data sources, data consumers, business functionality, system design, integration capability, system operations and maintenance of the IT Systems operated by the key stakeholders of the future LMIS System (further referenced as IT Systems if not stated otherwise).

During the review, we have also looked at the organization maturity to operate future LMIS or its components – mainly its personal, technical and data exchange readiness.

## General assessment of the provided documentation and cooperation

The general assessment of the support from local institutions (heads of institutions in question, IT personnel, business analysts, data owners, subject matter experts etc.) can be evaluated as excellent. We have received all the information we thought might be interesting for us and we have even received several opportunities to see the physical design of the databases, data contained, systems from the user’s and administrator’s perspective etc.

At the end of the mission targeted on the review of the current situation of LMI/LMIS in Jordan a common workgroup (WG4) workshop was organized on 15/10/2018. All the main stakeholders were present at the workshop and the discussion has laid a foundation for further steps – creation of the Conceptual Framework, institutional agreements discussion and in a distant future, also for LMIS creation.

## Reference documents

The following documents were collected and used during the review of the IT Systems:

|  |  |  |
| --- | --- | --- |
| **N** | ***Document*** | ***Author*** |
|  | 20180712\_CONCEPT\_LMI,LMIS.pptx | KE4, Luba Pavlovova |
|  | Al-Manar\_HR Information\_2005\_1383.pdf | Al-Manar |
|  | Booklet 2015-Final\_Indicators.pdf | Al-Manar |
|  | BWJ\_ILO\_EU Phase II-draft-July 19 2018.docx | ILO |
|  | HRIS-LMIS-2018\_NCHRD english.pptx | NCHRD |
|  | ILO-JORDAN e-Counseling ECS\_Final.pptx | ILO |
|  | ToR\_LMIS\_IT ETVET Council\_SENIOR, JUNIOR\_FINAL.docx | KE4, Luba Pavlovova |

## Interviews conducted

**Mission 1 (30.9.2018-15.10.2018):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date** | **Venue/Time**  **Of the meeting** | **NKEs attending the meeting** | **With institutions/persons to be met** | **Comments on meeting content** |
| 30.9.2018  SUNDAY | MOL premises,  at 12,00  (2 –3 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Majdi Saan, LMI/NEES, MoL + any relevant colleagues dealing with NEES from Majdi Dept. 4. Enas Nasran/ETVET Secretariat, 5. Luba Pavlovova/KE4 | MoL | NEES – current state of the system; NEES as integral and important part of the overall LMIS; clarification of beneficiaries’ expectations, approach to activity/component and expected outcomes.  – see the attached review of NEES prepared by Ivan Majercak |
| 2.10.2018  TUESDAY | MOL premises,  at 9,00 | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Majdi Saan, LMI/NEES, MoL + any relevant colleagues dealing with NEES from Majdi Dept. 4. Enas Nasran/ETVET Secretariat, 5. Luba Pavlovova/KE4 | MoL | LMIS vision of the MoL – work discussion with key representatives in charge for LMI |
| 3.10.2018  WEDNESDAY | Meeting 1  With DoS premises  At 10,00  (2 hours meeting)  Meeting 2  NCHRD – National Centre for HRD premises  At 12,00  (2 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Zaid Abdulkareem Abualghanam, DoS + his colleagues 4. Majdi Saan/MoL 5. Enas Nasran/ETVET Secretariat, 6. Luba Pavlovova/KE4 7. Ivan Majercak, NKE Senior 8. Mohammed Ismail, NKE junior 9. Manal Alzagh, NCHRD + her colleagues dealing with LMI/surverys, etc. 10. Majdi Saan/MoL 11. Enas Nasran/ETVET Secretariat, 12. Luba Pavlovova/KE4 | DoS  MoL  NCHRD  MoL | DoS data needed for LMIS, the vision of DoS  AlManar- database, data LMI-LMIS (review of the work done so far and usability of data; experience of the NCHRD towards LMI/LMIS, its vision and understanding of LMIS) |
| 4.10.2018  THURSDAY | NAF premises,  At 9,00  (2 –3 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Mr. Faisal Alkhalaylah/NAF, 4. + IT staff of NAF – be ensured by Mr. Faisal 5. Majdi Saan, LMI/NEES, MoL + any relevant colleagues dealing with NEES from Majdi Dept. 6. Enas Nasran/ETVET Secretariat, 7. Luba Pavlovova/KE4 | NAF  MoL | NAF database, data and statistics on NAF beneficiaries relating to LMIS; challenges relating to Plan to expand and improve the NAF cash transfer programme (new challenge for 85000 families – 3-year plan) – new data, that are the expectations of the NAF related to MIS (Management Information System), etc. |
| 7.10.2018  SUNDAY | ETVET premises  At 10,00  (Approx. 2 hours)  Jordan Chamber of Industry (JCI) premises  At 13,00 – 15,00  (meeting 2 hours) | 1. Miroslav Stefanik, NKE Senior 2. Razan Abedallfattah, NKE Junior 3. E-TVET staff responsible for M&E 4. Tibor Borbely 5. Razan Abedallfattah AL-hadidi 6. Ivan Majercak 7. Ivan Majercak, NKE Senior 8. Mohammed Ismail, NKE junior 9. Osama Alrayan/JCI 10. Waed Alabade/JCI 11. Majdi Saan, LMI/NEES, MoL 12. Luba Pavlovova/KE4 | E-TVET Secretariat  JCI  (Jordan Chamber of Industry)  MoL | Introductory meeting with ETVET Secr. staff in charge for indicators for E-TVET and M&E system. Discussion on the main elements of existing M&E, its trengths and weaknesses.  Opinions and expectations of the employers (social partners) towards LMI/LMIS – bottlenecks (data, statistics, databases, needs of employers, etc.), possible ways for moving forward to one optimal LMIS. Inter-institutional arrangements – challenges!? |
| 9.10.2018  TUESDAY | MoE premises – Jabal Alhussein  At 10,00 – 12,00  (apx. 2 hours) | 1. Miroslav Stefanik, NKE Senior 2. Razan Abedallfattah, NKE Junior 3. Ivan Majercak NKE Senior 4. Mohammed Ismail, NKE junior 5. Eng.Ayman Almomane/MoE + other colleagues 6. Sameer Saleh/VTC 7. Abdallah Ababneh (NCHRD Director) 8. Luba Pavlovova/KE4 | MoE  VTC  NCHRD | Structure of data available for the schooling system.  VET policies and programmes implemented. |
| 10.10.2018  WEDNESDAY | SSC premises  At 10,00 – 12,00  (apx. 2 hours) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Shallan Akek Almajale/SSA + the manager - + staff responsible for data and statistics, IT system of the SSC 4. Majdi Saan, LMI/NEES, MoL 5. Luba Pavlovova/KE4 | SSC  MoL | Data on employment history of the insured people in the ITS of the SSC as contribution to LMIS (SSC data system) |
| 15.10.2018  MONDAY | Geneva hotel, Amman  At 10,00 – 12,00  Max to 13,00 | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Luba Pavlovova/KE4 | All stakeholders – members of the WG4 – TF1 & TF2 | Presentation of the first outcomes/findings – first outlines – work discussion and next steps (mission2 in Nov2018) |
| MEETING ILO OFFICE  AT 15,00 | 1. Luba Pavlovova/KE4 2. Tibor Borbely 3. Ivan Majercak 4. Miroslav Stefanik | ILO  EU TA SESIP | ILO E-COUNSELLING SYSTEM (PLATFORM) – meeting with ILO staff and developers of the platform, update on the current version and its functionality |

**Mission 2 (7.11.2018-22.11.2018):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 11.11.2018  SUNDAY | NCRPwD premises,  at 10,00 | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Ghadeer Al-Hares Al-Hadidi + her colleagues in charge for data and IT system, NCRPwD (NCD) 4. Majdi Saan, LMI/NEES 5. Enas Nasran/ETVET Secretariat, 6. Luba Pavlovova/KE4 | NCRPwD (HCD)  Ghadeer Al-Hares Al-Hadidi + her colleagues in charge for data and IT system, NCRPwD (NCD) | Contribution/requirements of HCD from LMIS |
| 12.11.2018  Monday | BAU premises,  at 10,00  (2 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Dr.Noor Kharabshe + her colleagues in charge for data and IT system, BAU 4. Majdi Saan, LMI/NEES 5. Enas Nasran/ETVET Secretariat, 6. Luba Pavlovova/KE4 | BAU  Dr.Noor Kharabshe + her colleagues in charge for data and | Contribution/requirements of BAU from LMIS |
| 13.11.2018  TUESDAY | Meeting 1  With MoL premises  At 10,00  (2 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Majdi Saan/MoL 4. Enas Nasran/ETVET Secretariat, 5. Luba Pavlovova/KE4 | MoL  Majdi Saan/MoL | Necessary institutional arrangements, possibilities of LMIS hosting, changes to legislation |
| Meeting 2  With JCC premises  At 13,00  (2 hours meeting) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Hala Alkhasawneh, JCC + staff responsible for the data and IT system 4. Majdi Saan/MoL & Dina Hammad 5. Enas Nasran/ETVET Secretariat, 6. Luba Pavlovova/KE4 | JCC  Hala Alkhasawneh, JCC + staff responsible for the data and IT system | Contribution/requirements of JCC from LMIS |
| 14.11.2018  WEDNESDAY | Meeting  With VTC at 10,00  (approx.1,5 hours) | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Director of Programming Dept, + Mr. Sameer Saleh, WG4 member, possibly VTC Director 4. Majdi Saan/MoL 5. Enas Nasran/ETVET Secretariat 6. Luba Pavlovova/KE4 | VTC  Director of Programming Dept, + Mr. Sameer Saleh, WG4 member, possibly VTC Director | Contribution/requirements of VTC from LMIS |
| 14.11.2018  WEDNESDAY | Meeting with the MoHE  At 13,00 | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Enas Nasran/ETVET Secretariat   Luba Pavlovova/KE4 | MoHE |  |
| 19.11.2018  Monday | WORKSHOP no.2  At 9,30 – 13,00  AYASS HOTEL | 1. Ivan Majercak, NKE Senior 2. Mohammed Ismail, NKE junior 3. Enas Nasran/ETVET Secretariat, 4. Luba Pavlovova/KE4   + ALL MEMBERS OF THE WG4 | All stakeholders – members of the WG4 – TF1 & TF2, other stakeholders´ representatives dealing with LMI – data and ITS | Presentation of the proposed concept, discussion about steps necessary before implementation |

# REVIEW BACKGROUND

## Target LMIS Landscape

At the beginning of the review a target LMIS Landscape was drawn. It represents the ideal scenario of the LMIS implementable in Jordan and it is based on the best practices from the EU LMIS Systems and ILO recommendations for LMIS systems (<https://www.ilo.org/global/topics/dw4sd/themes/lm-info-systems/lang--en/index.htm>).

During the review of the systems, the LMIS Landscape was used to map data entities to envisioned high-level data and interfaces modules of the LMIS. However, at this stage no conclusions were drawn about the possibility of expanding any of the given systems into fully functional LMIS.



Figure 1 Target Data and System Landscape in LMIS Jordan

## Approach to the review of the systems

The best approach to the review of the existing systems for our case turned out to be personal interviews/meetings at each of the stakeholders’ institutions.

During the interview, we were focusing on the following areas:

* **Organization** – the maturity of the organization to provide data and to consume it once LMIS is in place. In the Conceptual Framework, based on this assessment, the organizations will be divided into two Tiers – Tier 1: Organizations producing data (with ability to consume the outputs from LMIS) and Tier 2: Organizations mostly consuming data for their own needs.
* **Location** – this aspect was mostly important for the organizations providing geographically distributed services, like Public Employment Service (PES) of the MoL and offices of National Aid Fund. We understand that the outreach to the common people cannot depend on electronic services only.
* **Data** – the main subject of our inquiry to the institutions, discovering what data can be provided, how consistent they are, on what primary keys can they be matched, with what frequency can they be supplied etc. Also, we have asked each institution, what data is of their interest to consume for further processing from the LMIS outputs.
* **Technology** – a high level inspection of technology in use was done, identifying the various IT systems in use, underlying technology, the year of go live of each system and its ability to integrate through one of the suggested interfaces (web services, data pumps/ETL tools, data replication).
* **Application** – for the institutions providing applications with user interface, we have assessed the way of interaction and the level of integration with other systems (not to force the users to enter duplicate data).
* **Business processes** – although probably beyond the scope of this document, we have also assessed high level business processes that might be subject to improvement, namely the processes that can improve data quality, decrease the burden on a citizen and integrate otherwise scattered LMI scene in Jordan.

# REVIEW OF THE IT SYSTEMS RELATED TO THE DESIGN OF THE LMIS

The mapping of the systems with potential to contribute to LMIS is shown in the following schema:



Each of the main systems is described in detail in the chapters below.

## Ministry of Labor: National Electronic Employment System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| National Electronic Employment System (NEES) | Ministry of Labor |
|  | |
| **Purpose of the system** | |
| The National Electronic Employment System (NEES) is the MoL answer to the obligation to provide a national job matching system. However, the registration in the system is not mandatory for the unemployed persons, hence it is not possible to consider the data contained as complete or representative for the whole cohort of the unemployed in Jordan.  The system lacks attractive offer of vacancies and therefore it is not widely used – most of the vacancies are low profile jobs and most of the job seekers are blue collar workers, who only register in the system, but do not use it for their benefit. Approximately 10-15% of the registered users is active. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Job Seekers’ Registration  Job Seekers’ Profile Building | Job Seeker | | Employer registration | Employer from inside & Outside Jordan | | Vacancy posting | Job Post (vacancy) | | Matching | Between Job Seekers profile and Job Postings | | Career Counseling | Not Operational Yet | | E Training | Not Operational Yet | | |
| **Data of interest for LMIS** | |
| The NEES has a potential to provide comprehensive data for LMIS, mostly about the situation on the lower end of the Labour Market. The data from NEES can show inflow and outflow of the job seekers, trends in the vacancies postings as well as trends in regional/gender/age segmentation of the market. An added value in the future might be brought by natural language analysis of the vacancies, to identify the skills required by the employers. This, of course, can be also automated, but it requires advance technologies in place.  To achieve a broad usage of the system, the integration with other systems is necessary (NAF, HCD) as well as the improvement of business processes in MoL/NEES/PES. | |
| **Data of interest from LMIS** | |
| MoL as the natural leader in LMI should be able to make use of almost every information in LMIS. The three main areas of interest are:   * Labour Market Analysis – indicators (see e.g. KILM by ILO) * Monitoring and Evaluation of the active labour market policies implemented by MoL * Information Exchange and Coordination – given by the status of Mol   The establishment of the analytical group/observatory on MoL is highly recommended as part of the LMIS project. | |
| **Technical infrastructure** | |
| NEES is a Microsoft products-based system using:   * Windows Server * IIS, ASP.NET MVC2 * Microsoft SQL Server Database * Compatible with most current browsers, no desktop application for backend services * Runs over public internet and Govnet, where available | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * Good Technical Capabilities being built using modern web technologies * Has online integration with multiple governmental entities such as SSC, MoIT, FURAS Portal, and CSB. * System run by Ministry of Labour * Official support by ministry and law | * Little or no marketing between citizens (e.g. AdWords) * No companies or vacancies vetting (check if the vacancies are not offensive and the businesses are who they tell they are) * No behind the scenes analysis of the users (web analytics) * Little capacity (personnel and financing) for further system development * System is probably beyond the midlife | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * Data interchange with National Aid Fund – data exchange is possible in both ways (Vacancies from NEES to NAF, Job Seekers from NAF to NEES)   + Either system should remember, that the job seeker was automatically imported from other system   + Recommended: referral from NAF to NEES, using automated interface * Data interchange with HCD for NEES backend system only – having necessary information on PwD and limitations to certain jobs needed by the employment and career counsellors for provision of tailored services for PwD – job matching, individual employment plans, etc. * Data interchange with JCI – filling the gap on the demand side * Data interchange with Jordan Civil Service Bureau to attract more people to NEES * Data interchange with private portals (Akhtaboot, Bayt) with focus on the demand side * Introduction of the job agents (robots) – automated service doing regular matching even when the user is not online and sending notifications * Introduction of a notification service (SMS) for people with less digital skills/simple devices * Attraction of big Employers for an exclusive vacancy posting on NEES * Posting of vacancies from Gulf countries - GCC (exclusivity and no separate sites)   + An example of a good practice is the Qatar jobs web site: <https://jqpee.jo/> * Introduction of register of competencies and jobs for eCounselling * Adjustment of system for detailed disabilities information in line with national legislation * Develop a System Upgrade and enhancement roadmap for both technical & Functional aspects * Awareness raising about the existence of the system, about its cost-free services for both job seekers and employers | |
| **Other facts/documents of interest** | |
| Data model of the main entities | |

## Department of Statistics (DoS):

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Statistical system | The Department of Statistics (DoS) |
|  | |
| **Purpose of the system** | |
| The DOS system is a statistical system catering for broad range of statistical surveys and data collection. An integral part of it are the Labour Force surveys, executed on a regular basis. The DOS uses harmonized methodology for calculating some of the Key Labour Market Indicators, however the data may not be accurate because of several externalities on the labour market/in the economy of Jordan. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Employment and unemployment survey | * **Unemployment rate (segregated by several indicators)**   16,500 Household respondents  Quarterly based  %75 of the surveyed households are repetitive from the previous survey and %25 New  Geographical distribution only  Both Jordanians and non-Jordanians  Confidential | | Job creation survey | * **Job creation in economy**   47.000 respondents  Semi-annually  3 main indicators:   * New job, Left job, Changed job | | Establishment division survey | Surveys directed towards companies | | |
| **Data of interest for LMIS** | |
| Although requiring a deeper analysis, the data from DOS system may be used in two ways:   * A collection of “single number” indicators resulting from data cleansing, processing and aggregation at DOS. * A source of raw data (individual records) for further research.   The use of both is a crucial part of any researcher’s work. The LMIS might contain both kind of data, indicators as a must, the individual records as an advantage for cross-table queries. The letter is however obtainable through statistical office already today, although usually only 20% sample is provided. The procedure is well established and not bureaucratic. | |
| **Data of interest from LMIS** | |
| Although no direct interest in any kind of data was expressed during the meeting, the DOS can use the other institutions’ data for its benefit. Whether it is cross-checking the data against other agencies and institutions or introducing new surveys. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **Capacity to perform field/household surveys** * **Online and offline interfaces to get the individual/cumulative data** * **Established procedures to provide sample (usually up to 20%) of data for research purposes** | * To be identified by other SESIP project activities * Limited online data verification mechanism in the field, its been done manually at HQ | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * The recommendation for concrete statistical methods and calculations will be introduced in other activities of the SESIP project. | |
| **Other facts/documents of interest** | |
| Link to DoS web site (EN):  <http://dosweb.dos.gov.jo/labourforce/> | |

## National Centre for Human Resources Development: Al Manar Project/System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Al Manar | National Centre for Human Resources Development (NCHRD) |
|  | |
| **Purpose of the system** | |
| The Al-Manar project at the National Centre for Human Resources Development (NCHRD) aims to improve the collection, analysis, and distribution of human resources information, whereby ensuring the welfare and well-being of Jordanian citizens.  The shortcomings of the system are that most of the data is not updated on a regular basis and the updates depend on the currently ongoing studies at NCHRD. The LMIS can overcome this gap by providing regular data update in the system and the Al-Manar in return can contribute to LMIS with ready-made studies, which will be published in the CMS part of the system. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Education System Output Data | **Universities**   * Enrolled students and graduates   **Community colleges**   * Enrolled students and graduates   **VET**   * MoE – Student * VTC – Trainees and graduates | | Labor Force Database | **Department of Statistics** data on Employed/Unemployed  CSB – Applicants, appointed, retired, employed  MoL – Work permits  SSC - Participants | | Labor Force Program | **Development and Employment Fund**   * Borrowers   **National Aid Fund**   * Families benefiting from NAF   **National Employment and Training Company**   * Trainees and Graduates   **Microfund for women**  - Borrowers | | Other data | **People with disabilities**  **Beggars** | | |
| **Data of interest for LMIS** | |
| The data in future LMIS should contain broader set of entities and records than Al-Manar system. This data should be retrieved from the data producing systems and the cleansing procedures should be well documented in order to provide the researchers with a solid argumentation for the origin and quality of data. Therefore, the Al-Manar system will not be a primary source of data for LMIS. | |
| **Data of interest from LMIS** | |
| The Al-Manar system can broadly leverage from the existence of LMIS. LMIS data will be open to any entity in the LMI field and therefore Al-Manar can use it for free as a base for its studies. | |
| **Technical infrastructure** | |
| The Al-Manar project is based on Oracle 11g database with no ongoing support. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * Wide variety of data acquired * Database design for accommodating all types of data * Established procedures for data collection (DoS) | * Data is used based on the studies that has been done not on a regular ongoing basis * Limited human resources capacity * Lack of funding for new studies * No Institutional Agreements to get Data * No Data Quality Auditing peocess * Data of different quality * No automated interfaces for data exchange | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * Avoid duplicate studies between Al Manar and other institutions * Align the methodology for the studies with commercial bodies (JCI, JCC) to reach the same conclusions | |
| **Other facts/documents of interest** | |
| Link to Al Manar web site (EN):  <http://www.almanar.jo/en/> | |

## National Aid Fund: IT System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Statistical system | The Department of Statistics (DoS) |
| **Purpose of the system** | |
| The main objectives of the National Aid Fund, administratively and financially independent institution are:   * Protecting and supporting needy individuals and families through the extension of recurring or contingency financial aid to them. * Working at providing employment or production opportunities to the individual or the family, or to increase them by way of vocational or physical rehabilitation. * Recommending to the Ministry of Health to issue Health Insurance Cards to the financially incapable, who are beneficiaries of the Fund’s services, according to the provisions and conditions stipulated in the current Civil Health Insurance System. * Providing vocational training to beneficiary groups at institutions and relevant authorities. * Carrying out scientific research and field studies related to the Fund and areas of its activity.   The IT system at NAF currently supports the protecting and supporting part of the NAF’s mission while the other tasks have only limited support. A new/improved system should be introduced at NAF soon, but the crucial improvement of the services lies in the coordination and/or integration with Public Employment Service and closer integration with training providers. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Registration of families and individuals eligible for financial Aid | * **Job Seekers (potential)**   Basic data registered for a person:   * DoB (date of birth), Name, Surname, ID Number * Health Status (limited; more precise in the future) * Basic skills and education – compatible with NEES? * **Referral for the training and training evaluation** | | |
| **Data of interest for LMIS** | |
| The data contained in the NAF system is for the socially most endangered group – the needy, who (partially) depend on the support from government. This data is a source for action for other institutions – from Public Employment Service to training organizations. NAF data per se is an interesting study of a research and when added to a wider landscape, it can contribute to many interesting cross-institutional queries. | |
| **Data of interest from LMIS** | |
| The NAF clearly misses any kind of tracer studies, especially for the people:   * Referred to Public Employment Service (NEES system; in the future hopefully with an automated interface with NAF system) * Referred for training to VTC or other training provider.   The modus operandi of the NAF is through social workers, either in offices or in the field and any information that is stored in the NAF system is their contribution. The data exchange with other systems (NEES, ETVET) might be of a clear benefit for NAF, whether through LMIS or directly. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * Data updated on a regular basis (financial aid) * Motivation of citizens to be in the system * Fairly large database (98.000), expected to grow by 85.000 families in 2019-2021 * Integration with SSC to identify people with record of working history | * Little data collected for the current users about their skills and experience. * Little data collected for the current users about their health disabilities (only severe) * Ambition to go beyond financial aid but without proper support: * Missing link to LMIMS system (NEES) * Referral to trainings (the workflow stops there) * No tracing system; it is left to MoL/training providers | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| The mission of the NAF – to help the needy in Jordan society is broader than payment of the contributions.  To fulfil this mission, following steps are recommended:   * Integration with NEES to allow for referral of the candidates from NAF (not all persons in NAF are eligible for work as it registers all family members and only those >18 years can work in Jordan in compliance with the current law) * Integration with ETVET providers to update the training status of the NAF clients | |
| **Other facts/documents of interest** | |
|  | |

## Jordan Chamber of Industry: IT System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Internal vacancy Function | Jordan Chamber of Commerce |
| **Purpose of the system** | |
| The Jordan Chamber of Industry operates in the area not covered by any other system/institution. It brings together companies from the industrial sector (the membership is mandatory above 10 employees for companies from 10 sectors) and job seekers eligible for the vacancies. The contact with the industry is maintained on the local level through branch offices. Therefore, the JCI is building its own system of matching vacancies and job seekers, limited to the members of JCI.  The added value of JCI is in close ties with industry which is unfortunately not developed by the governmental institutions. | |
| **Main entities** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Job Seekers’ Registration  Job Seekers’ Profile Building | **Job Seeker** | | Employer registration (currently not available) | **Employer** | | Vacancy posting (currently available only through the phone) | **Job Post (vacancy)** | | Matching | N/A (Manual) – result of the matching recorded internally | | |
| **Data of interest for LMIS** | |
| The vacancies and the jobseeker’s data are natural candidates for upload to LMIS. Also, the indication for businesses about their membership in JCI should come from JCI (the business register of Jordan does not contain this information).  However, the data of JCI should be also interesting for MoL – the JCI might become a valuable source of vacancies, which might be automatically posted to NEES. Such an agreement is subject to negotiation between MoL and JCI. | |
| **Data of interest from LMIS** | |
| During the meeting, JCI introduced their Analytical Department. Its main task is to provide sectoral studies for the 10 sectors covered by JCI. The representatives of this department can see an added value in data from LMIS, especially from the area of ETVET. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **Coverage of 10 sectors (95% of the companies fall into SME category)** | * Limited reach of the IT system * No awareness about the system, matching is done through an internal process | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * The MoL should seek an agreement/way to exchange data with JCI. As the MoL is clearly missing data on the side of demand for labour, cooperation with the private entities is necessary. | |
| **Other facts/documents of interest** | |
| **JCI web site:** <http://www.jci.org.jo>  Data model of the main entities is not available. | |

## Jordan Chamber of Commerce

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
|  | Jordan Chamber of Commerce |
| **Purpose of the system** | |
| The JCC has currently no IT system containing significant data for LMIS.  The data available at JCC is about the businesses registered within the institution - companies: owners, addresses, sector/subsector. There is no vacancies/job seekers registration system.  However, JCC sees a great added value in building LMIS. JCC appealed on the future creators/operators of the system to cover the 3 main areas of concern of JCC:   * New LMIS system should be open to provide data to general public and private sector by explicit commitment * New LMIS system should be open to public and private universities in order to improve their curricula * LMIS project should work with private sector to motivate employers to participate   Other information presented during the meeting:   * General discussion:   + 60% of Jordanian GDP is from services   + Only 15% of GDP from industry   + 70% of workers in services – foreigners with permit (but permit may be for a different company/position)   + Need to motivate private sector to provide data   + Need to have projection for min 5 years of LMIS sustainability (while planning)   + Need for data on investment for the business companies; Get as one of the stakeholders in LMIS the Jordan Investment Commission!!! Will be necessary to meet with them as well during the next mission!!!?   + Need for revision of the labour law   + Private sector need not only data but reliable data to take decision on investment or on the labour force   + Window on skills | |
| **Main entities in the system** | |
| N/A | |
| **Data of interest for LMIS** | |
| N/A (at current stage) | |
| **Data of interest from LMIS** | |
| * Need for data on investment for the business companies * Data on labour force skills in services sector as one of key pillars of the Jordan economy * In a longer run, raw data to create own sector studies * Better exchange of data with SSC, Tax revenue office * Sector analyses * Reports on graduates and their qualifications (ETVET, Higher Education) * Reports on salaries | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| N/A | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| Based on the discussion, following points should be considered by the future creators of LMIS:   * Requirement for possible public interaction – example: number of jobs will be required in a mid- or long-run in a certain company/sector. The LMIS should contain data structures for such informal input of unbinding predictions by the private sector organizations. * Requirement for APIs to deliver data (not only human interface). | |
| **Other facts/documents of interest** | |
| **JCC web site:** <http://www.jocc.org.jo> | |

## Social Security Company: IT System

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| --- | --- |
| **System name** | **Operated and maintained by** |
| IT System | Social Security Company |
| **Purpose of the system** | |
| The SSC has a complex system managing social insurances, where each insurance defines and meets the citizens’ needs in accordance with a legislation outlining the obligations and rights and sets up a balance between them.  Since the system is very complex, only the components of interest for LMIS were discussed. The SSC has a dedicated IT department with extensive capacity and already now provides several electronic/web services for other institutions, including several mentioned in this document. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Registration of an employee for social insurance | * **Employed person** * **History of employments** * **Wages/contributions history** | |  |  | |  |  | |  |  | | |
| **Data of interest for LMIS** | |
| The SSC can contribute with above listed entities for:   * 1.280.000 - number of people in SSC * of the 1.2M - 600.000 public sector employees (300.000 - military) * of the 1.2M - 148.000 foreigners * of the 1.2M - 69.000 voluntary insured   The data from SSC is necessary practically for every query to the LMIS about person being officially employed.  SSC naturally cannot provide data about grey economy, people not registered in the system, people after end of contract accidentally registered in the system etc. However, the SSC database seems to be by far the most complete data source about employment in Jordan.  Furthermore, SSC data can contribute to trend analysis/discovery of changes on the Labour Market. SSC creates – for their own use – analysis at the end of each month, where unexpected discrepancies can be identified (e.g. geographical – collective dismissals). | |
| **Data of interest from LMIS** | |
| N/A | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **Precise data about history of employment of the people registered with SSC** * **Finance related data (wages, contributions, pensions)** * **Advanced web services for connection with several institutions** * **Department dedicated to OSH** | * Limited enforcement of the employers to register their employees with SSC * Limited cross-checks of employment with Tax revenue office | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * One of our observations regarding SSC is that through its analytical potential, this institution is able to point out at several irregularities/trends on the labour market of Jordan. However, it has no mandate to do that and no information of this kind is required from it on a regular basis. | |
| **Other facts/documents of interest** | |
| Data model of the main entities will be supplied. | |

## Vocational Training Corporation: IT Systems

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| 3 main systems:   * Training system * New Training Management System * eLearning System   Smaller systems:   * Documentation and certification * Graduates follow-up system | VTC |
| Figure 2 Progressive use of social media to connect job seekers - VTC graduates with vacancies | |
| **Purpose of the system** | |
| The Vocational Training Corporation has 3 main systems:   * Training system   + Trainees, marks, courses * New system – TMS (Training Management System, developed by private company), development in the course of the last 3-4 years, but still to be finished (by the end of 2018). The TMS has 3 subsystems: a) on trainees, b) on graduates, c) training needs analyses   + Data to be migrated to new TMS from 1997   + Data migration by the end of 2018   + TMS does not have M&E system, this system will be a separate system by a different supplier * eLearning system based on Blackboard   The VTC is a demand driven company – it opens and closes courses based on the LM demand. To achieve this, the following of the graduates is performed through excel based follow up system. The students are contacted by SMS and they can either reply through SMS or through online form.  Other findings:   * Student registration through:   + Application form – online and hardcopy   + Application goes to nearest institute   + Student goes to student affairs department * Both National ID and Student ID are stored in the system * VTC sends excel with n-thousand graduates and MoL checks through web services for their history of employment (via SSC) * Surveys to identify curriculum needs * Design of the program – not the same for the whole Jordan   + Example: mechanics course - hybrid servicing is useless in Northern Jordan * Data about businesses providing apprenticeship in Excel * 70% graduates get employment (this is based on a sample – app. 25% - not on the total no. of graduates), 40% get hired by the business they did apprenticeship * Data collection on the side of demand is limited, unable to approach all 160.000 businesses * VTC uses NCHRD for studies (which uses DoS), surveys this year: Pharmaceutical Industry, Chemical, etc.   + The survey questions are developed on the common meeting of all stakeholders. * Surveys have only indicative role (sample based) * Survey outputs:   + Employer satisfaction   + Enrolment rate/employed * VTC has 43 offices (vs. 24 offices of MoL)   + Employment officer in every office but with no purpose to provide employment services like PES (profiling, LM mediation, work with employers on collecting vacancies, etc.).   + Employment happens mostly on informal basis – through trainer, through apprentice companies etc. * The VTC suggested hosting of the solution in the cloud. This option is considered on the national level. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | * Registration of the student | * Student | | * Training | * Achieved results * Qualification acquired | |  |  | |  |  | | |
| **Data of interest for LMIS** | |
| * Model company for vocational education – data about its students should be uploaded to LMIS for tracer studies | |
| **Data of interest from LMIS** | |
| * Dynamic reports allowing to discover needs of the LM * Tracer studies allowing to add dimensions (e.g. geographical, gender, achieved results) | |
| **Technical infrastructure** | |
| * New Training Management System is based on Oracle * The eLearning system is based on Blackboard * The Graduates follow-up system is supposedly based on Excel | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **VTC is highly aware of how to make a course successful – by answering the demand of the LM** * **New and progressive ways to track the students and how to connect them with employment (informally through the social media and personal contact)** | * Lack of tracer studies for the students – general problem | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * Closer integration of NEES and new TMS for direct referral * The nature of trainings requires more work with the skills than with occupations.   + An innovative approach to vacancies innovation would be very helpful – the natural language analysis to discover, what are real demands of LMI. Unfortunately, this is probably beyond the scope of this project. | |
| **Other facts/documents of interest** | |
| The data model of the new TMS is to be supplied. | |

## Higher Council for the Rights of Persons with Disabilities (HCD): IT System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Registration system | The Royal Scientific Society |
| **Purpose of the system** | |
| The HCD has a registration system for persons with disabilities and for issuing an ID card for persons with disabilities (accepted through out other information systems in Jordan). The HCD has recently (2017) been transformed by the law (law No.20, 2017) to a policy making Council, transferring its services section to other institutions (SSC, MoE, MOH). However, the registration of the PwD remains with HCD.  The database of HCD includes 60.000 PwD having detailed information on disability/ type (based on medical examination, currently it is done by diagnostic centres). HCD record the last diagnose of the PwD in its database. HCD will be issuing ID Smart Cards to each PwD who is recorded into the database (it gives tax release or deduction, special incentives for devises, etc.), card is used for educational purposes, all ID cards are part of the database.  Currently, Not all the PwDs are registered with HCD. Based on the national census for the population in 2015, conducted by DoS, the percentage of PwDs is 11.2% of the total JO population not including children below 5 years, meaning approx. 1.000.000 people (based on national census). The HCD registers only app. 6% of this group.  It is possible to extract PwD as per chosen age category and geographical location.  HCD exchanges data only with the Civil Service Bureau, but HCD has the right to ask for data from all JO institutions. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Persons with Disabilities registration | * Person with Disability * Latest diagnosis * Services provided | | |
| **Data of interest for LMIS** | |
| The LMIS must contain data about disadvantaged persons and HCD is the main source of them for PwDs. | |
| **Data of interest from LMIS** | |
| The HCD is highly interested in tracing their clients regarding the training, employability and other improvements of their lives. From LMIS the HCD need to get information whether PwDs are employed after completing the education and/or training via training providers, or they remained unemployed; the HCD does not have competencies to conduct tracer studies, this data are to be available via LMIS to the HCD and the percentage of persons with disabilities who are employed by a certain company or establishment.  HCD can only give recommendations regarding any ALMP&Ms but would need a follow-up on these recommendations from LMIS data. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **System allowing for registration of a detailed information about PwD and diagnosis** * **Online services for the connected institutions** * **System for storing the supporting documents about diagnosis and for the describing the diagnosis in a structured way** | * Only latest diagnosis is registered in the system. The system keeps the diagnosis in case more than one service has requested with different dates * Low awareness of the advantages of registering in the system – only 6% of the population registered * The transfer of the information between institutions – using SmartCard containing only a basic information, not all service providers able to connect to central HCD database online | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * Need for ensuring interconnection between databases (HCD, NAF, NEES, etc.) to avoid duplications and ensure transparency and reliability of the data. * Other institutions should use the same referential framework for diagnoses/classifications of disabilities like HCD. * There is overlapping of data between NAF on PwD! It can lead to double financial support. | |
| **Other facts/documents of interest** | |
| Data model of the main entities | |

## Al- Balqa' Applied University (BAU): IT System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| Academic Information System | Jordan Chamber of Commerce |
|  | |
| **Purpose of the system** | |
| The BAU has an Academic Information System (AIS) similar to other universities in Jordan and in the world. The system tracks student and his/her achievements throughout the years of his/her studies.  However, the missing piece is the tracking of the students after they graduate from BAU. They might be employed, unemployed, studying or outside of the country. This information – especially about their employability, is missing in order to introduce changes/upgrade of the curricula. In 2017 BAU has restructured its educational programmes, however there is further needed to design/redesign the training (curricula) programmes in line with the demand.  Currently, BAU uses the data from the sector surveys conducted by NCHRD. There is little or no data on what is happening with the graduates after completion of the training programmes; also, a number of their graduates are working abroad but no data is available and BAU pointed out that it is very difficult to get into contact with the graduates of their programmes. One way is the final survey, which is condition for issuing the diploma. Another one is informal connection with the students over LinkedIn, Facebook and other social media.  BAU needs support for preparing tracer studies – establish the model and they are ready to be a pilot institution for the conducting of tracer study; they have tried only recently to do something in this respect but with limited success.  Data exchange with other institutions:   * MoHE has full access to the BAU database and all data available. * BAU does not have access to SSC database, cannot check on employment of their graduates. * BAU has a MoU signed with NAF, providing training of NAF beneficiaries but there is no real tracing of these graduates (no tracing from NAF, no from BAU). | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Academic information system | * Students * Graduates * Specialization of Students | | Special module for registration of the graduates | * Keeping in touch with graduates, tracing of graduates (not always successfully due to lack of contact information and proper methodology) | | |
| **Data of interest for LMIS** | |
| BAU can contribute by the data available and is open for cooperation on LMIS.  It is suggested by the creators of this document, that BAU will be the model university for developing the data model for any university, where university can put in their data and do a research on their students/graduates. This model can be generalized further for any educational institution | |
| **Data of interest from LMIS** | |
| LMI is of high importance also for the BAU ranking as an university. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **Good IT and overall support for usage of LMIS** * **Innovative approach to tracking of the graduates, although not fully in place** * **Drive to change curricula in line with the demand** | * Loss of track of its students – natural for every university * Slow, studies-based feedback from the market | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
| * During the meeting it was suggested to BAU to get in touch with successful alumni of BAU in order to engage them in alumni life and in help to fresh graduates. | |
| **Other facts/documents of interest** | |
| Data model of the main entities | |

## Ministry of Higher Education: IT System

|  |  |
| --- | --- |
| **System name** | **Operated and maintained by** |
| IT System containing students and graduates data | Ministry of Higher Education |
|  | |
| **Purpose of the system** | |
| Ministry of Higher Education (MoHE) collects data on annual basis on programmes/studies and specializations provided by universities. MoHE also uses LMI data from CSB, MoL, NCHRD and from other ministries. The main challenge is tracing the graduates on the labour market.  This data is used for deciding about accreditation of the programmes – new ones and ongoing ones. The employability of the graduates is one of the main factors for a programme/ specialization to be successful.  Unlike in most European countries, MoHE is only in a position of policy making and has no direct mechanism to influence universities (universities are independent bodies with own budget), including the data exchange. There is no central academic information system with obligation for universities to supply data in a standardized way.  There is an electronic portal for students with information on specialization, needs of the LM for specialization/s, etc. and each year this information is updated. | |
| **Main entities in the system** | |
| |  |  | | --- | --- | | Functionality | Entities collected | | Tracing of the students | * Student * Student’s employment history | |  |  | |  |  | |  |  | | |
| **Data of interest for LMIS** | |
| The MoHE has expressed readiness to contribute with their data to LMIS. However, the data is mostly processed/aggregated based on the data from:   * CSB * MoL * Business unions/associations * NCHRD * From Universities | |
| **Data of interest from LMIS** | |
| * LMI is important for the universities ranking (data on employment rate, etc.) – universities should actively work on improving their ranking. * Need for the data from the LM of the neighbouring countries (generally – from abroad); many of the current graduates are leaving Jordan and taking job abroad in the Gulf Cooperation Council (GCC), no data available how many.   + Example: 65% of medical graduates are working outside of Jordan, but this data is not reliable, it’s based on 35% who remain in Jordan (100-35%). * Tracer system and capacity:   + Not developed by all universities   + Only Jordan University of Science and Technology and Princess Sumaya University for Technology have well-developed tracing system   + Need for regular tracing studies based on unified methodology and approach, tracing is lacking | |
| **Technical infrastructure** | |
| The MoHE IT System is based on Oracle database. | |
| **Maturity of the system and organization – Strengths and Weaknesses** | |
| |  |  | | --- | --- | | Strengths | Weaknesses | | * **Declared direct and quick impact of labour market information on availability of the courses/curricula** | * No standardized exchange of data with the universities | | |
| **Recommendations of the reviewers for improvement before integration with LMIS** | |
|  | |
| **Other facts/documents of interest** | |
| Data model of the main entities: | |

## Other identified Data Sources of potential interest

Following are the other sources of a potential interest when completing the LMIS Data Source landscape.

* ILO E-counselling platform
* Jordanian Investment Commission
* Centre for Accreditation and Quality Assurance
* Labour Inspection (MoL)
* Tax Revenue Service
* Ministry of Social Development
* Private/commercial job search engines (Akhtaboot, Bayt)
* Private sector

Because of the limited time, it was not possible to meet with their representatives during the preparation of this document. However, once the main issues of the LMIS initiation are solved (ToR, procurement, analysis initiation), they will be approached respectively to conduct the same type of analysis with them (during the main project analysis phase).

## Entity mapping

From the data modelling view, the possible contribution of each identified Data Source to the future LMIS is depicted in the following table:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | MoL | DOS | NCHRD | NAF | JCI | JCC | SSC | VTC | HCD | BAU | MoHE |
| Job seeker / employee | C | C\* |  | C | C |  | C |  |  |  |  |
| Employer | C | C\* |  |  | C\* |  | C | C\* |  | C\* |  |
| Vacancy | C |  |  |  | C\* |  |  | C\* |  |  |  |
| Foreigners / work permits | C | C\* |  |  |  |  | C |  |  |  |  |
| Students |  |  |  |  |  |  |  | C |  | C | C |
| Trainings / courses |  | C\* |  | C\* |  |  |  | C |  | C | C |
| Wages | C\* |  |  | C\* | C\* | C\* | C |  |  |  |  |
| Health | C\* | C\* |  | C\* |  |  | C |  | C |  |  |
| Documents (unstructured data) | C\* | C | C |  | C | C |  | C\* |  |  | C |

Where: **C=Create, C\*=Create (limited data input)**

# Observations and Recommendations Summary

## Main observations of the conducted review

Following are the main commented observations from the review of the existing systems:

* **Data scattered between institutions** – each institution has some data, often similar to other institutions, but for historical reasons this data is not widely available and centralized in any system.
* **Standardization of the data** – although some guidelines are followed in each system, some institutions still do not follow national or international classifications. The data mapping exercise should take place before the data exchange with LMIS.
* **None of the datasets is significantly complete** – this seems to be the hardest problem to overcome. The datasets in institutions contain usually a subset of all data available nation-wide – either because the registration is not mandatory (NEES, HCD) or because the registration is not enforced (SSC).
* **Significant part of the analytical data collected through surveys** – the surveys will always have an indicative character; nevertheless the precise numbers required for some indicators (unemployment) are not completely trustworthy, if acquired through them.
* **Need for change in the systems** – integration, data consistency, classifications
* **No single entity responsible for collection of LMI** – this can be overcome by clear mandate to one of the institutions from WG4.
* **No institutional arrangements, data collected on historical and ad-hoc basis** – if we accept that the collection of data will remain by the distinct institutions, the LMIS Lead institution must sign clear inter-institutional arrangements, stating what data, how often and for what purpose will be exchanged. The technical and financial issues must be also clearly stated in the document.
* **No analytical framework (M&E) for data analysis to produce accurate indicators** – especially for the students and trainees of ETVET/universities.
* **Need for reform of the Public Employment Service and introduction of a new service model** – several shortcomings would be eliminated by introduction of a new service model with a single window approach for clients of MoL/NEES, NAF, HCD and other institutions. Asking for the information only once at one place increases the customers’ satisfaction and improves perception of the institutions.

## Overall assessment of the institutions’ readiness for LMIS integration

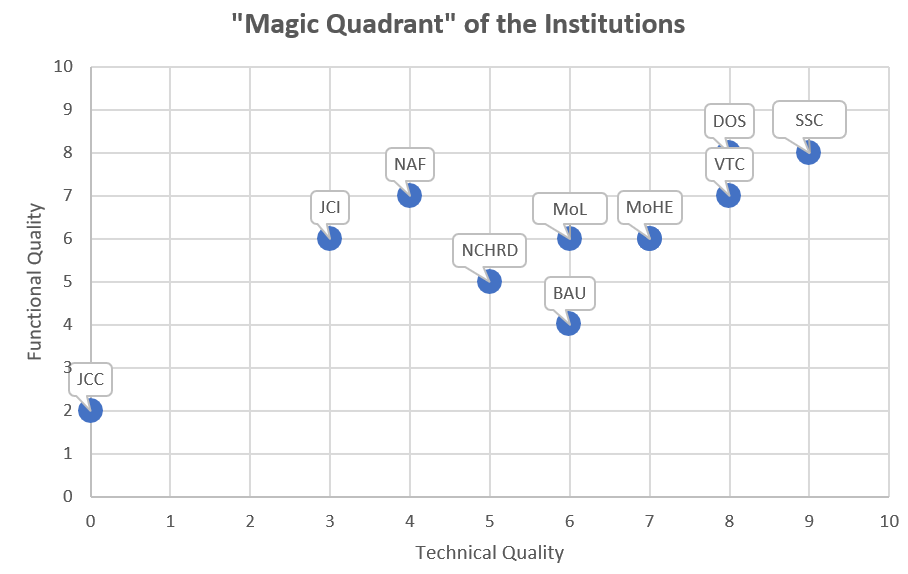
To establish a metric on an institutions’ readiness for LMIS integration, we have created a simple scoring model (behind the simplicity of the scores is consideration of all the facts stated above).

The “magic quadrant” of the institutions with potential to contribute to LMIS would then look as follows:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Institution/Indicator** | **MoL** | **DOS** | **NCHRD** | **NAF** | **JCI** | **JCC** | **SSC** | **VTC** | **HCD** | **BAU** | **MoHE** |
| TQ: Infrastructure in place (0-3) | 2 | 3 | 1 | 2 | 1 | 0 | 3 | 3 | 3 | 2 | 3 |
| TQ: Solution up-to-date (0-3) | 2 | 3 | 2 | 1 | 1 | 0 | 3 | 3 | 2 | 2 | 2 |
| TQ: Existing interfaces/ability to develop new ones (0-3) | 2 | 2 | 2 | 1 | 1 | 0 | 3 | 2 | 2 | 2 | 2 |
| FQ: Data relevance for LMIS (0-3) | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 |
| FQ: Data update frequency (0-3) | 2 | 2 | 1 | 2 | 2 | 0 | 3 | 3 | 2 | 1 | 2 |
| FQ: Data completeness (0-3) | 1 | 3 | 2 | 2 | 1 | 0 | 2 | 1 | 1 | 1 | 1 |
| **TQ** | **6** | **8** | **5** | **4** | **3** | **0** | **9** | **8** | **7** | **6** | **7** |
| **FQ** | **6** | **8** | **5** | **7** | **6** | **2** | **8** | **7** | **6** | **4** | **6** |

Figure 3 Table with scores for the main LMIS readiness indicators

The graphical representation for a better overview is in the following picture:



## Roadmap to LMIS – Phased approach

At present, there are three possible scenarios of the Jordan LMIS development:

**Scenario “S” (small)**

The institutions and systems are left “as is” with only a few sectoral or academic LMI observatories.

* Time horizon: current situation
* Rough estimated budget: N/A

**Scenario “M” (medium)**

Several improvements are introduced on the side of the data creation, collection and collation. Exchange of data is ensured between relevant institutions for a common good. A central LMIS is created with a phased approached to the data exchange and functionalities of the LMIS

* Time horizon: Go Live in app. 24 months
* Rough estimated budget: 1-2 million JOD

**Scenario “XL” (x-large)**

Also known as a “Big Bang” approach. А datacenter is created, lot of analytical, programming and integration effort is spent to create a complex, all-encompassing system.

* Time horizon: Go Live in >36 months
* Rough estimated budget: > 3 million JOD

Of these three, the natural candidate for further development into ToR and implementation is in our opinion the Scenario “M”. While Scenario “S” would leave the country where it is now, the Scenario “XL” would not find the means of financing neither from the Jordan government, nor from the donors, as the risk for the project failure might be high and the stakeholders need some quick wins on their hands.

## Next steps

It is important to differentiate between next steps in the SESIP project and next steps in the development of the LMIS in Jordan. The SESIP project is limited in its scope and from the point of view of LMIS, it will end with the creation of ToR.

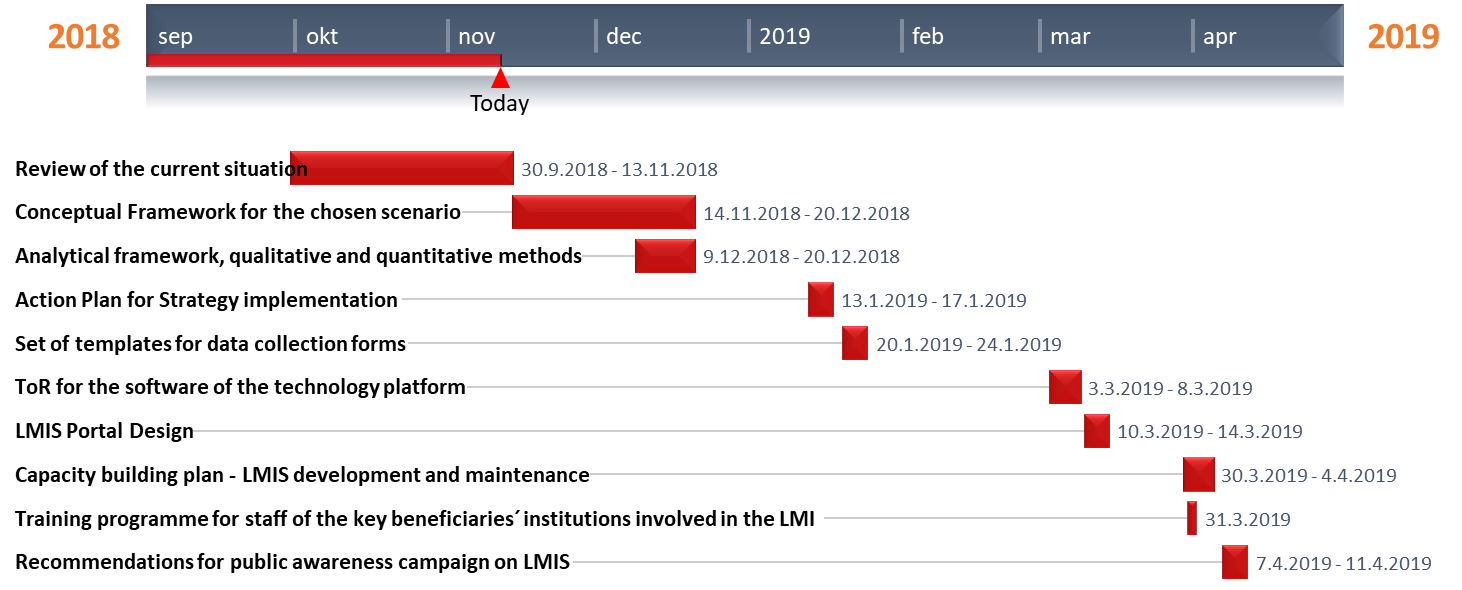


Figure 4 Timeline of the SESIP project

However, this is the point where the main LMIS project starts. It is suggested that the LMIS is phased in the following way:

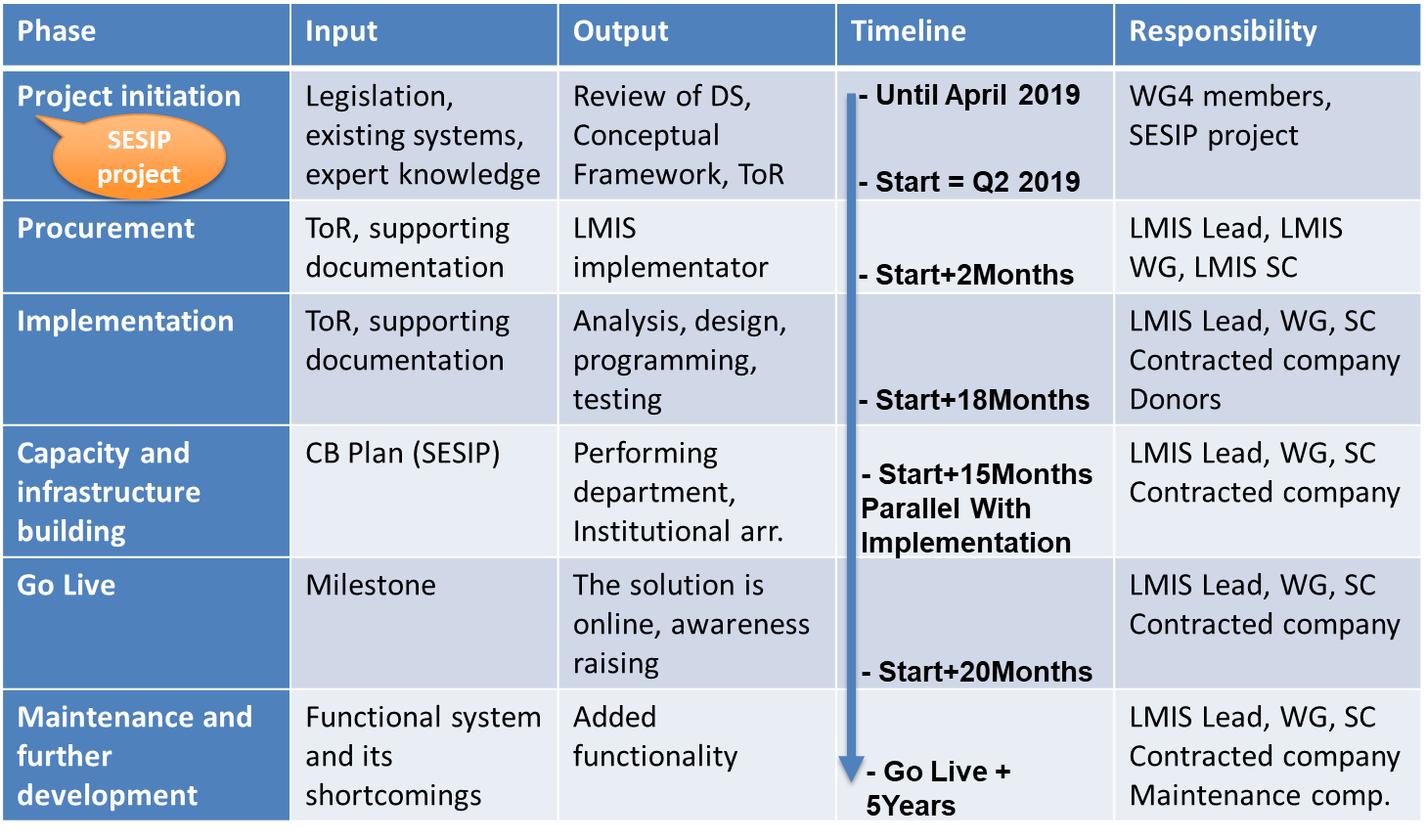


Figure 5 The timeline of the SESIP and main LMIS projects

It is suggested that the initial implementation iteration of the main LMIS project – i.e. from Analysis to Go Live - doesn’t last longer than 15-20 months. Even if the scope is smaller than intended, it is crucial to come up with a quick wins to justify the – not exactly cheap – project machinery.

After that, the project should use its momentum to raise finance, awareness and interest for its further development. Meanwhile, the data should be improved on the side of the current production systems as well.