

Mine action Information management Qualification (MIQ)

1. Background

This document outlines a proposal by the Geneva International Centre for Humanitarian Demining (GICHD). This schema defines the suggested competencies required for information management in mine action programmes. It focuses on the use of IMSMA – *Next Generation* (IMSMA^{NG}), but can also be partly applied in the design of information management using any information system. The schema, called the **Mine action Information Qualification (MIQ)** is the result of a series of tests conducted by the GICHD and feedback from users who have taken courses organised by the GICHD. The levels of qualification are divided into three groups: Users, Administrators and Experts. The schema should make training and support more effective in mine action programmes, not add to administration for the support recipients or the GICHD.

2. Purpose

The Centre wants to ensure a consistent quality of the IM courses. A common feedback from previous course participants was that the skill level of participants was spread too wide. The MIQ should be a tool with which we can measure the expected skill-set of students going into a course and their expected learning upon completion. The schema does not imply that mine action programmes have to test all their staff or that a certain number of staff is required for each level. Instead, the aim is to gauge current capacity in order to better target the gaps in MA organisations with tailored capacity development.

3. Contents

This document specifies the three core information management roles in mine action. For each role, the document gives a brief for the:

- Expected competencies for each role;
- Course characteristics to obtain each role:
 - Prerequisites
 - Target audience with reference to the roles
 - Learning objectives.

4. User roles

The first group is that of Users. There are three levels of users - U1, U2 and U3.

User level 1 (U1) are individuals who occasionally need to browse, search, filter and print information from IMSMA in the form of pre-defined reports or maps.

User level 2 (U2) are data entry officers that feed data into the system.

User level 2 (U3) are users that participate in the processes that ensures the quality of data in the system¹ as well as in operational planning and tasking. U3 staff are usually part of the operations department of a mine action organisation.

There are no prerequisites for the User candidates. The levels are incremental, meaning that a user of level 3 will have the knowledge contained in level 1 and 2. Training for these roles and levels is best conducted in-situ in the mine action programmes by the national administrator staff that have passed A1 level themselves. This continues past policy. End-users have been trained by national administrators as the national Administrators have better understanding of local workflows, data

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collection forms, language and terminology. If needed, the user training can be supported by the GICHD.

The duration of the training for each level depends on the skill of the trainer, the computer literacy of the staff and the complexity of the information management SOP of the organisation. In general, the U1 level can be achieved in 2-5 days and the subsequent levels at 1-2 days each.

5. Administrator roles

There are three levels of administrators A1, A2, and A3. These are individuals who hold the position of system administrator or of information manager in a mine action programme. A1 level knowledge is required to install and do basic customisation of IMSMA. Larger or more complex programmes require the skills of an A2 or A3 administrator. Administrator level courses benefit from being conducted on an international level with students from several mine action programmes. This encourages exchange of good practices between information managers.

A person chosen by a mine action programme to be the national information manager will be automatically accepted to the **A1 level course**. However, it is recommended that these individuals also have some relevant work experience or education as a base. More specifically, they should have some experience in GIS, database management or business process management. The A1 level course takes two weeks and provides the foundation on how to set up and administer the information management aspect of a mine action organisation using IMSMA^{NG}. It assumes that the student has a skill of U3 level, although it is not a prerequisite. The course is intensive and covers all functionality in IMSMA^{NG}. Administrators who have passed the A1 qualification are expected to be able to train all three levels of users and to write locally adapted manuals for those users. The GICHD aims to deliver two A1 level courses per year with a maximum of 12 students per course. Like all other courses, the A1 course finishes with a test that sets the students skills on a range from U1 to A1.

A2 and A3 levels address more complex IMSMA^{NG} set-up and customisation options. Candidates for A2 and A3 levels must show a competency equivalent to the A1 Level and should have approximately one year's experience of administrating IMSMA. A2 and A3 level courses delivered by the GICHD are organised on a needs basis. Classes do not exceed 10 students.

For the **A2 administrator** the course includes more detailed instruction on how to develop definitions of an information architectureⁱⁱ including SOP and NMAS for information management. It also involves the use of IMSMA^{NG} for impact scoring, advanced report generation, bulk data imports, and advanced map generation using external software. Skills delivered at this level provide an ability to lead the information management programme and to better manage decentralised information management structures and installations in networked environments. The A2 level course is normally one week long.

An **A3 administrator** will be familiar with developing and maintaining software add-ons. The course also contains more advanced usage of external GIS applications. At this level the administrator should be confident in the use of SQL language and connectivity to external applications. An experienced A3 Administrator from an organisation with an implementing partner agreement with the GICHD can apply to be certified to deliver A1 Administrators training.

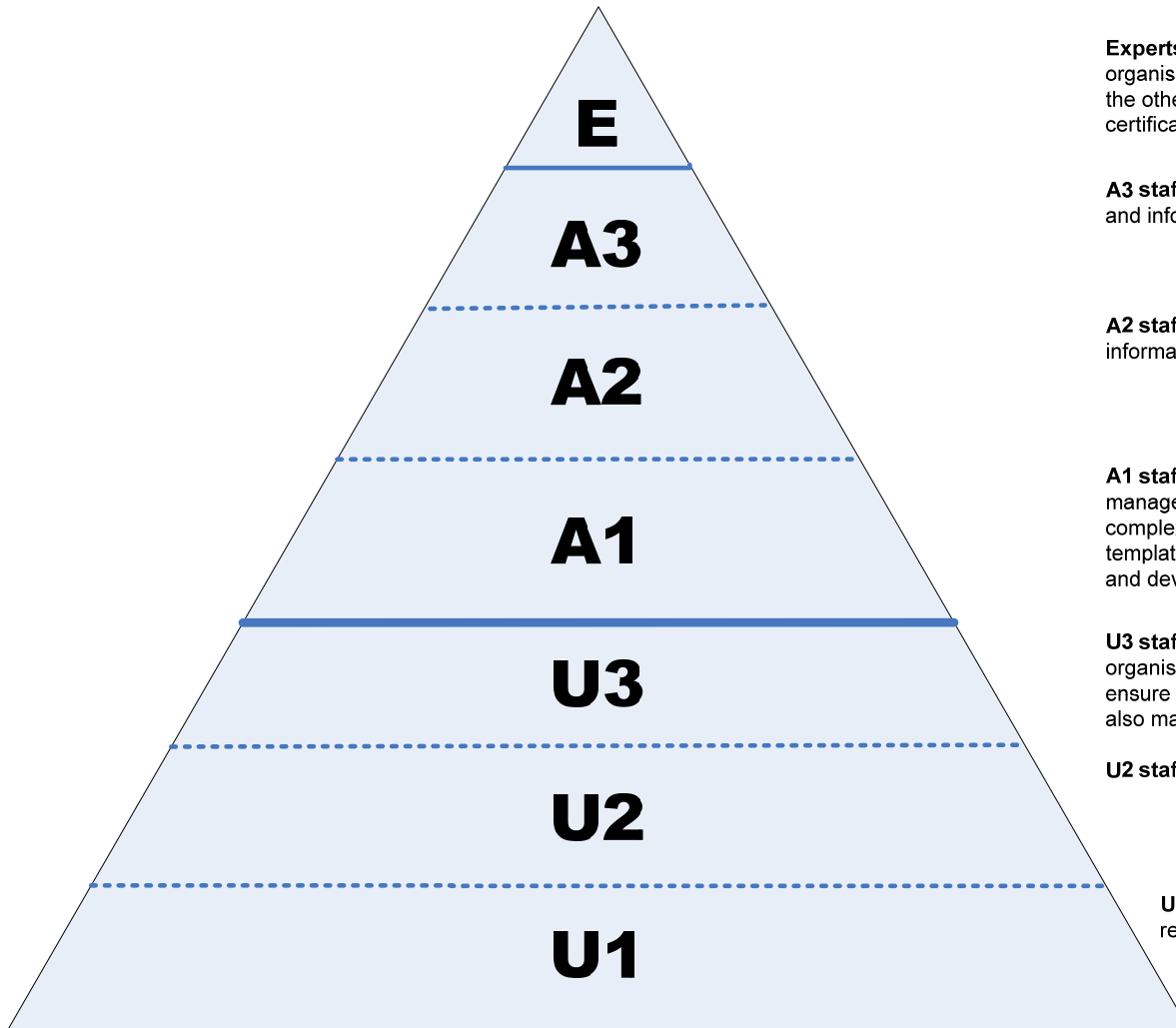
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6. Experts

Candidates for the annual Expert workshop are senior information managers who are the officially appointed focal point for information management in their respective organisations. Their organisations are support-providers to mine action programmes. It is beneficial to have in depth understanding of IMSMA, but not a prerequisite. To benefit from the Expert workshop it is necessary to have insight and experience of information management operations in multiple mine action programmes.

The expert workshop is 3-5 days. All support organisations are given the opportunity to send one staff member to the Expert workshop every year, but preference is given to organisations with implementing partner agreements with the GICHD. The Expert workshop is not a classical training but a workshop in its true sense. It is an opportunity for organisations to participate in the planning of IMSMA development and to see and try changes implemented in the system over the past year. An important element of the workshop is to exchange good information management practice between organisations as well as to coordinate information management support and interventions in the upcoming year. As opposed to the other levels, there is no test. Individuals who have attended the Expert workshop will be the counterpart and point of contact for the GICHD Information Management section for a year following the workshop.

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Experts are the information management focal points in organisations providing international support. As opposed to the other levels, this is not a training and does not provide a certification.

A3 staff will have in-depth knowledge of add-ons, customisation and information extraction.

A2 staff will have good knowledge of non-technical elements of information management, such as the IM NMAS.

A1 staff have all the skills required to manage the information management aspect of a mine action programme with average complexity. They create data collection forms, workflows and templates for reports and maps. They also train User-level staff and develop localised manuals.

U3 staff are normally part of the Operations department of an organisation. They participate in the Reconciliation process to ensure that data of low quality does not enter the system. They also manage tasking.

U2 staff conduct data entry.

U1 staff browse and search for information. They print reports, statistics, and maps.

Figure 1 Summary of the MIQ levels

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Level	Training	Existing ⁱⁱⁱ	Role	Pre-requisites	Content
U1	2-5 days	~700	Managers, Guests	Currently holding a position in a mine action programme corresponding to the role.	<ul style="list-style-type: none"> ▪ Browsing maps and data ▪ Running saved reports & saved searches
U2	1-2 days	~200	Data entry officers		<ul style="list-style-type: none"> ▪ U1 + <ul style="list-style-type: none"> ▪ Entering data ▪ Saving data entry forms ▪ Searching for data
U3	1-2 days	~150	Operations staff		<ul style="list-style-type: none"> ▪ U2 + <ul style="list-style-type: none"> ▪ Reconciling data ▪ Tasking tool
A1	2 weeks	~70	Information managers	<p>Practical working knowledge and/or education in:</p> <ul style="list-style-type: none"> ▪ Information management systems; ▪ Geographic information systems; ▪ Database management; ▪ Business process mapping. <p>Others:</p> <ul style="list-style-type: none"> ▪ Knowledge of mine action; ▪ One year of work experience between A1 and other levels. 	<ul style="list-style-type: none"> ▪ Installing & setting-up a configuration according to users & responsibilities ▪ Structuring an information architecture according to mine action objects & processes in place ▪ Defining classification & simple workflow business rules ▪ Defining usage & application of IMSMA^{NG} tools (impact scoring & tasking) ▪ Standardising auxiliary data, display features, data entry templates, recurrent reports & searches. ▪ Standardising admin forms for the tracking of business rules on updates ▪ Standardising routine & maintenance practices for system preservation & data quality ▪ Documenting IMSMA^{NG} information management procedures (SOP's, flowcharts, process mapping)
A2	1-2 weeks	~25			<ul style="list-style-type: none"> ▪ A1 + <ul style="list-style-type: none"> ▪ Defining classification & advanced workflow business rules ▪ Installing & setting-up complex configuration ▪ Defining basic ODBC connectivity ▪ Implementing other IMSMA^{NG} Suite applications
A3	1 week	~15			<ul style="list-style-type: none"> ▪ A2 + <ul style="list-style-type: none"> ▪ Defining advanced ODBC connectivity ▪ Using SQL for routine & maintenance and/or non standard search & reporting needs ▪ Using ArcGIS for GIS analysis and customisation

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Level	Training	Existing ⁱⁱⁱ	Role	Pre-requisites	Content
E	3-5 days	3	Information Management focal points in support organisations	<p>Demonstrated and proven capacity in:</p> <ul style="list-style-type: none"> ▪ Database administration; ▪ Geographic information systems; ▪ Process modelling; ▪ Training and capacity building. <p>Other:</p> <ul style="list-style-type: none"> ▪ Appointed Information Management/IMSMA representative of the host organisation ▪ Excellent knowledge of written and spoken English. ▪ Implementing partners have priority. 	<p>A workshop attended by representatives from organisations that provide IMSMA support or are major IMSMA users themselves.</p> <ul style="list-style-type: none"> ▪ The developments of IMSMA over the past year are presented and the future developments are discussed. ▪ Good practice is exchanged ▪ Coordination of future interventions and resource mobilisation.

ⁱ Called the “Reconciliation process”

ⁱⁱ To define the objects and processes needed to be recorded.

ⁱⁱⁱ The estimated total of active individuals in mine action programmes globally.