

IMSMA development strategy brief

Status as of May 2015

Background

The GICHD has established itself as a pivotal provider of information management (IM) capacity support to the mine action community. Its main objective is to ensure that mine action actors are enabled to effectively leverage information towards evidence-based operational and strategic decision-making.

This is accomplished by ensuring that the mine action community has an adequate pool of skilled personnel and an up-to-date and fit-for-purpose information management system. This allows them to compile, store, analyse and disseminate accurate, timely and relevant information on mine action.

This goal is becoming increasingly relevant as principles of Results-Based Management (RBM), which rely on the availability of sound information to build indicators, are adopted throughout the sector. The supporting function of IM for Mine Action is reflected in the current GICHD strategy (2015-2018). Information Management has a cross-cutting role in all of the strategy's objectives, but primarily contributes to Outcomes 1.2 and 1.3, as well as to Outcomes 1.1, 2.2 and 3.2.¹

¹ GICHD strategy 2015-2018: <http://www.gichd.org/fileadmin/GICHD/about-us/GICHD-strategy-2015-2018.pdf>

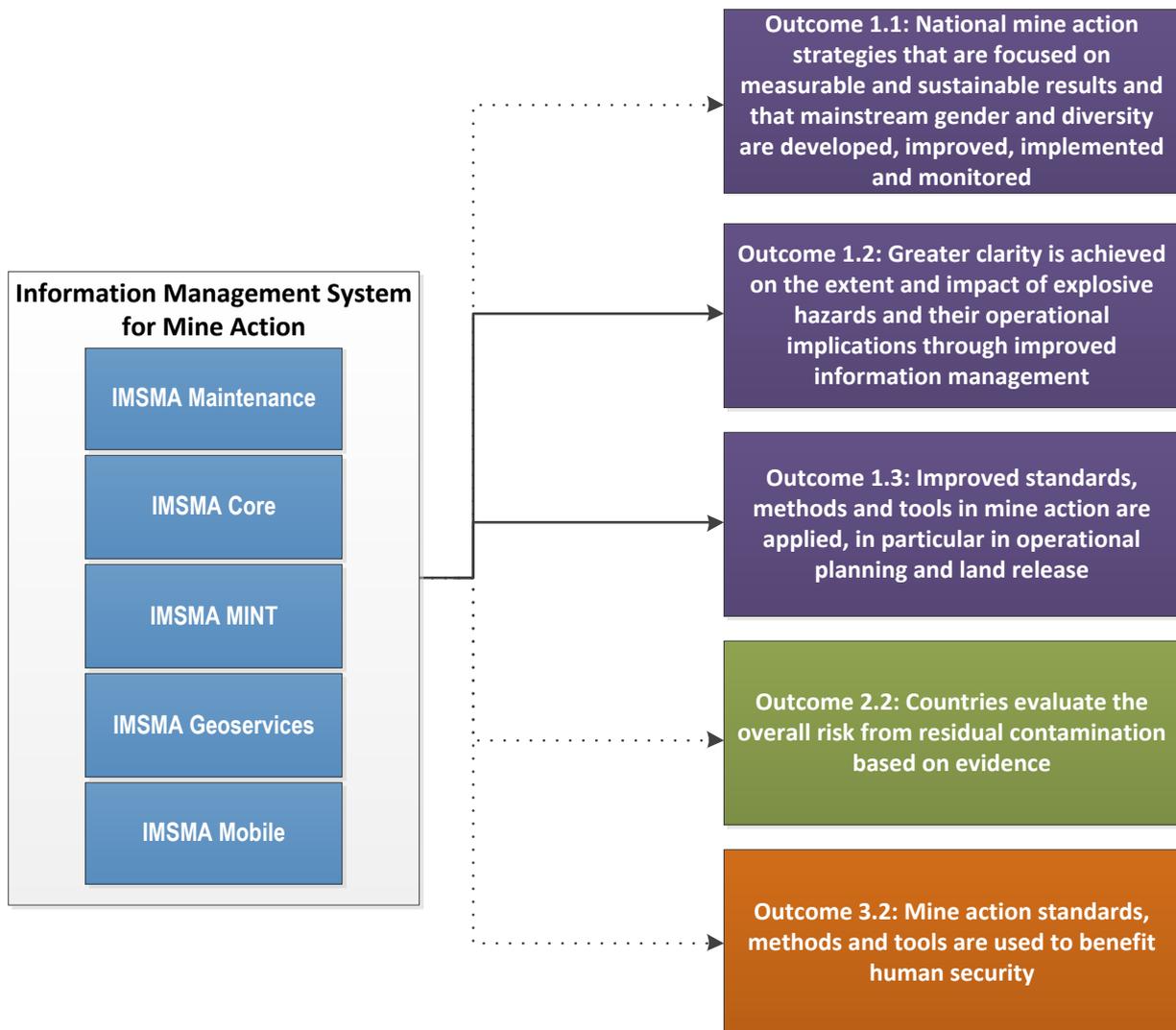


Figure 1: Contribution of IMSMA to the GICHD strategy

Motivation: Responding to lessons learnt, technological developments and user requirements

GICHD’s Information Management System for Mine Action (IMSMA) has, over the years, become the *de-facto* standard IM tool in mine action. GICHD first started its development in 1999 and has maintained the tool regularly since then. IMSMA has successfully supported mine action information management throughout this period. In keeping with its continuous effort to maintain IMSMA as an up-to-date and fit-for-purpose tool, the GICHD initiated a new development cycle in January 2015. While regular updates to IMSMA are required in order to keep pace with evolutions in information technology, these also provide opportunities to rethink some of its macro-level architecture to take into account lessons learnt from previous years and take advantage of technological developments. With this new specification and development cycle for IMSMA, the GICHD aims to address evolving and emerging requirements, especially regarding user-experience and interoperability with third-party applications. Moreover, the GICHD will seek to make more use of off-the-shelf tools that can be configured to Mine Action requirements. This will reduce the need for specific technical system support and free up both GICHD and field IM resources for providing user-driven information products.

Objectives and vision: IMSMA as a system of IM tools and standards

To respond to lessons learnt, technological developments and user requirements, the following objectives have been defined:

- Provide a common 'IMSMA' framework under which **a family of tools** developed for mine action by different organisations can operate. This framework shall provide an environment where different tools can exchange and use data between themselves as well as with IMSMA Core.
- Design a data model that **facilitates analysis of data** through tools such as Geographic Information Systems (GIS) and IMSMA MINT, thereby contributing to better planning and efficiency in mine action operations and potentially other humanitarian sectors.
- Provide an information management system that is **user friendly** and which requires minimal specialised training. This will allow the GICHD's information management advisors to provide support on information management methods and permit information management staff in partner organisations to focus on data analysis rather than technical issues.
- In the medium and long-term, **reduce maintenance costs** of custom-built tools.

The GICHD aims to reshape IMSMA over a development and deployment cycle of four years (2015-2018).

A multi-year plan: How?

The future Information Management System for Mine Action should hence be understood not as a single tool, but as a system; a set of *interrelated* tools and processes that operate together to provide the sector with sound information management. The approach adopted by this strategy is that each step in the information management cycle (**Figure 2**) can be carried out by a variety of either standard or customised tools (developed by GICHD or by third-party developers) as long as these tools are interoperable, that is to say that they can communicate data between one another in a standardised and reliable manner. To accomplish this, the GICHD will develop and maintain 'IMSMA Core,' a data validation and storage component and, together with partners, complement the range of existing tools for specific purposes, such as mobile data collection (IMSMA Mobile), spatial analysis (IMSMA Geoservices), reporting (IMSMA MINT), etc. IMSMA Core shall play a pivotal role by allowing a standardised exchange of functionality and of data between different tools in the system using IMSMA's established data exchange standard (maxML). The role of the GICHD will be to foster and encourage such an 'ecosystem' of user-driven and interoperable tools that quickly leverage the rapid advances in technology and more effectively put IM into the hands of strategic and operational stakeholders. Many of these components are already in development, either directly by the GICHD or through partners. The primary development effort of the next two years will focus on the development of IMSMA Core, a streamlined version of the current IMSMA^{NG} that focuses on robust data validation and storage. IMSMA^{NG} V6 will be maintained and supported throughout the development process of IMSMA Core.

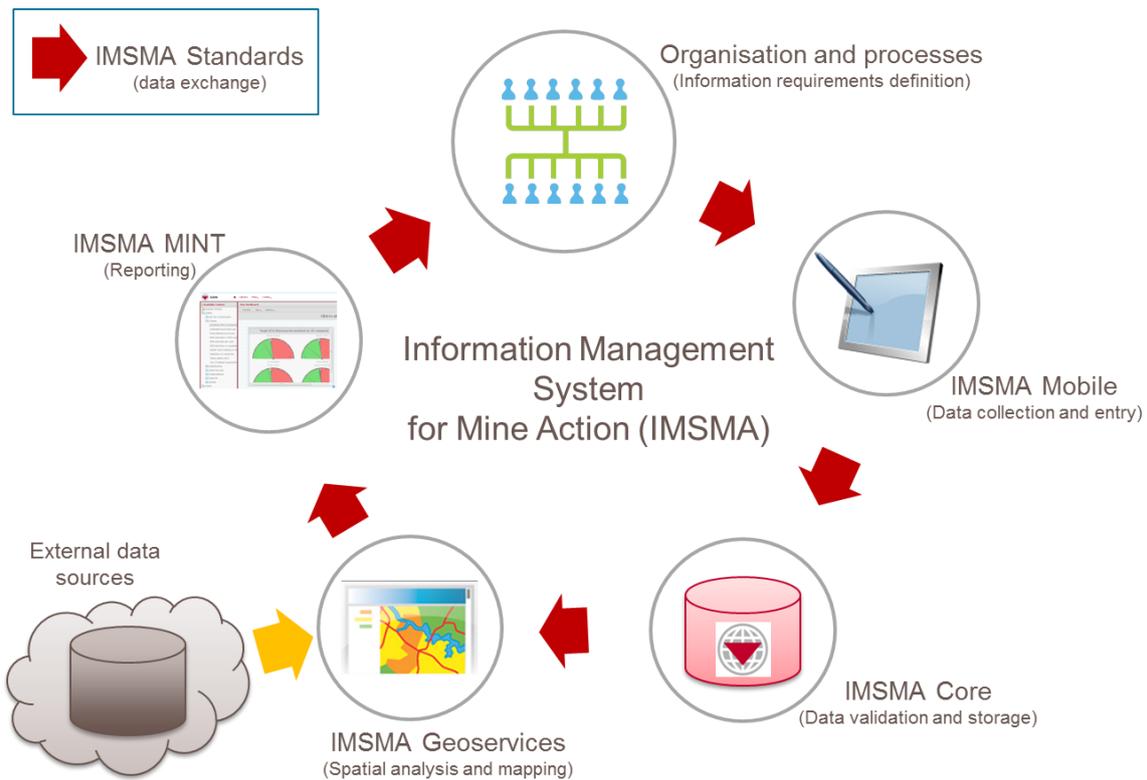


Figure 2: IMSMA and the IM cycle

In order to achieve this, a multi-year plan has been developed and can be summarised as follows:

2015	User requirements specification process: detailed analysis of pillars and processes and related system requirements; tender process. IMSMA ^{NG} V6 maintained and supported.
2016	System development: depending on the results of the analysis, this phase will involve a mix of custom software development and configuration of standard, out-of-the-box tools. IMSMA ^{NG} V6 maintained and supported.
2017	Field testing and feedback loop. IMSMA ^{NG} V6 maintained and supported.
2018	Field deployment and migration from IMSMA ^{NG} V6.