

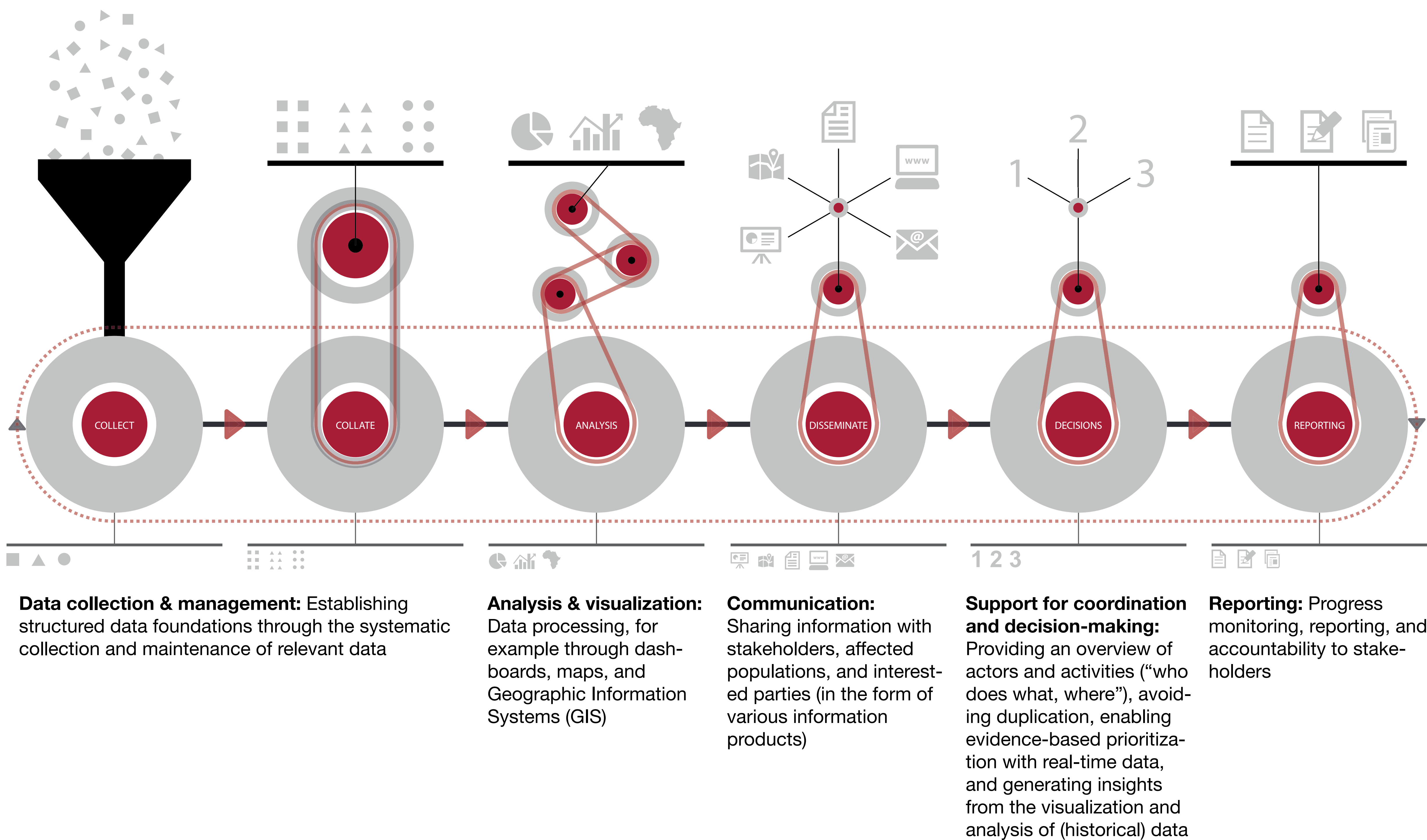
What is Information Management (IM) in the humanitarian sector?

Effective humanitarian assistance begins with reliable information.

Information Management is the structured process of collecting, processing, analyzing, and providing operational and population-related data, including geographic, demographic, and statistical information, to support evidence-based decision-making in humanitarian work.

By digitalization, we mean the use of digital technologies to transform analog processes and systems with the aim of building an innovative data and information management system.

IM enables precise needs assessments and ensures that the required assistance reaches the right people, in the right quantity, and at the right time. At the same time, it strengthens accountability by making the impact of interventions measurable and enhancing their traceability.



Information management (IM) forms the backbone of humanitarian operations before, during, and after crises. It is essential and forms the basis for improving the efficiency, effectiveness, and transparency of humanitarian actions.

Alec Schulze-Eckel
IM & Digitalization Lead



Digitalization & Information Management throughout the entire crisis cycle

Digital action within the Red Cross and Red Crescent Movement takes place before, during, and after a crisis.

The three phases of IM use:

1.

Before the crisis – Preparedness through knowledge, skills/capacities, and systems

Digital technologies and modern information management enable disaster risk reduction, anticipatory humanitarian action (anticipation, AA), and the active engagement of affected communities, as well as online assistance. Through systematic collection, processing, analysis, and dissemination of relevant data, risks can be identified early, and targeted measures can be planned.

2.

During the crisis – Making decisions in real time

In acute crisis situations, IM provides high-quality, decision-relevant data and information, often in real time. Visualizations, maps, dashboards, as well as IM networks and platforms, enable rapid situation assessments and support workflows, coordination, resource deployment, and prioritization.

3.

After the crisis – Learning, preserving knowledge, strengthening resilience

Even after acute disaster response, IM remains a key instrument for evaluating humanitarian assistance, transferring knowledge, and strengthening resilience structures. Digital tools support recovery, knowledge transfer, monitoring, and innovation.



Digitalization as a Strategic Lever in the Red Cross and Red Crescent Movement

A digital culture strengthens impact, resilience, and collaboration in humanitarian assistance.



Digital culture as a prerequisite for effective aid

The world is changing rapidly due to the climate crisis, increasing urbanization, protracted conflicts, and pandemics. To effectively address these challenges, a digital culture is needed: that is, the systematic and responsible use of digital tools, data, and technologies in humanitarian practice.

For the German Red Cross (GRC), digitalization is not an end in itself but a strategic lever: it serves to reach people faster, more precisely, and more equitably—with aid that has impact. In close partnership with National Societies (NS) worldwide.

Goals of a digital culture in the RC/RC Movement

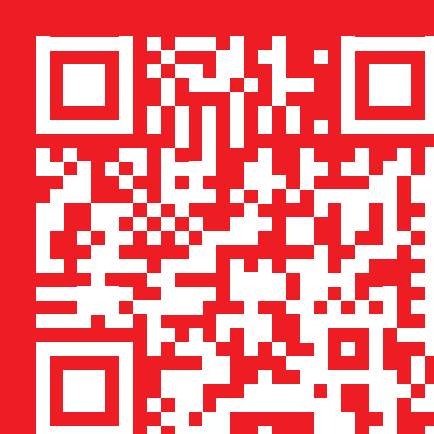
- Increase performance
- Assume social and technological responsibility
- Enhance resource efficiency
- Foster resilience & self-efficacy

Core principles for digital development

- practical | Designed for real-life use in the field
- adaptable | Works across different countries, sectors, and contexts
- scalable | Equally suited for pilot projects and large-scale operations
- open access | Freely usable and collaboratively developed
- context-sensitive | Considers local risks, cultures, and languages
- collaborative | Co-created with partners and users
- data-driven | Bases decisions on historical, current, and analyzed information

Concretely, this means that digitalization...

- is a central component of GRC's International Cooperation strategy (Division 6)
- is a cross-cutting theme in programs ranging from health to anticipatory humanitarian action to disaster risk reduction
- means working in genuine partnership with National Societies in the selection, introduction, and use of digital tools
- encompasses both technical tools (e.g., dashboards, artificial intelligence (AI), OpenStreetMap) and digital work cultures
- creates interconnected structures within the Movement, for example through the SIMS network, IFRC GO, Missing Maps, the IFRC Network GIS Training Platform, or GRCReady



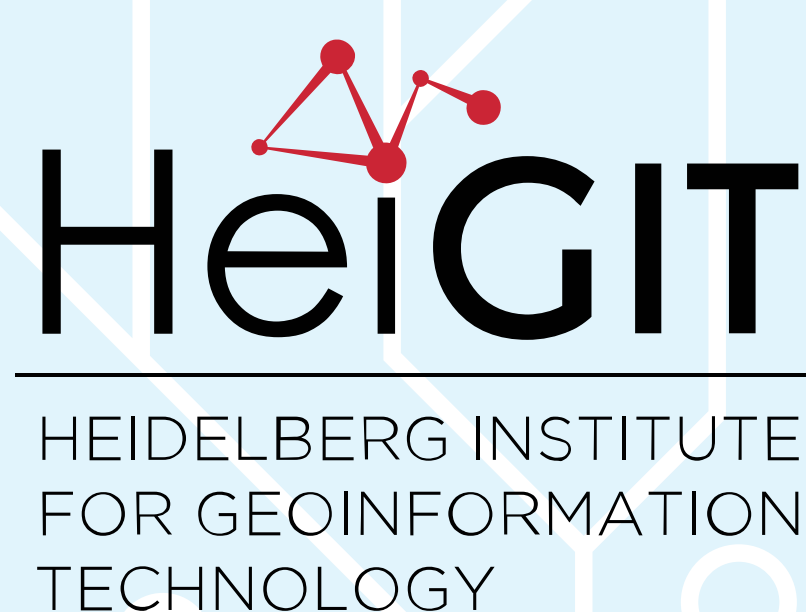
Information Management and Digitalization within GRC Global Projects I & II

From participatory mapping to AI-based data analysis – IM connects analog and digital approaches and builds a bridge between research and humanitarian practice.

IM as a Cross-Cutting Theme in the German Red Cross International Cooperation

Information Management (IM) is a central component of the German Red Cross's (GRC) humanitarian work. It provides reliable decision-making foundations, supports operational processes, and connects strategic objectives with concrete actions, especially in partnership with National Societies (NS) worldwide.

Digitalization and IM are applied across all phases and sectors: from risk analysis to operational coordination to recovery. GRC IM&D Cluster, together with other GRC departments and within the framework of Global Projects I and II, develop practical information products and services. The focus is on thematic areas such as National Society development, disaster risk reduction (DRR), anticipatory humanitarian action, and the provision of skilled personnel through the Surge Roster. The digital tools, data platforms, and standardized training formats developed with partner institutions are practical, openly accessible, and scalable. Special attention is given to their adaptability to different geographic and thematic contexts to maximize their benefit for humanitarian aid worldwide.



Science Meets Practice – Strong Strategic Partnerships

GRC's IM work benefits from long-standing, application-oriented collaborations in research and technology transfer, such as HeiGIT (Heidelberg Institute for Geoinformation Technology gGmbH) for the creation of risk analyses and the provision of trainings.

GRC as Knowledge Broker and Driver of Innovation in the RC/RC Movement

- Applying existing as well as new and innovative solutions to humanitarian practice
- Promoting digital tools with an open-source approach
- Co-designing global training formats and fostering digital collaboration with RC/RC societies, IFRC, ICRC, UN agencies, and INGOs (e.g., "Humanitarian Information Management Course" (HIAC))
- Transferring know-how from research into operational use
- Platforms for knowledge sharing and exchange (e.g., participation in the Surge Information Management Support (SIMS) network, Missing Maps, IFRC initiatives for standardization and further development of IM products)



INFORMATION MANAGEMENT (IM) & DIGITIZATION

Information Management in Health, Disaster risk reduction, Anticipatory Action & More

Data is the backbone of humanitarian decision-making. Information Management (IM) and digitalization ensure that aid reaches people in a targeted, timely, and effective manner.



Whether in climate adaptation, health, disaster risk reduction (DRR), anticipatory humanitarian action (AA), or cash assistance, IM provides the foundation for effective, data-driven, and accountable decisions in key humanitarian sectors. Digital tools, geospatial data, and analyses help identify needs, understand contexts, and allocate resources where they are most urgently required. GRC strengthens the skills and capacities of National Societies in using digital tools and IM and actively shapes global training formats.

Overview of Thematic IM Application Areas



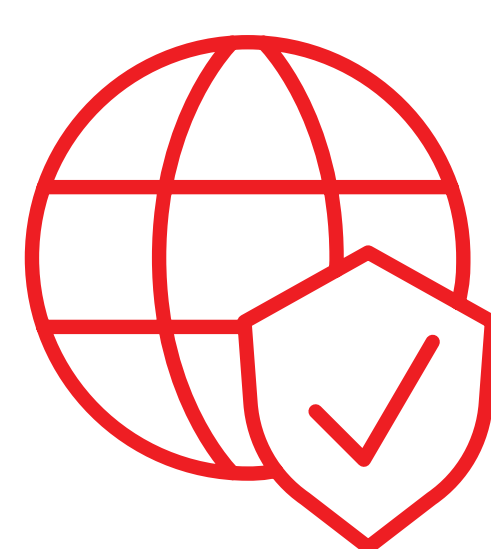
Disaster Risk Reduction (DRR):

IM Goals:

- Promote locally led innovations and digitalized DRR approaches for rapid, targeted, and inclusive crisis preparedness
- Digitalize DRR knowledge, processes, and systems to improve decision-making and achieve sustainable impact

Measures:

- Local risk analyses (e.g., EVCA) and community engagement through participatory mapping and digitalization of local knowledge, such as with the Sketch Map Tool
- Development & use of digital tools (including for EVCA activities, online training modules, e.g., GIS usage)
- Use of user-friendly and openly accessible applications such as Sketch Map Tool, QGIS, and Kobo



Anticipatory Humanitarian Action:

IM-Goals:

- Develop user-friendly approaches and workflows for early identification of upcoming crises and interventions using data-driven geospatial analyses and models, integrating local contexts and scientific evidence for informed decision-making

Measures:

- Development and use of early warning indicators, data on local risks, exposures, and existing capacities, as well as thresholds for initiating early preventive measures to mitigate impacts of impending extreme events
- Scenario development based on historical data



Health:

IM-Goals:

- Improve health data as a basis for evidence-based decision-making and promote interoperable, standardized, and scalable health information systems
- Strengthen early detection and response to health risks

Measures:

- Support and standardize GIS training for Red Cross and Red Crescent National Societies
- Analyze health data for early warning, cluster detection, and outbreak monitoring, combining real-time and historical data with threshold analyses

Climate-Sensitive Project Development:

- **IM-Goals:** Strengthen data-driven decision-making and provide local climate-relevant geospatial data
- **Measures:** Link climate data with humanitarian planning and identify extreme weather events, water scarcity, disease outbreaks, and heat forecasts



INFORMATION MANAGEMENT (IM) & DIGITIZATION

Information Management and Digitalization at GRC – Overview, Strategy, and Impact

Connected 24/7 – from GRC Headquarters to the global response network and National Red Cross/Red Crescent Societies.

Strategic Goals of the Information Management & Digitalization (IM&D) Cluster

1. Strengthen data-driven decision-making
2. Provide tailored IM support to RC & RC National Societies
3. Integrate IM into key thematic areas such as disaster risk reduction (DRR), anticipatory humanitarian action (AA), health, and cash and voucher assistance (CVA)
4. Foster innovations and develop practical tools
5. Share knowledge & strengthen partnerships (e.g., IFRC, HeiGIT, DLR)
6. Ensure data security and uphold ethical standards
7. Enhance crisis response capacity through GRCReady & Surge IM

IM & Digitalization – A Core Element of Humanitarian Impact

Information Management (IM) is one of the most dynamic and impactful areas in the humanitarian sector. It combines operational efficiency with strategic oversight and provides reliable decision-making foundations in acute crises and long-term resilience work.

For our work at GRC, this means:

- Strengthening local capacities for data-driven planning and implementation
- Integrating digital tools into operational programs worldwide
 - Combining traditional data collection with innovative technologies (e.g., Artificial Intelligence (AI), satellite data, participatory mapping)
 - Continuous development through partnerships with research and technology institutions

