INNOVATION HUB

BROUGHT TOGETHER BY THE GICHD

STRATEGIC APPROACH 2027-2030

A COLLABORATIVE EFFORT FOR NEEDS-BASED INNOVATION

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INTRODUCTION

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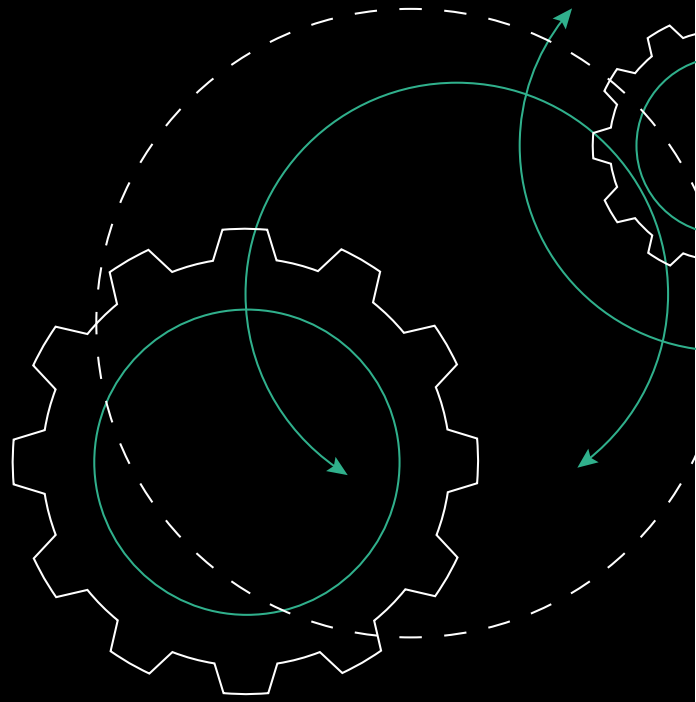
Around one-third of the world's countries are still scarred by landmines and cluster munitions. Ongoing conflicts, the widespread use of these explosive ordnance and growing contamination continue to place significant demands on national and international responses. At the same time, funding pressures, evolving donor expectations, and the need for greater national ownership require the sector to deliver more effective, efficient, and sustainable results.

In 2024, a record 61 state-based conflicts were documented across 36 countries–the highest number in seven decades. Casualties caused by explosive ordnance have risen, increasing by approximately 22 per cent in 2023 and a further 9 per cent in 2024.

In this context, innovation is a means to achieve better outcomes rather than an end in itself. Advances in technology, data management, and digital tools, as well as new approaches, offer opportunities to improve decision-making, increase operational effectiveness, strengthen national capacities, and maximize the impact of available resources. To be successful, innovation must continue to be driven by operational needs, aligned with humanitarian principles, and focused on practical solutions that deliver measurable benefits for affected communities.

Innovation in mine action is no longer a choice but a vital part of making mine action more efficient and effective. It is also crucial to recognize that concrete, context-specific, and well-understood needs are the driving force of innovation.



> *"Innovation is the creation or adoption of new or improved products or processes that address evidence-based needs. It contributes to making efforts to manage the threats posed by explosive ordnance more efficient, effective, and of higher quality.*

Meaningful innovation requires great minds and brilliant ideas as much as structured labour, such as testing, evaluating, failing, learning, mobilizing resources, promoting adoption, and scaling impact. Innovation is therefore a long and continuously shifting journey, as demonstrated by more than 30 years of mine action.

Despite the organic, innovative nature of mine action, today's challenges demand a more structured and deliberate approach. This approach should clearly identify the problems to solve and work with technology providers and researchers–not only to strengthen the application of standards and normative frameworks, but also to seek new solutions and enable the development of systems that learn, adapt, and improve over time.

The Mine Action Innovation Hub represents a shift towards such coordinated, evidence-based, and collaborative innovation in mine action and ammunition management. The Hub is an open community and implements a range of activities, from forming thematic technical groups, to carrying out research, ideation, dissemination, and testing and evaluation. It serves to bring stakeholders together, acting as a catalyst and building inclusive and meaningful partnerships.

This Strategic Approach outlines our vision and priorities for 2027–2030. Our vision is ambitious yet responsible–it is creative and dynamic but remains accountable to affected communities and sensitive to the mine action ecosystem.

We work collaboratively with national mine action authorities, operators, researchers, technology developers, and funding organizations to collectively drive innovation that accelerates progress towards a world free from the threat of explosive ordnance.

GICHD Innovation Session on AI for Mine Action 2024
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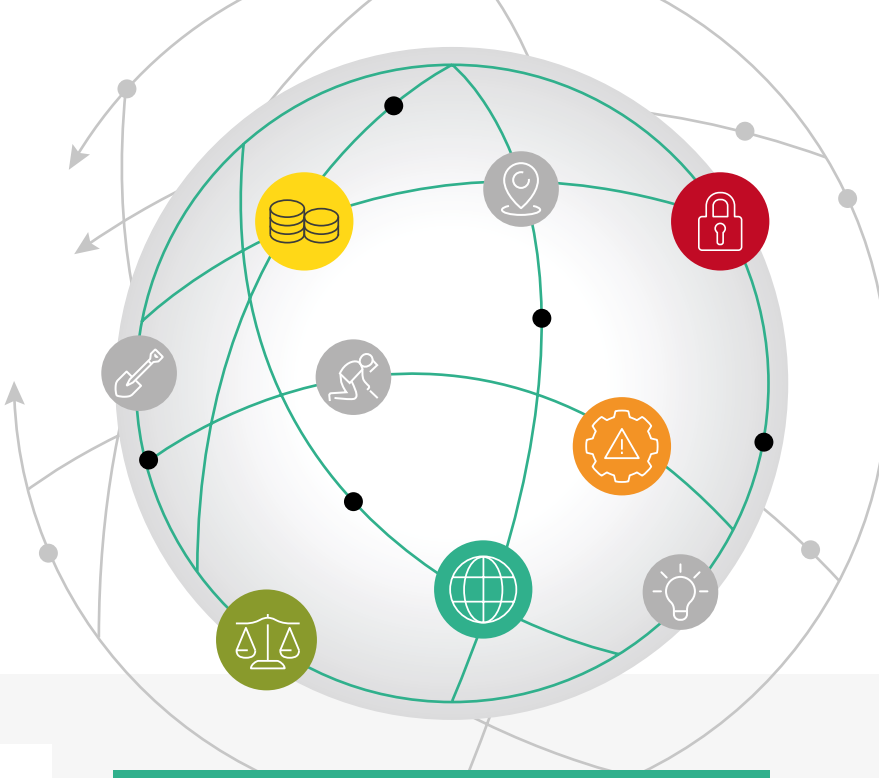
"Evidence-based needs must always be at the forefront of the innovation process–rather than the push for certain technologies, methods, services, or tools, which are just manifestations of innovation.

TRACK RECORD AND MOMENTUM

GICHD Innovation Conference 2023 © GICHD/Antoine Tardy

TRACK RECORD AND MOMENTUM

Building on challenges collectively identified at the 2023 and 2025 GICHD Innovation Conferences, the Innovation Hub has made measurable progress in addressing barriers to effective innovation. It has actively fostered collaboration across the sector and beyond, facilitating the sharing of knowledge and the alignment of priorities, and reducing the duplication of efforts.



In two years of its creation, the Hub has:

- **brought together more than 150 experts, researchers, and technology developers**
- **produced an initial research agenda, identifying priority needs and key research questions**
- **created more than five technical groups, including a drafting team for test and evaluation protocols for uncrewed aerial vehicle (UAV)-based remote sensing technologies**
- **offered technical expertise to shape and evaluate more than five innovation challenges and conferences**
- **facilitated hundreds of new connections among stakeholders, as well as new partnerships and funding opportunities.**

The Hub has also helped shift mindsets away from "silver bullet" solutions towards needs-driven, context-sensitive designs–a balancing act between the hype surrounding technological promises and the daily operational realities of national authorities, operators and the affected communities. By promoting learning, transparency, and dialogue, the Hub is building trust and helping the sector overcome resistance to change.

Together, these achievements demonstrate that the Hub is no longer an aspirational concept–it is a dynamic community that delivers value. Building on this track record, the Hub will increasingly tackle more complex innovation challenges, work across broader thematic domains, and enable innovation at scale.

KEY CHALLENGES

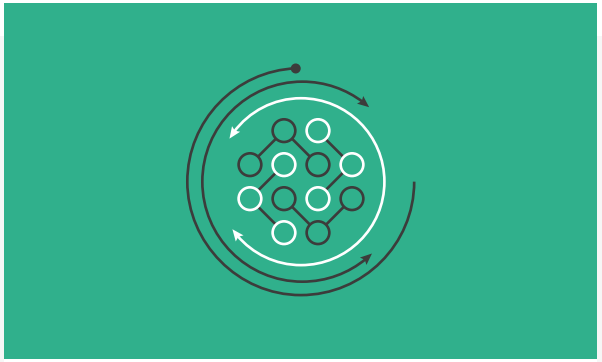
- **Cost-effectiveness and limited funding**
- **"Silver bullet" / universal bias**
- **Inadequate collaboration and coordination**
- **Legal and regulatory frameworks**
- **Resistance to change**

STRATEGIC PRIORITIES

The following strategic priorities outline the main areas of intervention needed to strengthen innovation pathways in mine action, from generating knowledge and conducting testing to adopting, scaling, and ensuring sustained operational use.

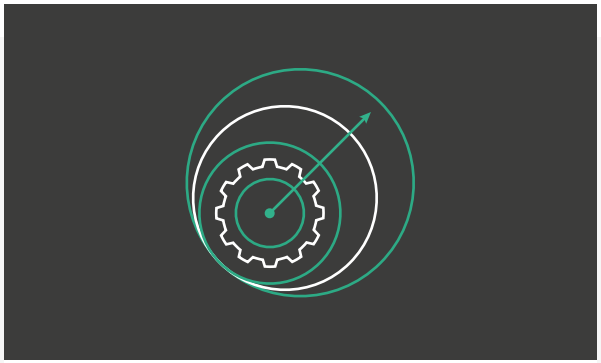
CONNECTING LOCAL NEEDS WITH GLOBAL EXPERTISE

Innovation is most sustainable when driven by locally identified operational needs and supported by nationally owned processes. This strategic priority aims to strengthen the capacity of national mine action authorities and operators to identify innovation needs, coordinate the development of locally relevant solutions, and connect explosive ordnance challenges with broader national priorities in science, technology, and sustainable development. This includes facilitating access to national and international cooperation networks that support knowledge exchange, resource mobilization, and the adoption of innovation. Strengthening nationally led innovation ecosystems can improve operational relevance, increase long-term sustainability, and support more resilient and context-appropriate mine action outcomes. As local as possible, as international as necessary.



BROADENING INNOVATION BEYOND TECHNOLOGY

Discussions on mine action innovation often emphasize technological solutions, while paying comparatively less attention to the methods, practices, and human capacities required to effectively apply, adapt, and sustain these innovations in operational contexts. This strategic priority aims to broaden the scope of innovation beyond technology alone, by strengthening investment in operational methodologies and organizational practices. This includes focusing on organizational and logistical needs, such as risk management, quality management, decision-making support, and prioritization. Expanding the focus of innovation in this way increases opportunities for innovation to improve the efficiency and effectiveness of mine action efforts.



ACCELERATING INNOVATION ADOPTION

Innovation efforts face challenges in progressing from pilot activities to sustained operational use, limiting the long-term impact of promising solutions. This strategic priority aims to improve coherent processes for testing, evaluation, validation, accreditation, and scaling across the sector. These efforts include supporting the various phases of innovation processes through globally informed test and evaluation protocols, shared testing facilities, coordinated evaluation activities, and periodic reviews of relevant international and national mine action standards. Improving these transition mechanisms can increase the consistency, credibility, and adoption of effective innovations, thereby contributing to more scalable, evidence-based, and sustainable operational outcomes.

STRENGTHENING KNOWLEDGE EXCHANGE

Knowledge of mine action innovation remains fragmented across actors, projects, and operational contexts, making it hard to identify existing solutions and constraining the diffusion and uptake of effective practices. This strategic priority aims to enable a coherent sector-wide knowledge system that captures, summarizes, and disseminates innovation insights. This includes developing artificial intelligence (AI)-assisted knowledge tools to improve searchability and synthesis, producing concise research and innovation briefs that consolidate evidence and lessons learned, and supporting structured knowledge exchange through innovation conferences and other fora. Strengthening knowledge sharing can reduce fragmentation, improve learning efficiency, and support more connected and scalable innovation across the mine action sector.

ENABLING SUSTAINABLE FUNDING FOR INNOVATION

Fragmented, short-cycle funding mechanisms currently hinder the transition of mine action innovations from research to operational use, limiting the sector's ability to accelerate progress towards contamination reduction and long-term completion of clearance commitments. This strategic priority aims to develop a collective understanding of innovation financing gaps and to facilitate structured engagement among donors, operators, researchers, and coordination bodies on potential approaches for dedicated and flexible innovation support for each phase. Improving continuity across the innovation life cycle reduces systemic inefficiencies and enables more predictable pathways for testing, scaling, and transferring impactful innovations that contribute to the effectiveness, efficiency and quality of mine action.

LOOKING AHEAD

LOOKING AHEAD

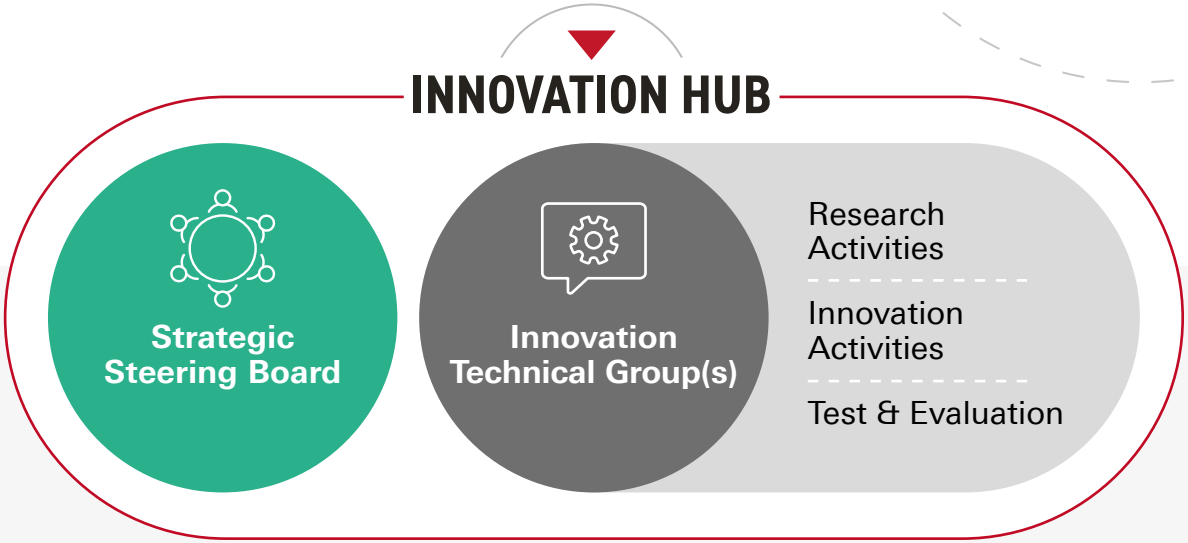
Over the next four years, we will build on existing momentum, address persistent challenges, and create opportunities for innovations to emerge, be validated, and grow. We will remain flexible, learning from implementation and adapting our approach as needs evolve.

The Hub does not innovate alone. We enable, coordinate, and accelerate innovation efforts across the entire mine action and ammunition management communities. Success depends on the willingness of all stakeholders–national authorities, operators, researchers, technology developers, and donors–to engage with difficult questions, embrace evidence-based approaches, and commit to collaborative problem solving.

This Strategic Vision will be complemented by:

- **an annual workplan with specific activities, milestones, and resource requirements**
- **an Innovation Hub web page providing an accessible knowledge base, including information on priorities, opportunities, and resources**
- **research agendas incorporating documented needs and relevant cutting-edge technologies and methods.**

The Strategic Steering Board will review progress annually and provide guidance on priorities. The Innovation Technical Group and its subgroups will serve as the operational engine, advancing projects and partnerships aligned with the strategic priorities.



Aims to convene stakeholders, generate and disseminate knowledge, promote needs-based innovation, and facilitate collaborative steering of innovation efforts.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