Skills for Safety - Theory of Impact (2019-2028)

Aim: Skills for Safety aims to drive lasting systems change that strengthens engineering safety in Lower and Middle-Income Countries (LMICs), leading to safer practices that protect life, property, and the environment. It does this by generating evidence, building skills, fostering collaboration, testing innovative approaches, and influencing decision-makers to shift behaviour, policies and investment in support of safer engineering systems.

Problem	Activities	Outputs	Short term Outcomes (x-y yrs)	Medium term Outcomes (yrs)	Long term Outcomes (8-10 yrs)	Impact

Problem

Gaps in engineering safety skills and capacity are increasing risks to lives, property, and the environment, especially in low- and middle-income countries. These risks are worsened by limited availability and use of evidence, low investment in safety, insufficient accountability and governance, and poor collaboration across fragmented networks.

Drivers

- Limited engineering safety skills and capacity
- Lack of consideration for the value of safety.
- Weak systems and infrastructure for safe engineering
- Low use of evidence in decision-making
- Insufficient investment in skills and safety practices
- Insufficient accountability, transparency, and governance
- Insufficient leadership and oversight
- Fragmented networks and siloed working
- Limited long-term collaboration and knowledge sharing

Stakeholder groups

Primary
- Engineering professionals and practitioners
- Academia and training providers
- Professional engineering institutions and accreditation bodies
- Regulators and policymakers
- Industry bodies and private sector orgs
- Funded grant partners / delivery organisations

Secondary
- Civil society and safety-focused organisations
- Funders
- Multilaterals

Indirect
- National governments
- Affected communities and underrepresented voices

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Academy

Evidence building

GECR 2024: Commission research, analyse findings and write report

Develop, administer and analyse Safety Survey 2024

GECR 2024 produced and promoted, including LMIC-focused dissemination

Internal Safety Survey 2024 report summarising gaps, priorities, and good practice which informs programme activity design.

C1

Improved evidence base
Improved availability and quality of evidence and good practice

C3

Awareness and understanding
Stakeholders gain an increased awareness of safety and skills gaps, priorities, and underrepresented issues, particularly those affecting unheard voices, and develop a shared understanding of key issues, opportunities, priorities and approaches

Convening and knowledge exchange

Design and deliver in-country roundtables

Design, recruit expert speakers, deliver and upload webinar series

Roundtable outputs: country specific priorities, issues, challenges and systems maps

Webinars and other outputs communicating effective approaches and evidence-based practice.

Partnerships:
New and strengthened multi-stakeholder partnerships emerge through all grant funded activities to jointly address safety and skills challenges.

Implementation & Catalyse

Design, launch and manage grant programmes based on roundtables (Catalytic grants) and Open grant call.

Grant projects delivered and monitored by country, objective, safety challenge, SDG focus and gender.

C2

Grant projects design, test and refine safety initiatives, including; curriculum, training, sector-specific interventions, partnership development, policy/practice change and tools and technologies to support safer practice

Access to safety skills
Engineers and engineering students access safety learning and practices

Safety initiatives developed
New initiatives including curriculum, training, partnerships, policy influencing, tools and technologies are established, validated, and ready for adoption and use.

Grantee

Deliver cross-sectoral safety projects, aligned to GECR learnings and adjusted to local contexts.

C4

Increased Safety capacity and capabilities
Engineers and engineering students increase safety competencies

Adoption, implementation and scaling
of safety-focused policies, practices, behaviours and investments that strengthen safety, promote skills, and enhance accountability, transparency, and governance across organisations, sectors and systems.

Multi-sector collaboration
Safety-focused individuals and organisations across academia, industry and PEIs engage, share knowledge and collaborate on embedding skills for safety

Safer engineering practices, policies and behaviours are embedded within supported organisations and key stakeholder systems.

Safety of life, property and the environment in LMICs is improved through the wider adoption of safer engineering practices

Sustainable and Innovative Economy/Community Fit for the Future

Causal Pathways & Assumptions

C1. Evidence pathway

Through access to high-quality evidence, stakeholders develop a shared knowledge base and a stronger understanding of risks, opportunities, and effective approaches. This enables more informed decision-making and strengthens alignment around priorities.

Evidence → Shared understanding and awareness → Alignment on priorities → Informed and aligned decision-making

Assumptions

The programme can reach key decision-makers in addition to technical audiences.

The GECR provides robust evidence and data highlighting key skills and capacity gaps that need to be addressed to overcome safety challenges. The safety survey (open to anyone working on or with an interest in safety, with a focus on LMICs) provides us with strong anecdotal evidence of the main barriers to safety, while our conversations with safety-interested people in our networks reinforce these.

C2. Catalytic pathway

If promising approaches to addressing skills and safety challenges receive funding and support, and change-makers are equipped to champion them, then successful models can be demonstrated, adopted and scaled, leading to sustainable changes in safety.

Multi-stakeholder partnerships funded → Learn → Generate Evidence → Adoption → Scale → Sustainable safety practices..

Assumptions

Pilot approaches can demonstrate measurable success within project timeframes.

Small catalytic investments towards a narrow set of objectives can unlock further investment or support which eventually influences wider systems.

Open calls enable promising projects to be identified for later scaling

Catalytic calls enable promising approaches to have a wider impact (measured through reach, funding, scale, partnerships, embedding)

C3. Awareness leading to Action

Evidence, insights and knowledge products are used in targeted stakeholder engagement, raising awareness of the challenges and how to tackle them, enabling clearer approaches, inclusion of diverse perspectives and alignment on priorities and opportunities and resources for collaboration, leading to effective and scalable solutions.

Evidence & Awareness → Advocacy & Convening → Diverse Perspectives → alignment on priorities → Effective and scalable solutions

C4. Building Safety Capacity and Capability

Engineers and engineering students gain the knowledge, skills, tools and support needed to apply safety-centred approaches. These capabilities become embedded within organisational practices, enabling the adoption, implementation and scaling of safer engineering solutions.

Capability → Application → Embedding → Scale

Overall Assumptions

Political, economic and regulatory conditions do not significantly undermine safety improvements.

Those reached by the programme can influence practices, policies, investments or organisational behaviour.

There is sufficient demand for safety-related knowledge and support, and motivation to make change.

Academy-led roundtables, webinars and grants actively recruit stakeholders across industry, academia and policy.