Foundation

Global Safety Evidence Centre

Evidence for a Safer World: A practical framework for value-driven grantmaking

Charity Impact

Tools & Methods

Resource

About Lloyd's Register Foundation Global Safety Evidence centre

The Lloyd's Register Foundation Global Safety Evidence Centre is a hub for anyone who needs to know 'what works' to make people safer. The Centre collates, creates and communicates the best available safety evidence from the Foundation, our partners and other sources on both the nature and scale of global safety challenges, and what works to address them. It works with partners to identify and fill gaps in the evidence, and to use the evidence for action.

To find out more about the Global Safety Evidence Centre, visit *gsec.lrfoundation.org.uk*

About Lloyd's Register Foundation

Lloyd's Register Foundation is an independent global safety charity that supports research, innovation, and education to make the world a safer place. Its mission is to use the best evidence and insight to help the global community focus on tackling the world's most pressing safety and risk challenges.

To find out more about Lloyd's Register Foundation, visit *lrfoundation.org.uk*

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Introduction

Evidence is central to engineering a safer world. That's why Lloyd's Register Foundation committed £15 million over the next decade to establish the Global Safety Evidence Centre: a hub for building and sharing knowledge about what works to make people safer.

But here's the challenge: evidence-based grantmaking can involve complex frameworks, methods, and technical jargon that shuts out smaller organisations, and international partners.

The framework below is designed to support funders and grant applicants of all sizes and locations. Applying this framework proportionately means that it should scale from small community projects to major research programmes. The aim is to help all grants contribute to the pipeline of 'what works' evidence of global safety, which the Evidence Centre will build.

Our project for the Foundation developed through a series of 'topic notes', allowing us to work alongside the Centre, exploring themes in decision science and economics. For example, we drew on our expertise in wellbeing economics to explore how subjective wellbeing measures can be used to measure and value safety impacts. In this report, we have deliberately scaled back to establish the core principles for all organisations to follow.

There is scope to push the boundaries by exploring different ways to measure and value safety outcomes, but without solid foundations in how to evidence of impact and value for money, it is difficult to layer on new measurement and valuation approaches. We see this report as providing that starting point, so that the more technical aspects of value for money - drawing from health, safety, wellbeing and other areas of economics - can be better understood and applied.

The principles behind our recommended framework are not new - they've been tried and tested around the world, especially to ensure public spending embeds evidence building and value for money. Our aim is to translate these to fit the context, i.e., to suit grantmaking, safety initiatives, and the international context in which the Foundation works. For this reason selective from existing frameworks, focussing on universal principles that can be applied anywhere in the world. We overlay proportionality judgements, to consider how each principle can realistically be applied, even for small grants, where organisations have limited analytical capacity, and in countries where data availability might be limited. We also provide illustrative examples that are relevant to the global safety context.

The inspiration for our framework

Value for money represents the best use of resources to achieve intended outcomes. The UK Government uses two powerful, intuitive frameworks that underpin our own recommended model: the 4Es and the ROAMEF cycle. While designed for UK public spending decisions, they can and have been applied to grantmaking in a global context.

4Es

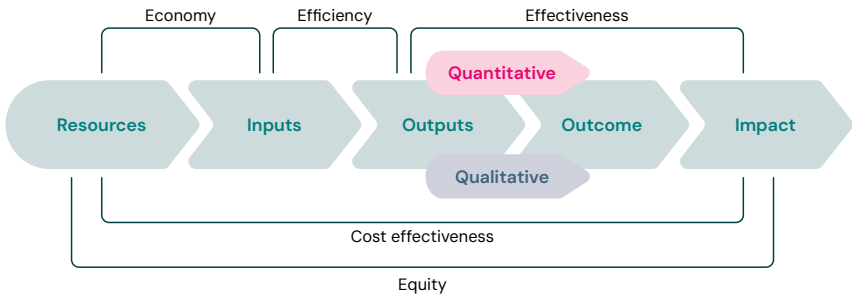
Each of the four 'E' provides useful information to inform whether a project is likely to be good value, coming together to give an overall assessment. These are:

1. Economy: how much do the inputs cost?
2. Efficiency: what is the cost per output?
3. Effectiveness: how well does it work?
4. Equity: does the grant effectively target those most in need?

The 4Es are widely used including by the UK's Department for International Development, now the Foreign Commonwealth and Development Office, which is why we consider that the model ought to work well for the Foundation's grantmaking. We unpack these further below, especially under 'Stage 3' of our recommended model.

If the jump from having little formal value for money evidence to a complete assessment of 'cost effectiveness' is daunting, then the 4Es shows that it is at least possible to address some aspects of value for money. For example, it ought to at least be possible, in a grant application, to quantify address 'economy' by providing an average cost per input bought. We also note that, in evidencing outcomes and impacts, a combination of quantitative and qualitative evidence is valid. Again, this recognises that a fully monetised and robust cost-benefit analysis is often unattainable, but this is not the only valid form of value for money evidence.

Figure 1. 4Es

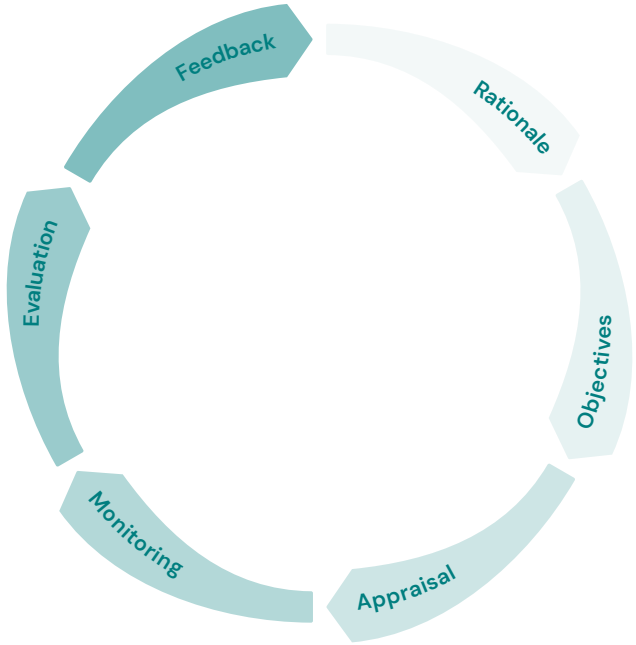


ROAMEF cycle

The ROAMEF cycle (Rationale, Objectives, Appraisal, Monitoring, Evaluation, Feedback) extends the principles of the 4Es into a continuous improvement framework, so that they can be addressed proportionately at every stage in the process of designing and implementing a new project.

Rationale and **O**bjectives address the case for change, defining why action is needed and what the objectives of the proposal are. **A**ppraisal focuses on comparing options to identify the best value approaches before implementation, e.g. before a grant is funded. **M**onitoring, **E**valuation, and **F**eedback create the evidence base after implementation, though it is important to start planning these early.

Figure 2. ROAMEF cycle



Details of the ROAMEF cycle are in H.M. Treasury Green Book and its business case guidance for projects and programmes. While these approaches were mainly developed for UK spending decisions, they are recognised both internationally and for grant making.

Stages toward impact and value

The key for the Foundation's grant processes is that the ROAMEF and 4Es frameworks can be applied **proportionately**. A £5,000 grant doesn't warrant the same depth of analysis as a £5 million programme. Even lightweight versions of these frameworks could dramatically improve grant effectiveness and their ability to contribute 'what works' evidence, when built into the grantmaking process from the outset.

We therefore translate the best features of value for money guidance into seven 'stages', identifying smaller 'steps' that could be taken within each stage. The aim is to activate the framework, to make this as action-focused as possible, and then to give examples relevant to the global safety context.

Figure 3. Seven stage framework

- **Stage 0** — **Strategic Fit:** Starting with the right problem
- **Stage 1** — **SMART Objectives:** Turning ambition Into commitment
- **Stage 2** — **Theory of Change:** Rallying evidence behind the objectives
- **Stage 3** — **Appraisal:** VfM without the Economics PhD
- **Stage 4** — **Monitoring:** Tracking outputs and outcomes
- **Stage 5** — **Evaluation:** Understanding why things worked
- **Stage 6** — **Feedback:** Sharing what worked (and what didn't)

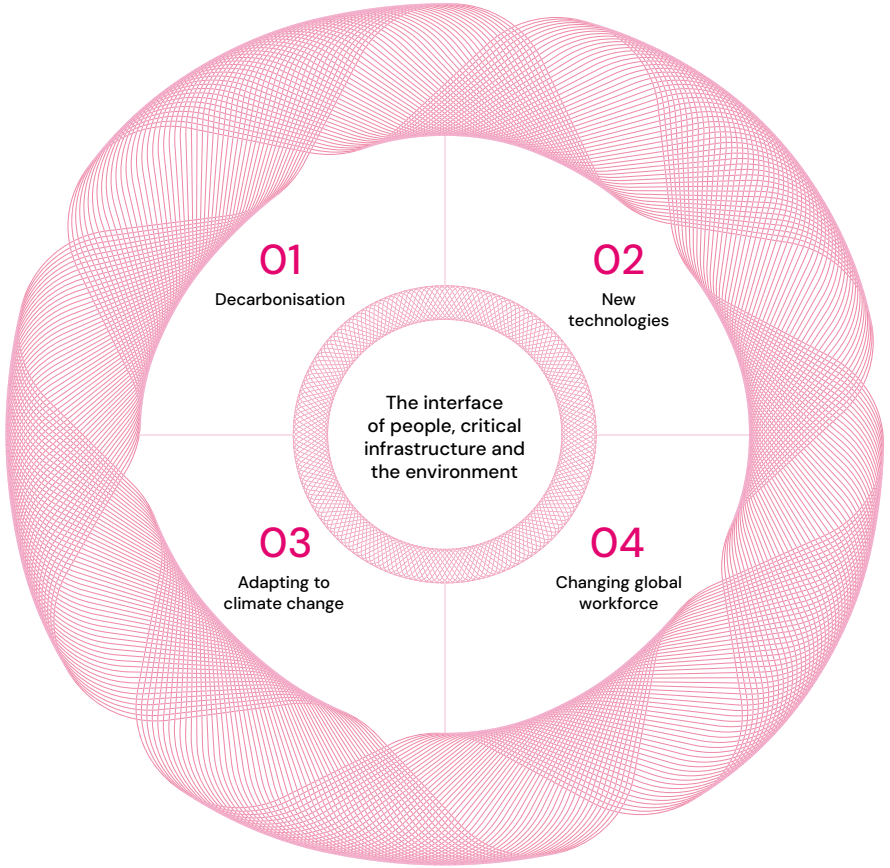
Stage 0: Starting with the right problem

A project is only "value for money" if it achieves what we actually want to achieve. We should address the question: Is *this the right problem to solve?* Even perfectly executed projects deliver poor value if they target low-priority needs or duplicate existing efforts. We call this 'Stage 0' because it determines whether value for money is even possible.

Strategic fit

At Lloyd's Register Foundation, funding calls reflect the Foundation's 2024-2029 Strategy priorities. Central to achieving value for money is ensuring that all the Foundation grants and activities fit these priorities. Done well, strategic fit isn't a box-ticking exercise - it's about positioning each project to generate the most impact towards the Foundation's mission.

Figure 4. Strategy focus - Global challenges



Rationale

Proposals should make a persuasive case for why action is needed now. This rationale should address five critical questions:

1. **What specific problem needs solving?** Define the safety challenge precisely, avoiding vague or overgeneralised statements.
2. **Who is affected and by how much?** Quantify the scale where possible, e.g., number of people at risk, frequency of incidents, geographic scope.
3. **Why does this problem persist?** Identify barriers, market failures, or knowledge gaps that have prevented resolution so far.
4. **What happens without intervention?** Establish a counterfactual - how the situation will likely evolve if no action is taken.
5. **Why is your organisation uniquely positioned to address this?** Explain what capabilities, relationships, or insights you bring that others cannot.

Strong proposals often challenge assumptions about which problems are most pressing. For instance, a proposal might reveal that a seemingly minor safety issue actually affects millions of vulnerable workers, or that a well-known problem could be addressed by a previously unrecognised solution.

01 Decarbonisation

As we decarbonise our energy systems, ensuring the infrastructures that enable the energy transition are safe for people and the environment.

02 New technologies

Support safety processes, practices, standards and skills so we can be confident in the benefits of new technologies.

03 Adapting to climate change

Safer and more sustainable solutions to industrial infrastructure both on land and at sea will help us adapt to climate change.

04 Changing global workforce

Support a skilled and safe workforce including knowledge of what works, preventable measures, and understanding data gaps, and in supporting training and education.

Stage 1: SMART Objectives

Vague ambitions produce vague results. Compare these two statements:

- *"This grant will improve maritime safety in developing regions."*
- *"This grant will reduce fishing vessel accidents in Lake Victoria by 10% within 12 months through implementing real-time stability monitoring systems on 50 vessels."*

The second creates a concrete commitment that can be measured and achieved. We provide examples to help craft objectives that are Specific, Measurable, Achievable, Relevant, and Time-bound. The UK Government's Green Book states: "*Without verifiable and measurable objectives success cannot be measured, proposals will lack focus and be less likely to achieve Value for Money.*"

Effective objectives should be SMART:

- **S**pecific: Precisely what will be done, for whom, where, and why? Avoid generalities in favour of accurate descriptions of the proposed change.
- **M**easurable: Include concrete metrics and targets that enable objective verification of progress and success.
- **A**chievable: Set targets that are ambitious but realistically attainable given available resources and constraints.
- **R**elevant: Ensure objectives directly contribute to addressing the identified need and align with strategic priorities.
- **T**ime-bound: Specify exactly when results will be delivered, creating urgency and enabling timely assessment.

Examples of possible SMART objectives are:

This grant will engineer a safer world by...

Table 1. SMART objective examples

Vague Objective	SMART Objective
Increasing awareness of resilience tools	Generating 5,000 additional visits to the online resilience index from countries rated with higher risk by 2027, measured through web analytics.
Developing marine safety technology	Advancing the SeaWise stability monitor prototype to a fully commercialized product, with the goal of producing 20 units for commercial sale within 18 months. The product will be tested on at least 10 fishing vessels, with a feedback satisfaction rate of 85% or higher from users regarding reliability, ease of installation, and real-time functionality.
Providing training to improve fishing vessel safety	Providing training to 200 fishing vessel crew members on the operation of the SeaWise stability monitor, increasing their ability to respond to stability warnings and reduce marine accidents. Within 12 months, develop and deliver a comprehensive online training module and conduct at least 5 hands-on workshops across major fishing regions.
Raising global awareness of vessel stability challenges	Convening a global conference on marine vessel stability, bringing together 50+ key stakeholders. By the end of the 12-month period, host the conference, with at least 80% of participants committing to collaborate on enhancing marine safety technologies, and produce a joint action plan to advocate for global regulatory changes in fishing vessel safety standards.

Up to five or six SMART objectives might be established for any given grant - more than this and a proposed scheme is likely to lack focus, hampering value for money. Where objectives are SMART this will better support all of the stages below, and so it is inherently important to demonstrate value for money and then build a pipeline of safety evidence.

Stage 2: Theory of Change

With SMART objectives in place we can ask the question: Why should we believe this will work? A proposal that promises to reduce fishing accidents by 10% would next explain the causal mechanisms that transform the proposed grant activities into impact. This is where a theory of change becomes essential – revealing why and how those actions should produce the desired results.

A robust theory of change is perhaps the single most powerful tool for distinguishing genuinely promising proposals from those built on wishful thinking. It forces intellectual honesty about how change happens and surfaces assumptions that might otherwise remain hidden until it's too late.

When done well, a theory of change can go a long way in answering the question of effective resource use – and whether a proposal is value for money. For funders, it's important to set the right incentives for grant applicants. The temptation might be to hide weaknesses in the evidence, or potential negative impacts. Building an understanding that a credible theory of change – one that is upfront about uncertainties – is more likely to support a successful funding outcome, can create the incentives for grant applicants to approach this stage more openly and rigorously.

Stage 2a: Logic Map of how SMART objectives will be achieved

At its simplest, a theory of change begins as a logic map – a structured visualisation that traces the causal chain from resources invested through to ultimate impact. The Foundation's overarching logic map has the following components:

1. **Inputs:** The resources, expertise, funding and other assets required
2. **Outputs:** The direct products, services and deliverables produced
3. **Outcomes:** The medium-term changes resulting from outputs
4. **Influence:** The long-term changes in the Foundation's priority areas
5. **Difference:** The ultimate impact on safety and infrastructure

This chain can be crafted within one of the Foundation's four strategic pathways, each with distinct patterns of how change typically occurs.

Table 2. Strategic pathways

Pathway	Description
Knowledge and Insight	This pathway focuses on the creation of knowledge and generation of insights to enhance understanding of the complex factors impacting the safety of people and critical infrastructure.
Innovation and Technology	This pathway facilitates the creation of innovations, technologies, methods, services, and products to enhance safety outcomes.
People and Skills	This pathway supports safety leadership, identifies safety skills needs, and promotes increased capacity and capability for safer engineering where it is required.
Convening and Collaborations	This pathway focuses on building partnerships, sharing knowledge, and collaborative efforts to engineer a safer world.

Lloyd's Register Foundation – Theory of Change:
storage.googleapis.com/gsec_shares/framework/ToC_24.pptx

Stage 2b: From Logic Map to Full Theory of Change—Testing Your Thinking

A logic map shows "what" is expected to change; a full theory of change adds the "why" and "how." It examines three critical dimensions that determine whether a logical sequence is actually plausible:

Evidence Base: What do we know works?

A theory of change should identify existing evidence that supports each link in the causal chain. For example, if your proposal involves safety training, what evidence shows that this type of training leads to behaviour change and reduced incidents? The strongest theories of change might explicitly grade the strength of evidence for each link.

It would be incredibly rare for every causal link to be robustly evidenced, with no uncertainties and so the aim is to be credible and transparent.

Assumptions: What do we assume is true for this to work?

Every theory of change rests on assumptions – conditions that hold for the causal chain to function. Making these explicit helps assess risk and uncertainty. Some common assumptions for safety grants might include:

- Target groups will participate in a project as expected
- External factors, e.g., the regulatory environment or market conditions, remain stable
- Partnerships on the ground will function effectively

Systems Effects: What else might happen?

Safety interventions operate within complex systems where changes can trigger multiple effects – some are intended, others not. A robust theory of change considers:

- Unintended consequences: How might the intervention create new problems?
- Displacement effects: Will risks simply shift elsewhere rather than being reduced?
- Feedback loops: How might the system adapt to the intervention over time?

This reinforces that a 'logic model' and a 'theory of change' are not synonymous. A logic model is one relatively simple tool to help develop a theory of change, but it still requires much wider thinking and evidence to build out from this. Various systems thinking approaches could be explored further in this context, beyond the scope of this report.

Evidence Gaps: What if our theory of change is not fully supported?

Many safety grants target areas where evidence is thin – that's often the point. When direct evidence doesn't exist, it is still possible to build plausibility through two alternative approaches:

1. Analogous evidence: Look for similar interventions in adjacent domains. If testing a new life jacket design, examine how testing protocols for other safety equipment led to market adoption and impact. The key question: What patterns from similar innovations might apply here?
2. Track record: Consider the implementing organisation's history of driving change. Have they successfully moved from research to real-world impact before? Do they have the relationships and capabilities needed to overcome likely barriers? What does this organisation's past performance tell us about their ability to deliver this project?

A theory of change serves as a reality check on inflated expectations and unfounded optimism. It could force grant applicants to confront difficult questions but transparency around evidence gaps is generally a strength, not a weakness. This is especially true when grant proposals then identify how they will address these evidence gaps through their own monitoring, evaluation and feedback (see below).

Stage 3: Appraisal

Any proposal that consumes resources raises the question: Is it worth it? While the previous stages establish what will be done and why it should work, Stage 3 addresses whether the expected benefits justify the costs involved.

The gold standard would be a fully quantified social cost-benefit analysis (SCBA). Yet in global safety contexts, this is often unattainable. For example, benefits often involve preventing low-probability but high-consequence events, or improving hard-to-measure feelings of safety. In many cases, the skills and data required to undertake a full SCBA might be disproportionate to the grant itself.

The "4Es" framework referenced above provides a more incremental approach to building this case, and so we unpack this further through the steps below:

3a. Economy: getting the right inputs at the right price?

Economy examines whether resources are being procured and allocated cost-effectively. It asks: Are we getting the best value for money on our inputs? This involves demonstrating that a grant has secured competitive pricing and the right mix of resources.

Key economy considerations include:

- Market benchmarking: All grants should breakdown the quantity and cost of its most significant inputs, such as staff or equipment. These can be explicitly compared to estimates against industry standards or similar projects. E.g., for maritime safety training, this might involve researching typical rates for certified trainers, venue hire, and materials across different providers or similar training courses.
- Resource mix: Ensuring the proposed input mix aligns with project needs. E.g., a training program might achieve a better economy by combining experienced lead trainers with less experienced support staff, rather than using senior trainers throughout.
- Alternative delivery models: Exploring whether different approaches could deliver the same inputs more cost-effectively. E.g., could digital elements reduce venue costs? Might partnerships with existing training providers offer economies of scale?
- Hidden costs identification: Ensuring all necessary inputs are captured in cost estimates. E.g., is a training program underestimating the cost of administrative time, follow-up support, or certification processing costs.

Economy doesn't necessarily mean choosing the cheapest option - it means making informed decisions about where the inputs and their price deliver best overall value. A basic grant finding envelope is not sufficient here without evidence relating to the above.

3b. Efficiency: what is the cost per output?

Efficiency measures the relationship between inputs (costs) and outputs (direct deliverables). It answers: How much does each unit of output cost to produce? This requires both defined costs and quantified outputs from SMART objectives.

Consider two different scenarios.

Table 3. Cost per output

Vague Scenario	SMART Scenario
Training courses for maritime safety staff costing £10,000	Training and certification for 500 maritime safety personnel by December, costing £10,000
Efficiency calculation impossible	Efficiency metric: £20 per trained participant

The second scenario enables meaningful value assessment and comparison with alternatives. It also creates a benchmark against which actual delivery can be measured. Appropriate efficiency metrics will vary by the Foundation 'pathway', for example:

- **Knowledge & Insight:** Cost per research output, per data point collected, per user accessing guidance
- **Innovation & Technology:** Cost per prototype developed, per test completed, per user reached
- **People & Skills:** Cost per person trained, per certification achieved, per behaviour change observed
- **Convening & Collaborations:** Cost per participant engaged, per organization involved, per commitment secured

3c. Effectiveness: how well does the grant work?

Effectiveness measures whether these outputs actually create the intended outcomes. In the training example, effectiveness asks: Does the training actually improve safety behaviours and reduce accidents?

Effectiveness requires causal evidence linked to the theory of change. It separates changes attributable to the intervention from background trends or other factors. This might come from:

- Previous evaluations of similar approaches
- Academic research on comparable interventions
- Pilot data from early implementation phases
- Well-designed evaluations to establish impact

3d. Equity: is it targeting those most in need?

This is an important but often overlooked aspect of value for money. It could be that costs are higher for certain groups but this is justified where those groups are a priority. Continuing our example of the training: a project may seek to focus on those who are illegally employed, with the highest risks to safety. It is important to improve the standards for this group, especially since they may have some of the lowest living standards in general, but there may be a number of additional costs involved in reaching and effectively improving their safety at work. Similarly, it may be difficult and more costly to recruit people to participate in a safety initiative where they do not have access to the internet and are less easily contactable.

The key is to avoid vagueness around equity considerations - value for money assessments need to be as specific as possible about who is being targeted, why they are a priority, and what the implications are for both the costs and outcomes of the grant.

3e: Fully monetised cost benefit analysis

The most comprehensive economic case involves full monetisation of benefits, allowing direct comparison with costs through metrics like:

- **Benefit-Cost Ratio:** The total monetary value of benefits divided by total costs
- **Net Present Value:** The difference between the present value of benefits and costs
- **Cost-Effectiveness Ratio:** The cost per unit of a key outcome (e.g., cost per accident prevented)

While challenging to calculate precisely for many safety interventions, valuation techniques do offer methods for monetising various safety and wellbeing impacts. Our more detailed 'Topic Notes' that formed part of this project have explored valuation methods in more detail, e.g. in relation to feeling of safety and subjective wellbeing. In this report we have reined back to the core principles of value for money but the detailed Topic Notes are listed in the Annex and available below:
storage.googleapis.com/gsec_shares/framework/Topic_notes.zip

Stage 4: Monitoring

Claims about economy, efficiency, effectiveness, and equity remain theoretical until we can observe them. Well-designed safety initiatives include plans to track whether outputs and outcomes are being delivered as intended. Effective monitoring begins before the first activity takes place, embedding measurement into the initiative's objectives - the "M" in SMART.

Monitoring can take different forms but the most important feature will be how both outputs and outcomes are measured.

4a. Output metrics

Output monitoring represents the most tangible form of measurement, tracking the direct products and services generated by an initiative. Output monitoring plans address three questions:

1. **What specific metrics will be tracked?** The precise quantities to be measured
2. **Where will this data come from?** The systems or collection methods
3. **When will measurement occur?** The frequency and timing of data collection

For example, rather than vaguely planning to "monitor training completion," a strong plan might specify: "Monthly tracking of participant completion rates through the online learning management system, with quarterly verification through certification records."

The table below maps some common output types to the Foundation's strategic pathways.

Table 4. Output types

Pathway	Typical Measurable Outputs
Knowledge & Insight	Number of research reports published
	Quantity of guidance materials produced
	Volume of digital content created
	Number of exhibitions or performances staged
Innovation & Technology	Number of prototypes developed
	Quantity of testing iterations completed
	Number of design specifications produced
	Volume of technical documentation created
People & Skills	Number of training sessions conducted
	Quantity of educational resources developed
	Number of participants completing programs
	Volume of mentoring relationships established
Convening & Collaborations	Number of events or workshops organised
	Quantity of partnerships formalised
	Number of networking activities conducted
	Volume of collaborative projects initiated

4b. Outcome metrics

While outputs track what an initiative produces, outcomes measure the changes these outputs generate, e.g., the differences made to safety conditions, people's behaviour, or skills and capabilities. It may require information beyond that which is gathered as 'standard', addressing more complex questions:

1. **What meaningful changes should occur?** The expected effects
2. **How can these changes be reliably detected?** Measurement approach
3. **What baseline exists for comparison?** Pre-intervention conditions
4. **When should changes become apparent?** Expected timeframes

The Foundation outcomes may include, for example.

Table 5. Outcome types

Outcome	Potential Monitoring Methods
New or improved knowledge and awareness	Before/after knowledge assessments
	Citation and reference tracking
	User surveys of guidance materials
	Analytics on information resource usage
Enhanced innovations and technologies	Adoption rate measurements
	User feedback on functionality
	Industry standards integration
	Performance testing against benchmarks
Improved skills and competencies	Pre/post-training assessments
	Observed behaviour change tracking
	Credential/certification completion
	Workplace safety practice audits
Demonstrable safety improvements	Incident and near-miss frequency tracking
	Injury severity monitoring
	Compliance with safety standards
	Risk assessment score improvements
Strengthened networks and partnerships	Partnership sustainability metrics
	Network analysis of collaboration patterns
	Joint initiative monitoring
	Shared resource mobilization tracking

Monitoring plans should ideally connect to the SMART objectives established in Stage 2. For example:

For a Knowledge & Insight objective: *"Generate actionable insights on marine safety in Lake Victoria, reducing fishing vessel accidents by 10% within 12 months."*

The aligned monitoring plan might include:

- Output tracking: Number of research reports published, engagement events conducted, safety professionals reached (monthly)
- Outcome measurement: Fishing vessel accident rates (quarterly), safety practice adoption rates (semi-annually), stakeholder feedback on actionability of insights (quarterly)

For a People & Skills objective: *"Train 200 fishing vessel crew members on stability monitoring systems within 12 months, increasing their ability to respond to warnings and reduce accidents."*

The aligned monitoring plan might include:

- Output tracking: Number of training modules developed, workshops conducted, crew members certified (monthly)
- Outcome measurement: Knowledge assessment scores (pre/post), observed safety behaviour changes (quarterly), stability incident response effectiveness (ongoing)

Effective monitoring need not be complex or burdensome. Practical approaches include: using existing data tools like the World Risk Poll where applicable; or using 'sampling' of representative subsets of people taking part in activities like training, rather than the entire group or population. The H.M. Treasury Magenta Book (Chapter 4) provides comprehensive guidance on data collection methodologies for the UK government, with principles equally applicable to safety grant monitoring globally.

Stage 5: Evaluation

While monitoring tracks what happens, evaluation explains why it happens and what it means. As the Treasury's Magenta Book states, effective evaluation "scrutinises whether the intervention was effective, the outcomes were achieved, and the money was well spent."

- Different types of evaluation will answer different questions, for example:
- Process: How the intervention was delivered and what worked well.
- Quantitative / Impact: What difference was made and to what extent.
- Qualitative: How participants experienced the intervention

Economic: Whether results justify costs. This follows 'Stage 3' above but the distinction is that evaluation comes after implementation, whereas 'appraisal' comes before.

Mixed methods approaches - combining multiple evaluation types - often provide the most comprehensive understanding, and are recommended for most grants. For accountability, each evaluation should have a responsible owner and a clear timeframe.

5a: Process evaluation: how implementation unfolded

Process evaluation examines what was delivered, how it was delivered, and what factors affected success. This combines qualitative elements (stakeholder experiences, implementation challenges) with quantitative aspects (completion rates, participant demographics).

Documenting implementation challenges creates valuable knowledge for future initiatives. This is why we would recommend that all grants have at least some, proportionate form of process evaluation designed into their proposals - even if the further evaluation steps below prove more challenging.

5b: Quantitative impact evaluation - what can be attributed to the grant?

Impact evaluation addresses the critical question of causality—distinguishing changes caused by the intervention from those that would have occurred anyway. This attribution problem represents one of evaluation's greatest challenges but is essential for making valid value claims.

This is a substantive topic in its own right and so we cannot do it full justice here - a good starting point would be the NESTA guidance on standards of evidence.

Various approaches can strengthen causal inference. Experimental designs with control groups, where ethically appropriate, are gold standard. Quasi-experimental methods or 'synthetic' comparisons using secondary data sources might be more achievable for some. In other cases, a fall back might be theory-based evaluation that tests causal mechanisms against evidence - this can look similar to Stage 2 (theory of change) but undertaken after and informed by implementation.

The appropriate approach depends on the intervention context, available data, ethical considerations and of course, affordability given the available evaluation budget (see Proportionality section below).

For strategic interventions, Social Finance's routes to scale framework provides a useful structure. Consider evaluation timing carefully—meaningful change takes time to manifest. Ideally, measure at multiple points to capture both immediate and long-term effects.

5c: Qualitative evaluation: understanding experiences and mechanisms

Qualitative evaluation explores the human dimension - how participants experienced a programme, what worked well or poorly, or why certain outcomes occurred. While quantitative evaluation tells us what happened, qualitative evaluation helps explain how and why it happened.

The aim is to capture nuanced insights that numbers alone cannot reveal: unintended consequences, implementation barriers, cultural factors, and the mechanisms through which change occurs. For global safety interventions particularly, understanding participant perspectives can reveal critical gaps between intended and actual behaviour change.

There are various qualitative methods including:

In-depth interviews: One-to-one conversations with participants, delivery staff, and stakeholders to explore personal experiences and perceptions. These work particularly well for sensitive topics or when exploring individual decision-making processes.

Focus groups: Facilitated discussions with small groups of participants to understand shared experiences and generate insights through group interaction. Useful for exploring how social dynamics affect program effectiveness.

Observation studies: Systematic observation of program delivery or participant behaviour to understand implementation realities versus planned approaches. This can reveal informal adaptations or workarounds that affect outcomes.

Case studies: Detailed examination of specific examples—successful participants, challenging implementations, or unexpected outcomes—to understand causal mechanisms in depth.

Most significant change technique: Participants identify and discuss the most important changes they experienced, helping evaluators understand which outcomes matter most to beneficiaries.

Qualitative evaluation should be designed to test specific assumptions from the theory of change, not simply gather general feedback. Strong qualitative evaluation follows systematic approaches to data collection and analysis, ensuring findings are credible and transferable to similar contexts.

The timing of qualitative data collection matters significantly. Early implementation insights can inform mid-course corrections, while post-completion evaluation captures longer-term reflections and sustainability factors. Multiple data collection points often provide the richest understanding of how participant experiences evolve throughout the intervention.

5d: Economic evaluation

Economic or Value for Money evaluation typically involves comparing monetised benefits against costs, though qualitative value judgments also play an important role.

This assessment returns to Stage 4, because the Initial appraisal of value for money can now be tested, revealing whether anticipated costs and impacts materialised as expected. The evaluation ideally allows a better understanding of economy (cost per input) of efficiency (cost per output) but without extending to effectiveness. Formal cost-benefit or cost-effectiveness analysis may now become possible (step 3e) if the grant provides evidence of impact that was not available before implementation.

Evaluation plans too often focus on verifying the intended outcomes and impacts, giving less attention to the evaluation of costs and inputs. The planned cost of a programme is usually different from the actual cost, and so it is equally important to undertake a cost evaluation.

A further aspect is to ensure that the full social (rather than financial) costs are considered. Not all costs to society are captured directly by spending on the project, e.g., where some funding, organisational overheads, or even unpaid/voluntary time contributions are not included in the direct cost of a grant.

Stage 6: Feedback

The ultimate test of value lies not just in what a single grant achieves, but in how its insights strengthen future safety efforts. Even small projects can generate disproportionate value when their lessons inform wider practice. The Lloyd's Register Foundation - by bringing its grantmaking processes together with the Global Safety Evidence Centre - can amplify this all important Feedback stage. It can transform evaluation findings into knowledge capital - perhaps the most enduring form of return on investment from the Foundation's grants.

How and why learning happens matters when deciding what learning to share, and who with:

1. Explicit review processes can analyse and share successes and failures where the project itself is likely to continue
2. Knowledge sharing networks can help disseminate insights beyond the project team
3. System-level learning can help identify recurring themes across multiple projects, or look at the contextual factors that influenced outcomes, such as similar projects having more or less success in different sectors, countries or cultural contexts.

This is why the ROAMEF framework above ends with "F" for Feedback, recognising an ongoing cycle where each project informs the next, to continually improve impact and value for money.

As with Monitoring and Evaluation, good Feedback starts early with each grant holder setting clear learning goals and dissemination plans.

Critically, learning should capture both successes AND failures. Too often, unsuccessful approaches remain undocumented and unshared, leading to wasted resources if organisations then repeat the unsuccessful approach. This is especially important for safety projects if insignificant or even harmful impacts remain hidden. Documenting what doesn't work is equally valuable as documenting what does though this does require openness and trust in the grant process, avoiding the inherent incentives for grant holders to focus on their successes.

6a: Setting learning goals

Learning goals articulate specific knowledge gaps a project aims to address. For some grants - particularly those in the Knowledge & Insight and Innovation & Technology pathways - learning objectives may even be the main objective. Research programs investigating emerging safety risks or innovation projects testing novel approaches inherently prioritise knowledge generation.

However, even implementation focused initiatives offer valuable learning opportunities. A training program, designed to improve maritime safety, might simultaneously reveal critical information about:

- Previously unidentified knowledge gaps among professionals taking the training
- Barriers to implementing known safety practices in specific contexts, which perhaps only become clear when rolling out training in a new part of the world
- Differences in safety culture across industry sectors and regions
- Unexpected adaptation challenges when translating safety standards to local conditions, e.g. with different regulatory policy environments

In this way, setting effective learning goals requires explicit consideration of both audience and purpose: Who needs to know what, and for what purpose? The most valuable insights address knowledge gaps experienced by those with the capacity to act on them - this may be the Foundation, policymakers, industry practitioners, safety professionals, or trainees and workers themselves.

6b: Plan to share findings and learning

Knowledge that remains locked in reports or databases generates little value. Intentional dissemination strategies ensure insights reach those who can use them to improve safety outcomes. This requires considering:

1. Audience characteristics: Information needs, preferred formats, technical literacy, and access constraints of target groups
2. Dissemination channels: Formal publications, professional networks, educational platforms, media partnerships, or direct engagement
3. Message framing: How findings should be contextualized and presented to resonate with specific audiences
4. Timing considerations: When different stakeholders are most receptive to new information

Effectiveness varies dramatically across dissemination approaches. Academic publications may reach researchers but rarely practitioners; industry conferences may influence professionals but miss policymakers; community workshops may engage local stakeholders but not institutional decision-makers. This is why a very achievable step toward value for money for all projects is to invest time and resources in a well considered, formal dissemination strategy.

Practical Implications and Next Steps

Proportionality

Ultimately, the stages to understand value for money in a full and accurate way need to be proportionate. For example, a rough rule of thumb for measurement-focussed funders tends to be a 5-10% allocation of the total budget to monitoring and evaluation activity (see The Right Budget Allocation for Monitoring and Evaluation). However, this is only a rough indication and depends greatly on the type of project and its objectives.

Other factors include.

Table 6. Assessing proportionality

Factor	Lower Intensity Appropriate When:	Higher Intensity Appropriate When:
Grant size	Small	Large
Intervention	Well-established, known effects	Novel approach, uncertain effects
Evidence gaps	Strong existing evidence base	Limited previous evidence
Scalability	One-time, context-specific implementation	Potential for wide replication if proven effective

What does this all mean?

The stages above represent a roadmap to evidence-based grantmaking - one that makes value for money accessible to everyone involved in global safety innovation, not just organisations that benefit from dedicated evaluation specialists or economists.

The concept of value for money often evokes images of complex financial spreadsheets or intimidating cost-benefit analysis - we've sought to demystify what value for money really means, and the practical steps that any organisation can take, regardless of size and analytical capacity.

The journey toward evidence-led safety grantmaking is not binary - it's not a matter of either conducting comprehensive economic analyses or doing nothing. Rather, it's about progressive improvement: identifying where you are on the evidence continuum and determining one meaningful step forward at a time. Perfect should not be the enemy of good when it comes to demonstrating impact and value.

The Foundation already incorporates many elements of value for money thinking - any organisation that has led its field since 1760, is responsible for leading the World Risk Poll, and has established centres in Heritage and Global Safety Evidence is clearly intent on driving impact and value through knowledge and evidence. This creates the platform to encourage all its partners to engage in evidence-based decisions.

Attempting to fully quantify and monetise the value of every grant would neither be practical nor lead to better outcomes. We therefore took a step back from the more technical aspects of social valuation, which had been the subject of our earlier 'topic notes' for this short project. Instead, we decided that our final report could be more usefully focussed on strengthening the bridge between frontline safety innovation and the evidence that proves its value.

Next steps

For organisations at any stage of the value for money journey, these immediate steps offer practical ways to strengthen evidence-based approaches:

1. **Always take Stage 0 and Stage 1, transition to genuinely SMART objectives**
   Transform general aspirations into ones that are clearly focussed on the Foundation's priorities, and develop SMART objectives for each proposal. The Foundation can facilitate this with its partners, including prospective grant applicants, by providing templates, examples, and guidance tailored to different types and scales of safety interventions.
2. **Embed the Foundation's own theory of change more deeply in grantmaking**
   Continue the work of communicating and embedding the Foundation's theory of change, supporting its Strategy, throughout funding calls and evidence gathering. Encouraging grantees to adapt this framework to create their own, context-specific theories of change would help to tie all projects back to the Strategy.
3. **Support evidence-building for causal pathways**
   Offer practical guidance on how organisations can identify and strengthen the evidence base underpinning their theories of change. This might include curated resources on safety evidence, challenging the strength of this evidence and uncertain assumptions, or encouraging thinking about system effects and unintended impacts.
4. **Develop benchmarking for 'unit' costs and benefits**
   Build on existing work to establish comparative reference points for common input and output costs across different safety domains and geographic contexts. This creates a foundation for efficiency assessment while acknowledging that context matters. For example, what is a reasonable expected cost per experience tutor on a maritime safety training course, what is a good benchmark cost per trainee, and what is the typical social value of an expected outcome like a prevented fatality?
5. **Promote proportionate monitoring and evaluation planning**
   Encourage the inclusion of 'right-sized' M&E and dissemination plans for all projects, from simple templates that scale from lightweight approaches for small grants to more comprehensive frameworks for major programmes of work. These should include early consideration of mixed methods and will ideally include a dedicated evaluation budget.
6. **Facilitate self-assessment of value for money maturity**
   Create tools that enable grantees to honestly assess their current position across the value for money stages outlined in this report. Foster a culture whereby grant holders are comfortable to report both their successes and failures.

Beacon: from written, static guidance to practical, interactive web applications

We have been mindful throughout this project that written reports and guidance (such as this report) are already abundant. While we naturally hope this report is useful and practical, there is a limit to how much anyone can actually learn and improve practice in this format alone.

This is why we have been keen to explore more accessible and interactive ways to connect the Foundation and its partners to good practice.

We identified that interactive web applications have potential to bring the recommended steps above to life, making them easier to navigate. It is also possible to then semi automate parts of the process. An example would be to access the Foundation-approved template logic model that can be easily adapted in a few mouse clicks, and then downloaded for wider use.

The Beacon app - a prototype developed initially for internal use by the Foundation - showcases what might be possible to support users with evidence-based grantmaking. While emphasising that it remains experimental, there is scope to take this forward.

Finally, we encourage every reader working with the Foundation to identify at least one "next step" that feels attainable for their next safety project. Together, these incremental improvements will build a stronger foundation of evidence for what works in safety—creating a legacy of impact that extends far beyond individual grants and programmes.

Annex A: Grant Application Review Checklist

This checklist is designed to help evaluate grant applications from an evidence and value for money perspective. The questions are organised into three key domains that together form a comprehensive framework for reviewing the quality of safety grant applications.

This checklist is designed to support constructive assessment rather than as a strict pass/fail mechanism. Consider the following principles when using it:

1. Proportionate: The depth of evidence expected should match the scale and complexity of the proposed project.
2. Constructive: Identify areas for improvement that could strengthen the proposal rather than simply highlighting deficiencies.
3. Empathetic: Recognise that organisations may be at different stages in their evidence maturity and that any movement along the continuum is valuable.
4. Balanced: Consider the overall patterns of ratings rather than focusing exclusively on individual questions.

Strategic Alignment

These questions assess how well the project aligns with the Foundation's priorities and sets clear, measurable objectives.

1. Is your project clearly aligned with the Foundation's strategic priorities?
   - **HIGH:** The proposal explicitly demonstrates how it contributes to one or more of the Foundation's strategic aims, with a clear connection to safety outcomes.
   - **MEDIUM:** The proposal broadly aligns with the Foundation's strategic aims but the connection to specific safety priorities is less direct.
   - **LOW:** The proposal has limited or unclear connections to the Foundation's strategic priorities or safety mission.

2. Is your grant objective SMART?
   - **HIGH:** The objective is Specific, Measurable, Achievable, Relevant and Time-bound with clear metrics and deadlines.
   - **MEDIUM:** The objective contains some SMART elements but is missing precision in certain aspects (e.g., specific metrics or timeframes).
   - **LOW:** The objective is vague, general, or lacks measurable components.

3. Does your Theory of Change clearly show how your activities will lead to impact?
   - **HIGH:** A comprehensive theory of change maps a logical, evidence-supported pathway from inputs to outcomes and ultimate impact.
   - **MEDIUM:** A theory of change exists but has gaps in the causal logic or limited supporting evidence.
   - **LOW:** The theory of change is absent, poorly articulated, or relies on implausible causal connections.

4. Have you mapped out assumptions, risks, and supporting evidence?
   - **HIGH:** Critical assumptions are explicitly identified, risks are assessed, and supporting evidence is cited for key causal claims.
   - **MEDIUM:** Some assumptions and risks are identified, but the assessment lacks depth or comprehensiveness.
   - **LOW:** Few or no assumptions are articulated, risks are not addressed, or supporting evidence is largely absent.

Monitoring & Evaluation Framework

These questions examine the clarity and appropriateness of the proposed impact measurement plan.

1. Have you defined measurable outputs and outcomes that directly align with your Theory of Change?
   - **HIGH:** Clearly defined metrics directly correspond to each element of the theory of change, with specific indicators for outputs and outcomes.
   - **MEDIUM:** Metrics are identified but don't fully capture all elements of the theory of change or lack specificity.
   - **LOW:** Metrics are vague, missing key elements, or have weak connection to the theory of change.

2. Have you identified how and when you'll collect the data?
   - **HIGH:** Specific data collection methods, timing, and responsible parties are identified for each metric with appropriate frequency.
   - **MEDIUM:** Data collection approaches are outlined but lack detail on methods, timing, or responsibilities.
   - **LOW:** Data collection plans are vague or absent, with little consideration of practical implementation.

3. Have you identified the right mix of evaluation types?

- **HIGH:** The evaluation approach combines appropriate methods (e.g., process, impact, economic) proportionate to the project scale and complexity.
- **MEDIUM:** An evaluation approach is outlined but may not be optimally matched to the project's needs or evidence gaps.
- **LOW:** The evaluation approach is generic, inappropriate for the context, or missing entirely.

4. Have you considered attribution and contribution?

- **HIGH:** The proposal explicitly addresses how it will determine causality and distinguish project effects from external factors.
- **MEDIUM:** Attribution is considered but with limited detail on methodological approaches to establish causality.
- **LOW:** Attribution issues are not addressed or are treated superficially without methodological consideration.

Implementation & Learning

These questions assess how monitoring and evaluation will be implemented to support learning and improvement.

1. Is monitoring and evaluation planned from the start and throughout the project?

- **HIGH:** M&E is fully integrated into project design with baseline measures, ongoing monitoring, and evaluation phases clearly mapped.
- **MEDIUM:** M&E is planned but may be weighted toward the end rather than integrated throughout the project lifecycle.
- **LOW:** M&E appears as an afterthought with limited integration into the project design.

2. Is your monitoring and evaluation plan proportionate to the scale, ambition and risk of your project?

- **HIGH:** The M&E approach matches the project's complexity, scale, and evidence needs without being unnecessarily burdensome.
- **MEDIUM:** The M&E approach is reasonable but may be over-engineered for a simple project or insufficiently robust for a complex one.
- **LOW:** The M&E approach is clearly mismatched to the project's needs, either far too elaborate or significantly underdeveloped.

3. Have you set clear learning goals?

- **HIGH:** Specific knowledge gaps that the project aims to address are identified with clear plans for capturing and applying learning.
- **MEDIUM:** Learning goals exist but may be generic or lack specificity on how learning will be captured.
- **LOW:** Learning goals are absent or treated as an incidental byproduct rather than a deliberate focus.

4. Do you have a plan to share findings and learning?

- **HIGH:** A comprehensive dissemination strategy identifies target audiences, channels, formats, and timing for sharing results.
- **MEDIUM:** Dissemination is planned but may lack specificity on channels, audiences, or formats.
- **LOW:** Dissemination plans are vague, generic, or limited to standard reporting requirements.

By applying these principles, the checklist becomes a tool for building stronger safety grant applications that deliver demonstrable value for money and contribute effectively to engineering a safer world.

Annex B: Topic Notes

This report emerged from a series of in-depth discussions between Mission Economics, Sara MacLennan and the Foundation. We provided six Topic Notes to represent the deeper analytical foundations that underpin our recommendations, exploring methodological questions about safety valuation, evidence frameworks, and impact assessment approaches.

While the main report focuses on simpler steps accessible to all stakeholders, these Topic Notes delve into more advanced safety impact and valuation practice.

Topic Note #1: Bridging Perspectives in Impact Assessment

This note examines how economics, social research, and engineering disciplines approach impact assessment in global safety contexts through different methodological lenses. It identifies tensions between these professional perspectives while highlighting their complementary strengths. The note recommends adopting "Decision Science" as a unifying framework to integrate these approaches, addressing uncertainty, complexity, and competing values in decision-making.

Topic Note #2: WELLBYs and Safety - An Introduction

This note introduces Wellbeing-Adjusted Life Years (WELLBYs) as a metric for valuing safety interventions through their impact on subjective wellbeing. It outlines the theoretical foundations and explains how wellbeing metrics can capture dimensions of safety impact that traditional economic approaches might miss. The note focuses particularly on how WELLBYs can address psychological safety.

Topic Note #3: Safety in Numbers - Making Sense of QALYs and WELLBYs

This technical exploration compares Quality-Adjusted Life Years (QALYs) with the emerging WELLBY approach for safety valuation. The note analyses the methodological strengths and limitations of each metric, providing guidance on appropriate applications in different safety contexts.

Topic Note #4: Decision Framework Overview

This note surveys decision frameworks for safety investment, from traditional cost-benefit analysis to approaches designed for conditions of deep uncertainty. The note offers criteria for selecting appropriate decision frameworks based on the nature of the safety challenge and available evidence.

Topic Note #5: International Application of the WELLBY

This note examines the application of WELLBYs across different global contexts to measure safety initiative impacts. It outlines key benefits (universal appeal, data availability, built-in equity) alongside significant challenges: the causality conundrum of isolating safety impacts, the equity paradox that might favour wealthier countries, and difficulties establishing consistent monetary WELLBY values across economies.

Topic Note #6: Valuation Techniques and Missing Information

This note completes the toolkit for enhancing the Foundation's impact evaluations with practical approaches for real-world valuation challenges. It introduces the "four Es" framework (Economy, Efficiency, Effectiveness, Equity) alongside methods for valuing less tangible social and environmental impacts. The note provides pragmatic approaches for imperfect data scenarios, including breakeven analysis ("what would it take to justify this cost?"), scenario analysis to test changing assumptions, and benchmarking against comparable interventions. Rather than disguising measurement challenges, it offers adaptable tools that work in real-world contexts, not just theoretical models.