Program Management and Evaluation: the Role of the Theory of Change and Program Logic Model

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Outline:

- Evaluation approaches
- Theory of Change
- Program Logic Model

Evaluation defined

1. "Evaluation refers to the process of determining the merit, worth, or value of something, or the product of that process. Terms used to refer to this process or parts of it include: appraise, analyse, asses, critique, examine, grade, inspect, judge, rate, rank review, study, and test... The evaluation process normally involves some identification of relevant standards of merit, worth, or value; some investigation of the performance of evaluands on these standards; and some integration or synthesis of the results to achieve an overall evaluation or set of associated evaluations" (Scriven, 1991, p. 139)
2. " ... the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness, and/or inform decisions about future programming" (Patton, 1997, p.23)
3. "A rigorous, systematic and objective process to assess a program's effectiveness, efficiency, appropriateness and sustainability." (NSW Government, 2016, p.5)
4. " ... the systematic assessment of the operation and/or the outcomes of a program or policy, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program or policy" (Weiss, 1998, p.4)
5. " ... uses inquiry and judgment methods, including determining standards for judging quality and deciding whether those standards should be absolute or relative; collecting relevant information, and applying the standards to determine value, quality, utility, effectiveness or significance" (Fitzpatrick, Sanders and Worthen, 2004, p.5)

Why do we need to Evaluate?

- **To gather empirical data to inform decisions**.
- *"Systematic and professional evaluation adds value to the organisation and work of its members"* (Russel-eft & Preskill, 2009, p.10).
- *"Evaluation plays a key role in supporting program decision making by helping us understand whether a program is working, in what context, when it's not, and why.*
- *Well-planned and executed evaluation provides evidence for improved program design, delivery, and outcomes..."*(NSW Government, 2016)

What might be evaluated systematically?

Objects of evaluation include:

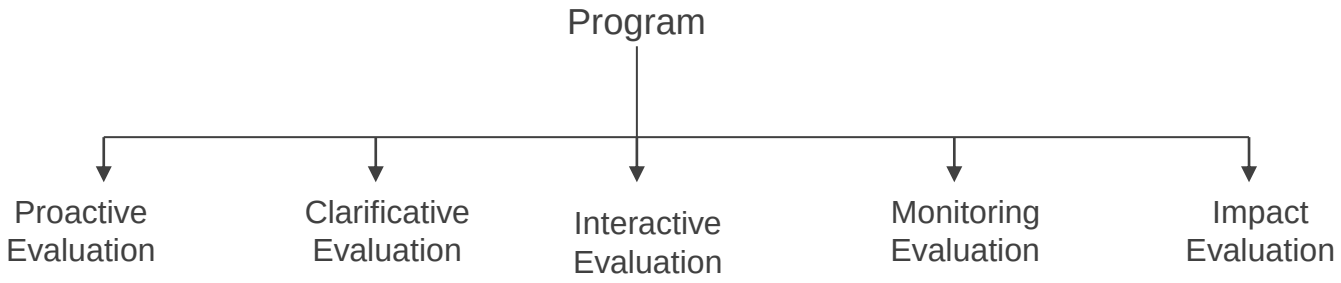
- Projects, programs organisations
- Personnel or performance
- Policies or strategies
- Products [objects] or services
- Processes or systems

Referred to as the *evaluand* or if a person the *evaluee.*

Proposals, contract bids or job applications.

We will concentrate on programs but concepts and methods are applicable to all objects of evaluation.

Evaluation Forms and Approaches



Owen, 2006

PROACTIVE EVALUATION

- Takes place before the program is designed
- Assists planners to make decisions about what type of program is needed
- Provides input about how best to develop program in advance of the planning stage

Typical Issues

- Is there a need for a program?
- What do we know about the problem that the program will address?
- What is recognized as best practice in this area?
- Have there been attempts to find solutions to this problem?
- What does the relevant research or conventional wisdom tell us about this problem?
- What could find out from external sources to rejuvenate an existing policy or program?

Major Approaches

1. Needs Assessment or Needs Analysis
   - Involves assessing the perceived need or want among the community for which a projected program is intended.
2. Meta-analysis
   - Relies heavily on findings from studies employing experimental or quasi-experimental designs
   - Outcomes of programs are compared using the statistical concept of “effect size”
   - Strategy: rank the effects of the program

Major Approaches

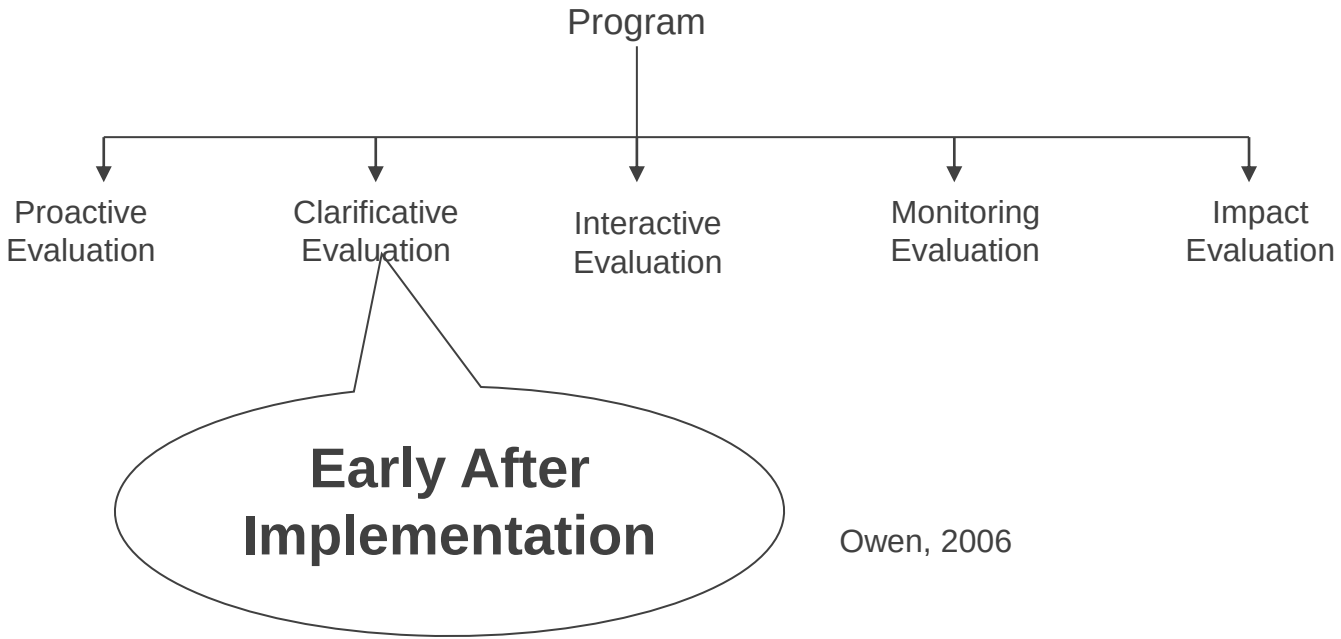
3. Narrative Review

- Relies on the use of qualitative interpretations of key aspects, including details of key implementation attributes, and thus provides detailed analysis of how programs work.

4. Best Practice

- Establishment of benchmarks
- *A continuous systematic process of evaluating companies that are recognized as industry leaders, to determine business and work processes that represent best practices and establish rational performance goals (*Cross and Iqbal, 1994)

Evaluation Forms and Approaches



Owen, 2006

CLARIFICATIVE EVALUATION

- Designed to assist stakeholders to conceptualize interventions and improve their coherence, and thus increase the chances that their implementation will lead to the desired outcomes.
- Concentrates on making explicit the internal structure and functioning of an interventions
- Program logic or theory is developed/ revised

Issues to be addressed

- What are the intended outcomes of this program and how is the program designed to achieve them?
- What are the underlying rationale for this program?
- What program structures or elements need to be modified to maximize program potential to achieve the intended outcomes?
- Is the program plausible?
- Which aspects of the program are amenable to a subsequent monitoring or impact assessment?

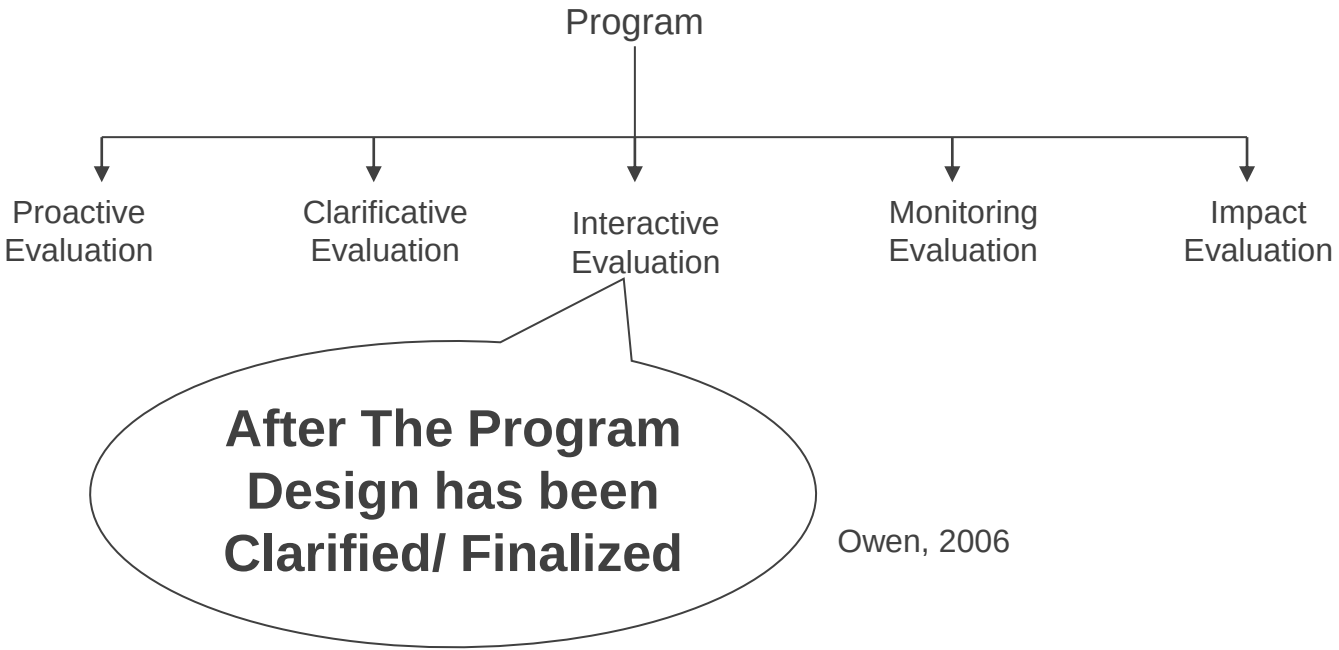
Approaches:

1. Evaluability Assessment (EA)
   - Explicates the underlying cause and effect relationship, and functional aspects (resources and activities), with indicators as evidence for determining when planned activities are implemented and when intended and unintended outcomes are achieved;
2. Program Logic (Theory)
   - Central to program logic is the presence of program causality, the action leads to, or causes, a subsequent event or action.
   - Develops a means-ends hierarchy: links program assumptions, intentions and objectives, and the implementation activities designed to achieve the objectives

3. Ex-ante evaluation

- Estimates and judges the impact of a future situation.
- Involves assessment of the validity of a program's foundations, objectives and assumptions.

Evaluation Forms and Approaches



Owen, 2006

3. INTERACTIVE EVALUATION

- Provides systematic evaluation findings through which local providers can make decisions about the future direction of the program;
- Assists in planning and carrying out self-evaluations;
- Focuses evaluation on organizational change and improvement, in most cases on a continuous basis; and
- Empowers providers and participants.

Typical Issues to be addressed

- What is this program trying to achieve?
- How is this program progressing?
- Is the delivery working?
- Is it consistent with the program plan?
- How could the delivery be changed so as to make it more effective?
- How could this organization be changed so as to make it more effective?

Approaches

1. Responsive Evaluation (Stake, 1980)

   - Orients more directly to program activities than to program intents. The value perspectives of program stakeholders are referred to in reporting the success and failure of the program.

2. Action Research

   - A collaborative research, centered in social practice, which follows a particular process, espouses the values of independence, equality and cooperation, and is intended to be a learning experience for those involved, to produce a change for the better in the practice and to add to social theory (Orton, 1992).

Approaches

3. Development Evaluation

- Evaluator is part of the team whose members collaborate to conceptualize, design and test new interventions in a long-term ongoing process of continuous improvement, adaptation and institutional change.

4. Empowerment Evaluation

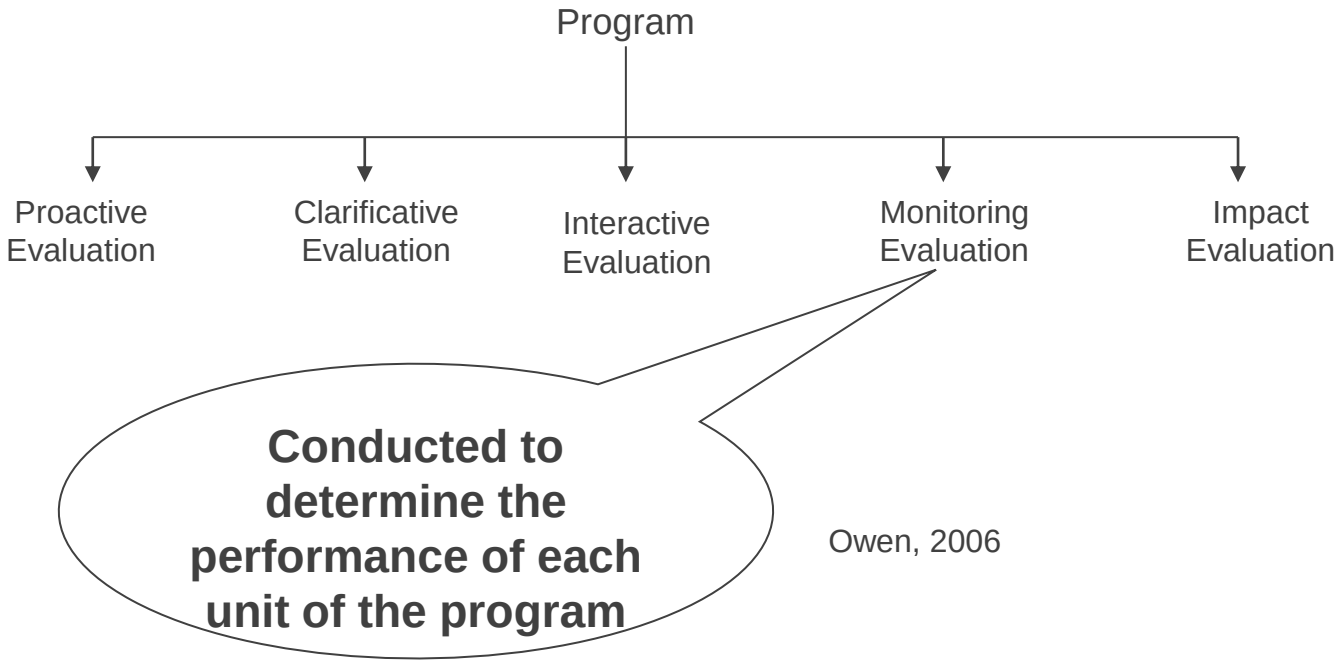
- Designed to create a “folk culture” evaluation. Is a mechanism used to create and drive a learning organization; Can be fostered by experienced evaluators through the following: training others to acquire evaluation skills, acting as facilitators or coaches to help others conduct evaluation, undertaking illuminative evaluations in conjunction with practitioners, and acting as advocates for disadvantaged groups.

5. Quality Review (institutional self-study)

Major propositions

- The system provides guidelines for self-evaluation and improvement;
- Effective agency-level development is enhanced by the implementation of system-level guidelines to support local problem-solving; and
- All agencies are expected to undertake such processes within a given time span (Cuttance, 1994)

Evaluation Forms and Approaches



Owen, 2006

4. MONITORING EVALUATION

- Appropriate when a program is well established and ongoing.
- Involves the development of a system of regular monitoring of the progress of the program.
- Includes a rapid response capability (Mangano, 1989) and to provide timely information for organizational leaders (Owen & Lambert, 1998)

Typical Issues

- Is the program reaching the target population?
- Is implementation meeting program benchmarks?
- How is implementation progressing between sites?
- How is implementation progressing now compared to a month ago, or a year ago?
- Are our cost rising or falling?
- How can we fine-tune this program to make it more efficient?
- How can we fine-tune this program to make it more effective?
- Is there a site which needs attention to ensure more effective delivery?

Key Approaches

1. Component Analysis

- Senior management selects a component of the program for systematic analysis and review, and assess that component both in terms of its own objectives, and in terms of its contribution to the mission and overall goals of the program.

2. Devolved Performance Assessment

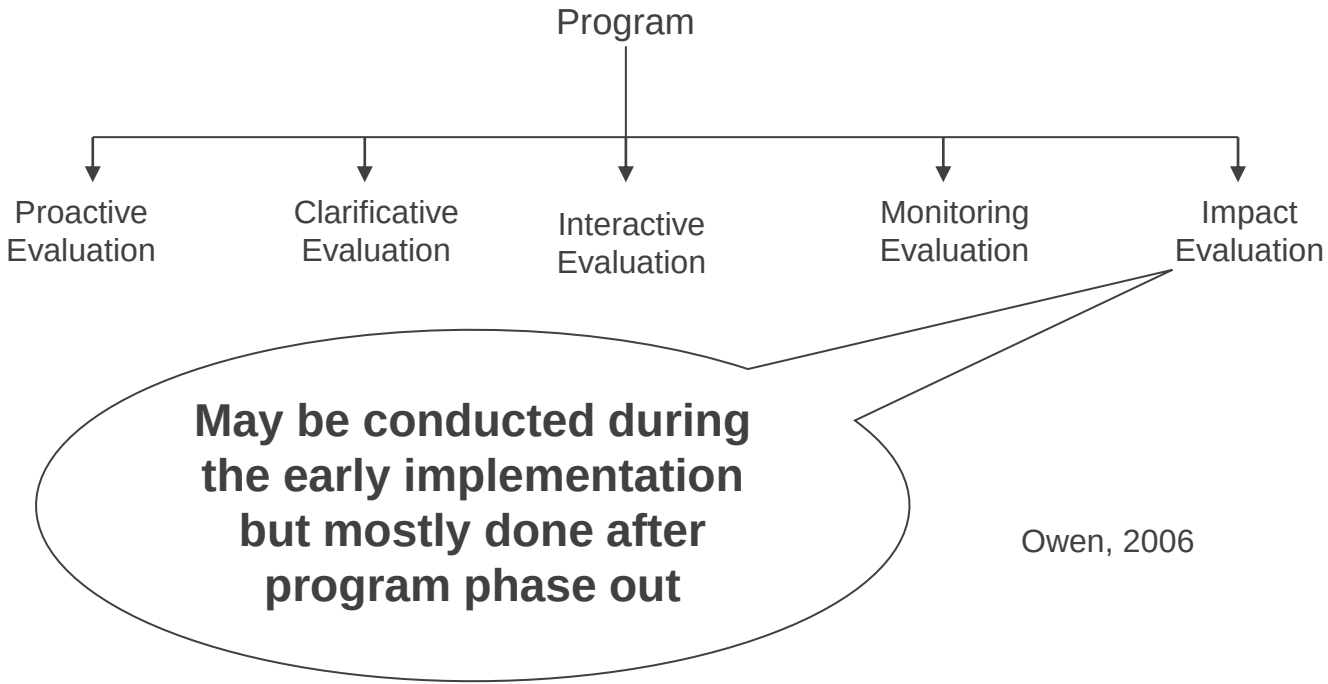
- Regular performance assessment of all program components. Changes are made based on the reports of each component.

3. Systems Analysis

Key questions

- Is the program reaching the target population?
- Is it being implemented in the ways specified?
- Is it effective?
- How much does it cost?
- What are the costs relative to its effectiveness?

Evaluation Forms and Approaches



Owen, 2006

IMPACT EVALUATION

- Determines the range and extent of outcomes of a program;
- Determines whether the program has been implemented as planned and how implementation has affected outcomes;
- Provides evidence to funders, senior managers and politicians about the extent to which resources allocated to a program have been spent wisely; and
- Informs decision about replication or extension of a program

Typical Issues

- Has the program been implemented as planned?
- Has the stated goals of the program been achieved?
- Have the needs of those served by the program been achieved?
- What are the unintended outcomes of the program?
- Does the implementation strategy lead to the intended outcomes?
- How do differences in implementation affect program outcomes?
- Is the program more effective for some participants than for others?
- Has the program been cost-effective?

Key Approaches

1. Objectives-based (Tyler, 1950)
    - Determines whether the stated goals or objectives of a program have been achieved.
2. Needs-based (ScIrven, 1972)
    - The program’s worth is judged accordingly on the basis of meeting the identified needs.
    - It is a must that the nature and extent of need be established as the basis for structuring an Impact evaluation

Key Approaches

3. Goal-free evaluation

- Program goals are ignored. The purpose is to examine all program effects, rather than limiting the investigation to outcomes which reflect program objectives. Leads to examining unintended outcomes.

4. Process-outcomes Studies

- Measures the degree of implementation of the program
- The outcomes of the program can be thought as the dependent variables and the implementation or process characteristics as the dependent variables

Key Approaches

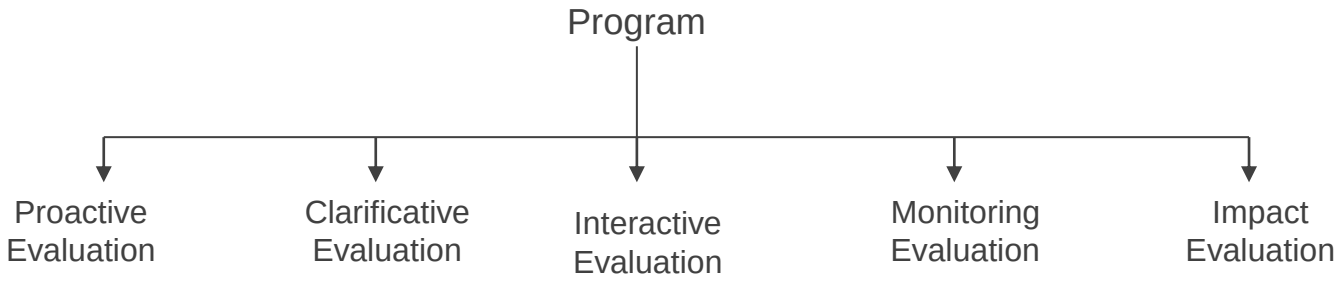
5. Realistic Evaluation

- Based on the principle that it is not possible to ascribe universal or generalizable cause and effect statements to any program
- The findings take into account the context which the program is implemented, and describe the processes or mechanisms that are responsible for the outcomes.

6. Performance Audit

- Analyzes the efficiency and effectiveness of the program
- Concentrates on program outcomes, and generally involve both financial and non-financial measures

Evaluation Forms and Approaches



Owen, 2006

How doe we design a program then?

Use program logic models and program theory to describe the program

Understand rationale for the program and key components ⇨ assist in evaluation.

Why does the program produce results?

Logic model (chain of program activities) and program theory (explains reasons why the program *should* work).

Program theory:

- *Implementation* - characterised by flow chart of program inputs, activities, outputs and outcomes.
- *Programmatic* - characterised by articulation of causal mechanisms.

Program models

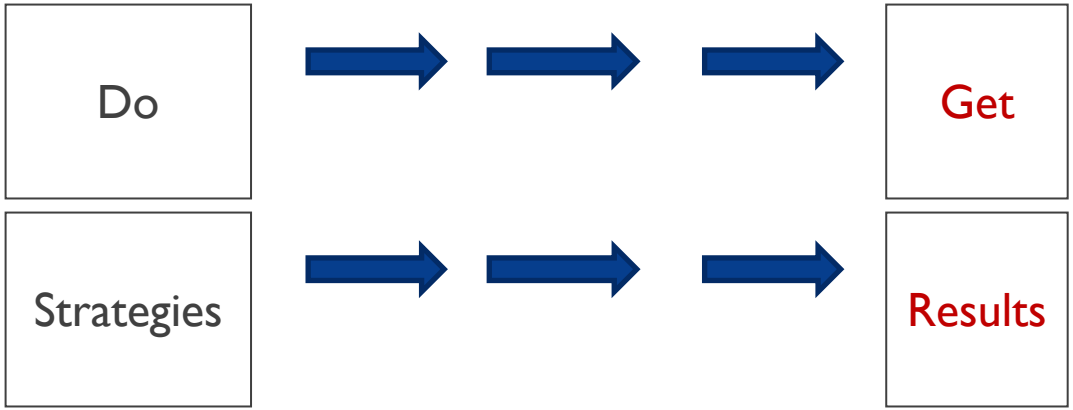
Visual displays of pathways from actions to results.

Two types... one logic

- **Theory of change**
- **Program logic**

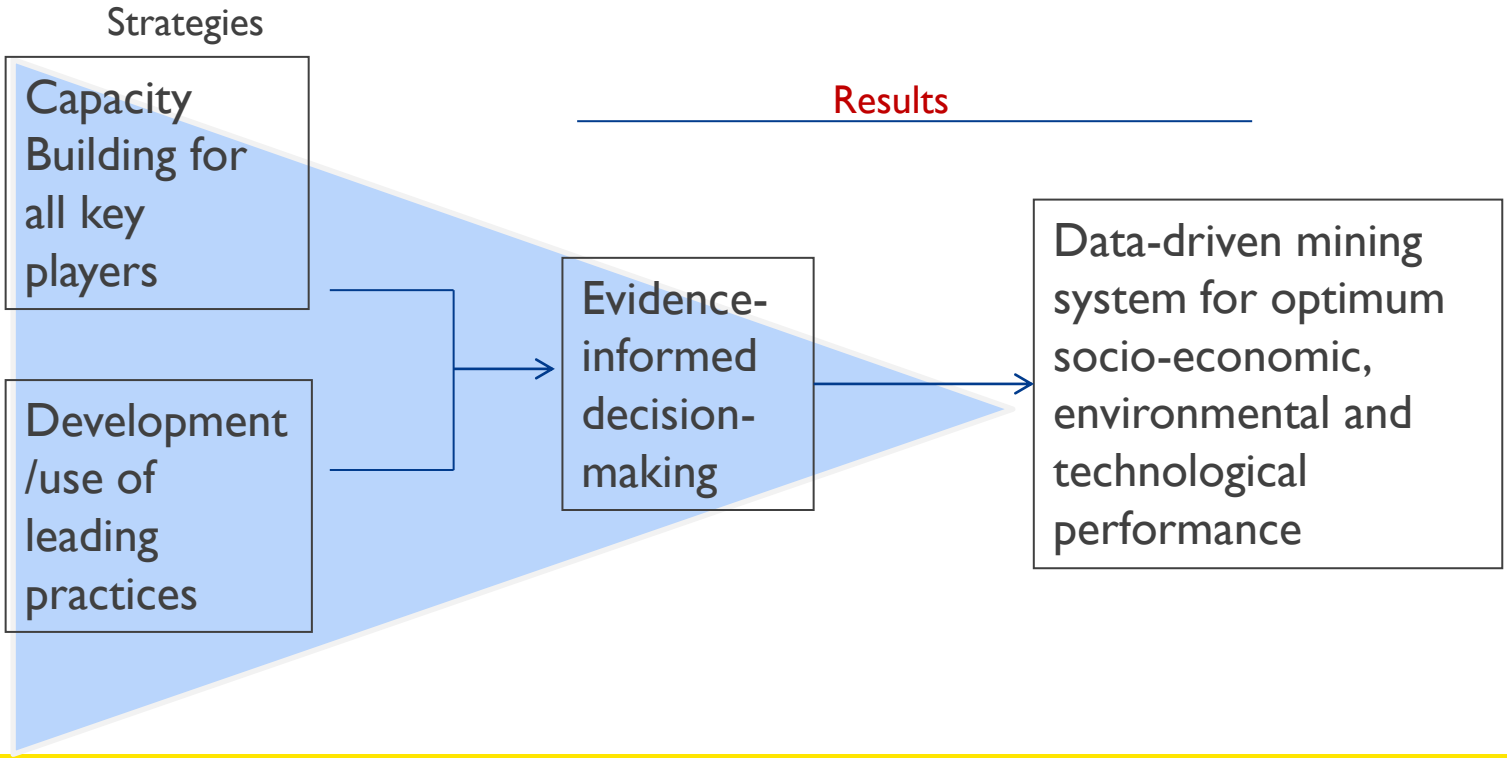
Two types...one logic

Theory of change model is a general representation of how you believe change will occur.



Theory of change model example

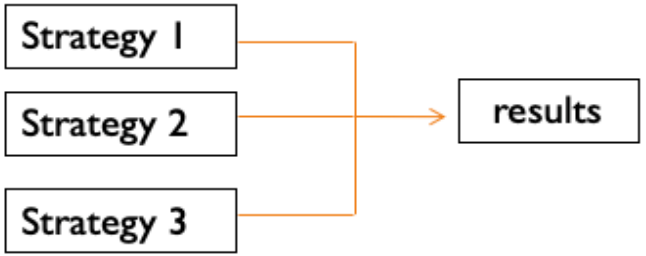
Research Program



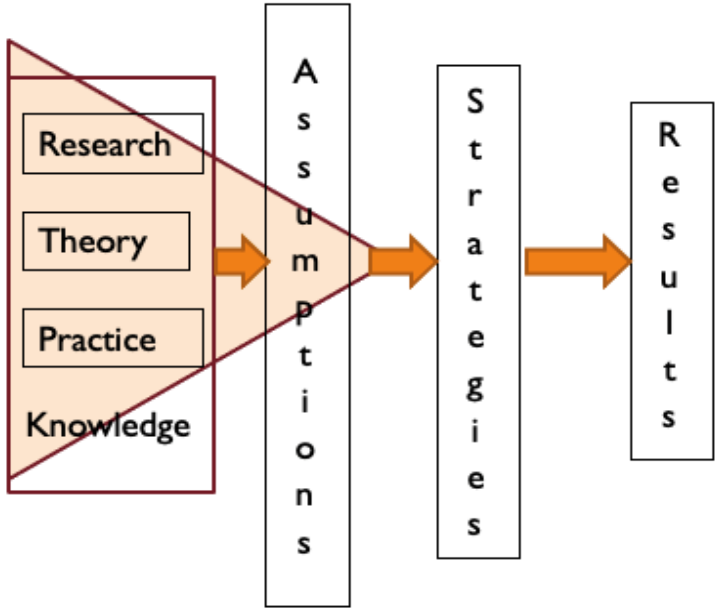
Building a theory of change model (ToC)

- Getting started.
- Preferences and styles.
- Evidence-based and plausible.
- Big picture

- Multiple strategies



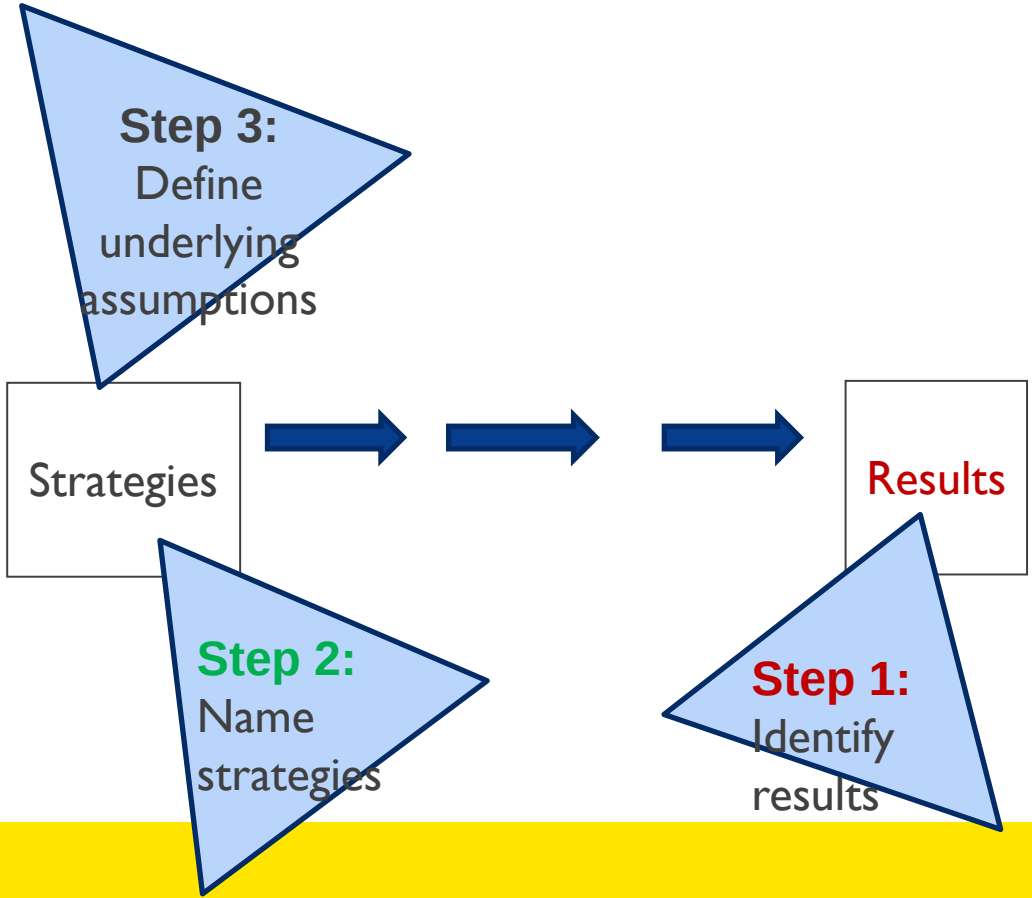
- Realistic models.
- Knowledge and assumptions



Assumptions

- Conditions or resources that your group believes are needed for the success of your program, and that you believe already exist and will not be problematic
- Condition that is necessary for your program’s success
- Helps identify key risks
- Assumptions that turn out to be incorrect can lead to mistakes

Constructing a theory of change model



Guiding questions for building a ToC

- Do stakeholders have shared understanding of the specified results?
- Have the assumptions been uncovered? Have assumptions been examined with regard to research, theory and practice as evidence for strategy choice?
- Did ‘toggling’ take place between strategies and results to ensure plausibility given assets and limitations?
- Have similar programs been reviewed to determine best practice strategies?
- Does the model show relationships between strategies and results?

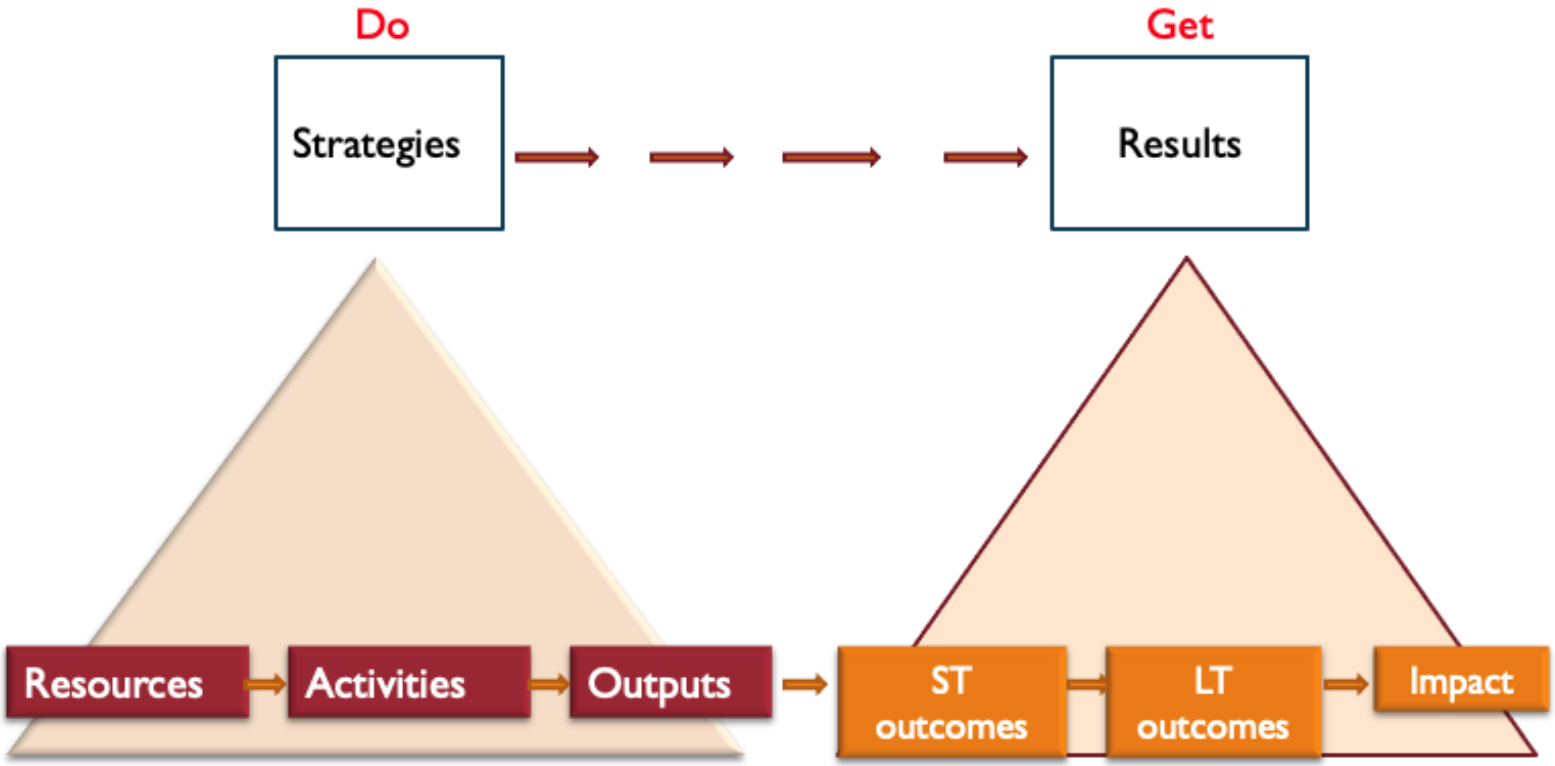
Program models

Visual displays of pathways from actions to results.

Two types... one logic

- **Theory of change**
- **Program logic**

From theory of change to program logic

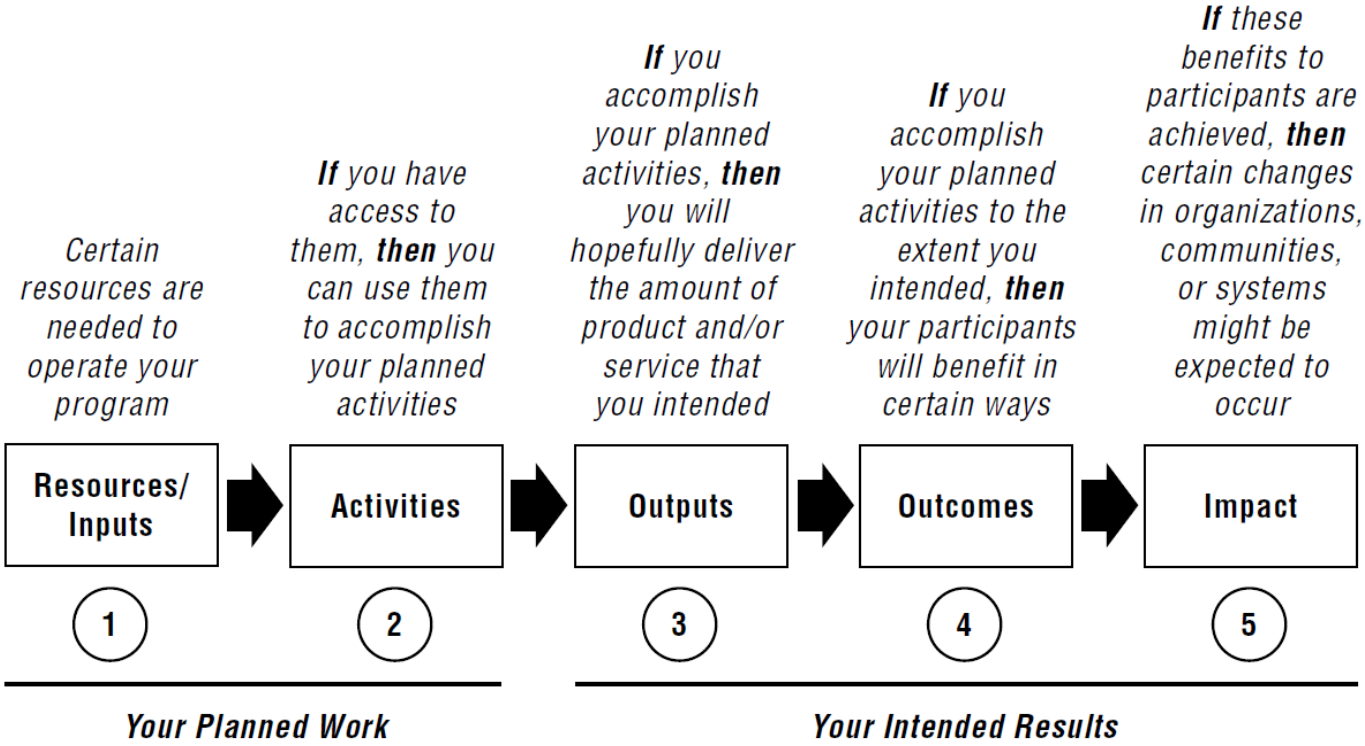


Program Logic template

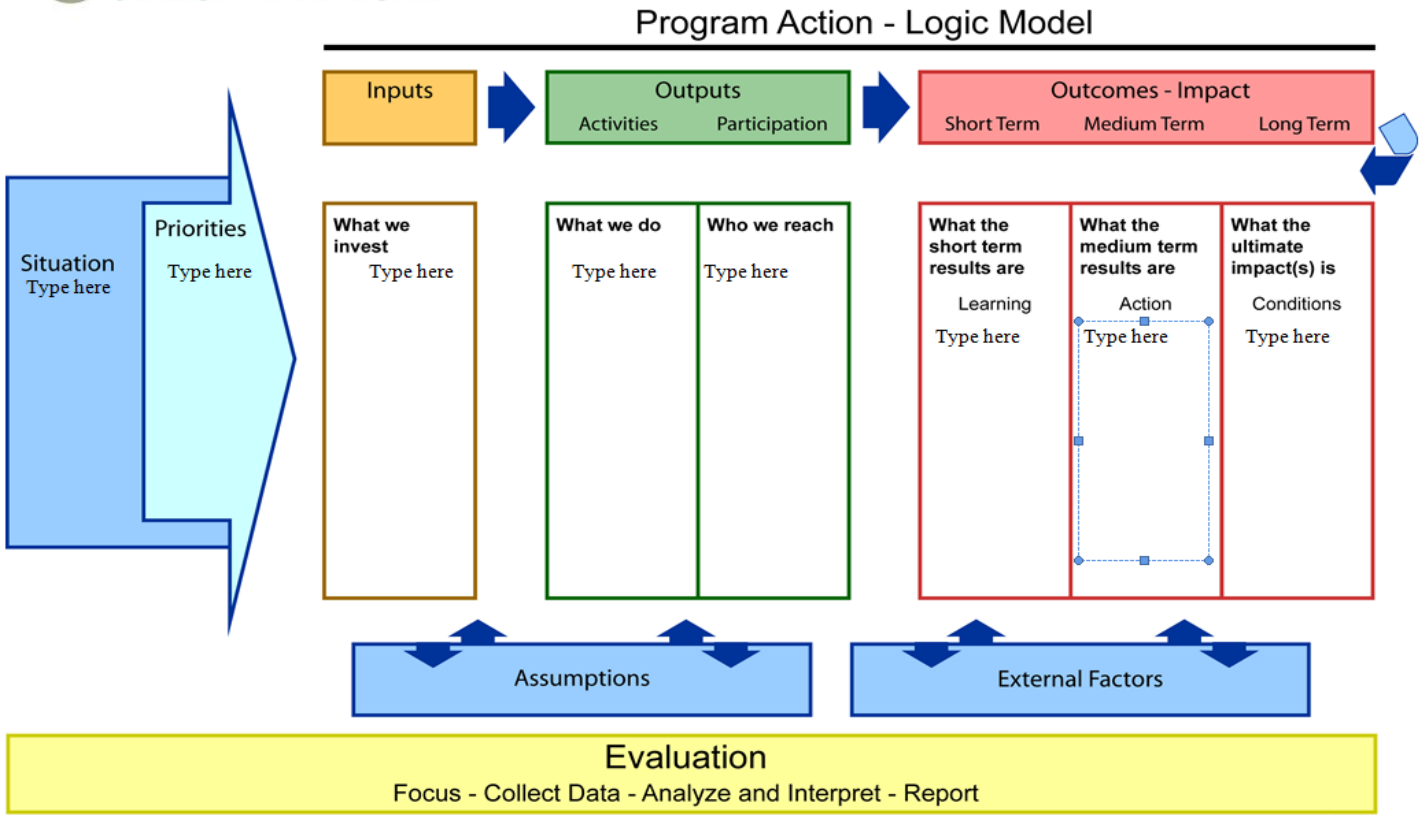
Assumptions	Resources/ inputs	Activities/ process	Immediate outputs	Short-term outcomes	Long-term impacts
The underlying assumptions that influence the program's design, implementation or goals.	Human, financial, organisational, and community resources needed to achieve the program's objectives	Things the program does with the resources to meet its objectives	Direct products of the program's activities; evidence that the program was actually implemented	Short-term (immediate) changes in participants knowledge, behaviour, skills, status, function (etc) as a result of the program	

Longer-term changes in participants' knowledge, behaviour, skills, status, level of functioning (etc) as a result of the program

How to read a program logic model (PLM)



with the permission of:
W.K. Kellogg Foundation (1998, 2004), *Logic Model Development Guide* p. 3



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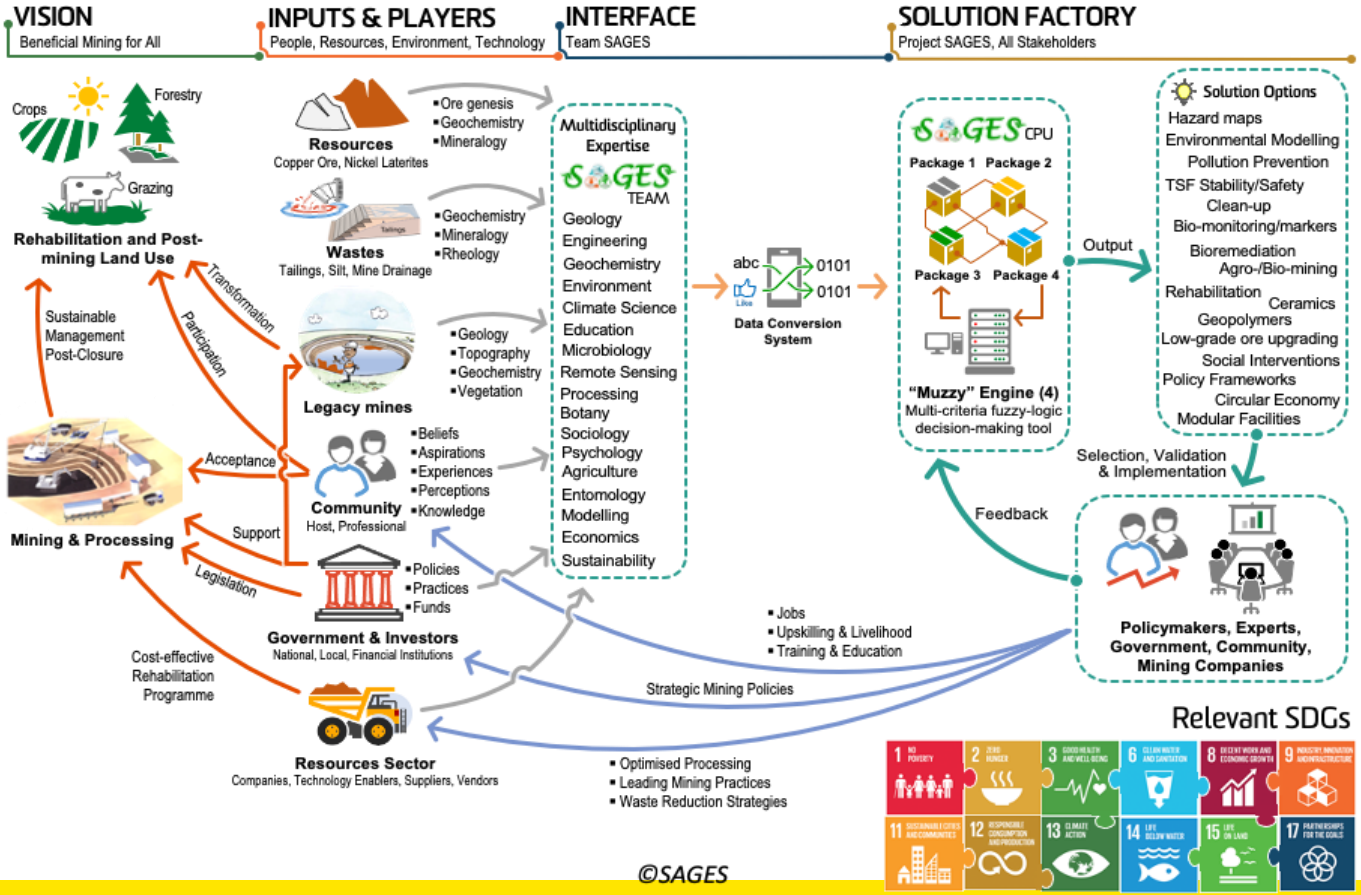
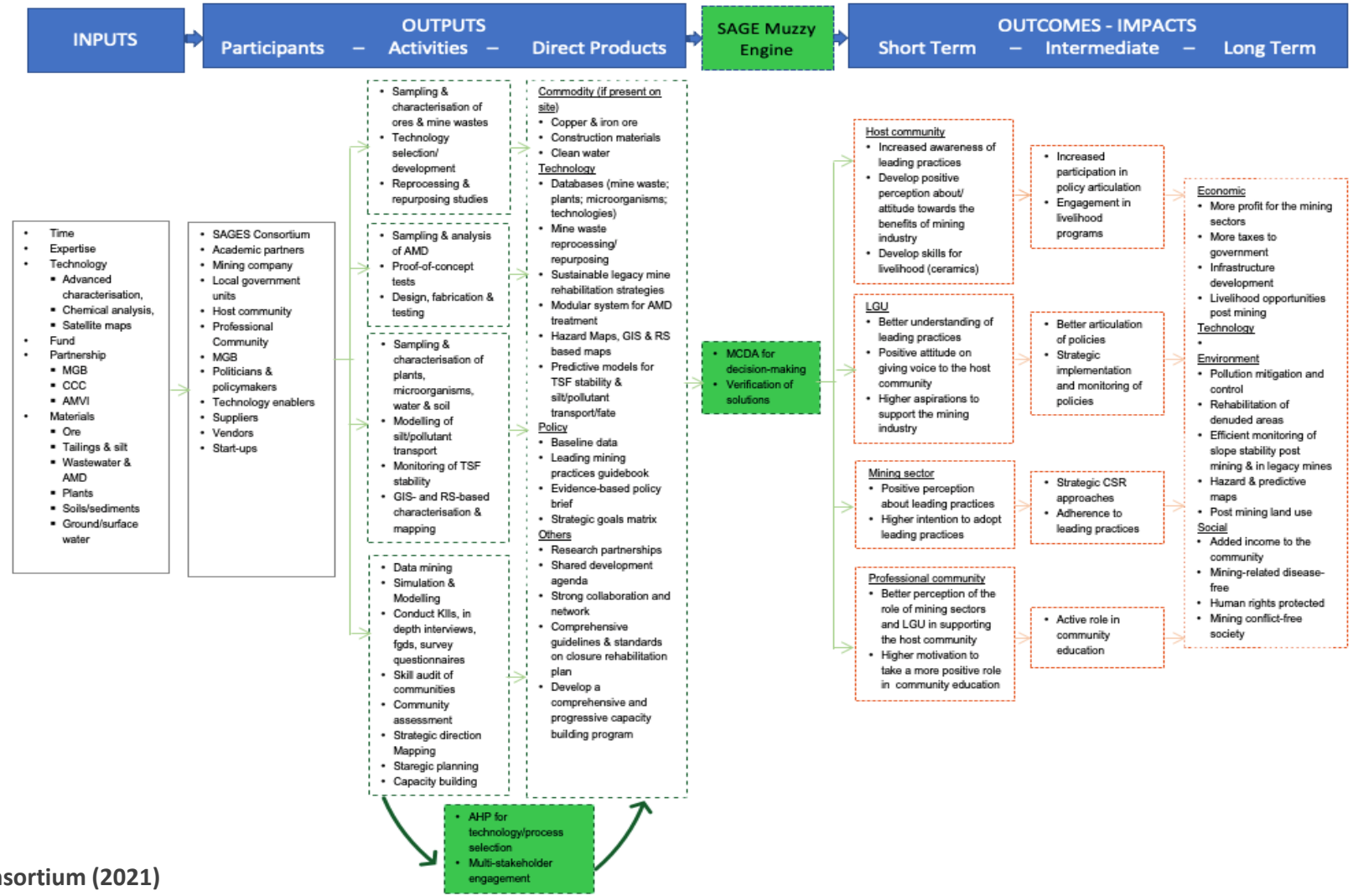
INPUTS	OUTPUTS			OUTCOMES - IMPACT		
	Participants	**Activities**	**Direct products**	**Short term**	**Intermediate**	**Long Term**
What we invest	*Who we reach*	*What we do*	*What we create*	*Results in terms of Leaning*	*Results in terms of changing Action*	*Results in terms of change to the Conditions*
Time Expertise Money Materials Equipment Space Technology Partners Etc	Existing contributors Clients Educators Decision-makers LGUs Others	Develop new process, products, resources Deliver content and services Conduct workshop, ,meetings Train Disseminate/ Work with media Etc	Plans Process Frameworks Templates Policy brief Etc	Increase in Awareness Knowledge Perception Attitudes Skills Interest Aspirations Motivations Intentions Skills Etc	Behaviour (participation) Practice Contributions Decision-making Policies Social action etc	Economic -specify Technology - specify Environment – specific Social – specify Etc.

Aim: Data-driven mining systems for optimum technological, environmental, economic and social performance





SAGES Consortium (2021)

Key elements in program logic model (PLM)

Resources are essential *inputs* for activities to occur e.g. human, financial, organisational, community or systems resources.

Activities are specific actions that make up the program.

Outputs are specific activities which will be produced or created.

All lead to…

Short, medium and long term outcomes are about changes, in participants or organisations as a result of the program.

Impact is the ultimate intended change.

What is the role of PLM to measure program:

- Effectiveness
- Fidelity and adaptation
- Efficiency
- Value for money
- Appropriateness
- Process?

Use the program logic to determine:

Focus of evaluation questions

Assumptions	Resources/ inputs	Activities/ processes	Participants	Immediate outputs	Short-term outcomes	Long-term outcomes
The underlying assumptions that influence the program's design, implementation or goals.	Human, financial, organisational and community resources needed to achieve the program's objectives.	Things the program does with the resources, to meet its objectives. Can be aligned to each of the participants.	All the people that are involved in designing, delivering and participating in the program. May also involve other stakeholders like program sponsors or parents.	Direct products of the program's activities; evidence that the program was actually implemented. Should be aligned to the activities.	Short-term changes in the participants' knowledge, behaviour, skills, status, function (etc), as a result of the program.	Longer-tern changes in participants' knowledge, behaviour, skills, status, function (etc), as a result of the program.

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Fidelity and adaptation

Use the program logic to determine:

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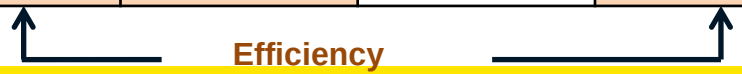

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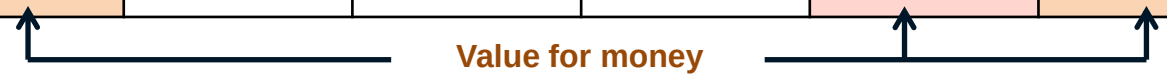

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Appropriateness

Use the program logic to determine:

Focus of evaluation questions

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Questions?

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