The International School on Research Impact Assessment

RESEARCH IMPACT ASSESSMENT PLAN — GUIDELINES

Version 2.0

A guide for completing the Research Impact Assessment (RIA) Plan

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Acknowledgements

Contents

Introduction

Based on evidence, well-established principles, and best practices, the *Research Impact Assessment (RIA) Plan – Guidelines* and its accompanying document, the *RIA Plan*, compose part of the Toolbox for the International School on Research Impact Assessment (ISRIA). The Toolbox, which is available in the Participants' Area on the ISRIA website, also includes a glossary, list of readings and resources, a summary matrix for the *RIA Plan*, and an implementation work plan. Of note is that the Toolbox is not intended to be a complete resource on how to assess research impact. Rather, the materials in the Toolbox should be used as decision aids along with other information and materials provided during ISRIA, including faculty presentations and group work activities.

The *Guidelines* aim to assist assessors (evaluators), programme managers, and other staff in developing and reviewing programme-specific plans for assessing research impact. For example, programme managers can use the *Guidelines* to describe the outline of a plan to assessors or to engage with assessors about the content and considerations within a specific assessment plan. Similarly, trained assessors can use the *Guidelines* to enhance the quality of their plans by including several evidence- and practice-based considerations during the development of the plans.

The *RIA Plan* is a document that describes how you propose to assess the programme. It also looks forward, taking into consideration how you intend to manage the implementation of the plan and how the assessment results will be communicated to inform decisions about programme improvement and optimisation of impact. Provided as a template, the *RIA Plan* guides the development of an assessment based on ISRIA's six building blocks and customised to the programme of interest.

While the template provides the structure of the *RIA Plan,* the *Guidelines* inform the user of the details that should be considered in each building block of the template and hence the *RIA Plan* itself. For each block, the *Guidelines* also provide tips to assist in putting the knowledge gained through the ISRIA plenary sessions into practice through the *RIA Plan*. The *RIA – Summary Matrix* (provided in Appendix 1 of the *RIA Plan* and in the Toolbox) provides a summary of how you propose to capture data and also serves as a communication tool that can be used with stakeholders. The *RIA – Implementation Work Plan* (provided in Appendix 2 of the *RIA Plan* and in the Toolbox) is a management tool designed to assist with considerations and communications about the available and/or required timelines, budget, and other resources needed for implementing and managing the RIA.

The tools in the Toolbox should be adapted to fit the specific context and assessment; as similar documents in the literature reflect, tools such as these can take several different forms and have different titles. The tools are also intended to be 'living documents', with the programme-specific content being updated as necessary to reflect the complexities of the programme environment. Any such updates that are made during the planning process should be documented in different versions of the *RIA Plan.* This informs the assessment stakeholders of the changes and enables them to reflect on the different iterations of the *RIA Plan*.

Developing an *RIA Plan* requires critical thinking skills and a needs-based approach that reflects the purpose(s) of the assessment. The *Guidelines* are therefore designed as a tool to complement these types of skills and not serve as a replacement for them.

Developing a Research Impact Assessment Plan

Background

The template for the *RIA Plan* is general in nature so that it can be easily tailored to a broad range of contexts and to a variety of assessment stakeholders, such as programme staff, funding decision makers, and others affected by the programme. (Note: the word 'programme' is used throughout the *Guidelines* and *RIA Plan* to refer to the entity that is being assessed regardless of the level of analysis.) It can be applied to different levels of analysis, from small projects to multi-site initiatives, and can be used when developing an assessment for a single point in the programme life cycle or for assessments that will be applied at multiple points throughout a programme. By taking these and other factors into account, the *RIA Plan* becomes tailored to a particular programme by reflecting the programme context, the purpose of the assessment, the assessment questions being asked by stakeholders, and additional stakeholder requirements such as the time frame for the assessment.

The *RIA Plan* is intended to be a 'living document' that can be updated at any point in the life cycle of the programme and even within the assessment time frame itself. This enables programme revisions, alterations in the programme environment, advancements in stakeholder needs, and other changes to be reflected within the *RIA Plan*.

When developing and updating the *RIA Plan*, the assessor may find it beneficial to track different iterations of the *RIA Plan* using a document history table that outlines the date, version, author(s) and a description of the changes that were made (see the Document History table in the *RIA Plan*). Also, once the template for the *RIA Plan* has been filled out, the assessor can delete the rows in each step of the template that contain guidance about what to describe, identify, etc., if desired.

Glossary

The *Guidelines* contain several key terms that are defined in the *Glossary* within ISRIA's Toolbox. For convenience, some of the terms frequently used in the *Guidelines* are provided below.

Impact: Positive and negative, primary and secondary long-term effects produced by an intervention, directly or indirectly, intended or unintended. Note – specific frameworks and tools describe impact differently; e.g., CAHS equates impact to outputs and outcomes whereas logic models equate impact to outcomes and/or to long term outcomes.[1]

Impact assessment: Assesses the changes that can be [linked] to a particular intervention, such as a project, programme or policy, both the intended ones, as well as ideally the unintended ones. Many

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[1] Organisation for Economic Co-operation and Development, Development Assistance Committee (OECD-DAC). 2002. *Glossary of Key Terms in Evaluation and Results Based Management*. http://www.oecd.org/development/peer-reviews/2754804.pdf

[impacts of] programmes are influenced by external factors, including other national, regional, and local programmes and policies, as well as economic or environmental conditions. Thus, the [impacts] observed typically reflect a combination of influences. Correspondingly, the central challenge in carrying out effective impact evaluations is to identify the causal relationship between the project, programme, or policy and [subsequent impacts].[2,3,4]

Outcome: Changes or benefits resulting from activities and outputs. Short-term outcomes produce changes in learning, knowledge, attitude, skills or understanding. Intermediate outcomes generate changes in behavior, practice or decisions. Long-term outcomes produce changes in condition.[5]

Output: The products or results of the process. These might include, for example, how many people a project has affected, their ages and ethnic groups or the number of meetings held and the ways in which the findings of the project are disseminated.[6]

Programme theory: A description of a programme that reflects how and why the set of programme activities are intended to lead to outputs and immediate, intermediate and longer term effects over a specified period.[7]

Research and experimental development (R&D): Creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. R&D covers three activities: "basic research", "applied research", and "experimental development".[8]

Characteristics of a Quality RIA Plan

RIA Plans of higher quality have several characteristics, including:

- An accurate, concise, and coherent description of the programme that provides stakeholders with a sufficient understanding.
- An explanation of the assessment work that is being planned and how that work will be accomplished.
- Consideration of, and consistency with, the programme's content, the programme's stage of development, stakeholders' needs, and the assessment purpose.

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[2] ISRIA (2014) (operational definition, see ISRIA Glossary)

[3] World Bank. 2011. *Impact evaluation in practice*. https://openknowledge.worldbank.org/handle/10986/2550

[4] Government Accountability Office (GAO). 2012. *Designing evaluation*. (GAO-12-208G). http://www.gao.gov/assets/590/588146.pdf

[5] Environmental Protection Agency (EPA). 2007. *Program evaluation glossary*. Office of the Administrator, Office of Policy, Office of Strategic Environmental Management, Evaluation Support Division. http://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=Program%20Evaluation%20Glossary

[6] World Health Organization (WHO). 2013. *Health impact assessment: Glossary of terms used*. http://www.who.int/hia/about/glos/en/index.html

[7] United Nations Educational, Scientific and Cultural Organization (UNESCO). 2009*. On target: A guide for monitoring and evaluation of community-based projects*. http://unesdoc.unesco.org/images/0018/001862/186231e.pdf

[8] OECD (2002) Frascati Manual: proposed standard practice for surveys on research and experimental development, 6th edition. www.oecd.org/sti/frascatimanual

- Identification and prioritisation of assessment questions that can be answered with the proposed indicators and associated data collection and analysis methods.
- Proposed data collection and analysis methods that are feasible and cost effective relative to the assessment timeline, budget, and other resources.
- A logical flow with linkages between the assessment elements (i.e., the assessment purpose, the assessment questions, and indicators of success) and an assessment design, methods, and analysis that best fit the assessment purpose.
- Use of assessment designs as well as data collection and analysis techniques that are based on generally accepted scientific practice.
- An outline or description of the expected reports and communication products that match the purpose of the assessment and are relevant in answering stakeholders' questions.
- A writing style that is clear, concise, and understandable to different stakeholder groups.
- Documented inclusion or consideration of known assessment practices in similar programmes.
- Documented quality assurance procedures that will be used to establish confidence in the findings, including if the *RIA Plan* will be peer reviewed. These procedures should cover data collection, analysis, and reporting.
- Adherence to acceptable professional evaluation and ethical standards.

Assessment Purpose

It is essential that the *RIA Plan* be based on the main purpose(s) of assessment according to the needs of the primary assessment stakeholder(s). In general, there are four main purposes for assessing research impact[9]:

- **Accountability:** To show that money and other resources have been used efficiently and effectively, and to hold researchers to account.
- **Advocacy:** To demonstrate the benefits of supporting research, enhance understanding of research and its processes among policymakers and the public, and make the case for policy and practice change.
- **Allocation:** To determine where best to allocate funds in the future, making the best use possible of a limited funding pot.
- **Analysis and Learning:** To understand how and why research is effective and how it can be better supported (or allocated), feeding into research strategy and decision making by providing a stronger evidence base.

Building Blocks in the RIA Plan

In the template, the *RIA Plan* is divided into six building blocks that serve as the foundational process for conducting research impact assessments (Table 1). Several of the blocks are further divided into steps that highlight the essential components within each respective block (Table 2), with the *RIA Plan* being composed of 15 steps. When developing an *RIA Plan*, it is recommended that a step-by-step approach be used that begins with the first step in Block 1 and then progresses through the remaining blocks and

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[9] RAND Europe, 2013, Measuring research: A guide to research evaluation frameworks and tools.

steps. However, it is not uncommon for insights gained during the development of one part of the *RIA Plan* to be relevant to a previous block(s) or step(s); this may lead to revisions of the earlier block(s) or step(s) to ensure adequate consistency, flow, and linkages throughout the entire *RIA Plan*. It is therefore important to use an iterative approach (i.e., going back and forth between the blocks as necessary) when developing the *RIA Plan* as opposed to a strictly sequential or linear approach.

TABLE 1: The Six Building Blocks in the Research Impact Assessment Plan

Building Blocks	*Description*
1: Understand the Context	• Describes the programme to be assessed, including the programme context, unit of analysis, and the programme stage of development and time frame. • Identifies the potential impact framework(s) that may suit the programme context. • Describes the desired characteristics of the assessment.
2: Identify the Assessment Purpose	• Identifies the stakeholders in need of the research impact assessment (RIA) and the assessment need(s) of each stakeholder. • Specifies the assessment purpose(s) in relation to the needs of the stakeholder(s) and develops assessment questions in relation to these needs, the assessment purpose(s), and the impacts of interest to the stakeholders.
3: Measure: Define Indicators of Success	• Describes the programme theory and how the programme is understood to work. • Identifies key indicators of success for the assessment questions and selects a balanced set of key indicators. • Determines what programme 'success' looks like.
4: Develop the Design, Methods and Data Collection	• Describes the assessment design that will be used to answer each assessment question. • Identifies the data collection method(s) for each assessment question, including: the method(s) and data source(s); the person(s) responsible for data collection; and the frequency or timeline for data collection. • Describes the data analysis methods and the plans for data management.
5: Communicate and Use Findings	• Identifies and describes the reporting strategies that will be used to communicate the RIA findings to the target audience(s) as well as encourage and support the audience(s) in using the findings.
6: Manage the Assessment	• Describes a detailed work plan for the assessment that indicates how the assessment will be implemented and managed, including considerations about budget, other resources, and timelines.

TABLE 2: Steps in the Building Blocks

Building Blocks	*Steps*
1: Understand the Context	1.1 Programme and Assessment Context 1.2 Framework(s) 1.3 Programme Stage, Time Frame, and Desired Characteristics of the Assessment
2: Identify the Assessment Purpose	2.1 Which Stakeholders Want the Impact Assessment 2.2 Assessment Purpose(s) for Each Stakeholder 2.3 Assessment Questions
3: Measure: Define Indicators of Success	3.1 Programme Theory 3.2 Indicators of Success
4: Develop the Design, Methods and Data Collection	4.1 Assessment Design 4.2 Methods 4.3 Data Collection 4.4 Analysis 4.5 Data Management
5: Communicate and Use Findings	5.1 Communicate Findings 5.2 Use Findings
6: Manage the Assessment	

Considerations for Each Block and Step

There are several important elements to take into consideration when completing each block and step in the template for the *RIA Plan* and hence when developing a comprehensive *RIA Plan*. For each block and step, the following provides prompts for these considerations by highlighting the purpose of the block and/or step, the minimal information that is required for a quality *RIA Plan*, the potential sources of information, and practical tips.

Block and Step	*Considerations*
COVER PAGE	
	Purpose: Provide important administrative details
	Information Required in RIA Plan:
	- The name of the organisation that is responsible for the programme that is to be assessed - The name of the programme that is the focus of the assessment - The current version of the plan (e.g., V1.0) - The date the version of the plan was completed - The name(s), position title(s), organisation(s),and contact information of the author(s) of the plan - The name(s), position title(s), and organisation(s) of the stakeholders who requested the RIA
	Tip: Use the back of the cover page as a sign-off sheet
BLOCK 1: Understand the Context	
1.1 Programme and Assessment Context	**Purpose:** Briefly describe the programme, including its context, and the unit of analysis
	Information Required in RIA Plan:
	- Background information that highlights the past and current need for the programme, including supporting evidence (e.g., research studies, government reports, results of past assessments, etc.) - I.e., why was the programme developed? - A description of the baseline, especially if a pre-post design is to be used (see Methods and Data Sources in Block 4, 4.2 Methods) - The relevance of the programme - E.g., alignment to the organisation's strategic plan or government priorities - The goal(s) and objectives of the programme

Block and Step	Considerations
	- The programme's scope and complexity - The programme's unit of analysis - Funding and funding sources - The programme time frame - The governance structure of the programme - When there are partners, describe the roles and responsibilities of each partner in relation to both the programme and the assessment - A list of the key programme stakeholders, including a brief description of their roles and responsibilities in relation to the programme - The target population(s) that are relevant to programme delivery - I.e., a description (e.g., geographical area, age, etc.) of the group(s) that the programme intends to influence or provide benefits to - The population(s) that will be affected by the programme (i.e. the beneficiaries of the programme) **Sources:** Strategic plan; operational plan; vision and mission statements; programme plans and guides; documented assessment requirements; previously completed assessments; and the programme theory. **Tips:** - Be specific, clear, and concise when describing the programme goal(s) and objectives - Describe how the programme will be working with which major partners to benefit what specific stakeholder groups - For the unit of analysis, consider the following levels and think about the level at which the assessment findings will be used: - Research system - Field/area of research - Organisation/institution - Department or programme portfolio - Research group - Research project - Individual - In general, research impact assessments are seldom done at levels smaller than the research group; however, this depends on the type of method selected (e.g., case studies can be done at the project level)

Block and Step	Considerations
1.2 Framework(s)	**Purpose:** Identify a potential framework(s) that suits the programme context, if applicable **Information Required in RIA Plan:** • Name and description of the framework, including a citation(s) for the framework when possible • A brief rationale for selecting the framework or, alternatively, for working without a framework o I.e., what were the primary reasons for selecting the framework or for not having a framework **Sources:** Literature (e.g., evaluation reports for similar programmes). **Tips:** • Identify the framework(s) used by similar programmes and/or by the primary assessment stakeholders • When possible, endeavour to use or echo a common framework with the key stakeholders • If proceeding without a framework, ensure that the change(s) that the programme is/was intended to make are clearly described (see Block 3, 3.1 Programme Theory)

1.3 Programme Stage, Time Frame, and Desired Characteristics of the Assessment	**Programme Stage and Time Frame**
	Purpose: Describe the programme's stage of development and time frame
	
	Information Required in RIA Plan:
	• The stage of development that the programme is currently in and the time frame:
	   o **Early** (the programme is currently being developed or was recently developed and implemented, typically with a time frame of less than 3 years)
	   o **Stable** (the programme has been operational for several years, typically with a time frame between 3–5 years)
	   o **Mature** (the programme is well established and has been operational for a prolonged time, typically with a time frame of more than 5 years)
	
	Sources: Programme plans and programme guides.

Block and Step	Considerations

	Tips:
	
	• The stage of development is an important consideration as programmes tend to be dynamic and evolve over time. Therefore, consider including a plan to collect of baseline information either before or early in the programme life cycle while also thinking about more distal impacts.
	• Reflect on the programme's stage of development when considering the type of assessment that is feasible (e.g., a summative evaluation cannot be used to assess a recently developed programme)
	• Please note that the time frame is approximate depending on the programme duration and purpose of the assessment
	
	Desired Characteristics of the Assessment
	Purpose: Identify the desired characteristics that are required for the assessment, taking into consideration the programme's stage of development
	
	Information Required in RIA Plan:
	• The desired characteristics of the programme, including:
	    ○ If it is an assessment of a single programme or a comparative assessment of different programmes
	    ○ The type of assessment (see *Glossary*)
	        ▪ Process
	        ▪ Implementation
	        ▪ Formative
	        ▪ Summative
	    ○ The nature of assessment in terms of being quantitative, qualitative or mixed (both
	    ○ If the assessment will be prospective (ex-ante) or retrospective (ex-post)
	    ○ If the programme will be assessed at a single point in time (snap shot) or over multiple years (longitudinal)
	    ○ The level of evidence (i.e., rigour or defensibility) that is required (e.g., high to low)
	    ○ The cost burden of the assessment, including costs and the assessor's time
	    ○ The time constraints for completion
	
	Sources: Programme plans; programme guides; previous assessments; assessment requirements; and stakeholder communications.

Block and Step	Considerations
	Tips: • Typically, more can be done during the assessment if data has been collected previously. • Impact assessment implies that there has been adequate time for the impacts to have occurred. However, the challenge of relating the programme activities and outputs to the impacts progressively increases with the passage of time (attribution and contribution issues; see *Glossary*). • Notwithstanding the above, waiting a prolonged time (e.g., 10 to 20+ years) to assess impacts can offer interesting insights for policy. • Timeline requirements for the assessment as well as budget and other resource constraints frequently have implications on the type of assessment that can be undertaken and often necessitate tradeoffs between quality, cost and time. Resources and timelines should therefore be taken into consideration when identifying the type of assessment. Early consideration of these factors also helps to focus and scope the assessment in Block 2.
BLOCK 2: Identify the Assessment Purpose	

2.1 Which Stakeholders Want the Impact Assessment	**Purpose:** Identify and describe the stakeholders (i.e., people and/or organisations) who will be the primary users of the assessment and describe the need(s) that each of these stakeholders has for the RIA (i.e., who needs to know what and why?)
	
	Information Required in RIA Plan:
	• The level of influence that each primary assessment stakeholder has on the programme
	• The frequency for RIA required by each primary assessment stakeholder and/or the timelines or points in the programme cycle when the information is needed, for example:
	  ○ Frequency: annually, every other year, every 3 to 5 years, etc.
	  ○ Timelines: at time of admission, discharge and/or follow-up, etc.
	
	Sources: Stakeholder analysis; assessment requirements; and meetings with senior managers or programme staff.
	
	Tips:
	• Identify the subset of key programme stakeholders (see Block 1, 1.1

Block and Step	Considerations
	Programme and Assessment Context) who also represent primary assessment stakeholders • The primary users of the assessment often include: o Funders o Donors o Academic institutions o Researchers o Health organisations o Industry o Programme managers • It may be necessary to prioritise the primary assessment stakeholders if there are multiple stakeholders with different information needs. • Prioritisation can be done in several ways, including but not limited to the order of stakeholder importance, influence and/or closeness to the programme as well as through stakeholder mapping processes (for examples of approaches, see: http://www.brainmates.com.au/brainrants/some-practical-tools-for-stakeholder-management)
2.2 Assessment Purpose(s) for Each Stakeholder	**Purpose:** Highlight the main purpose(s) for the RIA based on how the primary assessment stakeholders intend to use the assessment results **Information Required in RIA Plan:** • The main purpose(s) for the assessment (i.e., accountability, advocacy, allocation, and/or analysis and learning)(see Assessment Purpose in the *Guidelines*) • Any secondary or additional purposes for the assessment • A rationale for the identified purpose(s) that reflects how the primary assessment stakeholders intend to use the results **Sources:** Programme documents; governance documents; assessment requirements; and communication with stakeholders. **Tips:** • An impact assessment can cover multiple purposes but multiple purposes, as addressed through a combined or comprehensive approach, are usually more costly and difficult. Therefore, it is important to consider the budget, resources and timeline constraints of the proposed assessment when identifying the purpose(s) of the RIA

Block and Step	Considerations
	with the primary assessment stakeholders. • Complete the relevant section in the *RIA Plan – Summary Matrix* (see Appendix 1 in the *Guidelines* and *RIA Plan*) **Research Impact Assessment Plan – Summary Matrix** *(see table below)*

Research Impact Assessment Plan – Summary Matrix								
BLOCK 1 Programme:								
BLOCK 2 Purpose of Assessment:								
BLOCK 2		BLOCK 3	BLOCK 4					BLOCK 5
General Assessment Questions	Specific Assessment Questions	Indicators	Methods	Data Sources	Frequency or Timeline	Person Responsible For Data Collection	Baseline	Target Audience(s)

Block and Step	Considerations

2.3 Assessment Questions	**General Assessment Questions**
	Purpose: Identify the general (i.e. broad, overarching) assessment questions that the primary assessment stakeholders need answered in relation to the main purpose(s) of the assessment
	
	Information Required in RIA Plan:
	• General assessment questions in order of priority
	
	Sources: Programme documentation; stakeholder needs assessment; stakeholder communications; and assessment requirements.
	
	Tips:
	• The assessment questions need to be responsive to the identified purpose(s) for the assessment
	• Depending on the availability of resources, it may be necessary to prioritise the assessment questions and not respond to all the assessment questions at one time
	• One group of general assessment questions are those that relate to the impacts that have occurred or are anticipated to occur, such as:
	   ○ What impacts have occurred?
	   ○ What application, adoption, or progression toward social or economic impacts has occurred?
	   ○ What health/other sector, social, or economic impacts have occurred?
	• Other typical general assessment questions include:
	   ○ How do observed impacts compare to what was expected (a

Block and Step	Considerations

	target, standard, etc.)?
	   ○ What impact can be attributed to the programme?
	   ○ How do the programme impacts compare with similar programmes?
	   ○ How might impact be improved?
	
	• The assessment questions can be informed by the impact categories of interest to the primary assessment stakeholders, for example:
	   ○ **Research Impacts**: Areas of focus where the programme hopes to affect how the research is done
	       ▪ E.g., increased research capacity, new research tools, more collaboration with practitioners, etc.
	   ○ **Application/Adoption Impacts**: Specific affects commonly coming after the research impacts and before the health, social, or economic impacts
	       ▪ E.g., used in the development of a new product or to affect change in policy, clinical practice, etc.
	   ○ **Health, Social or Economic Impacts**: Areas beyond the research community that the programme hopes to affect
	       ▪ E.g., health status or economic development
	• Complete the relevant section in the *RIA Plan – Summary Matrix* (see Appendix 1 in the *Guidelines* and *RIA Plan*)
	
	Specific Assessment Questions
	Purpose: Identify a set of specific assessment questions for each general assessment question or, depending on resource availability, a shortlist of prioritised general assessment questions
	
	Information Required in RIA Plan:
	• For each general assessment question, specific assessment questions that align to:
	   ○ The framework(s) being used (see Block 1, 1.2 Framework[s]);
	   ○ The impacts of interest to the primary assessment stakeholders, where applicable (see General Assessment Questions in Block 2, 2.3 Assessment Questions); and
	   ○ The programme theory (see Block 3, 3.1 Programme Theory)
	• Specific assessment questions that relate to any remaining prioritised general assessment questions (e.g., *How do we compare?*)

Block and Step	Considerations

	Sources: Programme documentation; stakeholder communications; assessment requirements; and the programme theory.
	
	Tips:
	
	• When answered, the specific assessment questions fulfill the main purpose(s) of the assessment
	• Existing or requested indicators can be used to identify specific assessment questions (e.g., Has X happened?)
	• If using a programme logic model, some specific assessment questions can often be generated by asking 'if…then' questions when moving from outputs to a sequence of impacts
	• Examples of specific assessment questions that relate to **research impacts**:
	   ○ Has high-quality research been done?
	   ○ Has the programme advanced knowledge and published?
	   ○ Have new research tools, techniques, facilities been developed or built?
	   ○ Has the programme trained graduate students, workforce?
	   ○ Have new collaborations or communities of practice been formed?
	   ○ How vital is the research environment?
	   ○ Has the research informed or changed the research agenda?
	   ○ Is the research esteemed by peers (e.g., awards)?
	• Examples of specific assessment questions that relate to **application/adoption impacts**:
	   ○ Have desired changes in knowledge, attitudes, behaviours occurred?
	   ○ Has funding been leveraged?
	   ○ Has the programme contributed or added to the knowledge base, information production/collection, storage, utilisation?
	   ○ Have our research results informed industry R&D decisions, product development, commercialisation?
	   ○ Have the research findings informed government policy, programmes?
	   ○ Have the research findings informed public opinion, advocacy?
	   ○ Have the research findings influenced sector-specific changes (e.g., changes in clinical practice)?

Block and Step	Considerations

	• Examples of specific assessment questions related to **health, social, and economic impacts**:
	    o Have our research results helped improve health status?
	    o Have our research results helped increase sales, jobs, lower costs, etc.?
	 • Complete the relevant section in the *RIA Plan – Summary Matrix* to ensure that the specific assessment questions align with the general assessment questions (see Appendix 1 in the *Guidelines* and *RIA Plan*)

BLOCK 3: Measure: Define Indicators of Success

Block and Step	Considerations
3.1 Programme Theory	**Purpose:** Describe the programme logic and anticipated key strategies/actions that the programme has for achieving its impacts **Information Required in RIA Plan:** • A narrative about how the programme is understood to contribute to the intended impacts through its activities, which could be articulated in the form of a narrative (e.g., theory of change statement) or as a table or figure (e.g., programme logic model, strategy map, etc.) • Clearly explain the linkages between the inputs, activities, outputs, reach, and impacts • External factors that influence whether the impacts will be achieved **Sources:** Programme documentation and stakeholder communication. **Tips:** • Use a series of 'if…then' questions to develop the programme theory (e.g., if these inputs are provided, then the programme can complete those activities, etc.) • When developing the programme theory, note any critical assumptions that could jeopardise the programme's success as well as any critical success factors. If measured, these factors could provide significant insight into the assessment results. • The programme theory should be written so that a reader who is unfamiliar with the programme will understand it • If a specific framework (see Block 1, 1.2 Framework[s]) is not being used, clearly articulate what the programme intends to change

3.2 Indicators of Success	**Purpose:** Identify indicators for each specific question, ensuring that the indicators relate to the framework and the needs of the primary assessment stakeholders **Information Required in RIA Plan:** • A smaller balanced set of key (most important) indicators that will answer the priority assessment questions while balancing incentives and perspectives o 'Balanced' means having a set of indicators across the programme in order to link the impacts to the activities and to decrease the perverse effects that can accompany measurement • The key indicators must be measurable, for example: o Number o Percent change o State of being as measured by an expert panel or survey o Change in perception based on key informant interviews, etc. **Sources:** Programme theory; existing indicators or scorecard (internal and external); previous assessments; organisational reports; and programme management reports. **Tips:** • To identify a balanced set of key indicators: o Consider the availability of the data o Link the indicators to the desired impacts and strive to link at least one indicator to the organisational goals o Select indicators that communicate well (i.e., indicators that are simple to report and understandable so as to enhance the stakeholders' understanding of how the programme is doing) o Ensure that the benefits of measuring the indicator are greater than the costs o Avoid indicators that are vague, vulnerable to distortion, or that may lead to inappropriate behavior (i.e., perverse effects); if unavoidable, offset these indicators with other indicators in the set • The balanced set of indicators needs to be capable of telling a brief, convincing impact story as well as driving the assessment the right way by: o Measuring the programme's key activities

	o Covering all aspects of the programme theory
	o Fulfilling the information needs of the primary assessment stakeholders
	• When selecting indicators, a*lways* think through the goals and objectives of the programme and the strategies for achieving them (as outlined in Block 3, 3.1 Programme Theory)
	• Complete the relevant section in the *RIA Plan – Summary Matrix* to ensure that the indicators align with the specific assessment questions (see Appendix 1 in the *Guidelines* and *RIA Plan*)

BLOCK 4: Develop the Design, Methods and Data Collection

4.1 Assessment Design	**Purpose:** Identify and describe the type of design that will be used for each specific assessment question
	Information Required in RIA Plan:
	• The assessment design that will be used for each specific assessment question

Common assessment designs

	Assessment Questions	Common Designs
Outcome Only	Is the programme achieving its desired outcomes or having other important side effects?	• **Compare programme performance to** law and regulations, programme logic model, professional standards, or stakeholder expectations • Assess change in outcomes for participants **before and after** exposure to the programme • Assess differences in outcomes **between programme participants and non participants**
Impact – Attribution	Is the programme responsible for (effective in) achieving improvements in desired outcomes?	• Compare (change in) outcomes for a **randomly assigned** treatment group and a nonparticipating **control group** (*randomized controlled experiment*) • Compare (change in) outcomes for programme participants and a **comparison group** closely matched to them on key characteristics (*comparison group quasi-experiment*) • Compare (change in) outcomes for participants **before and after** the intervention, over multiple points in time **with statistical controls** (*single group quasi-experiment*)

Source: U.S. Government Accountability Office (GAO). 2012. DESIGNING EVALUATIONS: 2012 Revision, GAO-12-208G.

Sources: Previous similar assessments; assessment requirements; and evaluation textbooks and guides.

Tips:

•   Take into consideration the rigour required by the primary assessment stakeholder(s) as well as the timelines, budget, and other resources available for the assessment

•   The simplest and least rigourous design is comparing to someone's

	expectations • The most rigourous design is a random controlled trial (RCT) as is done when testing pharmaceuticals; however, the use of a RCT in the context of RIA is very challenging and a pre-post design with comparison groups is more feasible • Remember to compare apples to apples by carefully selecting a comparison group(s), if that is the appropriate design selected
4.2 Methods	**Methods and Data Sources** **Purpose:** Identify and select the methods that are most appropriate for answering the priority assessment question(s) given the specified design(s) and that will generate credible evidence at the required level of defensibility **Information Required in RIA Plan:** • For each assessment question and associated design, the method that will be used for data collection • The source of data for each method

Common design and methods

Assessment Question	Common Designs	Likely Methods
Is the programme achieving its desired outcomes or having other important side effects?	Compare programme performance to standard or expectations	• Bibliometric analysis • Expert review; case study • Surveys or interviews • Anecdotes, Self reporting
	Assess change before and after the programme intervention	• Pre, post bibliometrics • Pre, post, or post only Surveys with statistical analysis
	Assess differences between participants and non participants	• Surveys, interviews
Is the programme responsible for (effective in) achieving improvements in desired outcomes?	Compare (change in) outcomes for participants and a comparison group	• Can be done with bibliometrics • Case study • Surveys
	Compare (change in) outcomes for participants before and after the intervention, over multiple points in time with statistical controls	• Econometric study using data on key variables and possibly interviews

Stronger Evidence (arrow indicating direction)

Sources: U.S. GAO 2012; RAND Measuring Research 2013 review of each method/tool; U.S. Department of Energy, R&D Methods Guide; and evaluation text books.

Sources: Previous similar assessments; assessment requirements; and evaluation textbooks and guides.

Tips:
• Consider the pros and cons of different methods and select the best method given the purpose of the assessment and level of rigour required

- Identify the data sources for each method and consider if the data source is:
    - Available either internally in the organisation or external to the organisation
        - E.g., existing questionnaires, Web of Science, etc.
    - Needs to be developed, purchased, or modified
    - A primary data source (i.e., the data that will be collected directly during the assessment) or a secondary data source (i.e., data collected by others that is available for free or for purchase)
- Plan ahead! Baseline data is needed prior to or early in the programme if a pre-post design is to be used (see Block 1, 1.1 Programme and Assessment Context)
- Complete the relevant sections in the *RIA Plan – Summary Matrix*, ensuring that the methods and data sources align with the indicators (see Appendix 1 in the *Guidelines* and *RIA Plan*)

Frequency and Timeline

Purpose: For each specific assessment question and its associated key indicator(s), identify the frequency or timeline for data collection after taking the respondents into consideration

Information Required in RIA Plan:
- The frequency and/or timeline(s) for data collection for each key indicator, for example:
    - Annually collect publications of all full-time technical faculty
    - Interview a minimum of 12 subject matter experts, once each, during the programme
    - Distribute questionnaires to a random sample of grantees twice during the programme, specifically once at mid-programme and once at the end of the programme

Sources: Programme records of partners and participants; subject matter experts; and evaluation guides.

Tips:
- Refer to Block 2, 2.1 Which Stakeholders Want the Impact Assessment when considering the frequency and/or timeline(s) for data collection
- The respondents are the population of interest or, if appropriate, a representative sample of that population

	• Be alert to the administration burden on the respondents and use best efforts to minimise the burden
	    ○ E.g., ask all the questions at once and limit it to the most critical questions to have answered
	• When possible, consider adding the assessment questions to an existing internal or external data collection effort
	    ○ E.g., add the question of interest to an existing internal or external questionnaire
	• Use the assessment design(s) identified in Block 4, 4.1 Assessment Design to determine how frequently data needs to be collected and whether it needs to be linked across different periods of time
	• Develop a protocol for collecting data for each group of respondents (e.g., clients, researchers, patients, etc.)
	• Complete the relevant section in the *RIA Plan – Summary Matrix* (see Appendix 1 in the *Guidelines* and *RIA Plan*)

4.3 Data Collection	**Purpose:** Describe the logistics of data collection **Information Required in RIA Plan:** • For each indicator and associated data source, the person(s) responsible for gathering the data and details about how the data will be collected as per the Data Collection Checklist **Data Collection Checklist** • The person(s) responsible for data collection are identified • Data collection procedures and guidelines are established • Data collection procedures and guidelines were developed for cultural appropriateness • Data collection instruments were translated (as appropriate) • Data collection instruments were pre-tested and modified as necessary • Data collection personnel were trained to ensure consistency in data collection • Appropriate permissions were obtained • Ethical considerations and approvals were obtained, as appropriate **Sources:** Available programme administrative data, prior assessment data, etc. **Tips:** • Ensure that the data collection plans are clear, concise, and comprehensive

	• If required, bring in an expert on data collection to optimise the quality of the data and to feasibly answer the assessment questions within any known constraints • Complete the relevant section in the *RIA Plan – Summary Matrix* to ensure that there is a person(s) responsible for each of the methods and data sources (see Appendix 1 in the *Guidelines* and *RIA Plan*)

4.4 Analysis	**Purpose:** Identify the strategy and associated methods that will be used for data analysis
	
	Information Required in RIA Plan:
	• A description of the analytical strategy including the methods that will be used and how the analysis is appropriate for generating credible evidence that answers the assessment questions as per the Data Analysis Quality Assurance Checklist
	
	Data Analysis Quality Assurance Checklist
	1) The analysis is matched to the method(s) and compensates for weak information in any one area
	2) Data is cleaned and adequately prepared for analysis
	3) Data analysis:
	   a) Provides a balance in the strong views of proponents and opponents
	   b) Includes a balance of quantitative and qualitative data
	   c) Reveals new aspects of the programme operations and outcomes
	4) The validity and reliability of the results have been verified through:
	   a) Data variety by source, type, and participants
	   b) Triangulation (cross-validation and reinforcement across each method/data source)
	
	Sources: Evaluation textbooks and guides.
	
	Tips:
	• Ensure that the analytical strategy is clear, concise, and comprehensive
	• Consider the typical use, defensibility, and relative cost when determining the best analysis to use
	• If necessary, acquire the assistance of a skilled analyst

4.5 Data Management	**Purpose:** Identify and describe how the data will be managed as well as the logistics of data management **Information Required in RIA Plan:** • Logistical details about data management that includes the elements outlined in the Data Management Checklist **Data Management Quality Assurance Checklist** 1) Data format 2) Data organisation 3) Data availability 4) Data security 5) Information technology 6) Data quality control 7) Roles and responsibility, accountability of data management Source: Scott Chaplowe, AEA eStudy 2013 **Sources:** Programme documentation; programme and assessment requirements; and data management plans. **Tips:** • Store and retain impact assessment data according to legal requirements as well as organisational policies and procedures • Store and manage the data so that it is easily accessible by users and has protected access through the use of tools like a stakeholder security table

BLOCK 5: Communicate and Use Findings

5.1 Communicate Findings	**Purpose:** Identify who needs to know what, in what format, and who will deliver the assessment findings given the target audience for the assessment findings **Information Required in RIA Plan:** • A reporting plan that fits the purpose and scope of the assessment and identifies: ○ For each target audience, the specific reporting needs (including report format) and the information that will be reported ○ The timing of reporting, including reporting commitments and how they will be met

- o Dissemination and knowledge translation strategies and mechanisms that are tailored to the information requirements of the target audience
- o The person(s) responsible for preparing the reports
- o The person(s) responsible for submitting the reports, to whom and by when

Sources: Programme and assessment requirements; communications with the primary assessment stakeholders about the intended use of the RIA findings; and communication documents.

Tips:
- When reporting information to target audiences, consider that:
    - o Reports are important for diffusing knowledge
    - o It is recommended to report findings to the manager of the programme being assessed *during* the assessment so that there are no surprises, particularly if there are negative findings
- Avoid using a single report format for multiple target audiences if different reports types are more suitable or meaningful for the individual target audiences, for example:
    - o Executive summary
    - o Technical report
    - o Progress report
    - o Impact stories
- Recommendations in the report should be linked to the evidence collected and judged against standards, codes of practice, criteria and/or the values of the primary assessment stakeholders
- Key dissemination mechanisms include:
    - o Print materials
    - o Internet communications
    - o Live presentations
    - o Telephone communications
    - o Radio communications
    - o Television and filmed presentations
    - o Networks
- Consider ways to lessen the possible misuse of the report(s)
- Complete the relevant section in the *RIA Plan – Summary Matrix*, identifying the target audience for each question and/or indicator (see Appendix 1 in the *Guidelines* and *RIA Plan*)

5.2 Use Findings	**Purpose:** Identify the potential future uses of the assessment findings, if appropriate **Information Required in RIA Plan:** • If appropriate, identify the potential future uses of the report(s) such as: o Holding organisations accountable o Informing the allocation of resources o Analysing progress and identifying areas for improvement o Providing information to advocate for lessons learned for future assessments **Sources:** Programme and assessment requirements; communications with the primary assessment stakeholders about the intended use of the RIA findings; and communication documents. **Tips:** • Use of the findings feeds into lessons learnt, thereby informing assessors and primary assessment stakeholders about how to better optimise impacts. Consequently, the goal is for the assessment report to be used to inform strategic and business planning

BLOCK 6: Manage the Assessment

	Purpose: Describe how the assessment will implemented and managed **Information Required in RIA Plan:** • A detailed work plan for the assessment that includes the overall budget, resources, and timelines allocated to the RIA as well as: o Major tasks involved o Start and end dates for each task o The type/names of resources allocated to each task, including if the resources are internal (in-house resources), external (contractors), or both o For external resources, a description of what the RIA requires from them and the budget available to achieve this • A description of the potential risks for the assessment and the proposed mitigation strategies **Sources:** Existing program management and/or administrative tools in the organisation; knowledge of the budget and resources available; and knowledge of potential external resources that could be used to support the assessment.

	Tips:

	• Carefully consider the following when developing the work plan for the assessment:
	    ○ While there is no agreed upon proportion of a programme's funding that should go towards impact assessment, it is important to ensure that the assessment has sufficient resources available to meet the needs it was set up to address
	    ○ When the available resources do not match the needs for the assessment, engage the primary assessment stakeholder(s) in discussions about what could be realistically achieved with the available resources and what additional resources would need to be allocated for the desired impact assessment
	    ○ Avoid making the work plan more complex than it needs to be; it is not uncommon to see too much of an assessment's time devoted to creating and maintaining the 'perfect' work plan
	• Some key tools available for work planning are:
	    ○ Microsoft Excel
	    ○ Software for creating Gantt charts
	    ○ Basecamp
	    ○ Microsoft Project
	• Be prepared to be flexible in the work planning as it is likely that situations will arise during the assessment that had not been predicted prior to the assessment kick-off
	• Complete the *Research Impact Assessment – Implementation Work Plan* (see Appendix 1 in the *Guidelines* and *RIA Plan*)

APPENDIX 1: Research Impact Assessment Plan – Summary Matrix

The *Research Impact Assessment (RIA) Plan – Summary Matrix* is a valuable tool for communicating the critical components of the assessment to stakeholders in a comprehensive and concise manner. It also serves as an essential guide when implementing the data capture of the RIA *Plan*.

What is the Summary Matrix?

The *Summary Matrix* highlights important components of the *RIA Plan* as developed through the six building blocks of the International School on Research Impact Assessment (ISRIA) and with the *RIA Plan – Guidelines*. As the *Summary Matrix* is designed to accompany, not replace, the *RIA Plan*, it should be referenced in the main body of the *RIA Plan* and included as an appendix.

The *Summary Matrix* links the purpose-driven assessment questions with the indicators used to answer them given the available resources and time. For each indicator, the *Summary Matrix* outlines the essential implementation details, including:

- The proposed data collection methods that will be used
- The data sources
- Who will be collecting the data
- When the data will be collected (frequency and/or timeline)
- The baseline data that will be used
- The audiences who need the information

As with any tool, the benefits and challenges of using the *Summary Matrix* should be taken into consideration.

Benefits	Challenges
- Concise summary of the *RIA Plan* - Clearly links aspects of the *RIA Plan* together - Highlights *who* needs to be engaged for *what* data and *how* often - Communicates the RIA approach to stakeholders in an easily accessible format - Can be used to confirm the stakeholders' shared understanding of the *RIA Plan*	- Can be perceived as reductive by the primary assessment stakeholders (i.e. users of the *RIA Plan*) - The table format implies linearity despite highlighting where feedback loops exist in the *RIA Plan* - Must remain as a 'living document' that is changed as necessary when revisions are made to the *RIA Plan*

As emphasised in the *RIA Plan* and *RIA Plan – Guidelines* and reflected in the *Summary Matrix*, it is important to identify and select the indicators and associated data collection methods and sources that will most appropriately answer the assessment question(s) given the purpose of the assessment (i.e., anticipated use of the assessment findings). This approach helps establish a clear link between the data to be collected and the assessment questions while reducing the unnecessary burden of collecting

information that will not be used. If a multi-year assessment plan is being developed, it will be important to revisit data collection efforts during the life-cycle of the assessment to examine the burden on respondents and stakeholders.

How to Use the Summary Matrix

Refer to the *RIA Plan – Guidelines* to better understand the content that should be summarised in each block of the *Summary Matrix*. Although some assessors may find it easier to complete the *Summary Matrix* after writing the *RIA Plan*, others may prefer to work on these documents concurrently and in a more iterative manner.

The format of the *Summary Matrix* can be adapted to suit different assessment contexts and implementation requirements.

Sample

A mock *Summary Matrix* is provided in the ISRIA Toolbox within the *Research Impact Assessment Plan – Summary Matrix* document.

APPENDIX 2: Research Impact Assessment – Implementation Work Plan

The *Research Impact Assessment (RIA) – Implementation Work Plan* is a basic management tool that efficiently identifies what RIA activities are to occur, when and by whom.

What is the Implementation Work Plan?

The *Implementation Work Plan* outlines the essential activities and deliverables that need to be completed during the RIA and the ideal timeline in which they should occur. Structured as a Gantt chart, the *Implementation Work Plan* highlights where these activities overlap within the overall assessment timeline. This visualisation assists the assessor and stakeholders in better understanding the interaction between different aspects of the assessment (e.g., how the different data collection methods inform one another). It also assists in identifying where potential 'bottlenecks' (i.e., periods of overlap in which the activities exceed the available resources) may develop that could impede the progress of the assessment. Early recognition of these potential constraints during the development of the *RIA Plan* provides an opportunity to focus the assessment and increase the likely success of the RIA. It is therefore important to develop the *Implementation Work Plan* early on as it serves as an important tool for managing the RIA and ensuring that the required resources are available according to the agreed upon timeline.

As with other tools, the benefits and challenges of using the *Implementation Work Plan* should be taken into consideration.

Benefits	Challenges
- Concise summary of the RIA timeline - Illustrates linkages between essential activities - Identifies *what* needs to be done and *when* - Content can be expanded to include *who* does what - Communicates the progress of the RIA - Assists with resource management to better ensure that the RIA is delivered on time and within budget	- Can be perceived as inflexible and unable to adjust to the challenges that arise during the RIA - Collapses the complexity of different activities - Requires monitoring and revision as the RIA progresses - Must remain as a 'living document' that is changed as necessary when revisions are made to the *RIA Plan*

How to Use the Work Plan

Refer to the *RIA Plan – Guidelines* and *RIA Plan – Summary Matrix* to assist in identifying the essential activities that should be included in the *Implementation Work Plan*. In general, development of the *Implementation Work Plan* should begin early as determination of the available resources helps inform the timeline for conducting the assessment. At a minimum, the assessment budget and resources should be outlined prior to the development of the assessment questions (Block 2, 2.3 Assessment Questions) because these are critical factors that need to be taken into consideration when prioritising the assessment questions; this can be done by supplementing the *Implementation Work Plan* with a

table of the proposed budget and resources (Table 1). The template for the Proposed Budget and Resources (Table 1) can be adapted to suit individual assessments, requirements and/or preferences.

TABLE 1. Proposed Budget and Resources

Name of Programme:									
Resources	**Initials**	**Rate/Day**	**RIA Activity**					**Total Estimated Time**	**Total Estimated Cost**
			RIA Project Management	**RIA Plan**	**Data Collection & Analysis**	**Reporting & Communicating**	**Managing the RIA**		
			Estimated Time (in Days)						
Name (Position/Role)									
Name (Position/Role)									
Name (Position/Role)									
Etc.									
Sub-total	n/a	n/a							
			Estimated Disbursements ($)						
Disbursements	n/a	n/a						n/a	
Travel	n/a	n/a						n/a	
Long Distance	n/a	n/a						n/a	
Materials	n/a	n/a						n/a	
Courier/Shipping	n/a	n/a						n/a	
Translation Services	n/a	n/a						n/a	
Etc. (specify)	n/a	n/a						n/a	
Sub-total	n/a	n/a						n/a	
							GRAND TOTAL		

As a 'living document', the *Implementation Work Plan* should be updated on a regular basis to reflect the progress being made in the RIA. The initial and updated versions of the *Implementation Work Plan* should also be shared with the primary assessment stakeholders on a regular basis. This can be done by referencing the initial *Implementation Work Plan* in the main body of the *RIA Plan* and including it as an Appendix.

The *Implementation Work Plan* follows a typical structure and can be adapted to suit different assessment contexts, implementation requirements, and/or preferences for tracking the tasks. It can also be revised to include enhancements such as:

- Identifying the individuals responsible for specific aspects of the RIA
- Specifying the resource requirements for different aspects of the RIA (e.g. number of days required to completed an activity)
- Identifying the status of the activities (e.g. not started, in progress, completed)
- Identifying where resources can or must be shared across activities

Samples

A mock *Implementation Work Plan* and a mock table for the Proposed Budget and Resources are provided in the ISRIA Toolbox within the *Research Impact Assessment – Implementation Work Plan* document.