



The International School on Research Impact Assessment

# RESEARCH IMPACT ASSESSMENT PLAN — USER GUIDELINES Version 1.0

A guide for completing the Research Impact Assessment (RIA) Plan Template  
and the Research Impact Assessment (RIA) Plan Matrix Table.

September 8, 2013



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## Research Impact Assessment

### Introduction

Assessors (evaluators), programme managers and staff can use these *User Guidelines* to develop or revise an individualised plan for assessing research impact. In particular, programme managers can use the guidelines to describe the outline of a plan to assessors; trained assessors (including programme managers trained in assessment) can then add detail to the plan and implement it.

These guidelines accompany the *Research Impact Assessment Plan Template* (a blank template that you can use to create your research impact assessment plan) and the *Research Impact Assessment (RIA) Plan Matrix Table* (a table that links the blocks together). The guidelines are based on well-established principles, evidence and good practices, and prompt you to review a number of considerations. These considerations include a number of tasks with accompanying rationale to enhance the quality of the plans developed.

The *Research Impact Assessment Plan — User Guidelines*, the *Research Impact Assessment Plan Template*, and the *Research Impact Assessment (RIA) Plan Matrix Table* are part of *The International School on Research Impact Assessment's* tool kit for assessing research impact. This is the first version of the guidelines and it is hoped that participants of the School will collectively use their knowledge and experience to update and improve these guidelines on an ongoing basis.

### Purpose

There are four general purposes for assessing research impact<sup>1</sup>:

- **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.
- **Accountability.** To show that money and other resources have been used efficiently and effectively, and to hold researchers to account.
- **Analysis/Learn how to improve.** 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.
- **Allocation.** To determine where best to allocate funds in the future, making the best use possible of a limited funding pot.

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<sup>1</sup> RAND Europe, 2013, Measuring research: A guide to research evaluation frameworks and tools.



## Definitions

Definitions of key terms are as follows.

**Research** and experimental development (R&D) comprise 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.<sup>2</sup>

**Outcome evaluations** address questions about the extent to which the programme achieved its results-oriented objectives. This form of evaluation focuses on examining outputs (goods and services delivered by a programme) and outcomes (the results of those products and services) but may also assess programme processes to understand how those outcomes are produced.<sup>3</sup>

**Impact assessment** assesses the changes that can be **attributed** to a particular intervention, such as a project, programme or policy, both the intended ones, as well as ideally the unintended ones<sup>4</sup>. Many desired outcomes 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 outcomes observed typically reflect a combination of influences. To isolate the programme's unique impacts, or contribution to those outcomes, an impact study must be carefully designed to rule out plausible alternative explanations for the results<sup>3</sup>.

**Monitoring** is the systematic process of collecting and recording information on the progress and direction of ongoing actions, generated mainly for management purposes<sup>5</sup>.

**Evaluation** is the process by which the quality, implementation, target relevance and impacts (outcomes) of programmes are investigated, interpreted and examined.<sup>5</sup>

**Assessment** is the synthesis of facts, which arise from the evaluation process, and judgments.<sup>5</sup>

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<sup>2</sup> (OECD (2002) Frascati Manual: proposed standard practice for surveys on research and experimental development, 6th edition. from [www.oecd.org/sti/frascaticmanual](http://www.oecd.org/sti/frascaticmanual)

<sup>3</sup> U.S. GAO, 2012. Designing Evaluations: 2012 Revisions, **GAO-12-208G**.

<sup>4</sup> World Bank

<sup>5</sup> Report to the European Commission, Options and Limits for Assessing the Socio-Economic Impact of European RTD Programmes, by the Independent Reflection Group, 1999.



## Developing Your Research Impact Assessment Plan

### Background

A RIA plan is general in nature and can be tailored to a broad range of contexts and to a variety of assessment audiences such as programme staff, end users of your programme, or funding decision makers. It can be applied to different levels of analysis; for example, programme, organisation, or multi-site initiative. The word “programme” is used throughout this document to refer to all of these levels. When you complete the accompanying template, you specify the name of the programme and describe it. The template allows for assessing the programme at one or multiple points in a programme life cycle. The plan requires tailoring to a particular programme, purpose and assessment questions and requires the assessor to consider programme and assessment context, time frames and various stakeholder requirements.

Applying the plan requires critical thinking skills and a needs-based approach appropriate to the assessment purpose(s). These guidelines should be considered as a tool designed to complement these types of skills and not replace them.

Consider the plan as a living document that can be updated during the assessment time frame. If the programme to be assessed is complex or large in scope, the expectation is that only a portion of an assessment plan can be completed during the School.

### Developing a Quality Plan

Your plan should:

- Provide an accurate, concise and coherent description of the programme.
- Explain what assessment work is being planned and how the work will be accomplished.
- Consider and be consistent with the programme’s content, lifecycle stage and stakeholder needs.
- Have a logical flow with linkages between the elements (evaluation purpose, questions, indicators, design and analysis plans).
- Have overall statements that are clear, concise and understandable to different stakeholder groups.
- Be based on known evaluation practice for similar programmes.
- Follow acceptable professional evaluation standards.



## Building Blocks of an RIA Plan

The template divides the plan into six building blocks. The blocks are not always linear and are iterative in nature (going back and forth) between the blocks.

<i>Six Building Blocks</i>	<i>Rationale</i>
<b>1: Describe the Context</b>	Programmes are different sizes, complexity and scope. Assessments also have different characteristics, such as formative/summative, or quantitative/ qualitative. This context informs choices for assessment purpose and questions to be answered.
<b>2: Identify Assessment Purpose</b>	Stakeholders have different perspectives and different needs for information depending on, among other things, what decisions will be informed by the assessment. Purpose suggests the high-level general questions that must be answered.
<b>3: Identify Indicators of Success</b>	Specific questions to be answered will include a sequence of outcomes and how the programme activities might lead to these outcomes. Questions drive what indicators need to be collected to answer those questions. Indicators can be both quantitative and qualitative.
<b>4: Select the Design and Methods</b>	Design can be selected from the typical ways of answering impact questions, such as comparing against a standard or collecting data before and after an intervention. The design and methods chosen need to be appropriate to the assessment questions.
<b>5: Collect, Analyze and Manage Data</b>	How to collect the necessary data and how to analyze it is driven by the method or methods chosen, but this has to be described in some detail. This block may suggest changes in previous blocks as details reveal what is and is not possible.
<b>6: Report and Use</b>	The findings of the assessment are reported accurately and in detail, but some audiences may not want a full report. Therefore, reporting may need to be in different formats and in different levels of detail in order to reach multiple audiences and influence them to use the results of the assessment.

## Block Sections

The six building blocks are divided into sections. Each section contains a prompt for what to include, why it is important and quality considerations.

<i>Six Building Blocks</i>	<i>Sections</i>
<b>1: Describe the Context</b>	1.1 Programme and Assessment Context 1.2 Programme Unit of Analysis 1.3 Programme Stage and Time Frames for Assessment 1.4 Desired Characteristics of the Assessment



<i>Six Building Blocks</i>	<i>Sections</i>
<b>2: Identify Assessment Purpose</b>	2.1 Which Stakeholders Want the Impact Assessment 2.2 Assessment Purpose(s) for Each Stakeholder 2.3 General Assessment Questions Including Impact Categories
<b>3: Identify Indicators of Success</b>	3.1 Programme Theory 3.2 Specific Assessment Questions 3.3 Indicators of Success(quantitative and qualitative)
<b>4: Select the Design and Methods</b>	4.1 Assessment Design 4.2 Methods and Data Sources 4.3 Applicants for Data and Frequency
<b>5: Collect, Analyze and Manage Data</b>	5.1 Data Collection and Analysis 5.2 Data Management
<b>6: Report and Use</b>	6.1 Reporting and Use

### Considerations for Each Block and Section

Each section has questions for you to consider and prompts for potential source information to help you complete your plan. Make your choices based on your assessment purpose(s) and questions. Use the six block approach to create and develop your plan step by step.

<i>Block and Section</i>	<i>Considerations</i>
Title Page	This is the general administrative information that appears on the title page of an assessment plan.
<b>1: Describe the Context</b>	
1.1 Programme and Assessment Context	<p>Provide a brief description of the programme and context.</p> <p>Consider the following as applicable to your programme:</p> <ul style="list-style-type: none"> <li>• Why the programme exists</li> <li>• What problem(s) the programme is going to address</li> <li>• Funding sources</li> <li>• Target population</li> </ul> <p><b>SOURCES</b> Strategic plan, operational plan, vision, mission statement, logic model or strategy map.</p> <p><b>TIPS</b> Be specific, clear, concise and understandable about programme goals and how these will be achieved; working with which major partners to benefit what specific stakeholder groups.</p>



<b><i>Block and Section</i></b>	<b><i>Considerations</i></b>
1.2 Programme Unit of Analysis	<p>Identify the programme’s unit of analysis.</p> <p>Consider the following levels:</p> <ul style="list-style-type: none"><li>• Research system</li><li>• Field or area of research</li><li>• Institution</li><li>• Department or programme</li><li>• Research group</li><li>• Project</li><li>• Researcher</li></ul> <p><b>SOURCES</b> Programme plans, programme guides, evaluation requirements.</p> <p><b>TIPS</b> Generally, impact assessment is seldom done at levels smaller than group. Think about the level at which the information will be used.</p>
1.3 Programme Stage and Time Frames for Assessment	<p><b>Programme Stage</b></p> <p>Describe and identify the stage of development the programme is in its life cycle (e.g., how many years the programme has been in place without major changes in goals or strategies).</p> <p>Consider the following stages:</p> <ul style="list-style-type: none"><li>• New (recently developed)</li><li>• Stable (operational for a number of years)</li><li>• Mature (well established for a number of years)</li></ul> <p><b>Time Frames for Assessment</b></p> <p>Consider the approximate programme time frames (according to your assessment time frames):</p> <ul style="list-style-type: none"><li>• 1–4 years after outputs produced</li><li>• 5–10 years after</li><li>• 10–20+</li></ul> <p><b>SOURCES</b> Programme plans, programme guide, evaluation requirements.</p> <p><b>TIPS</b> Impact assessment implies there has been time for outcomes to occur. However, waiting 20 years to assess impacts means it is challenging to trace from the programme to its impact but can also offer interesting insights for policy.</p>



<i>Block and Section</i>	<i>Considerations</i>
<p>1.4 Desired Characteristics of the Assessment</p>	<p>Identify the desired characteristics that are required for the assessment, as best you know these.</p> <p>Consider the following characteristics:</p> <ul style="list-style-type: none"> <li>• Single Programme or Comparison</li> <li>• Formative (early, to modify implementation) or Summative (after, to determine what happened)</li> <li>• Quantitative or Qualitative or Both</li> <li>• Prospective or Retrospective</li> <li>• Snap Shot in Time or Longitudinal (multiple years)</li> <li>• Level of Defensibility (High–Low)</li> <li>• Cost Burden (costs and researcher time)</li> <li>• Time Constraints for Completion</li> <li>• Other (please specify)</li> </ul> <p><b>SOURCES</b> Programme plans, previous assessments, assessment requirements, stakeholder communications.</p> <p><b>TIPS</b> Typically there are constraints on budget and time. Consequently, tradeoffs are necessary as it is not possible to have better, faster, and cheaper all at once. If data has been collected previously, more can be done during this assessment.</p>
<p><b>2: Identify Assessment Purpose</b></p>	
<p>Overall</p>	<ul style="list-style-type: none"> <li>• Who needs to know what, and why?</li> </ul>
<p>2.1 Which Stakeholders Want the Impact Assessment</p>	<p>Identify all stakeholders (people/organisations) who will be primary users of the assessment and describe the stakeholders (name, level of influence on your programme plans, budget, and implementation).</p> <p>Examples of stakeholders include:</p> <ul style="list-style-type: none"> <li>• Funders</li> <li>• Donors</li> <li>• Universities</li> <li>• Researchers</li> <li>• Health Organisations</li> <li>• Industry</li> <li>• Programme managers</li> </ul> <p>Frequency for research impact assessment:</p> <ul style="list-style-type: none"> <li>• annually (rare)</li> <li>• every other year</li> <li>• every 3 to 5 years, etc.</li> </ul> <p><b>SOURCES</b> Stakeholder analysis, assessment requirements, meetings with senior managers or staff.</p> <p><b>TIPS</b> You may have to prioritise if there are multiple stakeholders with different information needs.</p>



<i>Block and Section</i>	<i>Considerations</i>
<p>2.2 Assessment Purpose(s) for Each Stakeholder</p>	<p>Describe and choose the main purposes for the assessment. How will the stakeholders use the results and how frequently do they need the data?</p> <p>Consider the following:</p> <ul style="list-style-type: none"> <li>• Accountability</li> <li>• Analysis</li> <li>• Advocacy</li> <li>• Allocation</li> <li>• Other purpose, please specify</li> </ul> <p>Provide details (what and why) for those selected above.</p> <p><b>SOURCES</b> Programme documents, governance documents, assessment requirements, communication with stakeholders.</p> <p><b>TIPS</b> An impact assessment can cover multiple purposes; however, multiple purposes are usually more costly and difficult.</p>
<p>2.3 General Assessment Questions Including Impact Categories</p>	<p>Describe and choose the key general/high-level assessment questions that stakeholders need to know depending on the purpose(s) of your assessment.</p> <p>One group of general/high level questions related to what outcomes/impacts have occurred?</p> <ul style="list-style-type: none"> <li>• What outcomes have occurred?</li> <li>• What application, adoption, progress toward social or economic outcomes have occurred (intermediate outcomes)?</li> <li>• What health/other sector, social or economic outcomes have occurred?</li> </ul> <p>Examples of outcomes/impact:</p> <ul style="list-style-type: none"> <li>• <b>Science Outcomes:</b> areas of focus where the programme hopes to affect how the research is done, such as increased research capacity, new research tools, more collaboration with practitioners, etc.</li> <li>• <b>Application/Adoption Outcomes:</b> specific effects coming after the science outcomes and before the health, social or economic outcomes, such as use in development of a new product or a change in policy, clinical practice, areas</li> <li>• <b>Health, Social or Economic Outcomes:</b> areas beyond the research community the programme hopes to affect, such as health status or economic development</li> </ul> <p>The key questions also include one or more of these typical questions:</p> <ul style="list-style-type: none"> <li>• How do observed outcomes/impacts compare to what was expected (a target, standard, etc.)?</li> <li>• What impact can be attributed to the programme?</li> <li>• How do programme outcomes/impacts compare with similar programmes?</li> <li>• How might impact be improved?</li> </ul>



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	<p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #c6e0b4;"> <th style="width: 12.5%;">Block 2</th> <th style="width: 12.5%;">Block 3</th> <th colspan="3" style="width: 37.5%;">Block 4</th> <th style="width: 12.5%;">Block 5</th> <th style="width: 12.5%;">Block 6</th> </tr> <tr style="background-color: #c6e0b4;"> <th>1. General Assessment Questions</th> <th>2. Specific Assessment Questions</th> <th>3. Indicators</th> <th>4. Methods/Data Sources</th> <th>5. Applicants</th> <th>6. Frequency</th> <th>7. Person Responsible</th> <th>8. Use &amp; Target Audience</th> </tr> </thead> <tbody> <tr> <td style="border: 2px solid red;"></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme documentation, stakeholder needs assessment, assessment requirements.</p> <p><b>TIPS</b> The questions should be responsive to your assessment purpose(s). Depending on resources, you may have to prioritise and not do everything at one time.</p>	Block 2	Block 3	Block 4			Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience								
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<b>3: Identify Indicators of Success</b>																								
Overall	<ul style="list-style-type: none"> <li>Define specific assessment questions which when answered fulfill the purpose of the assessment.</li> <li>What indicators/measures do you need to answer each of these assessment questions?</li> </ul>																							
3.1 Programme Theory	Typically at this point you would describe the programme logic and anticipated key strategies/actions that your programme has for achieving its impacts. However, given limited time, this will be done partially as you define a set of specific questions across a generic research logic model. If you have brought a programme logic model or strategy map with you, you can refer to it.																							
3.2 Specific Assessment Questions	<p>Identify a set of specific assessment questions for each area of the generic research logic model provided or use your own programme tools such as logic model or strategy map. To that, add specific questions for the other applicable general high-level questions (such as <i>How do we compare?</i>).</p> <p>Examples:</p> <p><b>Science Outcomes</b></p> <ul style="list-style-type: none"> <li>Has high-quality research been done?</li> <li>Have we advanced knowledge and published?</li> <li>Have new research tools, techniques, facilities been developed or built?</li> <li>Have we trained graduate students, workforce?</li> <li>Have new collaborations, communities of practice been formed?</li> <li>How vital is the research environment?</li> <li>Has our research informed, changed the research agenda?</li> <li>Is our research esteemed by our peers (e.g., awards)?</li> </ul> <p><b>Application/Adoption Outcomes</b></p> <ul style="list-style-type: none"> <li>Have desired change in attitudes, behaviours occurred?</li> <li>Has funding been leveraged?</li> <li>Have we contributed or added to knowledge base, information production/collection, storage, utilization?</li> <li>Have our research results informed industry R&amp;D decisions, product</li> </ul>																							



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	<p>development and commercialization?</p> <ul style="list-style-type: none"> <li>• Have our research results informed government policy, programmes?</li> <li>• Have our research results informed public opinion, advocacy?</li> <li>• Have our research results influenced sector-specific changes (e.g., change clinical practice)?</li> </ul> <p><b>Health, Social, Economic Outcomes</b></p> <ul style="list-style-type: none"> <li>• Have our research results helped improve health status?</li> <li>• Have our research results helped increase sales, jobs, lower costs, etc.?</li> </ul> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" data-bbox="483 653 1433 867"> <thead> <tr> <th data-bbox="483 653 594 688">Block 2</th> <th data-bbox="594 653 704 688">Block 3</th> <th data-bbox="704 653 1219 688">Block 4</th> <th data-bbox="1219 653 1330 688">Block 5</th> <th data-bbox="1330 653 1433 688">Block 6</th> </tr> </thead> <tbody> <tr> <td data-bbox="483 688 594 747">1. General Assessment Questions</td> <td data-bbox="594 688 704 747">2. Specific Assessment Questions</td> <td data-bbox="704 688 1219 747">3. Indicators</td> <td data-bbox="1219 688 1330 747">4. Methods/Data Sources</td> <td data-bbox="1330 688 1433 747">5. Applicants</td> <td data-bbox="1109 688 1219 747">6. Frequency</td> <td data-bbox="1219 747 1330 806">7. Person Responsible</td> <td data-bbox="1330 747 1433 806">8. Use &amp; Target Audience</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme documentation, assessment requirements, programme logic or strategy map, logic modeling tools, stakeholder communications.</p> <p><b>TIPS</b> Existing or requested indicators can be a source for questions (Has X happened?) or tools of logic modeling such as asking “If...Then” as you move from outputs to a sequence of outcomes can generate questions.</p>	Block 2	Block 3	Block 4	Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience								
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1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience															
3.3 Indicators of Success	<p>Define indicators for each specific question. You will find ideas in those provided for the generic research logic model.</p> <p>Make each indicator measurable. For example:</p> <ul style="list-style-type: none"> <li>• A number</li> <li>• A percent change</li> <li>• State of being, as measured by an expert panel, a survey</li> <li>• Change in perception based on key informant interviews, etc.</li> </ul> <p>Select a smaller balanced set of indicators for inclusion in your plan. Balance means a set of indicators across your programme in order to link outcomes to activities and decrease perverse incentives that can accompany measurement.</p> <ul style="list-style-type: none"> <li>• Look at data availability.</li> <li>• Link to desired outcomes. And at least one should link to goals in the organisational/reporting hierarchy.</li> <li>• Communicate well. Simple to report and understandable; help the public understand how the programme is doing.</li> <li>• Benefits greater than costs. Be sure benefits of measuring it are greater than the costs.</li> <li>• Drives performance the right way, or perverse effects are offset by another indicator in the set.</li> <li>• Is there an indicator that may cause inappropriate behavior, and if so, is</li> </ul>																					



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	<p>there another indicator that will offset that (e.g., assess quality as well as quantity)?</p> <ul style="list-style-type: none"> <li>A Balanced Set/Scorecard tells a brief, convincing performance story and drives performance the right way by measuring the strategies and by covering all aspects of the programme logic and of stakeholder information needs.</li> </ul> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" data-bbox="483 541 1435 751"> <thead> <tr> <th>Block 2</th> <th>Block 3</th> <th>Block 4</th> <th>Block 5</th> <th>Block 6</th> </tr> </thead> <tbody> <tr> <td>1. General Assessment Questions</td> <td>2. Specific Assessment Questions</td> <td>3. Indicators</td> <td>4. Methods/Data Sources</td> <td>5. Applicants</td> <td>6. Frequency</td> <td>7. Person Responsible</td> <td>8. Use &amp; Target Audience</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme logic or strategy map, existing indicators or scorecard, previous assessments, organisational and programme management reports.</p> <p><b>TIPS</b> DO NOT pick indicators without thinking through the goals of the programme and the strategies for achieving them, whether you use logic modeling or strategy maps or some other tool to do that. This is how you will come up with a small set of key (most important) indicators that balance incentives and perspectives.</p>	Block 2	Block 3	Block 4	Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience								
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<p><b>4: Select the Design and Methods</b></p>																						
<p>Overall</p>	<ul style="list-style-type: none"> <li>What design(s) should be used in order to answer the question(s)?</li> <li>What methods are you selecting to support the design?</li> </ul>																					
<p>4.1 Assessment Design</p>	<p>Describe and identify the design type (e.g., pre post design) by assessment questions, considering the rigor required for audience, budget and time frame to answer.</p> <p>Typical design types from impact assessment are:</p> <p style="text-align: center;"><b>Common assessment designs</b></p> <table border="1" data-bbox="545 1402 1282 1856"> <thead> <tr> <th></th> <th>Assessment Questions</th> <th>Common Designs</th> </tr> </thead> <tbody> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Outcome Only</td> <td>Is the programme achieving its desired outcomes or having other important side effects?</td> <td> <ul style="list-style-type: none"> <li>Compare programme performance to law and regulations, programme logic model, professional standards, or stakeholder expectations</li> <li>Assess change in outcomes for participants <b>before and after</b> exposure to the programme</li> <li>Assess differences in outcomes <b>between programme participants and non participants</b></li> </ul> </td> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Impact - Attribution</td> <td>Is the programme responsible for (effective in) achieving improvements in desired outcomes?</td> <td> <ul style="list-style-type: none"> <li>Compare (change in) outcomes for a <b>randomly assigned</b> treatment group and a nonparticipating <b>control group</b> (<i>randomized controlled experiment</i>)</li> <li>Compare (change in) outcomes for programme participants and a <b>comparison group</b> closely matched to them on key characteristics (<i>comparison group quasi-experiment</i>)</li> <li>Compare (change in) outcomes for participants <b>before and after</b> the intervention, over multiple points in time <b>with statistical controls</b> (<i>single group quasi-experiment</i>)</li> </ul> </td> </tr> </tbody> </table> <p>Source: U.S. Government Accountability Office (GAO). 2012. DESIGNING EVALUATIONS: 2012 Revision, GAO-12-208G.</p>		Assessment Questions	Common Designs	Outcome Only	Is the programme achieving its desired outcomes or having other important side effects?	<ul style="list-style-type: none"> <li>Compare programme performance to law and regulations, programme logic model, professional standards, or stakeholder expectations</li> <li>Assess change in outcomes for participants <b>before and after</b> exposure to the programme</li> <li>Assess differences in outcomes <b>between programme participants and non participants</b></li> </ul>	Impact - Attribution	Is the programme responsible for (effective in) achieving improvements in desired outcomes?	<ul style="list-style-type: none"> <li>Compare (change in) outcomes for a <b>randomly assigned</b> treatment group and a nonparticipating <b>control group</b> (<i>randomized controlled experiment</i>)</li> <li>Compare (change in) outcomes for programme participants and a <b>comparison group</b> closely matched to them on key characteristics (<i>comparison group quasi-experiment</i>)</li> <li>Compare (change in) outcomes for participants <b>before and after</b> the intervention, over multiple points in time <b>with statistical controls</b> (<i>single group quasi-experiment</i>)</li> </ul>												
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	<p><b>SOURCES</b> Previous similar assessments, evaluation requirements, evaluation textbooks and guides.</p> <p><b>TIPS</b> The simplest and least rigorous is comparing to someone’s expectations. The most difficult is a random controlled trial as is done when testing pharmaceutical, but is very challenging for research programmes. A pre post comparison design is more feasible in the context of research impact assessment.</p>																																
<p>4.2 Methods and Data Sources</p>	<p>Identify and select the methods that are most appropriate to answer your priority questions and design. Choose methods that will generate credible evidence at the level of defensibility you need. Consider the different methods, the pros and cons for each and select depending on the purpose and level of rigor required.</p> <p>Examples of common methods for the common designs are:</p> <div style="text-align: center;"> <h3 style="color: #0070C0;">Common design and methods</h3> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #0070C0; color: white;"> <th style="width: 30%;">Assessment Question</th> <th style="width: 35%;">Common Designs</th> <th style="width: 35%;">Likely Methods</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="vertical-align: middle; text-align: center;"> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">Stronger Evidence</div> <div style="margin-top: 10px;">↓</div> </div> </td> <td>Is the programme achieving its desired outcomes or having other important side effects?</td> <td> <ul style="list-style-type: none"> <li>Compare programme performance to standard or expectations</li> <li>Assess change before and after the programme intervention</li> <li>Assess differences between participants and non participants</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Bibliometric analysis</li> <li>Expert review; case study</li> <li>Surveys or interviews</li> <li>Anecdotes, Self reporting</li> <li>Pre, post bibliometrics</li> <li>Pre, post, or post only Surveys with statistical analysis</li> <li>Surveys, interviews</li> </ul> </td> </tr> <tr> <td>Is the programme responsible for (effective in) achieving improvements in desired outcomes?</td> <td> <ul style="list-style-type: none"> <li>Compare (change in) outcomes for participants and a comparison group</li> <li>Compare (change in) outcomes for participants before and after the intervention, over multiple points in time with statistical controls</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Can be done with bibliometrics</li> <li>Case study</li> <li>Surveys</li> <li>Econometric study using data on key variables and possibly interviews</li> </ul> </td> </tr> </tbody> </table> </div> <p>Identify the data sources for each method, considering:</p> <ul style="list-style-type: none"> <li>What data sources are available (internal or external to the organisation), such as Web of Science, existing surveys.</li> <li>What data sources need to be developed, purchased or modified.</li> <li>Primary sources, (data collected directly during the assessment).</li> <li>Secondary sources (collected by others and available free or for purchase).</li> </ul> <div style="text-align: center; margin-top: 20px;"> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #709248; color: white;"> <th style="width: 12.5%;">Block 2</th> <th style="width: 12.5%;">Block 3</th> <th colspan="2" style="width: 25%;">Block 4</th> <th style="width: 12.5%;">Block 5</th> <th style="width: 12.5%;">Block 6</th> </tr> <tr style="background-color: #709248; color: white;"> <th>1. 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	<p><b>SOURCES</b> U.S. GAO 2012; RAND Measuring Research 2013 review of each method/tool, U.S. Department of Energy, R&amp;D Methods Guide; evaluation text books.</p> <p><b>TIPS</b> Plan ahead! Get a baseline early in the programme so that you can compare pre and post. Remember to compare apples to apples and choose a comparison group carefully if that is the appropriate design selected.</p>																						
<p>4.3 Applicants for Data and Frequency</p>	<p>Who will be asked for data and when? For each assessment question, identify the population of interest or sample (as appropriate) and the frequency for data collection.</p> <p>Some examples:</p> <ul style="list-style-type: none"> <li>• Annually collect publications of all full-time technical faculty</li> <li>• Interview at least 12 subject matter experts, once during programme</li> <li>• Surveys to a random sample of grantees, once during programme</li> </ul> <p><b>Checklist</b></p> <ul style="list-style-type: none"> <li>• Consider administration burden on the applicants</li> <li>• Determine whether you will collect data from all applicants or a sample</li> <li>• If using a sample, consider sampling strategies and response rates</li> <li>• Based on your design choices (e.g., pre post comparison design), consider how frequently data needs to be collected and whether it needs to be linked across different periods of time</li> <li>• Develop a protocol for collecting data from different applicants (e.g., clients, researchers, patients, etc.)</li> </ul> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" data-bbox="483 1192 1432 1409"> <thead> <tr> <th data-bbox="483 1192 594 1226">Block 2</th> <th colspan="2" data-bbox="594 1192 813 1226">Block 3</th> <th data-bbox="813 1192 1222 1226">Block 4</th> <th data-bbox="1222 1192 1328 1226">Block 5</th> <th data-bbox="1328 1192 1432 1226">Block 6</th> </tr> <tr> <th data-bbox="483 1226 594 1289">1. General Assessment Questions</th> <th data-bbox="594 1226 703 1289">2. Specific Assessment Questions</th> <th data-bbox="703 1226 813 1289">3. Indicators</th> <th data-bbox="813 1226 997 1289">4. Methods/Data Sources</th> <th data-bbox="997 1226 1105 1289">5. Applicants</th> <th data-bbox="1105 1226 1222 1289">6. Frequency</th> <th data-bbox="1222 1226 1328 1289">7. Person Responsible</th> <th data-bbox="1328 1226 1432 1289">8. Use &amp; Target Audience</th> </tr> </thead> <tbody> <tr> <td data-bbox="483 1289 594 1409"></td> <td data-bbox="594 1289 703 1409"></td> <td data-bbox="703 1289 813 1409"></td> <td data-bbox="813 1289 997 1409"></td> <td data-bbox="997 1289 1105 1409"></td> <td data-bbox="1105 1289 1222 1409"></td> <td data-bbox="1222 1289 1328 1409"></td> <td data-bbox="1328 1289 1432 1409"></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme records of partners and participants, subject matter experts, evaluation guides.</p> <p><b>TIPS</b> Consider the burden on the applicants. Ask all your questions at once, limiting it to the most critical to have answered. Perhaps you can add questions to someone else's data collection effort.</p>	Block 2	Block 3		Block 4	Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience								
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<p><b>5: Collect, Analyze and Manage Data</b></p>																							
<p>Overall</p>	<ul style="list-style-type: none"> <li>• Data collection and analysis plan is concise, completed and clear.</li> <li>• For each indicator/measure, how will you collect the data?</li> <li>• How will you manage the analysis for quality, objectivity, accuracy, etc.?</li> <li>• How will you manage data? This is important for preparing for the analysis, and the management allows for comparisons, such as comparative effectiveness.</li> </ul>																						



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<p>5.1 Data Collection and Analysis</p>	<p>Describe logistics of data collection and choices for analysis using the provided checklists.</p> <p><b>Data Collection Checklist: Who and How</b></p> <ul style="list-style-type: none"> <li>• Identify who will gather the data</li> <li>• Establish data collection procedures and guidelines</li> <li>• Develop for cultural appropriateness</li> <li>• Translate data collection instruments (as appropriate)</li> <li>• Pretest data collection tools and modify as necessary</li> <li>• Train data collectors</li> <li>• Obtain permissions</li> <li>• Ethical considerations</li> </ul> <p>Analysis strategy should be appropriate for generating credible evidence to answer the assessment questions.</p> <p><b>Data Analysis Checklist</b></p> <p><b>Match analysis to method(s)</b></p> <ul style="list-style-type: none"> <li>• Compensate for weak information in any one area</li> </ul> <p><b>Prepare data</b></p> <ul style="list-style-type: none"> <li>• Clean and prepare for analysis</li> </ul> <p><b>Analyze data</b></p> <ul style="list-style-type: none"> <li>• Balance strong views from proponents and opponents</li> <li>• Balance qualitative and quantitative data</li> <li>• Reveal new aspects of programme operation and outcome</li> </ul> <p><b>Validate data</b></p> <ul style="list-style-type: none"> <li>• Increase reliability and validity of conclusions</li> <li>• Data variety by source, type and participants</li> <li>• Triangulation—cross-validate and reinforce each method/data source</li> </ul> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" data-bbox="483 1455 1433 1669"> <thead> <tr> <th>Block 2</th> <th>Block 3</th> <th colspan="3">Block 4</th> <th>Block 5</th> <th>Block 6</th> </tr> <tr> <th>1. General Assessment Questions</th> <th>2. Specific Assessment Questions</th> <th>3. Indicators</th> <th>4. Methods/Data Sources</th> <th>5. Applicants</th> <th>6. Frequency</th> <th>7. Person Responsible</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme or assessment requirements, evaluation textbooks and guides.</p> <p><b>TIPS</b> Bring in an expert on data collection so you can be sure that your data is good and can feasibly answer the questions within any constraints. When choosing the best analysis, consider typical use, defensibility and relative cost.</p>	Block 2	Block 3	Block 4			Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible							
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5.2 Data Management	<p>Describe and identify how the data will be managed. Describe logistics of data management using the provided checklist.</p> <p><b>Data Management Checklist</b></p> <ul style="list-style-type: none"> <li>• Data format</li> <li>• Data organisation</li> <li>• Data availability</li> <li>• Data security</li> <li>• Information technology</li> <li>• Data quality control</li> <li>• Roles and responsibility, accountability of data management</li> </ul> <p>Reference Source: Scott Chaplowe, AEA eStudy 2013</p> <p><b>SOURCES</b> Programme documentation, programme and evaluation requirements, data management experts.</p> <p><b>TIPS</b> Store and retain impact assessment data according to legal requirements and organisational policy and procedures. Store and manage data so that it is easily accessible by users and protect access through use of such tools as a stakeholder security table.</p>
<b>6: Report and Use</b>	
Overall	<ul style="list-style-type: none"> <li>• What reporting format should be used for each of the assessment “target audiences” needs?</li> <li>• What information are you going to report to the target audiences?</li> <li>• How will this information be used in planning?</li> <li>• How will you handle negative findings?</li> <li>• Are there ways to lessen the possibility of misuse of the report?</li> </ul>
6.1 Reporting and Use	<p>Given the audience for the assessment, identify who needs to know what, in what format, and who will deliver it.</p> <p><b>Reporting Plan Checklist</b></p> <ul style="list-style-type: none"> <li>• Identify specific reporting needs, formats and audiences</li> <li>• Determine timing of reporting</li> <li>• Determine dissemination mechanisms</li> <li>• Identify people responsible for reporting</li> </ul> <p><b>Report information to target audiences</b>, considering that:</p> <ul style="list-style-type: none"> <li>• Reports are important for diffusing knowledge.</li> <li>• Report plans should fit the purpose and scope of the assessment.</li> <li>• It is recommended to report findings to the manager of the programme being assessed <i>during</i> the study so that there are no surprises, particularly if there are negative findings.</li> </ul>



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	<p><b>Example of Reports Types</b></p> <ul style="list-style-type: none"> <li>• Executive Summary</li> <li>• Technical</li> <li>• Progress</li> <li>• Impact stories</li> </ul> <p><b>Dissemination</b> Identify and describe dissemination and knowledge translation strategies to encourage use. Consider that:</p> <ul style="list-style-type: none"> <li>• The strategy is tailored to stakeholders’ information requirements.</li> <li>• Recommendations in the report should be linked to the evidence collected and judged against standards, codes of practice, criteria and/or values of the stakeholders.</li> </ul> <p><b>Example of Key Dissemination Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Print materials</li> <li>• Internet communications</li> <li>• Live presentations</li> <li>• Telephone communications</li> <li>• Radio communications</li> <li>• Television and filmed presentations</li> <li>• Networks</li> </ul> <p><b>Identify Different Future Uses of the Report</b> Consider whether or not your plan will provide the information needed for these common uses:</p> <ul style="list-style-type: none"> <li>• Holding organisations accountable</li> <li>• Informing allocation of resources</li> <li>• Analyzing progress, where to improve</li> <li>• Providing information to advocate for lessons learned for future assessments</li> </ul> <p><b>Research Impact Assessment (RIA) Plan Matrix Table</b></p> <table border="1" data-bbox="483 1455 1435 1669"> <thead> <tr> <th>Block 2</th> <th>Block 3</th> <th colspan="2">Block 4</th> <th>Block 5</th> <th>Block 6</th> </tr> <tr> <td>1. General Assessment Questions</td> <td>2. Specific Assessment Questions</td> <td>3. Indicators</td> <td>4. Methods/Data Sources</td> <td>5. Applicants</td> <td>6. Frequency</td> <td>7. Person Responsible</td> <td>8. Use &amp; Target Audience</td> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>SOURCES</b> Programme and assessment requirements, knowledge of your stakeholders.</p> <p><b>TIPS</b> Use feeds into lessons learnt and informs assessors and stakeholders how to better optimize impact. The goal is that the report will be used to inform strategic and business planning.</p>	Block 2	Block 3	Block 4		Block 5	Block 6	1. General Assessment Questions	2. Specific Assessment Questions	3. Indicators	4. Methods/Data Sources	5. Applicants	6. Frequency	7. Person Responsible	8. Use & Target Audience								
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<b>Appendix</b>	
Overall	<ul style="list-style-type: none"><li>• Identify budget (\$) allocated to assessment</li><li>• Resources<ul style="list-style-type: none"><li>○ Internal – in-house resources</li><li>○ External – contractors</li><li>○ Mix of both internal and external</li></ul></li><li>• Consider time frames for assessment</li></ul>
Work Plan	Typically you would create a work plan for the assessment by breaking down each block of the research impact assessment plan with associated tasks, start and end dates and type/names of allocated resources.