



## Guidelines for completing the Key Performance Indicators Report for Projects under the Funding Agreement for *Industrial Transformation Research Hubs and Industrial Transformation Training Centres*

### Introduction

The Funding Agreements for *Industrial Transformation Research Hubs* and *Industrial Transformation Training Centres* require a Key Performance Indicators (KPIs) report to be completed by the Administering Organisation. A separate report should be completed for each Project that is listed in Schedule A of the Funding Agreement. The Project encompasses all activities of the Research Hub or Training Centre.

For each Project (i.e. each Research Hub or Training Centre) identified in Schedule A of the Funding Agreement, targets for each funding year against the standard KPIs listed in the report and KPIs that are specifically relevant to the individual Project should be provided.

### Reporting Base

The KPIs and associated targets are intended to provide a reporting base at the Project level (i.e. for the entire Research Hub or Training Centre) to the ARC. The 'Reporting Frequency' column in the KPI report means the reporting from the Administering Organisation to the ARC as outlined in the Funding Agreement. Reporting frequency of KPIs may be annual, half-way through the project, and/or end of project. With the exception of "end of project" KPIs which are only required for the final year, targets should be completed for every year of ARC funding.

The Funding Agreement requires the Administering Organisation to provide an annual Progress Report including against the KPIs. The Progress Report is due by 31 March each year. Templates for the Progress Report are available on the ARC's web page for the *Industrial Transformation Research Hubs* scheme and *Industrial Transformation Training Centres* scheme.

## Reflect the Proposal

All KPIs and associated targets for a Project should reflect the aims and activities outlined in the Project's original Proposal, usually encompassed in the Project Summary. The Proposal's *Project Description*, *Aims* and *Budget* sections generally provide the most detail for reference.

Project-specific KPIs should directly reflect the anticipated outcomes and benefits identified in the Proposal's *Project Description* and should not include Project milestones. The annual Progress Report includes a separate section for reporting milestones.

It may also help to refer to the project plan you developed while writing your Research Hub or Training Centre Proposal. KPIs should align closely with the key benefits identified in your project plan. The ARC does not require a copy of your project plan but strongly recommends that you keep it up to date with Research Hub or Training Centre progress as this will be your key document to inform the KPI report.

## Stakeholder Value or Return on Investment (ROI)

For the purposes of estimating and reporting on targets for the KPIs, the ARC considers "Return on Investment (ROI)" as any return, including efficiencies and savings, that is relevant to the project and may include tangibles such as income or value generated by the Partner Organisations or leveraged additional funding to universities as a result of the Project. The return may also include intangibles such as workforce training, development of knowledge and processes or growth in industry through employment into Partner Organisations. The type of ROI will vary from project to project and therefore the ARC does not recommend any particular formula however it should be measured against the total investment rather than just the ARC component.

In order to address the KPIs on stakeholder value/ROI, consideration will need to be given to the type of returns that the project expects to receive and an estimate provided for each funding year. It is useful to provide information on the types of returns that have been included in your calculations. This may be simplest to do against each Project objective. Depending on the Project, there may not be an expectation of income or fully developed knowledge in the first year while the project is being established.

Administering Organisations are not required to report the actual/realised Value/ROIs until the Final Report which is at the end of the Project however the annual collection of data will simplify the process.

## Research Hubs

Research Hubs should show real tangible benefit to industry, so the KPIs should demonstrate the value of the deliverables, or the path to the deliverable, for the company and industry.

## Training Centres

Training Centres should demonstrate training of HDR students, usually PhD students, and postdoctoral fellows who will then be sufficiently familiar with the relevant industry to both value and be ready for a future career working with industry. One of the most effective ways to train people in industry processes and procedures is for them to be integrally involved in, for example, project plan development, KPIs, taking a product from bench to market or to implement a new process. These outcomes should also be included in the Project-specific KPIs.

## Notes

- Do not alter the KPI template
- All KPIs are required to be reported
- Do NOT delete any KPIs
- Only report on the years in which your Research Hub/Training Centre is receiving funding from the ARC, unless otherwise stated in the description within these guidelines
- Be aspirational with your KPI targets
- KPI targets may be renegotiated with the ARC as the Research Hub or Training Centre matures

## Key Performance Indicators Report

### Standard Key Performance Indicators for *Industrial Transformation Research Hubs*

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year	Target year
<b>Activities: Research training and professional education</b>								
	Number of staff, postdoctoral fellows and students engaged in mentoring programs (Where possible, each student or postdoc should have both an academic and industry mentor)	Annually						<i>The ARC would expect, at minimum, all trainees to be mentored both academically and by industry throughout the funding period. Normally a mentor is additional to a supervisor.</i>
	Number of partners and external stakeholders involved in mentoring programs	Annually						<i>This demonstrates the level of engagement of industry partners with the training of academic staff and trainees.</i>
	Number of professional short courses/workshops attended by Research Hub staff and postgraduate students	Annually						<i>This demonstrates the breadth of training of Research Hub personnel.</i>
	Number of directly relevant professional short courses/workshops attended by partners and external stakeholders	Annually						<i>This demonstrates the benefit of the collaboration to partners and stakeholders.</i>
	Number of HDR students and postdoctoral fellows working on core Research Hub research	Annually						<i>The ARC would expect, at minimum, all nominated trainees to be working on core Research Hub research.</i>

<sup>1</sup> Refer to [ARC Research Impact information](#) for assistance

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year	Target year
	Number of students and/or post-doctoral fellows placed in/seconded to Partner Organisations	Annually	<i>Ideally, and where appropriate, all trainees should be seconded to an industry partner for some time during the funding period. This captures those secondments.</i>					
	Number of postgraduate completions	End of project	<i>Research Hub Directors should aim to graduate all trainees.</i>					
<b>Activities: International, national and regional links and networks</b>								
	Number of national and international visitors and visiting fellows	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students.</i>					
	Number of national and international workshops held/organised by the Research Hub	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students.</i>					
	Number of visits to overseas laboratories and facilities by Research Hub staff/students	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students and building networks.</i>					
<b>Activities: End-user links</b>								
	Number of government, industry and business community briefings	Annually	<i>Demonstrates level of engagement with external stakeholders and ability to communicate complex ideas.</i>					
	Number of Industry visitors to the Research Hub	Annually	<i>Demonstrates level of engagement with external stakeholders and ability to form networks.</i>					
	Number of talks given by Research Hub staff open to the public	Annually	<i>Demonstrates level of engagement with external stakeholders, the public and ability to communicate complex ideas. The ARC would expect all trainees to be involved in this.</i>					
<b>Outputs</b>								
	Number of Research outputs (research outputs may include journal articles, books, book chapters, conference publications. Please disaggregate the measures for each output category)	Annually	<i>These would be expected to increase over time, and should reflect the body of work being developed and the students trained.</i>					

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year	Target year
	Quality of Journal publications (provide breakdown – consider whether outputs are peer reviewed, the volume of outputs, citation analysis, esteem measures for individuals such as prizes and awards, etc.)	Annually	<i>This should be discipline and industry relevant and aspire to high quality publications.</i>					
	Number of industry reports and publications	Annually	<i>This demonstrates the level of engagement with the industry.</i>					
	Number of invited talks/papers/keynote addresses (include international conferences held in Australia)	Annually	<i>This is a measure of esteem for the personnel in the Research Hub and the recognition of excellence and visibility of new trainees.</i>					
	Number and nature of commentaries about the Research Hub's achievements (list media releases, Social media and articles separately)	Annually	<i>This demonstrates the level of engagement and collaboration and communication of the Research Hub's outcomes to the community and stakeholders</i>					
<b>Outcomes</b>								
	Number of identified new processes, products or equivalent arising from the Research Hub's research	Annually	<i>Feeds into ROI This should align closely with the aims and program detailed in the proposal and also with the project plan. Each sub-project should demonstrate at least one deliverable over the course of the Research Hub's funding.</i>					
	Additional funding secured attributable to ITRH engagement (for example, secured venture capital - \$)	Annually	<i>Feeds into ROI Important for succession plan beyond funding window and growth of the Research Hub's program, also a demonstration of industry confidence.</i>					
	Number of Intellectual Property filings (for example Patents, including provisional)	Annually	<i>Feeds into ROI The ARC expects outcomes driven by excellent research would be likely to result in new IP relevant to the industry. This should align closely with the proposal aims, the sub-projects and project plan.</i>					

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year	Target year
	Number of Intellectual Property licences executed	Annually	<i>Feeds into ROI</i> <i>This is a demonstration of the conversion of project IP into valuable income and commercial outcomes.</i>					
	New staff hired by Partner Organisations directly attributable to engagement with the ITRH	Years 3 and 5	<i>Feeds into ROI</i> <i>This is a measure of growth in the industry partner in response to the Research Hub's driven outcomes</i>					
<b>Benefits</b>								
	Anticipated/forward estimate on Return on Investment (ROI) from project outcomes (\$)	Annually	<p><b>Total Predicted Value Generated</b>, e.g. including income in \$, assigned value of improvements, value estimated of generation of IP or signing of licensing deal, development of new market, improvement in supply chain etc.</p> <p><b>Total Investment</b> from ARC, partners cash and in kinds, admin org cash and in kind (This figure should be in the annual progress report for the Project)</p> <p>ROI = Value Generated/Investment.</p> <p>This KPI should measure the ROI during the ARC Funding Period. Consideration should be given to the triple bottom line when estimating value for ROI (social, environmental (or ecological) and financial). We would expect that estimates might include both income generated and expenditure saved, for example savings on waste disposal, and that assumptions will need to be made to estimate any monetisation. Assumptions and calculations may be listed as a footnote or appendix. Please also refer to the <a href="#">ARC's Research Impact Pathway table</a> for further guidance on research impact which may help map out the pathway to impact or benefits that may contribute to the ROI.</p> <p>Where reasonable, this KPI should be reported as a dollar figure. Descriptions of assumptions may be included.</p>					
	Anticipated/forward estimate ROI of actual/realised ROI (\$)	At end of project	<p>This KPI, measured as above, should be an estimation of the ROI beyond the ARC Funding Period (e.g. 5, 10, 15 years after the ARC Funding Period ends) when the outputs/outcomes/benefits arising from the program should demonstrate a triple bottom line research impact and return to partners.</p> <p>Where reasonable, this KPI should be reported as a dollar figure. Descriptions of assumptions may be included.</p>					

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year	Target year
	Implementation of project outcomes by industry (for example: number of processes, products, or equivalent)	At end of project	<i>Demonstrates tangible benefit to the industry.</i>					
	Number of spin-off/start-up companies established	At end of project	<i>Demonstrates tangible benefit to the industry and growth of new companies.</i>					
<b>Project Specific Key Performance Indicators<sup>2</sup> for the <i>Industrial Transformation Research Hubs</i></b>								
	<i>For more information on how to complete Project specific KPIs please refer to the section 'Reflect the Proposal' on page 2 of this document.</i>	Annually	<i>Feeds into ROI This should align closely with the aims and program detailed in the proposal and also with the project plan. If the KPI would be applicable to another ITRP investment then it is not a Project Specific KPI. Each sub-project should demonstrate at least one deliverable over the course of the Research Hub's funding.</i>					
	<i>Add as many rows as needed.</i>							

<sup>2</sup> These are not intended to be project milestones such as recruitment.

## Key Performance Indicators Report

### Standard Key Performance Indicators for *Industrial Transformation Training Centres*

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
<b>Activities: Research training and professional education</b>							
	<p>Number of HDR students and postdoctoral fellows enrolled at the Training Centre (separately)</p> <p>(Should include the number of ICHDRs and ICPDs funded by the ARC (as per Schedule A of the Funding Agreement) as well as HDRs and PDFs funded from other sources.)</p>	Annually	<i>Numbers of HDR students and postdoctoral fellows should not be less than the minimum requirement of 10 HDRs and 3 Postdoctoral Fellows throughout the funding period.</i>				
	<p>Number of students and/or post-doctoral fellows placed in/seconded to Partner Organisations</p> <p>(HDRs are required to spend one year in industry over the life of the project. Please indicate the number of HDR and if relevant PDRs, separately, who will be placed in industry organisations either full-time or part-time per year.)</p>	Annually	<i>The minimum requirement is for all ARC funded HDR students and postdoctoral fellows to spend one year in industry over the life of the project.</i>				

<sup>1</sup> Refer to [ARC Research Impact information](#) for assistance

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
	Time spent by students and/or postdoctoral fellows in placements/secondments to Partner Organisations, listed separately  (HDRs are required to spend one year in industry over the life of the project. Please indicate the time to be spent annually in industry by HDRs and if relevant PDFs. (for example, x months full-time/x% FTE per student, y months full-time/y% FTE per postdoctoral fellow))	Annually	<i>See above</i>				
	Number of staff, postdoctoral fellows and students engaged in mentoring programs  (Where possible, each student or postdoc should have both an academic and industry mentor)	Annually	<i>The ARC would expect, at minimum, all trainees to be mentored both academically and by industry throughout the funding period..</i>				
	Number of partners and external stakeholders involved in mentoring programs	Annually	<i>This demonstrates the level of engagement of industry partners with the training of academic staff and trainees.</i>				
	Number of professional short courses/workshops attended by postgraduate students, postdoctoral fellows and Training Centre staff	Annually	<i>This demonstrates the breadth of training of Training Centre personnel.</i>				
	Number of directly relevant professional short courses/workshops attended by partners and external stakeholders	End of project	<i>This demonstrates the benefit of the collaboration to partners and stakeholders.</i>				
	Number of postgraduate completions	End of project	<i>Training Centre Directors should aspire to graduate all trainees.</i>				
<b>Activities: International, national and regional links and networks</b>							
	Number of national and international visitors and visiting fellows	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students.</i>				

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
	Number of national and international workshops held/organised by the Training Centre	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students.</i>				
	Number of visits to overseas laboratories and facilities by Training Centre staff/students	Annually	<i>Measure of connectedness with international benchmarks and research. Important for level of training of students and building networks.</i>				
<b>Activities: End-user links</b>							
	Number of government, industry and business community briefings	Annually	<i>Demonstrates level of engagement with external stakeholders and ability to communicate complex ideas.</i>				
	Number of Industry visitors to the Training Centre	Annually	<i>Demonstrates level of engagement with external stakeholders and ability to form networks.</i>				
	Number of talks given by Training Centre staff open to the public	Annually	<i>Demonstrates level of engagement with external stakeholders, the public and ability to communicate complex ideas. The ARC would expect all trainees to be involved in this.</i>				
<b>Outputs</b>							
	Number of Research outputs (research outputs may include journal articles, books, book chapters, conference publications. Please disaggregate the measures for each output category)	Annually	<i>These would be expected to increase over time, and should reflect the body of work being developed and the students trained.</i>				
	Quality of Journal publications (provide breakdown – consider whether outputs are peer reviewed, the volume of outputs, citation analysis, esteem measures for individuals such as prizes and awards, etc.)	Annually	<i>This should be discipline and industry relevant and aspire to high quality publications.</i>				
	Number of industry reports and publications	Annually	<i>This demonstrates the level of engagement with the industry.</i>				

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
	Number of invited talks/papers/keynote addresses  (include international conferences held in Australia)	Annually	<i>This is a measure of esteem for the personnel in the Training Centre and the recognition of excellence and visibility of new trainees.</i>				
	Number and nature of commentaries about the Project's achievements  (list media releases, Social media and articles separately)	Annually	<i>This demonstrates the level of engagement and collaboration and communication of the Training Centre's outcomes to the community and stakeholders.</i>				
<b>Outcomes</b>							
	Number of identified new processes, products or equivalent arising from Training Centre research	Annually	<i>Feeds into ROI This should align closely with the aims and program detailed in the proposal and also with the project plan. Each sub-project would be expected to demonstrate at least one deliverable over the course of the Training Centre funding.</i>				
	Additional funding secured attributable to ITTC engagement  (for example, secured venture capital - \$)	Annually	<i>Feeds into ROI Important for succession plan beyond funding window and growth of Training Centre program, also a demonstration of industry confidence.</i>				
	Number of Intellectual Property filings  (for example Patents)	Annually	<i>Feeds into ROI The ARC expects outcomes driven by excellent research would be likely to result in new IP relevant to the industry. This should align closely with the proposal aims, the sub-projects and project plan.</i>				
<b>Benefits</b>							
	Number of students and/or postdoctoral fellows hired by industry	End of Project	<i>Feeds into ROI This is a measure of growth in the industry partner in response to Training Centre driven outcomes.</i>				

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
	Anticipated/forward estimate on Return on Investment (ROI) from Training Centre Outcomes  (\$)	Annually	<p><b>Total Predicted Value Generated</b>, e.g.: including income in \$, assigned value of improvements, value estimated of generation of IP or signing of licensing deal, development of new market, improvement in supply chain etc.</p> <p><b>Total Investment</b> from ARC, partners cash and in kinds, admin org cash and in kind (This figure should be in the annual progress report for the Project)</p> <p>ROI = Value Generated/Investment.</p> <p>This KPI should measure the ROI during the ARC Funding Period. Consideration should be given to the triple bottom line when estimating value for ROI (social, environmental (or ecological) and financial). We would expect that estimates might include both income generated and expenditure saved, for example savings on waste disposal, and that assumptions will need to be made to estimate any monetisation. Assumptions and calculations may be listed as a footnote or appendix. Please also refer to the <a href="#">ARC's Research Impact Pathway table</a> for further guidance on research impact which may help map out the pathway to impact or benefits that may contribute to the ROI.</p> <p>This KPI should be reported as a dollar figure</p>				
	Anticipated/forward estimate ROI of actual/realised ROI  (\$)	At end of project	<p>This KPI, measured as above, should be an estimation of the ROI beyond the ARC Funding Period (e.g. 5, 10, 15 years after the ARC Funding Period ends) when the outputs/outcomes/benefits arising from the program should demonstrate a triple bottom line research impact and return to partners.</p> <p>This KPI should be reported as a dollar figure.</p>				
	Number of spin-off/start-up companies established	At end of Project	<p>Demonstrates tangible benefit to the industry and growth of new companies.</p>				
	Implementation of Training Centre outcomes by industry  (for example: number of processes, products, or equivalent)	At end of Project	<p>Demonstrates tangible benefit to the industry.</p>				

Key Result Area	Performance Measure Activity/Output/Outcome/Benefit <sup>1</sup>	Reporting Frequency	Target year	Target year	Target year	Target year	Target year
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Project Specific Key Performance Indicators<sup>2</sup> for the Industrial Transformation Training Centres

	<i>For more information on how to complete Project specific KPIs please refer to the section 'Reflect the Proposal' on page 2 of this document.</i>						
	<i>Add as many rows as needed.</i>						

<sup>2</sup> These are not intended to be project milestones such as recruitment.