SRA Impact Pathway

SRA is in the process of formalising an “impact pathway” framework across the research portfolio. This program logic based model traces research inputs through to outputs, outcomes and ultimately, industry impacts. Such line-of-sight allows SRA to improve the monitoring and evaluation of the performance of our research and provides pathways towards quantifying attributable impact and demonstrating return on investment.

The first three stages, inputs through to outcomes, are short to medium term activities and results that SRA directly influences. Impacts, and associated benefits are longer term results that SRA influences but are also affected by external factors. Below are three examples of the impact pathway for three current research projects. In due course, SRA will publish impact pathway summaries for all projects on our website.

**KFA 1 EXAMPLE**

**Project Code:** 2015/004  
**Project title:** Impact of stool architecture on ratooning ability.

**Inputs**  
Projects in SRA’s portfolio – core, contestable and direct.

**Outputs**  
Products, services or results produced as a result of research and development.

1. **Stool architecture trait variation new methodology**  
   New methodology for assessing sugarcane stool architecture traits is developed and applied to assess the genetic variation amongst current commercial lines.  
   Est. delivery date: 01/07/2018

2. **Morphological traits linked to ratooning performance**  
   Stool architecture traits are assessed in relation to field practices including a comparison of key traits in historical germplasm.  
   Est. delivery date: 01/07/2018

**Outcomes**  
Effects or change realised from successful delivery of research outputs.

KFA/OUTCOME1  
“Comprehensive and efficient variety breeding, selection and release programs responding to yield expectations, environmental constraints, resource scarcity and regional preferences.”

**Impacts**  
Benefit to the industry, economy, environment and/or society as a result of realised outcomes.

Productivity and profitability improvements from improved varieties (better ratoon yields and/or extension of number of ratoons) made possible by better selection for traits linked to ratooning ability.
**KFA 3 EXAMPLE**

**Project Code: 2015/055**  
**Project title:**  
Field ready, optimized precision weed identification sensor system.

1. **Spot spray sensor system**  
A working commercial prototype of a weed identification sensor optimized with market entry algorithm for sugar cane.  
*Est. delivery date: 18/03/2018*

**KFA3/OUTCOME1**  
“A comprehensive RD&E program that addresses existing and emerging pests, diseases and weeds, allowing sugarcane growers to manage their crops efficiently with minimal environmental impacts.”

**Impacts**  
Productivity and profitability improvements from reduced herbicide application through precision spray guided by weed identification sensor and through extension of typical crop cycle due to reduced weed density.

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**KFA 5 EXAMPLE**

**Project Code: 2014/051**  
**Project title:**  
Improving mill efficiency through rapid analysis methodologies.

1. **Turn-key analysis system for mill products**  
NIR spectroscopic models operating on a commercial instrument capable of analysing multiple products for multiple constituents.  
*Est. delivery date: 28/02/2017*

2. **Description of the chemistry driving the NIR spectroscopic models - Chemical linkage**  
*Est. delivery date: 31/08/2017*

**KFA5/OUTCOME2**  
“Mill capacity and efficiency is optimised through improved processes, technology and value chain coordination and collaboration.”

**Impacts**  
Improved mill efficiency as a result of near-real-time feedback and the consequent tighter controls of factory processes. Improved productivity and profitability through reduced capital and labour costs with implementation of this technology.