

Traceability cost-benefit analysis

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AGRICULTURE VICTORIA

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Preface

This automated report provides summary information from [Agriculture Victoria's traceability system cost-benefit tool](#). All information contained in this report reflects summarised inputs provided by users or transformations of those inputs as detailed in the methodology section.

For more information on traceability systems and how they might benefit your business, see the [Agriculture Victoria traceability page](#).

Results

This cost-benefit analysis estimates traceability systems should benefit your business with a total 1.8% discounted return on investment (or \$308,609) over 10 years. Table 1 provides a full breakdown of initial costs, ongoing benefits and ongoing costs.

Table 1: Summary of costs and benefits

Cost/benefit	Category	Value
Upfront cost	Business costs	-\$2,100
	Provider costs	-\$22,000
	Supply chain	-\$1,500
Ongoing benefit (per annum)	Cost savings	-\$17,200
	Crisis management	-\$880
Ongoing cost (per annum)	New revenue	-\$40,000
	Business costs	-\$100
	New revenue	-\$15,000
	Provider costs	-\$1,500
	Supply chain	-\$1,000

Your business is estimated to break even on traceability systems within 1 year. Figure 1 shows how overall expected discounted return on investment will change each year.

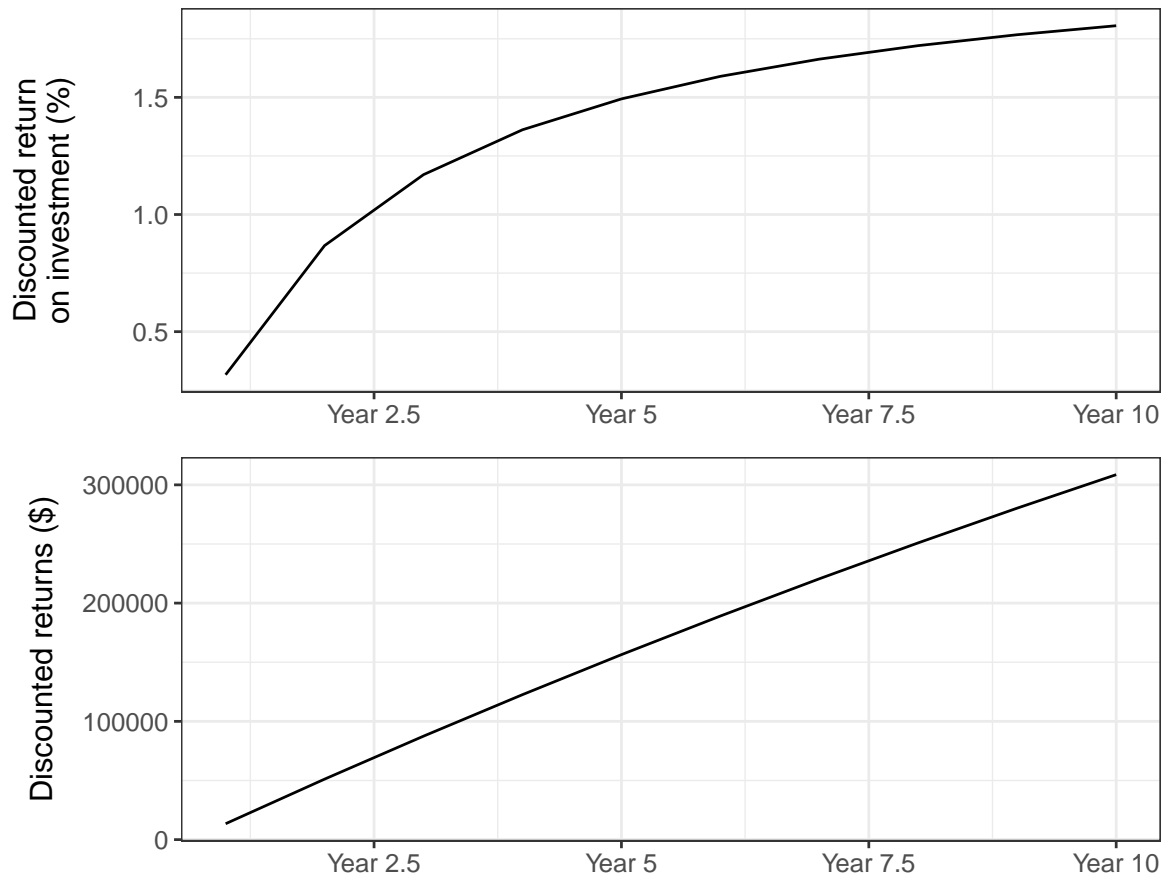


Figure 1: Returns by year

Probability of positive returns

All 5000 simulation runs returned a positive discounted return on investment, suggesting a very high likelihood of positive returns. Figure 2 shows a histogram of all simulation runs and expected discounted return on investment. Taller columns represent more likely outcomes.

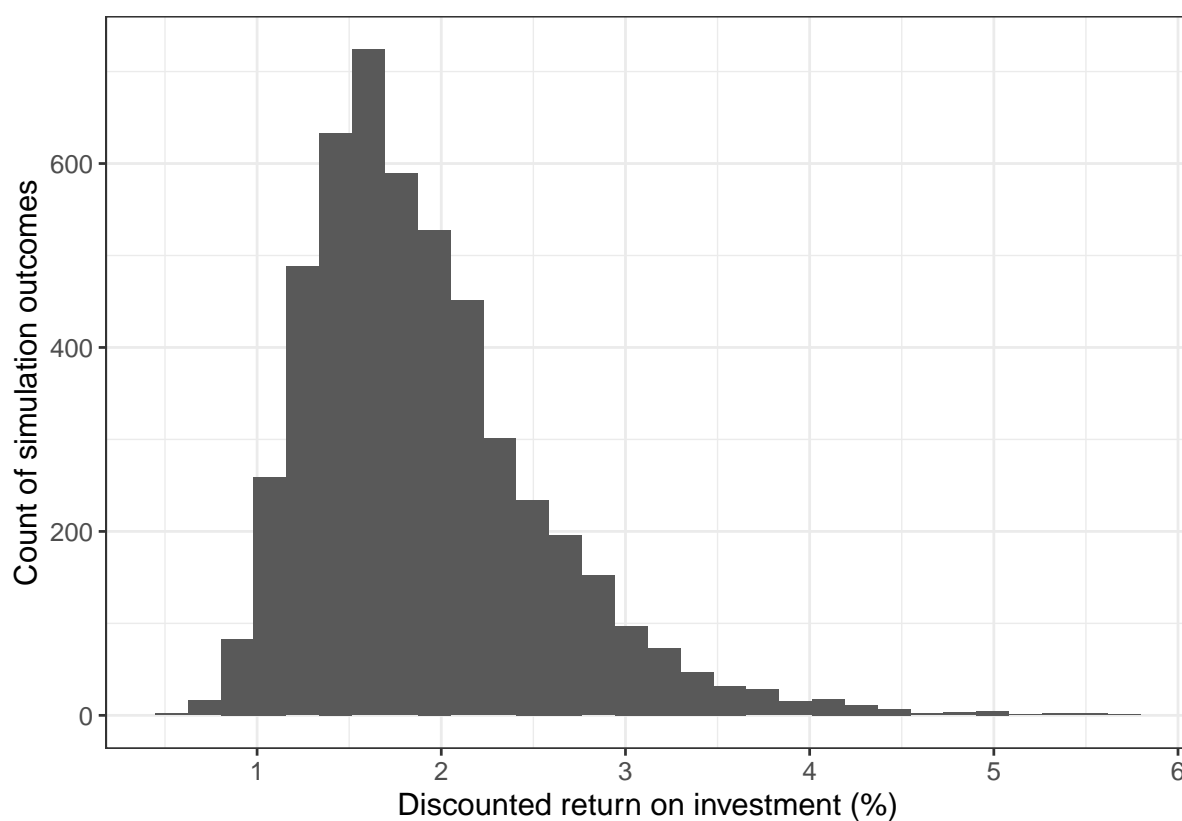


Figure 2: Histogram of simulated return on investment

Inputs

Table 2 provides a copy of all inputs in the cost-benefit analysis. These inputs are provided for reference purposes. If uncertainty content was completed as part of the cost-benefit analysis, this table will also include the alpha and beta shape parameters for probability distributions as detailed in the methodology section.

Table 2: Inputs provided to the cost-benefit analysis

Group	Variable	Expected	Range Max	Range Min
Business costs	bus_changeover	100.0	120.00	80
Business costs	bus_integration	100.0	120.00	80
Business costs	bus_ongoing_tot	100.0	120.00	80
Business costs	bus_software	100.0	120.00	80
Business costs	bus_training	100.0	120.00	80
Business costs	bus_upfront_other	100.0	120.00	80
Business costs	bus_upfront_tot	1,000.0	1,200.00	800
Business costs	equipment	100.0	120.00	80
Business costs	labellers	100.0	120.00	80
Business costs	labour	100.0	120.00	80
Business costs	marketing_costs	100.0	120.00	80
Business costs	printers	100.0	120.00	80
Business costs	scanners	100.0	120.00	80
Cost savings	accreditation	0.1	0.16	0
Cost savings	audit_comp	0.1	0.16	0

Cost savings	auto	0.1	0.16	0
Cost savings	brand_prot	0.1	0.16	0
Cost savings	data	0.1	0.16	0
Cost savings	insurance	0.1	0.16	0
Cost savings	inventory	0.1	0.16	0
Cost savings	marketing_savings	0.1	0.16	0
Cost savings	packaging	0.1	0.16	0
Cost savings	quality	0.1	0.16	0
Cost savings	red_costs_other	0.1	0.16	0
Cost savings	red_costs_total	3.0	4.80	0
Cost savings	rejections	0.1	0.16	0
Cost savings	supplychain	0.1	0.16	0
Crisis management	bio_dollar_new	900.0	1,000.00	800
Crisis management	bio_dollar_old	1,000.0	1,100.00	900
Crisis management	bio_time_new	1.0	1.00	1
Crisis management	bio_time_old	2.0	2.00	2
Crisis management	claims_dollar_new	900.0	1,000.00	800
Crisis management	claims_dollar_old	1,000.0	1,100.00	900
Crisis management	claims_time_new	1.0	1.00	1
Crisis management	claims_time_old	2.0	2.00	2
Crisis management	recalls_dollar_new	900.0	1,000.00	800
Crisis management	recalls_dollar_old	1,000.0	1,100.00	900
Crisis management	recalls_time_new	1.0	1.00	1
Crisis management	recalls_time_old	2.0	2.00	2
Crisis management	weather_dollar_new	900.0	1,000.00	800
Crisis management	weather_dollar_old	1,000.0	1,100.00	900
Crisis management	weather_time_new	1.0	1.00	1
Crisis management	weather_time_old	2.0	2.00	2
Current position	cur_costs	400,000.0	400,000.00	400,000
Current position	cur_rev	500,000.0	500,000.00	500,000
New revenue	add_rev_cost	3.0	4.80	0
New revenue	add_rev_other	0.5	0.80	0
New revenue	add_rev_tot	4.0	6.40	0
New revenue	brand_value	0.5	0.80	0
New revenue	market_share	0.5	0.80	0
New revenue	new_markets	0.5	0.80	0
New revenue	new_product	0.5	0.80	0
New revenue	pricing	0.5	0.80	0
New revenue	product_ranging	0.5	0.80	0
New revenue	repeat_purchasing	0.5	0.80	0
Provider costs	consumables	100.0	120.00	80
Provider costs	customisation	1,000.0	1,200.00	800
Provider costs	dashboard	1,000.0	1,200.00	800
Provider costs	installation	1,000.0	1,200.00	800
Provider costs	isobio_test	1,000.0	1,200.00	800
Provider costs	labelling	1,000.0	1,200.00	800
Provider costs	loggers	1,000.0	1,200.00	800
Provider costs	microsite_app	1,000.0	1,200.00	800
Provider costs	service	100.0	120.00	80
Provider costs	site_visits	1,000.0	1,200.00	800
Provider costs	sol_equipment	1,000.0	1,200.00	800
Provider costs	sol_ongoing_other	100.0	120.00	80
Provider costs	sol_ongoing_tot	1,000.0	1,200.00	800
Provider costs	sol_upfront_other	1,000.0	1,200.00	800

Provider costs	sol_upfront_tot	10,000.0	12,000.00	8,000
Provider costs	subscription	100.0	120.00	80
Provider costs	trace_standards	1,000.0	1,200.00	800
Provider costs	training	1,000.0	1,200.00	800
Provider costs	upgrades	100.0	120.00	80
Supply chain	changeover	100.0	120.00	80
Supply chain	integration	100.0	120.00	80
Supply chain	mobile_app	100.0	120.00	80
Supply chain	sup_ongoing_tot	1,000.0	1,200.00	800
Supply chain	sup_software	100.0	120.00	80
Supply chain	sup_upfront_other	100.0	120.00	80
Supply chain	sup_upfront_tot	1,000.0	1,200.00	800

Methodology