Final Report

Building the Case to Grow Domestic Demand for Vegetables

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McKinna et al

Project code:

VG17013

Project:

Building the Case to Grow Domestic Demand for Vegetables – VG17013

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Content

Summary

The **objective** of this project is to provide advice to the vegetable industry on whether industry investment in a well-executed marketing program, would grow consumer demand for vegetables on the domestic market and thereby increase economic returns to growers and supply chain partners. The **opportunity to be addressed** lies within the fact that vegetable consumption in Australia is well below recommended dietary levels and there are other stakeholders willing to work with the vegetable industry to address this. A previous study commissioned by Hort Innovation VG15031 (Deloitte Access Economics, 2016) quantifies the marginal cost to the community of low vegetable consumption, stating that a 10 per cent, per annum increase, would reduce government health expenditure by as much as $100 million per annum.

The **target audience** for this report includes the Australian vegetable industry levy payers, their representative body, AUSVEG and Hort Innovation.

The **key activities** in the project included a comprehensive literature review of previous Hort Innovation reports and global research on generic agrifood marketing; a stage of economic modelling conducted in collaboration with Deloitte Access Economics and The CIE; stakeholder consultation with marketing experts, supply chain partners and nutritional experts; industry consultation with growers in the key production areas of Australia; a situation summary workshop with representation from growers, AUSVEG and Hort Innovation; a shadow marketing strategy that scoped out how the marketing funds might be employed; and a business case report summarizing the key learnings and putting forward recommendations for next steps. The **key outputs** from the project are a series of reports on each of the above stages of research.

The **key outcome** of this project is that vegetable industry stakeholders now have access to information explaining the potential economic impact of a marketing campaign and a shadow marketing strategy outlining the recommended approach, which will enable industry discussions on the introduction of a marketing levy on vegetables to be well-informed.

The business case makes the following **recommendations**:

1. The vegetable industry rigorously review the findings in this business case, which supports the proposal to transfer a proportion of the current R&D levy into a strategic marketing program.
2. The outcome from this project be socialised and communicated to vegetable levy payers across Australia through a comprehensive roadshow and Q&A briefing forum, so that individual levy payers can come to their own conclusions, based on the available information.
3. Discussions begin with potential collaborative partners to make them aware that the vegetable industry is exploring the possibility of a marketing program with which they could potentially align their own strategy for mutual benefit.
4. Engagement with the administrators of the Canadian program ‘Half Your Plate’ (PMA Canada) would be beneficial to extract learnings from their experience in developing a campaign and marketing platform founded on emphasizing the ‘eating enjoyment’ proposition of vegetables. Likewise, New Zealand’s similar national program ‘vegetables.co.nz’ merits further exploration and may offer some learnings on managing collaboration between multiple industry bodies and national health authorities.

The conclusion is that a carefully-planned, well-executed and appropriately funded marketing strategy, implemented over a number of years, will deliver a substantial and sustained increase in vegetable consumption. This increase will in turn, result in real economic benefit to vegetable levy payers with flow-on social and economic benefits to the community.

Keywords

Industry marketing levy; Vegetables; Marketing strategy; Export; Advertising; Generic agrifood marketing; Business Case.

Introduction

Over recent years, the momentum to introduce a marketing levy has been building within the Australian vegetable industry. Investment through the vegetable R&D levy has resulted in a significant increase in productivity and improved product quality, however, while this has been a positive outcome for the industry, there has been a need identified to grow domestic and export demand for Australian vegetables, in order to take up the resulting supply increases and maintain farm-gate prices. This effort is reflected in Outcome 1 of the Vegetable Strategic Investment Plan 2017-2021: Growth in the domestic market.

The key aim of project VG17013 was to build a business case validating and estimating the scale of potential returns to industry from diverting a portion of R&D levy funds to fund marketing activity.

This document summarises the key findings from the research and the conclusions and recommendations. The suite of reports produced are attached in the appendix of this Final Report.

The project findings are of high significance to the Australian vegetable industry because of the scale of the potential impact on farm income returns. Economic modelling conducted as part of the project indicates that industry investment in domestic marketing of $10 million has the potential to lift farm income returns to growers by approximately $1.2 billion (NPV of gross gain before R&D opportunity cost) over 11 years to 2029-30, assuming a cumulative increase in vegetable consumption that is 21% higher than current levels at the end of the same period. The cumulative net impact after the opportunity cost of the reduced R&D investment is factored, would be $1.07 billion. While the actual scenario recommended in the shadow marketing strategy differs slightly to that modelled (because it was developed with the insight from the modelling and levy payer consultation), it is estimated that it will deliver comparable returns to levy payers.

The **Vegetable Industry SIP objective** that this project will contribute to is **Outcome 1: Growth in the domestic market**.

Methodology

The project methodology entailed the following steps which are described in further detail below:

1. Project planning & administration
2. Literature review
3. Economic modelling
4. Stakeholder consultation
5. Industry consultation
6. Situation summary workshop
7. Shadow marketing strategy
8. Business case
9. Final report (this report)

The literature review aimed to capture the learnings from the plethora of studies reviewing healthy eating programs around the world and review studies into the effectiveness of marketing vegetables with the primary intention of driving commercial returns to growers. The review of data in relation to the domestic situation was largely drawn from Hort Innovation's own body of project research. 14 reports from the 'Consumer Alignment' research program conducted on behalf of Hort Innovation were reviewed. The global search absorbed literature from the leading academics on generic agrifood marketing, focusing on those who have an established reputation in generic marketing of horticultural commodities for commercial gain, rather than health-driven motivations.

The economic modelling was conducted by economics consultancy The CIE using the Hi-Link partial equilibrium model developed for Hort Innovation for application across Australian Horticulture. The Hi-Link model captures 48 fruit, vegetable and nut commodities and includes 9 of the main levied vegetable categories. It covers domestic & international horticultural markets. McKINNA *et al* developed five possible marketing scenarios to be modelled with the intention of capturing the impact of each marketing investment at farm-gate. These marketing scenarios and their estimated effect on consumption were informed by results from previous marketing campaigns, as reported in the studies examined in the literature review. While The CIE conducted the modelling, Deloitte Access Economics provided independent analysis and interpretation of the process and its outcomes and authored the resulting independent report (appendixed).

Consultation on this project involved over 80 stakeholders including marketers, nutritionists, retailers and other supply chain partners. 60 vegetable growers were consulted in either interviews or discussion groups with the majority of these being in-person and a small proportion conducted by phone. The growers included producers of various commodities and scale of operation. The project reach was national with consultation held in key vegetable growing regions and at the 2018 Hort Connections conference in Brisbane in June 2018.

The key findings from the various stages of research, engagement and analysis were compiled into strategic analysis presentation which was workshopped on 18 September 2018 with representatives from the grower community, AUSVEG and Hort Innovation in attendance. This workshop resulted in growers validating the recommended marketing scenario that would be further developed into a shadow marketing strategy for the purpose of illustrating how a marketing levy might be spent.

The shadow marketing strategy was produced with the agreed $10 million marketing scenario employed. The development of the marketing strategy drew specific input from a number of experts in behavioural change marketing including principals from the specialist behavioral change advertising agency The Shannon Group, other advertising professionals, media agencies and prominent advertising commentator Russell Howcroft. It also draws on McKINNA *et al's* own considerable expertise in agrifood marketing strategy work for some of Australia's best known food brands.

The business case entailed drawing this large body of complex research and analysis into a concise and logical story that presents the findings succinctly to the target audience.

This document constitutes the final report.

Outputs

In addition to the administrative documents, the outputs from this project include:

1. **Literature review:** a comprehensive review of prior Hort Innovation reports and the results of a global search of academic articles on generic agrifood marketing.
2. **Economic modelling:** An independent report from Deloitte Access Economics on the modelling results of five scenarios completed by The CIE.
3. **Situation analysis presentation and workshop:** The situation analysis summary was developed to guide the discussions in the Situation Analysis workshop.
4. **Shadow marketing strategy:** A high level marketing strategy outlining how the proposed marketing funds in the $10 million investment scenario might be employed to best effect.
5. **Business case:** A summary of the findings and recommendations from the research.
6. **Final report**

Outcomes

The **outcome** of this project is that vegetable industry levy payers, their representative bodies, Hort Innovation and other stakeholders will have and evidenced assessment of the potential economic impact of a marketing campaign, which will enable industry discussion on the introduction of a marketing levy on vegetables to be well-informed.

This project outcome aligns with the vegetable industry **SIP Outcome 1: Growth in the domestic market**, the objective for which is described in the industry SIP as: *"Increased demand and value of the domestic vegetable industry through improved grower knowledge of the market, product differentiation, increased in food service revenue, improved food safety and increased consumer knowledge."* In particular, the project addresses the aspects of growing the demand and value of vegetables as well as increasing the grower knowledge base.

Monitoring and evaluation

The project has achieved its central end-of-project outcome in that a robust evidence base has been developed to inform decision making on redirecting a share of the current vegetable R&D levy to marketing. The information will also serve to grow the industry knowledge base on the subject of marketing approaches and return on investment for generic vegetable advertising.

The research answers a number of key questions from the project briefing, including:

- How did other marketing campaigns around the world impact vegetable consumption?
- What are the learnings from other efforts in generic agrifood marketing?
- What is the potential return on investment that a vegetable marketing levy could deliver?
- How would investment in domestic marketing compare to export marketing?
- What is the industry sentiment on the issue of a marketing levy and how does this compare to the viewpoint in relation to the R&D levy?
- What approach would a potential vegetable marketing strategy take?

The project outputs are anticipated to provide a critical evidence base for broader industry engagement and decision making on how to proceed with any change in the current levy agreement for the vegetable industry.

Recommendations

The business case makes the following **recommendations**:

1. The vegetable industry rigorously review the findings in this business case, which supports the proposal to transfer a proportion of the current R&D levy into a strategic marketing program.
2. The outcome from this project be socialised and communicated to vegetable levy payers across Australia through a comprehensive roadshow and Q&A briefing forum, so that individual levy payers can come to their own conclusions, based on the available information.
3. Discussions begin with potential collaborative partners to make them aware that the vegetable industry is exploring the possibility of a marketing program with which they could potentially align their own strategy for mutual benefit.
4. Engagement with the administrators of the Canadian program 'Half Your Plate' (PMA Canada) would be beneficial to extract learnings from their experience in developing a campaign and marketing platform founded on emphasizing the 'eating enjoyment' proposition of vegetables. Likewise, New Zealand's similar national program 'vegetables.co.nz' merits further exploration and may offer some learnings on managing collaboration between multiple industry bodies and national health authorities.

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Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report

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Belinda Adams, Grower Representative

Jarrod Strauch, AUSVEG

Appendices

1. Business Case
2. Summary flyer

McKINNA *et al*
Strategic Insight
Global Outlook

Hort Innovation

VG17013

Building the case to grow domestic demand for vegetables

Business Case

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To see a better way . . . try a fresh set of eyes

Executive summary

This business case is the culmination of an extensive body of research conducted for project VG17013 that aimed to provide an evidence base to inform industry decision making about the impact of introducing a vegetable marketing levy.

The evidence produced suggests there is a compelling case to switch part of the vegetable industry R&D levy into marketing on the basis of the following facts confirmed in the project research:

- Only 4% of Australians are eating the recommended amount of vegetables (ABS, 2011), suggesting latent demand is not being stimulated.
- There are a number of factors constraining vegetable consumption that could be addressed by a multi-faceted marketing program.
- Broad-based fresh food marketing is, in the main, successful at achieving positive returns on investment (with the right creative execution) and it has been found that industries generally under-invest relative to the potential return on investment (McLaughlin *et al*, 2013).
- Leading specialists in behavioural change marketing consulted in this project indicated that an initial annual investment of around $10 million would be required to achieve the necessary consumer reach via a national, generic advertising campaign and the literature review confirmed that such a campaign could be effective in lifting consumption levels by at least 0.5 serves per person, per day cumulative over 5 years.
- It is proposed that it would be possible to fund a $10 million per annum marketing campaign by allocating $5 million per annum from vegetable levy funds and seeking strategic partnerships with others in the vegetable industry supply chain, government health departments or health councils to finance the other $5 million. After 5 years, the campaign would transition to a maintenance phase with an assumed reduced investment of $6 million annually, reducing the reliance on collaborative partners.
- Both the literature (Rekhy & McConchie, 2014) and the marketing specialists consulted indicated that a multi-faceted program with a mix of advertising, promotions and eventually intervention programs targeted at specific demographic and behavioural cohorts would be required to effectively lift national vegetable consumption. Advertising alone would be not be effective in increasing consumption over the longer term.
- The economic modelling in the project indicates that the forecast growth in demand stimulated by a $10 million marketing campaign would necessitate an approximate 30% growth in vegetable production to service a 21% lift in consumer demand. This is due to the fact that 45% of production is wasted,

either in the home or supply chain. The levy pool would subsequently rise as a result of this growth, eventually reducing the reliance on collaborative contributions to the marketing effort when the campaign budget reduces to a maintenance spend.

- The economic modelling also indicated that a $10 million domestic marketing campaign would deliver a net economic benefit to growers in present value terms of around $1.07 billion in farm income terms, over 11 years after factoring in the opportunity cost from the reduced investment in R&D.
- CIE's economic modelling results show that retailers and others in the supply chain would also benefit from the industry marketing investment. Under marketing scenario 1 the lift in additional retail sales above the baseline would be 8.6 per cent in volume. Retailers would also gain an 8 per cent increase in price by 2030. Retailers would benefit from an improvement in gross margin of $368 million by year 2030 and achieve a cumulative gain of $1.9 billion over the 11 years modelled. This presents a compelling case for supermarkets to participate in the proposed marketing program.
- The vast majority of the 61 growers consulted were in favour of a shift in levy allocation away from R&D towards marketing. The majority supported pursuing a marketing campaign in the vicinity of the $10 million recommended by the marketing experts.
- The levy payers consulted endorsed the view that the key objective of the marketing campaign should be to increase economic returns to growers rather than attempt to address the national health crisis. The growers concurred with the recommendation in the shadow marketing strategy that messaging should primarily focus on promoting vegetables based on the eating enjoyment and that the nutritional aspect could be captured in secondary support messages and through partnerships with government health departments and health councils.
- The supply chain partners consulted indicated an in-principle willingness to support a collaborative marketing effort, subject to its alignment with their own marketing directions.
- Increasing national vegetable consumption would result in major social good and economic flow-on factors as a consequence of improved health outcomes and reduced health costs (Deloitte Access Economics, VG15031). These benefits support the case for government co-funding, or at least 'seed funding' a vegetable marketing program.

Based on the research findings, a shadow marketing strategy was produced (reported separately) proposing an approach similar to that modelled in the $10 million scenario. The proposed model recommends phasing in a $1 million investment in export marketing after 3 years of the domestic campaign. This business case document summarises the shadow marketing strategy and potential funding and governance models for consideration. The proposed marketing approach and governance model differs to other levy-funded marketing activity in that:

a) This would be a broad-based campaign (rather than a single commodity campaign) with a large number of vegetable categories involved.

b) This would be a behavioural change marketing campaign, which requires a different marketing strategy to single commodity promotion.

c) The strategy relies on other contributors from outside the levy system to be co-funders and strategic partners for the first 5 years, so independent governance is required.

Industry feedback indicates a strong preference from levy payers for a self-managed business model, however, based on a long history developing generic agrifood marketing strategy, it is the authors' view that marketing programs can be heavily compromised when managed by committee and require input from experienced marketing experts.

Diverting approximately 50 per cent of the current R&D levy pool to marketing would enable the industry to initiate an effective behavioural change program with a national reach providing these funds could be matched by strategic partners for the first five years to finance the $10 million campaign that behavioural change marketing experts suggest is required.

The conclusion to this business case is that a carefully-planned and well-executed marketing strategy as outlined, has the potential to deliver an increase in vegetable consumption of around 0.5 serves per person, per day within 5 years. This increase will in turn, result in economic benefits to vegetable levy payers in the vicinity of a $1 billion net increase in farm income over 11 years, with flow-on social and economic benefits to the community.

This business case makes the following recommendations:

1. The vegetable industry rigorously review the findings in this business case, which supports the proposal to transfer a proportion of the current R&D levy into a strategic marketing program.

2. The outcome from this project be socialised and communicated to vegetable levy payers across Australia through a comprehensive roadshow and Q&A briefing forum, so that individual levy payers can come to their own conclusions, based on the available information.

3. Discussions begin with potential collaborative partners to make them aware that the vegetable industry is exploring the possibility of a

marketing program with which they could potentially align their own strategy for mutual benefit.

4. Engagement with the administrators of the Canadian program 'Half Your Plate' (PMA Canada) would be beneficial to extract learnings from their experience in developing a campaign and marketing platform founded on emphasizing the 'eating enjoyment' proposition of vegetables. Likewise, New Zealand's similar national program 'vegetables.co.nz' merits further exploration and may offer some learnings on managing collaboration between multiple industry bodies and national health authorities.

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Section 1 | Introduction

1.1 Background to the project

Over recent years, the momentum to introduce a marketing levy has been building within the Australian vegetable industry. Investment through the vegetable R&D levy has resulted in a significant increase in productivity and improved product quality, however, while this has been a positive outcome for the industry, there has been a need identified to grow domestic and export demand for Australian vegetables, to take up the resulting supply increases and maintain farm-gate prices. This effort is reflected in Outcome 1 of the Vegetable Strategic Investment Plan 2017-2021: Growth in the domestic market.

The purpose of project VG17013 has been to develop an evidence-based business case to inform industry decision making regarding the proposal to introduce a marketing levy. The business case considers the findings from a literature review, economic modelling of the potential impact of five possible marketing investment scenarios, as well as stakeholder consultation to assess industry sentiment and the willingness to support a marketing program. The business case also outlines the structure and indicative strategic direction of a recommended marketing campaign, including considerations on the funding and governance models.

1.2 The vegetable marketing challenge

The marketing challenge to lift vegetable consumption is significant given the alarmingly low consumption in Australia currently, with only 4% of Australians eating the recommended serves per day (ABS, 2011).

A review of the large volume of literature available through the vegetable industry's 'Consumer Alignment' research program conducted by Hort Innovation on behalf industry, identified consistent barriers to vegetable consumption. Some of these barriers will require marketing solutions beyond advertising such as research and/or product development (which can be funded within the terms the current R&D levy), however, a number of these barriers can only be addressed through marketing. The barriers to increased vegetable consumption as identified across the body of literature reviewed, are summarised as follows:

1. The less than satisfying eating experience of vegetables relative to other foods.

2. The need for inspiration and constant new ideas to keep consumers enthused, avoid routine and make vegetables relevant in contemporary meal planning and cuisine styles.

3. The lack of skill and confidence in buying, storing, preparing and serving vegetables.
4. The lack of branding and packaging, which limits the shelf impact of vegetables relative to packaged foods and in some cases decreases shelf life and product quality (however, more recently there has been consumer push back against excessive packaging).
5. The intense competition for the food dollar and the large expenditure in marketing by other food categories such as snack foods.
6. The lack of convenience relative to other food options because vegetables are perceived to require a lot more effort to purchase, prepare, cook, serve and clean up afterwards when consumers are time poor.
7. The consumer misconception that fresh vegetables are expensive and the lack of understanding about seasonality and why pricing is inconsistent.
8. Fear of wastage and inconvenient unit size relative to the needs of contemporary households and lifestyles.
9. Lack of accessibility to vegetables in out-of-home eating situations.
10. The stigma which children hold about vegetables.
11. A lack of consumer knowledge about the specific nutritional and health benefits of vegetables.
12. The tendency to eat vegetables with the evening meal only.

Section 2 | Literature review learnings

A key challenge in the literature review for this project was that there is a plethora of research material reviewing healthy eating programs, but very little in the way of literature around the effectiveness of generic marketing of vegetables with the primary intention of improving commercial returns to growers.

The review of research in relation to healthy eating campaigns and Australian vegetable consumption trends was largely drawn from Hort Innovation's own body of project research, given that:

A. Hort Innovation is the leading facilitator of research on this subject in Australia

B. A number of the previous Hort Innovation studies already contain extensive literature reviews on the subject of global healthy eating campaigns.

The global literature search therefore focused primarily on seeking information on generic agrifood marketing for commercial gain (rather than health reasons) and gave rise to the following observations by the authors in relation to vegetable marketing globally:

- To date, most academic reviews of vegetable marketing around the world have focused on the 'healthy eating' nutritional agenda, rather than on studies aimed at driving sales of vegetables for commercial returns.

- Most healthy eating campaigns have not met their objectives of sustainably increasing vegetable consumption rates (Rekhy, 2014).

- Consumers are aware of the health benefits of vegetables; therefore, marketing strategies would be better focusing on the blockers to consumption (e.g. providing inspirational recipe ideas to overcome the blocker of low eating enjoyment).

- Because recent government-funded health campaigns are taking more of a 'lifestyle change' approach rather than 'diet change' approach to health messages, vegetables are getting reduced exposure in these campaigns.

- There are multiple stakeholders with a vested interest in increasing vegetable consumption (from growers through the supply chain to communities and health authorities/councils) and greater collaboration would reduce duplication of effort and leverage marketing resources.

- Marketing activity for vegetables will need to be multi-faceted (i.e. include intervention programs as well as advertising), broad-reaching (i.e. engage multiple stakeholders and target a wide range of cohorts) and sustained to increase consumption. Short term advertising alone will not be effective (Rekhy, 2014).

- Some of the literature acknowledges that poor strategy and weak creative execution is judged by reviewers to have negatively impacted the outcomes of some healthy eating behavioural change programs (although the reviewers themselves note that this cannot be measured objectively) (various authors, Eat Well Project, 2013).

- Marketing programs with significant industry involvement are likely to be more effective than those auspiced by health authorities alone (Rekhy, 2014).

- Despite the large investment in market research funded through the vegetable R&D levies to date, there has not been widespread application of the learnings reflected in the industry marketing activity. Industry capability in marketing is noted in the reporting as a skill gap.

A vegetable industry marketing program would not be as simple as running some TV advertising for a season or two. A strategic, multi-faceted approach is required, which begins with raising awareness of the issue using mass media advertising and then collaborating with partners to develop targeted interventions for specific demographics, lifestyle and behavioural segments. Phases of activities would need to build over a number of years.

Section 3 | Learnings from the economic modelling

3.1 The approach to the economic modelling

The economic modelling is a critical element of the business case, as it presents objective evidence of the impact that investment in marketing could have on the financial outcome for levy payers. It must be emphasised that any modelling is always theoretical as it is founded on assumptions.

The CIE Hi Link economic model was used to quantify the impact of five potential marketing scenarios. The scenarios were assessed over an 11-year period from 2019-20 to 2029-30. Hi Link is a partial equilibrium model that takes into account market factors such as supply and demand and resource constraints, as well as the interaction between distributions of benefits across the supply chain for 48 horticultural categories in both domestic and export markets. Deloitte Access Economics was commissioned to provide independent interpretation of the CIE modelling results in order to ensure integrity and impartiality with respect to the conclusions.

3.2 Model assumptions

In deciding which scenarios to model, a balanced position was taken by the consultants between the available vegetable levy funds (circa $9 million annually) and the advice from behavioural change experts about the expenditure required to achieve behavioural change (circa $10 million annually). While none of the scenarios modelled were adopted precisely in the recommended shadow strategy, the learnings from this work ultimately led to the recommended strategy and funding model.

The response impacts of the marketing (i.e. the assumed increase in the serves per day as noted in **Figure 1** following) were based on the success rates of healthy eating campaigns around the world as discovered in the literature review. An estimate was made of the potential impact that each of these marketing scenarios could have on increasing the number of additional serves per day of vegetables as a result of each marketing campaign. This estimate was based on the outcomes from similar programs around the world. (**Note:** the national Go for 2 & 5 campaign that ran in Australia in 2009 achieved an increase of 0.8 serves of vegetables per day after a 9 month campaign). The expenditure levels were based on advice from marketing specialists who outlined what could be achieved in terms of advertising coverage for each of the five scenarios.

A total of five scenarios were modelled as summarised in **Figure 1** following and can be described as follows:

- The first scenario represented the ‘ideal’ model as recommended by marketing experts i.e. a $10 million per annum marketing investment, that scales down to $6 million per annum maintenance program after five years.
- The second scenario explores the impact of a $5 million investment, which could be funded from the existing levy without the need for collaborating partners to provide additional finance.
- The three $3 million scenarios explored the impact of allocating funds to export marketing at a contribution of zero (Scenario 3), $1 million (Scenario 4) or $3 million (Scenario 5).

3.3 Modelling results

The five scenarios and the key results of the modelling are summarised in **Figure 1** following but the results can be explained in brief, as follows:

- Scenario 1, the $10 million investment, is estimated to achieve an increase in consumption of 0.5 serves per person, per day within 5 years, resulting in a 21% lift in consumption (assuming current daily serves are 2.3 per person) over the 11 year period modelled.
- The modelling suggests that Scenarios 2 and 3 would result in an increase in consumption of 0.25 serves within 5 years and a 10% lift in consumption over the 11 years.
- Scenario 4 would take 11 years to grow daily vegetable consumption by 0.25 serves per day and deliver a 7% increase in total volume of vegetables consumed over the 11 year period modelled.
- Scenario 5 which is focused on exports, would not have any measurable impact on domestic consumption but would grow new markets and deliver a substantial benefit/cost of $18.55 per dollar invested.

Figure 1: Marketing scenario modelling results

	Marketing spend p.a.	Marketing spend over 11 years	Marketing activity	Total farm income cumulative increase	Return per $1 marketing spend	Assumed increase in serves per day	Increase in volume of vegetables consumed over 11 years
1	$10 mil 5 yrs $6 mil 5 yrs	$86 million	National domestic advertising campaign	$1,216 million	**$19.01**	0.5 serve within 5 years	21%
2	$5 million	$55 million	Reduced marketing campaign with focus on social media	$582 million	**$14.72**	0.25 serve within 5 years	10%
3	$3 million	$33 million	Small domestic social media campaign and improved coordination of existing activities	$405 million	**$17.08**	0.25 serve within 11 years	10%
4	$3 million	$33 million	$2 million domestic PR $1 million export sales promotion	$449 million	**$18.90**	0.25 serve within 11 years	7%
5	$3 million	$33 million	100% export sales promotion	$440 million	**$18.55**	No domestic increase	

Source: CIE Hi-Link model and Deloitte Access Economics Analysis

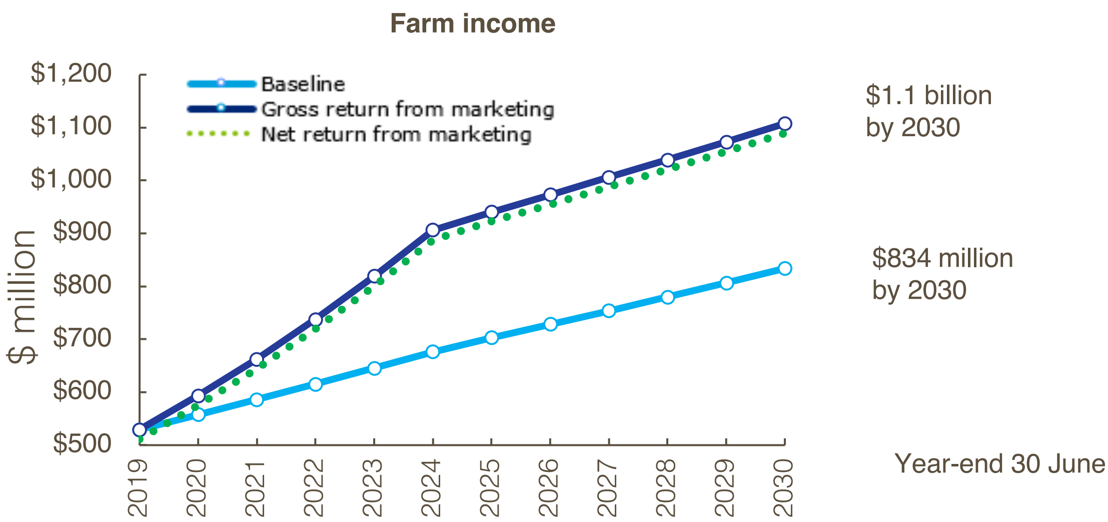
Note: 'Total farm income' represents the returns to growers and is defined as total receipts less cash costs, including payments to hired labour. It includes payments to capital, land and owner operators.

Figure 2 below, indicates the impact of marketing Scenario 1 relative to the status quo. If the industry was to maintain its current approach to levy expenditure (i.e. baseline) and elect not to allocate funds to a marketing levy, it is likely that that by year end 2030, farm income would grow to $834 million (present value). Should industry choose to invest in a domestic marketing campaign of $10 million, the outcome would be cumulative growth to $1.074 billion after the opportunity cost of matched R&D funding is factored.

The returns to growers of over $1 billion is distinct from returns to retailers, suppliers and others in the value chain, who would also be positively impacted. While the returns to input suppliers were not modelled in this study, economists broadly estimate them at 35% of the gross retail value gained.

The CIE modelling results do indicate the returns to retailers highlighting that under marketing scenario 1, the lift in additional retail sales above the baseline would be 8.6 per cent in volume. Retailers would also gain an 8 per cent increase in price by 2030. Retailers would benefit from an improvement in gross margin of $368 million by year 2030 and achieve a cumulative gain of $1.9 billion over the 11 years modelled i.e. a larger overall gain than the return to growers. This presents a compelling case for supermarkets to participate in the proposed marketing program.

Figure 2: Marketing scenario 1 – Domestic campaign of $10 million



Source: CIE Hi-Link model and Deloitte Access Economics Analysis

Figure 3 breaks down the Scenario 1 results in further detail.

Figure 3: Marketing scenario 1 results summary

Marketing spend per annum	$10 million 5 years $6 million 6 years
Total **marketing** investment	$86 million
PV Farm income cumulative **increase** from marketing	$1,216 million
PV farm income **opportunity cost** from R&D	$142 million
Net increase to farm gate income	$1,074 million
Return per $1 invested in marketing (BCR*)	$19.01

^ *Excludes marketing spend*
* *BCR calculated on total farm income benefit i.e. before deduction of marketing cost and opportunity cost of R&D investment*

Source: CIE Hi-Link model and Deloitte Access Economics Analysis

3.4 Implications for the shadow marketing strategy

Although Scenario 1 delivered the strongest return per investment dollar and total net gain, all five scenarios produce a very high benefit/cost ratio that is substantially higher than the indicative returns of the historic R&D investments. The implication of this is that there is also merit in investing in the $3 million to $5 million scenarios, which would not require the coordination of any additional funding streams from collaborative partners, however, the farm income growth generated would be significantly less as these lower budget scenarios would result in a smaller increase in consumption and a slower rate of consumption growth.

Scenario 1 is the preferred option by the vast majority of growers consulted during the project and as such, was used as the basis for the shadow marketing strategy (reported separately), although the ultimate investment recommendation differs slightly to the scenario modelled. A marketing investment of $10 million was also recommended by the marketing specialists consulted and investment of this magnitude was endorsed as the preferred approach by growers who participated in the situation analysis workshop.

In developing the shadow marketing strategy, a judgement was made by the consultants that it would be feasible to raise the additional funds required to deliver national campaign in the vicinity of $10 million by seeking contributions from government or strategic supply chain partners. It is worth noting that both the Canadian 'Half your plate' and New Zealand's 'Vegetables.co.nz' marketing programs work on funding models with multiple strategic partners including government and health authorities supporting the industry effort.

On that basis, the shadow marketing strategy has been created around a total spend of **$10 million** per year which reduces to $6 million per year after five years. The recommendation differs to that modelled in Scenario 1, in that an investment of **$1 million** per year for exports is also proposed to be phased in after year 3 when the industry advances its current export market development strategy. A marketing investment of $1 million in export markets would enable in-market advertising in target markets as well as promotional activity. This additional export investment would complement the industry's current and ongoing market access and development work funded by the R&D levy and managed by AUSVEG.

The proposed marketing investment is explained further in **Figure 5**, in Section 4 of this document.

Although all the marketing scenarios modelled could deliver a better economic return to levy payers than R&D investment, there is a strong case to support a $10 million investment based on:

a) The significantly larger total net gain in farm income

b) The attractive estimated return of $19.01 per $1 invested

c) The advice from marketing experts

d) The support from growers consulted to date.

Section 4 | Consultation feedback

4.1 Grower feedback

Vegetable growers themselves have driven much of the industry discussion on the marketing levy issue, with many advocating for the implementation of this project to provide a knowledge base on which sound decision making can be made. The industry consultation entailed qualitative research where 61 vegetable growers/packers/marketers from all production regions in Australia were consulted in both individual in-person and phone interviews and small group discussions. The consultation followed the project's economic modelling exercise so that the results could be discussed with participants. Many growers were very keen to have a say on this issue, interrogate the consultants on the modelling findings and were enthusiastic participants in the discussion.

Figure 4 below summarises the number of growers consulted by state:

Figure 4: Growers consulted by State

State	Number of growers consulted
Queensland	12
South Australia	9
Western Australia	6
Victoria	19
Tasmania	13
NSW	1
Northern Territory	1
TOTAL	**61**

A short presentation was made at all of the in-person sessions that outlined the approach and findings from the economic modelling conducted at the start of the project. The key themes from these discussions are captured below:

1. An overwhelming majority of growers support some form of marketing investment.

2. Most growers believe that R&D investment no longer delivers the same 'step change' in productivity that it once used to because most of the

fundamental production problems have been solved and because the larger businesses now conduct their own R&D to solve their own specific production challenges and priorities.

3. The point was strongly endorsed by the majority of respondents that there should not be an additional levy applied for marketing, but rather a transfer within the current R&D levy amount collected. While some growers did suggest and support an additional levy, the vast majority of growers did not want this.

4. The small number of growers who were against a marketing levy held their view before the session began and were skeptical about the modelling results, believing them to be theoretical and therefore unhelpful.

5. Most growers felt that others in the supply chain should contribute to a marketing effort, especially retailers, on the basis that they would share in the gains achieved; as well as government health departments, on the basis of the health benefits and reduction in national health costs.

6. The response to export marketing was polarised with some stakeholders believing the focus of investments should be on the domestic market and others supporting an export component. Even the views between current exporters differed, with some believing the funds would have more impact in the domestic market, conversely, some non-exporters thought export investment would drive offshore demand and subsequently support more favorable prices in the local market.

7. A condition of supporting the marketing proposal by some levy payers consulted was that growers would have an adequate degree of control over the marketing program and that very specific KPIs and deliverables be applied to the program managers.

8. The vast majority of the growers who were pro-marketing believed that supporting a campaign of $10 million was the wisest option on the basis that it was the recommendation of the marketing experts and had the potential to deliver the largest scale returns to growers (as evidenced in the economic modelling results).

9. Those businesses consulted who had an in-house marketing resource indicated that the current market research and consumer insights reports that are funded by levies are useful but lack the level of detail required to inform commercial marketing decisions. The majority of respondents did not use the available market insights materials in their business.

10. In discussions with the growers it became evident that they do not get the competitive benefit of 'brand tension', which in other markets and categories drives market demand. As most vegetables in Australia are

sold under retailer's own brands or are un-branded, there is no inter-brand competition where competitors employ advertising to differentiate from competitors, which in-turn can drive category growth. The tight margins on 'store branded' vegetables limit the ability to innovate and differentiate. Because of this market dynamic, many stakeholders believed that an industry-wide marketing campaign was the only option for growing vegetable demand in Australia.

4.2 Other stakeholder feedback

At the insistence of growers, the consultation included over 20 interviews with other stakeholders engaged in this issue. While this additional stakeholder consultation was not extensive, it included retailers, marketers, suppliers, advisors, nutrition experts and industry officers.

The other stakeholders gave 'in principle' support to a collaborative effort to drive vegetable consumption and potentially become a strategic partner to funding a campaign in collaboration with the vegetable industry. Most acknowledged the need to avoid duplication of effort and the fact that the ultimate aim was shared. However, there were caveats in this undertaking. Consultation with executives and buyers from the fresh produce area of the two major supermarkets made the valid point that they already spend significantly more than $10 million per annum in their ongoing efforts to market fresh food on behalf of the industry. Although the retailers gave in-principle support for a generic campaign and expressed a willingness to cooperate, they noted that they would not compromise their own individual marketing strategies in any way. Like the retailers, others noted that the marketing messaging and intent would understandably need to align with their own corporate /organisational marketing objectives.

Learnings from the consultation with behavioural change marketing experts during this project indicate the following:

1. A national behavioural change marketing campaign in Australia would require a budget in the vicinity of $10 million to be effective in influencing long term behavioural shifts across the wider community.

2. There needs to be a sustained effort over a number of years to drive long term behavioural change. Even when such campaigns were successful at raising awareness of the issue, they have been unable to translate this into long term behavioural change unless the messaging is sustained.

3. Such campaigns require a range of interventions, far more than advertising alone. The interventions would need to be appropriate to the market segment being targeted e.g. promotional programs, social media, health initiatives, cohort-specific programs, education and training, etc.

4. To be effective, a national campaign must reach a wide spectrum of demographic and behavioural cohorts from children through to the elderly with messages customised to address the specific behaviours in consumption for each segment.

5. Behavioural change marketing campaigns should commence with a broad-reaching, mass media effort to raise awareness of the issue and build the brand profile. Following this initial phase, the campaign should then introduce a 'call to action' message through social media. The campaign should progressively become more targeted with PR and tailored programs to address blockers to change within specific cohorts. The media budgets can be reduced after a few years, once the initial campaign has raised awareness of the issue.

The consultation with levy payers indicated that there was almost unanimous support for the proposal to divert part of the R&D levy funds into marketing investment.

Other stakeholders expressed in-principle support.

Section 5 | The proposed funding model

5.1 Budget requirements

The shadow marketing strategy recommends a campaign with an initial investment of $10 million based on the recommendation of the marketing experts involved in the project and the endorsement from industry. The intention is to fund a campaign of this scale with $5 million per annum diverted from the industry R&D levy pool and the remainder of the funds (i.e. $5 million initially) being raised from other contributing partners. This funding model ensures that approximately $4-5 million will remain to continue to fund core vegetable R&D investments on an ongoing basis.

The shadow marketing strategy was developed around a total, all-inclusive annual marketing budget as outlined in **Figure 5** below. In reality, the budget will not align precisely with these indicative estimates because the first year of the program will require investment of time and funds in developing the concept briefing the creative teams and selling the idea into potential partners before the major budget cost of media is actually commissioned. In addition, the levy collection costs and the administrative component of the program needs to be budgeted on top of the marketing activity itself.

Figure 5: Budget estimates for indicative national marketing campaign

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Ongoing
Domestic marketing budget	$10 mil	$10 mil	$10 mil	$9 mil	$9 mil	$6 mil	$6 mil
Export marketing budget	-	-	-	$1 mil	$1 mil	$1 mil	$1 mil
Total annual budget	$10 mil	$10 mil	$10 mil	$10 mil	$10 mil	$7 mil	$7 mil
Levy funds utilised	$5 mil	$5 mil	$5 mil	$5 mil	$5 mil	$5 mil	$5 mil
Partner and other revenue	$5 mil	$5 mil	$5 mil	$5 mil	$5 mil	$2 mil	$2 mil

Note 1: *The requirement for partner funds would reduce in years 6 and beyond as the marketing strategy shifts to maintenance phase*
Note 2: *The above budget is not exactly the same as that modelled in Scenario 1 in the economic modelling exercise due to the inclusion of export marketing from year 4 onwards.*
Note 3: *This budget would be net of collection and administrative fees.*

5.2 Rationale for the proposed funding model

The recommendation for the proposed funding model is supported by the following findings from the study:

- The advice from leading behavioural change marketing specialists is that expenditure of circa $10 million per annum would be required in the first five years to deliver the level of media national media coverage necessary to influence a change in behaviours This budget would include coverage in metro and regional markets across the wide range of vegetable varieties and all vegetable buying cohorts in Australia.

- The economic modelling indicated that a $10 million investment (reducing to $7 million after 5 years, i.e. Marketing Scenario 1), gives the best return to growers, both in terms of an overall net present value of farm income and in the benefit/cost ratio.

- The scenario with the $10 million investment gained overwhelming support from the levy payers during the industry engagement process for this project.

- The feedback from industry indicated that levy payers believe that $5 million is the maximum amount that could be wisely deducted from the R&D pool, given the need to fund essential, on-going and contingency projects. Furthermore, many of the projects outlined in the strategy would be eligible for R&D matched funding (e.g. the consumer insights activity and product development investments).

- There is a compelling case for Government co-investment from health budgets because of the positive impact the increased vegetable consumption would have on national health outcomes and the potential to reduce health costs (Deloitte Access Economics, 2016). The New Zealand and Canadian governments and health councils support their national programs. Similarly, according to the economic modelling in this project, retailers and supply chain partners would achieve a significant uplift in income from an increase in vegetable demand, quite apart from the public good factor.

- The recommendation to allocate a portion of the funds to exports in the shadow marketing strategy is based on the findings from the economic modelling, which indicates that the net return from marketing investment in exports is higher than the same expenditure in the domestic market.(i.e. Scenario 5 in the modelling, which allocated the entire $3 million budget to exports returned $18.55 per dollar invested, compared to Scenario 3 which invested the entire $3 million in domestic marketing and returned $17.08 for the same investment.) The superior returns from export investment are explained by the fact that export promotion has the dual impact of driving growth in new markets, plus the creation of a price uplift in the domestic market for a period, due to supply being diverted to exports. Although not unanimous, there was a high level of industry support for the inclusion of export marketing evident during the engagement process.

5.3 Alternative funding sources

Possible alternative funding sources to raise the funds from partners and other revenue could include:

1. Inviting the other vegetable industries with a marketing levy who are not included in the vegetable levy to be a part of the program or contribute to the program (i.e. onions, sweet potato and mushroom industries).

2. Inviting other vegetable industries who do not have a marketing levy to consider implementing one (or likewise, transferring a portion of R&D levies to marketing), in order to participate in the program (i.e. potatoes-fresh, potatoes-processing, tomatoes-processing).

3. Inviting other vegetable industries outside the levy system to contribute via paid advertising on the platform to profile their products (e.g. asparagus, truss tomatoes, garlic).

4. Inviting regional bodies to contribute to the platform in their state through geo-targeted programs e.g. Potatoes SA, Potato Growers of Western Australia.

5. Sponsorships from supply chain partners such as seed, fertilizer, chemical, equipment and transport companies.

6. Licence fees from a proposed licensed branding program (see shadow marketing strategy summary).

7. Contributions from retailers (which could take the form of in-kind media contributions e.g. integration into their own programs, cooking shows, market reports, etc.)

8. Federal and State Government funding from health budgets.

9. Sponsorship from other businesses (e.g. health insurance companies) through the licensed branding program.

10. Contributions and cross-promotions from various health and nutrition councils and/or authorities (e.g. Cancer Council, Diabetes Australia, Nutrition Australia).

It should be noted that involving co-funding partners outside of the horticultural industry (i.e. government departments, health councils, businesses) would mean the vegetable industry would need to relinquish a degree of control, which is likely to require compromises and will increase the complexity of governance and management. However, both the Canadian and New Zealand programs have successfully achieved this so there may be learnings from their experiences.

It is also important to note that co-funding support from Government health departments may only be required for the first five years of the program. This is because of the reduced budget requirement from year 6 onwards (from $10 million to $7 million) following the shift to a maintenance marketing program, combined with a growing levy base on account of increased demand. This approach is likely to make the appeal to Government health departments for support much stronger because after a period of seed funding, the program could potentially become self-funding through partnerships with other businesses or funds raised through a licensed brand proposed in the shadow marketing strategy. At this point in time, the investment from partner stakeholders may actually increase, because once the program is tested, they are likely to re-invest proportionally to the perceived benefit. It may in fact be in everyone's interest at that time to continue with a $10 million campaign if partners are willing to sustain their commitments.

If the terms of the Levy Act allow, it would be preferable to allocate the marketing funds as a fixed $5 million each year, rather than as a percentage of all levies collected. To raise $5 million from levy funds immediately would require a marketing levy that represented more than 50 per cent of the current levy pool value (approximately $9 million at the time of writing), but the fund is growing each year, even without the additional lift from the marketing investment.

The other vegetable industries with a marketing levy in place currently are another source of potential funding. The other industries could contribute to the campaign either through using the proposed social media platform to fund paid advertising or in the case of onions, which has a small levy, levy payers may be better off by rolling their entire current budget into the collective effort because onions form the basis of so many vegetable-based dishes.

Although the truss tomato industry does not operate under the levy system, the leading businesses in that industry do have a voluntary collective marketing fund and may be willing to contribute via sponsored advertising on the proposed social media platform or through the licensed branding. **Diagram 6** below indicates the marketing levy situation in other vegetable industries.

Figure 6: Potential industry partners in a future marketing campaign

Other vegetable funds with marketing levies	Total Marketing levy pool
Mushrooms	$3.8 million
Sweet Potatoes	$760,000
Onions	$236,000
Other levied vegetable funds without a marketing levy	
Potato-fresh	
Potato-processing	
Tomato-processing	
Potential industry contributors outside levy system	
Asparagus	
Truss tomatoes	
Garlic	

There is a strong case to bring all vegetables into the program because it would strengthen the message, deliver mutual benefits and provide economies of scale. Alternatively, other vegetable categories may choose to participate by paying a license fee or advertising on the proposed platform.

Notably, the wider the breadth of collaborating partners, particularly from outside horticulture, the more complex the management will be.

Section 6 | Shadow marketing strategy summary

The shadow marketing strategy is reported separately in the suite of documents associated with project VG17013. This section summarises the key components of the strategy for consideration in this business case.

6.1 Marketing strategy goals

The objective of the marketing strategy is to achieve a cumulative **20%** increase in vegetable consumption within five years and to at least maintain this level indefinitely into the future.

(Note: The above target in the shadow strategy is consistent with the assumed outcomes of Scenario 1, although the proposed spend includes investment in export markets. The 20% increase is still based on achieving consumption growth in the vicinity of 0.5 serves per person per day).

6.2 Scope

1. The marketing strategy covers all Australian vegetables covered by the vegetable levy, in all forms including Australian-grown processed formats.

2. The geographic scope must cover all states/territories of Australia, both cities and regional areas (what media specialists term 'true national').

6.3 The marketing objectives

1. To stimulate increased daily consumption of vegetables in Australian households through building the level of consumer engagement, confidence and eating enjoyment of vegetables.

2. To reinforce the messaging already in the market place about the nutritional qualities, quality and integrity of Australian grown vegetables.

3. To take a leadership role in coordinating the collective directions and activities of the various other stakeholder groups who have a common goal of increasing national vegetable consumption.

4. To engage with retailers to gain maximum impact and product pull through from the marketing program at the point of sale.

5. To improve the accessibility and convenience of vegetables for consumers by strategic R&D investment in new product formats and improved packaging and labelling.

6. To identify and develop programs to showcase vegetables in food service outlets.

7. To continue to invest in R&D funding in market and consumer insights in order to provide on-going guidance to the strategic directions of the marketing program.

8. To communicate with grower levy payers in order to foster engagement with the proposed marketing program.

9. To maximise sales opportunities from the current industry export development strategy.

6.4 Marketing strategy overview

The domestic approach:	A multi-faceted marketing campaign executed through multiple media channels and public relations in order to reach consumers of various ages at various decision points. The campaign would be fully developed over five phases of activity.
The target audience:	Multiple segments across various demographic, lifestyle and behavioural cohorts in the Australian community.
The domestic value proposition:	Vegetables taste fantastic and, by the way, they are also good for you!
The export approach and proposition:	The AUSVEG export team to align with Taste Australia activity to promote the 'premium, safe and nutritious' propositions associated with Australian vegetables
Communications strategy	Position vegetables as a central part of all meal planning, rather than a secondary support to the protein portion of the evening meal

It is proposed that the marketing campaign would evolve over five distinct phases of activity as the program matures. The marketing strategy is presented in 'phases' rather than specific annual time frames because progress will depend largely on the development of the creative concepts and the ability to fund the early high cost components with levies and/or collaborative contributions. In Phase 1 the entire budget would be allocated to the research and development of the marketing strategy and creative concepts, including websites and logo development, etc.

Following execution of the mass media campaign in Phases 2 and 3 (and once the market research confirms that there is strong national awareness of the campaign), then the marketing investment would taper off to a maintenance level. This may take up to five years.

Given that this is an industry-driven strategy with multiple stakeholders, it will take considerable time in Phase 1 to get the creative messaging right and this will be a critical early investment. Given the scale of the proposed campaign which will be rolled out over the following years, it will be important to take the time to get this creative campaign exact.

6.5 Marketing components

The proposed marketing strategy would include the following components:

1. An 'umbrella' licensed brand and web platform that links all activity
2. Consumer engagement
3. Retailer integration
4. Stakeholder integration
5. Grower engagement
6. Food service sector engagement
7. Export marketing support
8. Product and business development
9. Market research and insight

6.6 The licensed 'umbrella' brand explained

The intention is to establish an industry-owned master brand that serves a similar function to the Canadian program 'Half your plate' (halfyourplate.ca), which has a clear focus on driving the 'appetite appeal' of vegetables in its communication of inspirational recipes and preparation, purchase and storage tips. The umbrella brand and web platform would be designed to link the collective activities of all parties engaged in promoting vegetable consumption under a story about the eating enjoyment of vegetables.

A branding device linking a common promotional campaign would provide a means of connecting, coordinating and cross-referencing all efforts to reinforce the messaging and enhance the collective impact. Logically a central website would be needed to provide a point of reference for the brand and to function as a platform that holds together all activity under the brand.

The intention is that this umbrella brand would be the centrepiece of the consumer advertising program built around a tag line which would summarise the brand value proposition (e.g. 'half your plate') and that all of the eligible advertising and communication could carry the endorsement brand.

The value proposition of the brand would be based around the enjoyment and satisfaction of eating vegetables with secondary endorsement of:

- The health and nutritional benefits of vegetables
- The safety, integrity, affordability and sustainability of Australian grown vegetables (fresh and processed).

It is proposed that the branding devices would be registered to a central entity and that the participating parties would be subject to a brand licensing agreement and bound by eligibility conditions and a code of conduct. It is proposed that the brand IP would be held in trust on behalf of the vegetable industry, either through Hort Innovation or an industry company limited by guarantee (i.e. a not for profit company). This would provide protection and control over the use of the brand.

Potential brand licensees could include but not be limited to:

- Retailers
- Growers/marketers
- Vegetable processors/marketers
- Input suppliers (seed, chemical and transport companies, etc.)
- Support services

- Government and NGO health and nutrition agencies.
- Health and nutrition industry and those who work in it
- Health insurance companies.

A well as being featured on all marketing material, the brand could be variously displayed on licensed marketing materials:

- Point of sale material / price ticketing
- Cartons
- Labels
- Truck signage
- Health communication
- Health programs
- Websites and all other social media.

6.7 The consumer engagement approach

The centerpiece of the strategy for the first 3 years of the program would be a national advertising campaign. This activity would absorb the major part of the investment in the early years. Following the national consumer advertising a significant ongoing spend will be required to deliver a maintenance message to a national audience. Most of the previous attempts at driving increased consumption of vegetables have been based around health and nutrition platforms (mainly because they were funded around a health improvement agenda), which have had varied, but largely limited success in driving sustained increases in vegetable consumption. Overwhelmingly, consumers are already aware that vegetables provide health and nutrition benefits and most adults know that they should eat more vegetables, **therefore, this is not the central barrier to increased consumption**.

Vegetable promotion that drives the story of 'eating enjoyment' rather than 'health' has not been a tactic used before in Australia and it taps into what is the major consumer blocker to consumption, i.e. the need for continual inspiration and preparation ideas to keep consumers engaged and make vegetables a constant and enjoyable part of the Australian meal repertoire.

The focus of the advertising campaign should be to inspire home meal makers to increase the use of vegetables (both fresh and Australian-grown processed vegetables) in their meals and increase their vegetable consumption occasions. It is proposed to do this by:

1. Positioning vegetables as hero of the plate and a conscious part of the meal planning process (as distinct to having vegetables as a secondary 'support act' to the protein feature).

2. Building the capability of meal makers and giving them confidence to select, store, prepare and serve vegetables to a better standard including improving their knowledge on varieties and seasonality.

3. Broadening the repertoire of how vegetables are prepared and when they are used (e.g. increasing meal occasions by recommending vegetable recipes for breakfast, lunch, snacks or as part of dessert).

4. Making vegetable recipes that are delicious and easy to prepare and which the whole family love to eat (including small children).

5. Positioning vegetables as being delicious meal choice that is also an important part of healthy living.

After the first five years when consumer advertising would be scaled back, the consumer engagement would then target specific market segments with more tailored marketing messages and intervention programs around specific consumption blockers for specific cohorts. This may include a greater focus on PR activity, supporting an existing schools' program, specific activities with strategic partners such as diabetes and cancer programs.

6.8 Other marketing elements

Other suggested elements in the shadow marketing strategy include:

1. A retailer integration program which would include promotional and marketing activities with supermarkets and independent retailers.

2. A stakeholder integration program to solidify the partnership between the vegetable industry and the other collaborating organisations. A forum that meets regularly with the working title 'Vegetables Unlimited' is proposed as a means of maximising stakeholder collaboration and integration of activities.

3. The grower engagement activity would encourage vegetable businesses to participate in the licenced branding program and fund regular communication with growers on the progress of the campaign and the returns on their levy investment.

4. Food service sector engagement would become part of the strategy in later phases and it would entail a targeted marketing program to chefs, food and beverage managers and food distributors.

5. Product and business development would be ongoing and could be funded by the current levy program.

6. Over time, the additional budget for marketing could be extended to delving more deeply into market research and consumer insights and to track annual progress on the campaign.

6.9 Export marketing

It is suggested that the $1 million export marketing activity would be managed by the AUSVEG export team (as part of the Vegetable Industry Export Strategy currently managed by AUSVEG) and aligned with the Taste Australia in-store and event promotions managed by Hort Innovation. A budget of this scale would go further than the Taste Australia programs, permitting advertising in smaller, premium markets such as Singapore and Hong Kong.

> The ability to fund high profile marketing campaigns in strategically targeted export markets (which is certainly not a permitted use of R&D levy funds) would amplify the impact of the current vegetable export strategy and build loyalty for 'Australian grown' vegetables.

Section 7 | Governance and management

It is important that consideration be given as to the most appropriate management and governance structure for this program. The governance structure must adhere to the frameworks of the Levy Act and the Hort Innovation Deed of Agreement. A key message from the levy payer engagement was that willingness to support the proposal would be conditional on maintaining some oversight over the program and that tight performance KPIs would need to be imposed on any independent management structure.

It is intended that annual programs would be designed to outline the marketing strategy for each year targeting specific categories and markets. Ultimately Hort Innovation would work with industry to decide how best to manage this program within an annual planning agenda.

For industries that currently collect a marketing levy, Hort Innovation manages the entire marketing process on their behalf. A Strategic Investment Advisory Panel (SIAP) oversees the expenditure of the marketing levy and provides advice on the funding priorities (the banana and avocado industries have a separate SIAP for managing their marketing levy due to the size of the levy). Hort Innovation appoints a marketing manager responsible for the investment of funds against a marketing plan. Under this model, Hort Innovation owns all of the IP developed as part of the marketing program. See https://horticulture.com.au/about/ for further detail.

The situation in the case of a marketing program that has both a commercial and 'social good' agenda does not fit neatly within the levy system. Under the proposed funding model whereby 50% of funding would be sourced outside the industry levy in the first five years, there may need to be some independence to maximise external funding participation, particularly when contributors may be major retailers or other businesses. In this situation, a different management model may be required, subject to what is possible within the terms of the Levy Act and Hort Innovation Deed of Agreement. For example, organisations from outside the levy system contributing to the program may not be comfortable in co-funding a project where ownership of the IP and the management of the scheme sits entirely with Hort Innovation. They may prefer an independent structure in which they also hold an interest in the IP and in which the commercial aims of the industry are balanced with their own agenda. The delivery model has the potential to become a barrier to participation for some organisations. There are plenty of examples of industry-owned branded marketing programs that provide a precedent to this model.

A further consideration is that management of a marketing program of the scale proposed here may require an alternative management structure. Effective advertising needs to be single-minded, instinctive and sometimes requires taking risk. Although every grower in Australia will have an individual opinion about the ideal marketing campaign, marketing is in fact, a highly specialised skill set that draws a fine line between a science and an art. A marketing program of this scale needs to be developed and managed by highly skilled advertising agencies and marketing professionals. A marketing program managed by a grower committee (without specialist marketing skills) is likely to compromise the effectiveness of the program because growers do not generally have the necessary expertise or capacity to advise where a strategic and instinctive creative campaign is required.

It is essential that leading Australian marketers with a track record of commercial achievement on successful national behavioural change campaigns are involved with the development and implementation of the program. The decision-making and approval process should ideally be led by a skills-based panel with independent marketing professionals holding the specialist expertise required (this is the case in the highly successful Danish marketing campaign '6 om dagen' which means 'six a day' (www.6omdagen.dk) which has a very bold creative campaign. Unquestionably, the program should be accountable to the levy payers, but there needs to be a 'firewall' between the accountability function and the strategy and execution functions. This can be supported by establishing a monitoring and evaluation plan, with highly tangible and measurable KPIs.

If possible within the terms of the Levy Act, it is recommended that the program be managed by an independent, skills-based committee including representation from growers, the levy fund managers, other businesses in the supply chain (e.g. PMA), health professionals and most importantly, an independent marketing expert.

Section 8 | Business case conclusions & recommendations

8.1 Business case conclusions

Based on the evidence generated by this project, there is a compelling case for industry to consider supporting the proposal to divert a proportion of the current R&D levy into marketing. The following points endorse this view:

1. Based on the experiences of other generic horticultural marketing programs around the world, it is reasonable to expect that a rigorous marketing strategy with sufficient investment could deliver a per capita increase in consumption of half a serve of vegetables per day within five years. This result would amount to a 21 per cent increase in vegetable consumption, which would require around a 30 per cent increase in production to satisfy the demand after wastage.

2. The advice from behavioural change marketing specialists indicates that an investment of circa $10 million per annum for the first five years would be required to achieve the targeted increase in consumption on a national basis. A further $6 million per annum would be required on an ongoing basis to reinforce the marketing message and maintain the gains achieved. This investment recommendation is supported by research from around the world on generic agrifood marketing programs, which indicates that most marketing campaigns are under resourced relative to the opportunity (McLaughlin *et al*, 2013) and that most short-term campaigns on healthy eating do not deliver sustainable increases in vegetable consumption (Rekhy, 2014).

3. A critical point to note is that the achievement of the indicative results from the modelling would be highly dependent on the quality of the creative execution and media strategy. A marketing campaign of this magnitude requires the involvement of Australia's leading advertising agencies and the most experienced behavioural change marketing experts. The key assumption linking the economic modelling and shadow marketing strategy is that the campaign would be based on a highly effective and well-executed marketing strategy.

4. The affordability of a $10 million per annum campaign will depend on finding co-funders to contribute 50% of this amount in the early years. There are a number of strategically aligned stakeholders who would benefit from participating in the campaign and who could be approached, these stakeholders include government health departments.

5. The economic modelling from the CIE Hi-Link model and the resulting independent report by Deloitte Access Economics indicates that with a $10 million per annum investment, there would be a net return to

vegetable growers farm gate income of approximately $1 billion dollars over 11 years in net present value terms, after deducting the opportunity cost of the forfeited R&D matched funding. This investment would achieve a benefit/cost ratio of approximately $19 per $1 invested. The modelling also makes a compelling case for a proportion of the expenditure to be allocated to export market promotion, which delivers a higher return than investment in domestic marketing because of the dual effect of driving local demand for a period of time.

6. Based on an extensive program of engagement with vegetable levy growers across all major growing regions of Australia, there is an overwhelming majority who support the proposed expenditure model, circa $10 million. Only a very small minority are opposed to any marketing levy at all and a small percentage would prefer a lower level of expenditure. There are mixed views on devoting a proportion of the funding to export marketing.

7. In the event that the industry is not successful in generating the co-funding necessary for the $10 million per annum marketing strategy proposed, the industry could still raise sufficient funding to invest in a smaller program, which would deliver very positive economic impacts, relative to the returns on R&D investment but will not result in the same growth and profit outcomes.

8.2 Recommendations

It is recommended that:

1. The vegetable industry rigorously review the findings in this business case, which supports the proposal to transfer a proportion of the current R&D levy into a strategic marketing program.

2. The outcome from this project be socialised and communicated to vegetable levy payers across Australia through a comprehensive roadshow and Q&A briefing forum, so that individual levy payers can come to their own conclusions, based on the available information.

3. Discussions begin with potential collaborative partners to make them aware that the vegetable industry is exploring the possibility of a marketing program with which they could potentially align their own strategy for mutual benefit.

4. Engagement with the administrators of the Canadian program 'Half Your Plate' (PMA Canada) would be beneficial to extract learnings from their experience in developing a campaign and marketing platform founded on emphasizing the 'eating enjoyment' proposition of vegetables. Likewise, New Zealand's similar national program 'vegetables.co.nz' merits further exploration and may offer some learnings on managing collaboration between multiple industry bodies and national health authorities.

Section 9 | References

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Building the case to grow domestic demand for vegetables

PROJECT SUMMARY
VG17013

McKINNA *et al*
Strategic Insight
Global Outlook

Project VG17013 background

This project provides an evidence base to inform industry decision making about the likely impact of introducing a vegetable marketing levy.

The momentum to introduce a marketing levy has been building within the Australian vegetable industry for some years. Investment through the vegetable R&D levy has resulted in a significant increase in productivity and improved product quality, however, there has been a need identified to grow domestic and export demand to take up the resulting supply increases and maintain farm-gate prices. This effort is reflected in Outcome 1 of the Vegetable Strategic Investment Plan 2017-2021: Growth in the domestic market.

While vegetable production is increasing, per capita consumption is in decline, suggesting that latent demand is not being stimulated.

Assumption

The assumption throughout the research and consultation is that there would be no net increase to the current levy to fund a marketing program – the intention is that a portion of the current R&D funds would be diverted to marketing.

Approach

The research and analysis behind project VG17013 was extensive:

- A literature review of relevant Hort Innovation reports
- Global research on generic agrifood marketing
- A stage of economic modelling conducted in collaboration with Deloitte Access Economics and The CIE
- Stakeholder consultation with marketing experts, supply chain partners and nutritional experts
- Industry consultation with 61 growers in key production areas of Australia
- A situation summary workshop with representation from growers, AUSVEG and Hort Innovation
- A shadow marketing strategy that scoped out how the marketing funds might be employed
- Development of a final business case.

Marketing strategy

The shadow marketing strategy recommends a mass media campaign for the first five years focused on raising awareness of the eating enjoyment of vegetables. The campaign would then scale back to target specific cohorts with programs addressing their blockers to consumption. Health and nutrition communication would be included through collaboration with health authorities.

AUSVEG

Hort Innovation
Strategic levy investment
VEGETABLE FUND

This project has been funded by Hort Innovation using the vegetable research and development levy and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au

The business case for investment in marketing

Based on the research findings, there is a compelling case to divert part of the current vegetable industry R&D levy to marketing investment on the basis of the following factors:

1. **Per capita consumption of vegetables is declining** - only 4 per cent of Australians are eating the recommended five serves per day, making this a critical issue for health authorities as well as the vegetable industry.
2. **There are a myriad of blockers constraining vegetable consumption** - the research showed that a multi-faceted marketing program would be necessary to reverse the decline in consumption including a mix of advertising, promotions and eventually intervention programs targeted at specific demographic and behavioural cohorts.
3. **Broad-based generic marketing of agrifood is generally successful –** global studies confirm that generic fresh food marketing achieves positive returns on investment (with the right creative execution) and industries generally under-invest relative to the potential benefit.
4. **A national mass media campaign could be funded** - behavioural change marketing experts recommended that annual funding of $10 million would fund an effective national campaign, with budgets reducing once awareness is raised. Vegetable levy receipts totalled $9 million in 2017/18, and because a share of these funds would be required to support ongoing R&D, contributions from strategic partners with a shared interest in increasing vegetable consumption would be required to meet the funding shortfall. These may include other levy payers, supply chain partners, government, businesses or health councils.
5. **Supply chain partners indicated in-principle support –** potential partners consulted showed a willingness to collaborate on the marketing effort to promote vegetable consumption, subject to alignment with their own marketing strategies.
6. **Growers endorsed the approach** - the levy payers consulted indicated decisively that marketing investment is needed and the key objective of the marketing campaign should be to increase economic returns to levy payers, rather than attempt to address Australia's health challenges. Growers concur with the recommendation in the shadow marketing strategy that messaging should promote vegetables around a proposition of 'eating enjoyment', with this being supported by health information delivered through collaboration with health councils.
7. **A $10 million campaign would deliver a return of $19 per dollar invested –** the economic modelling assumed that a well-executed, sustained marketing program could deliver an increase in national vegetable consumption of 21% over 11 years (equivalent to a daily increase of 0.5 serves per person), resulting in improved returns to levy payers as well as flow-on social and economic benefits to the community. As highlighted in the business case, this result will be highly dependent on the creative execution and input from marketing specialists.
8. **There is a compelling case for a marketing levy –** the business case concludes that diverting around 50 per cent of the current R&D levy pool to marketing would enable the industry to initiate an effective behavioural change program with a national reach, but this would require contributions from strategic partners and expert advertising advisors.

This project is of high significance to the Australian vegetable industry because the scale of the potential impact on farm income is potentially around $1 billion (NPV) after 11 years, even after the opportunity cost of the matched R&D funds is factored.

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