

Turf

STRATEGIC INVESTMENT PLAN

2017-2021

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Introduction

This Strategic Investment Plan (SIP) is the roadmap that helps guide Hort Innovation's oversight and management of individual levy industry investment programs. The SIP lays the foundation for decision making in levy investments and represents the balanced interest of the particular industry from which the levy is collected. The very important function of the SIP is to make sure that levy investment decisions align with industry priorities.

Hort Innovation is the not-for-profit, grower-owned research and development (R&D) and marketing company for Australia's \$9 billion horticulture Industry.

As part of the role Hort Innovation acts as the industry services body for Australian horticulture, the organisation is tasked by the Australian Government with working alongside industry to produce a strategic plan for investment of levies in industry R&D and marketing activities.

Each individual levy industry investment strategy also speaks to the future growth and sustainability of the Australian horticulture industry, as a whole. The SIPs are produced under the umbrella of the Hort Innovation Strategic Plan, which takes a whole of industry view in setting its direction, as it considers broader agriculture government priorities for the advancement of Australian horticulture.

The process in preparing each SIP was managed by Hort Innovation and facilitated in partnership with Industry Representative Bodies and Strategic Investment Advisory Panels (SIAP). Independent consultants were engaged to run the consultation process, to gather the advice from stakeholders impartially and produce a plan against which each levy-paying industry can be confident of its strategic intent.

Hort Innovation has valued the support, advice, time and commitment of all stakeholders that contributed to producing the SIPs, especially turf growers.

The turf SIP

Producers in the turf industry pay levies to the Department of Agriculture and Water Resources (DAWR), which is responsible for the collection, administration and disbursement of levies and charges on behalf of Australian agricultural industries.

Agricultural levies and charges are imposed on primary producers by government at the request of industry to collectively fund R&D, marketing, biosecurity and residue testing programs.

Levy is payable on turf that is produced in Australia and either sold by the producer or used by the producer in the production of other goods. The levy rate on turf is 1.5 cents per square metre on all growers who sell more than 20,000 square metres per annum.

Hort Innovation manages the turf levy funds. Levy funds are spent on R&D (80 per cent) and industry marketing (20 per cent) activities. In 2015/16 total turf levy receipts were approximately \$590,000: \$470,000 for R&D and \$117,000 for marketing.

Hort Innovation has developed this SIP for the turf industry to strategically invest the collected turf levy funds into the priority areas identified and agreed by the turf industry. The ability to deliver on all the articulated strategies (and investments) in an impactful manner will be determined by the ability of the statutory levy to provide the resources to do so.

This plan represents the Australian turf industry's collective view of its R&D and marketing needs over the next five years (2017 to 2021). This plan has been developed in consultation with Australian turf levy payers through a synthesis of various processes including:

- Consultation with key stakeholders and members of the SIAP
- Four State Forums with over 150 growers in attendance
- An industry-wide online survey
- A one-day SIP investment and strategy priority-setting workshop
- Public consultation on the draft SIP.

The process to develop this plan is fully described in **Appendix 1**. The people consulted in the preparation of the plan are listed in **Appendix 2**. The turf SIAP has responsibility for providing strategic investment advice to Hort Innovation. Both Hort Innovation and the panel will be guided by the strategic investment priorities identified within this plan. For more information on the turf industry SIAP constituency please visit Hort Innovation's website at www.horticulture.com.au.

Turf

STRATEGIC INVESTMENT PLAN 2017-2021 AT A GLANCE

POTENTIAL IMPACT OF THIS PLAN



Based on an estimated investment of \$4.8 million over the next five years

| OUTCOMES | STRATEGIES |
|--|--|
| Turf revenue has increased by five per cent plus consumer price index (CPI) from targeted marketing programs | Utilise market research and research results to focus levy-funded marketing activities on the benefits customers are seeking |
| | Disseminate market research and research findings to growers and encourage use in their own marketing programs |
| | Utilise strategic marketing techniques to leverage turf's marketing message including targeting of opinion leaders and influencers |
| | Undertake review of existing literature to collate benefits and identify information gaps |
| | Conduct research to address information gaps |
| | Communicate key messages to growers, government and key stakeholders |
| | Monitor, contribute and, where appropriate, invest into Pool 2 projects that potentially will increase demand for turf products |

| OUTCOMES | STRATEGIES |
|--|---|
| Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights | Monitor and understand who is buying turf, their reasons for buying turf, the customer journey, and what they are willing to pay for turf |
| | Monitor average retail price of turf (per square metre) by variety on all turf-producing states |
| | Obtain better metadata about the turf industry |
| | Define the different components of the turf Industry |
| | Have a credible organisation benchmark for the industry in regards to social, environmental, economic and health benefits |

Turf

STRATEGIC INVESTMENT PLAN

2017-2021 AT A GLANCE

| OUTCOMES | STRATEGIES |
|---|---|
| Improved farm practices and profitability from increased awareness and adoption of turf R&D | Identify and fill innovation gaps in smart turf farming and its value-added chain |
| | Develop and implement an integrated extension program |
| | Deliver industry training when required |
| | Collate information into a single point for future reference |
| | Develop an effective communication program |
| Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making | Regular monitoring to evaluate the effectiveness of communication activities and materials |
| | Identify and engage future leaders and/or innovators into leadership programs |
| | Monitor effectiveness of programs to enhance networks, leadership skills, access and adoption of innovation |
| Improved industry sustainability from identifying and managing risks | Have future leaders involved in extending and promoting the adoption of R&D and marketing outcomes |
| | Monitor major risks impacting on the long-term profitability and sustainability of the industry |
| | Use of Minor Use Permits, where appropriate, to maintain access to chemicals |
| | Provide education, strategies, and documents on key risk areas when required |

Major opportunities

- Inclusion of turf in the 2020 Vision program and leverage with co-investment-funded projects, such as the *Greener Cities Healthier Lives* project
- Full-scale assessment of the industry's value including economic, environmental, social, health and wellbeing benefits to the Australian community
- Influence of government policy in regards to the role of turf in green spaces, soil erosion, ground water collection and bio-filtration systems
- Education on all of the benefits of turf to government and community
- Research on managing industry risk, including access to chemicals and emerging workplace health and safety (WH&S) issues
- Enhancement of growers' business and marketing skills through targeted programs
- Industry certification on quality
- Increase of levy, and change the R&D and marketing mix
- More market research to better understand and target private and levy-funded marketing activities
- Research on more efficient production systems, including the production of greater quality for less money
- Education on soil erosion and use of potential Australian Standards regarding the use of turf in such circumstances
- Increase the use of social media to build demand for turf products
- Enhancement of leadership and labour development within the industry
- R&D and investment in emerging technologies like precision farming and automation
- Greater alliance with other green space industries like nurseries.

Turf

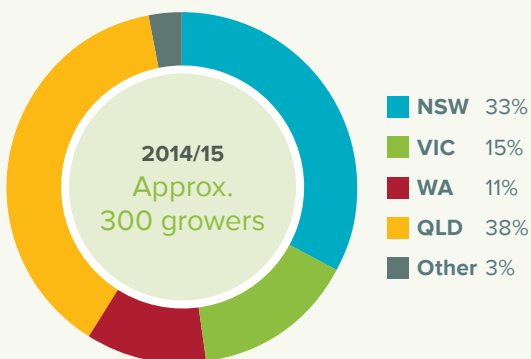
STRATEGIC INVESTMENT PLAN

2017-2021 AT A GLANCE

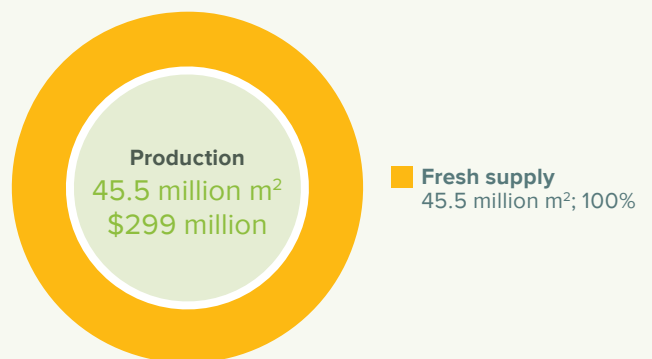
Major challenges

- Turf does not have a strong enough marketing and public relations presence
- Competition from other ground cover alternatives such as artificial turf and pavers
- Poor urban design and development resulting in reduced green space
- Misconception about turf in regards to costs, maintenance, and water usage
- Devaluation of turf by growers resulting in poor pricing
- Levy funds not delivering benefits to growers
- Increased government regulation, such as WH&S, adding to the cost of production of turf
- Water security and availability
- Continuation of trends to smaller residential blocks and increases in apartment living
- Environmental concerns about turf production, for example, water runoff and chemical usage
- Industry is not communicating the benefits of turf to government and the general public
- Insufficient marketing of turf and the benefits it offers the Australian community
- Lack of recognition by government and community about the benefits of turf
- Poor understanding of business and marketing within segments of the industry, including cost of production and overheads
- Treated as a commodity and, therefore, price cutting
- Growers' pricing structure does not reflect the value of product and, therefore, places undue pressure on enterprise profitability
- Parts of the Industry are not cohesive or working together
- Poor and expensive levy-collection process
- Not all growers are paying the levy
- Reduced access to chemicals
- Lack of water security for turf production
- Availability of reliable labour
- Slow uptake of technology, including the use of social media
- Consumer perception that turf uses a lot of water
- The number of available varieties can be confusing for the consumer.

Industry size and production distribution



Turf supply chain and value 2014/15





SECTION ONE

Context

The Australian turf industry

Turf is considered as live grass products that are grown and sold for use in the Australian landscape. The *Australian Horticulture Statistics Handbook 2014/15* states that for the year ending June 2015, 45.5 million square metres of turf were produced with a value of \$299 million.

Turf Australia estimates there are approximately 300 turf growers throughout Australia. Currently 218 growers are paying the levy. The industry is aware of levy leakage and Turf Australia is in discussion with Levy Revenue Service to identify and stop this leakage.

Farms with good irrigation, soils and proximity to market can be converted to turf farms and enter the turf industry easily. However, there is a degree of knowledge and cost of capital that minimises the number of new entrants to the turf production sector.

The turf industry is unique in Australian agriculture as it is the only industry where growers, in most cases, own the supply chain. This means that growers are in direct contact with their end-users and have control from production, through to sales, delivery and installation. This creates unique opportunities but also challenges.

Products

The Australian turf industry supplies two main market segments. These are the residential/property development segment and the commercial market, including sporting fields, parks and roadsides.

Turf varieties can be categorised under five overarching categories:

- Buffalo
- Couch
- Kikuyu
- Zoysia
- Cool-season.

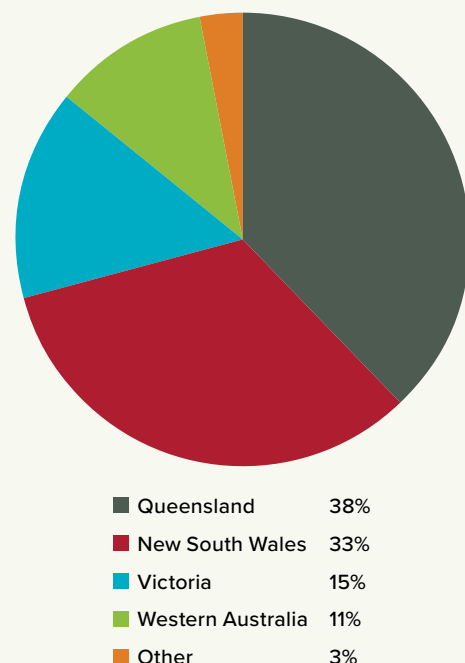
While some varieties are developed in Australia, the majority are developed overseas. There are two main companies involved in importing and selling new varieties in Australia – Lawn Solutions Australia and OzBreed.

The industry is mainly located on the fringes of most of Australia's capital cities.

Industry production growth

While production occurs year-round, it peaks during the spring and summer months. The production per state for the 2014/15 period shows that the main turf-producing states are New South Wales, Queensland, Victoria and then Western Australia (*Figure 1*).

Figure 1: Australian production of turf by state, 2014/15



Domestic consumption and demand

Levy-funded market research in 2013, *Turf Brand Research* (TU12023), identified that the drivers impacting consumers' choice for turf were that it:

- Softens the look of a home
- Is the ideal surface for families
- Has an attractive and stylish appearance
- Adds value to the house.

The research identified that consumers believe that turf adds between 10 and 15 per cent to home value. A survey by LJ Hooker indicated that lawn could increase price by up to 18 per cent. Over the March quarter of 2016, the median house price in Sydney was \$995,804 (*Domain House Price Report*, March 2016). Based on this data, turf potentially contributes over \$100,000 to housing prices in the Sydney region.

The research also identified that the main barriers to purchasing turf for those intending to buy over the next 12 months were:

- Perceived high cost of the turf (34 per cent)
- Cost of maintaining turf (21 per cent)

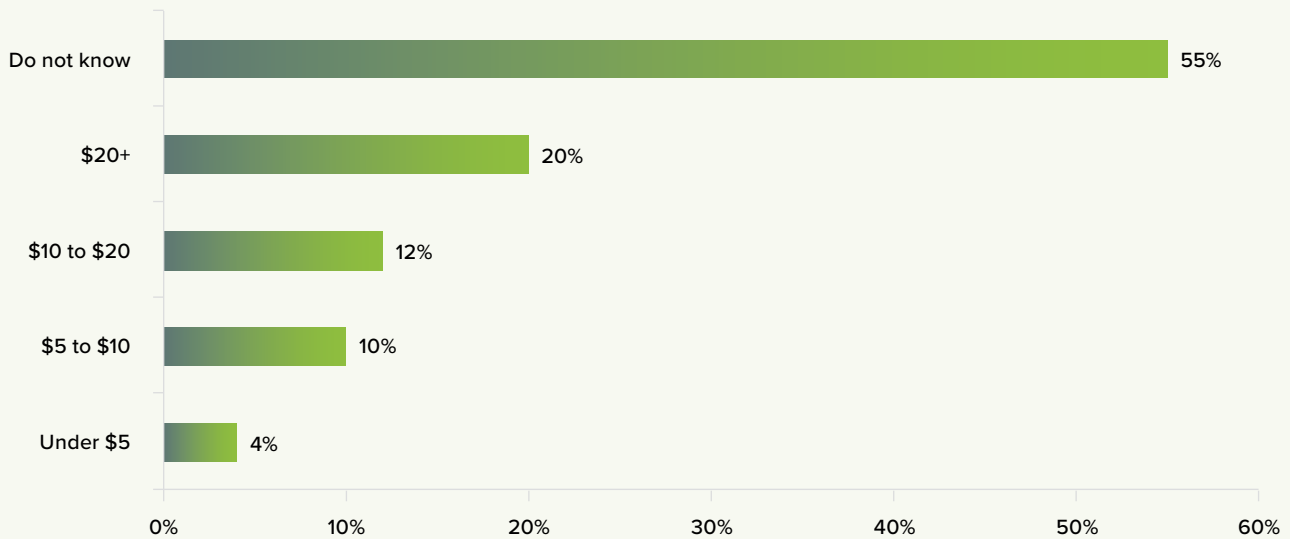
- Owning a dog (19 per cent)
- Having to mow (15 per cent)
- Backyard being heavily shaded (14 per cent)
- Having to fertilise the turf (11 per cent)
- Backyard being exposed to wear and tear (10 per cent)
- Not knowing what to look for when buying turf (nine per cent).

These consumer concerns fall into four areas:

1. Perceived high cost of turf: this could also be seen as a lack of understanding of the value of turf
2. Maintenance costs, whether perceived or real
3. Fitness for purpose: addressed with varieties that can withstand shade and wear and tear
4. Fear of making a poor choice because of lack of turf varietal knowledge.

Market research shows 55 per cent of consumers do not have a preconceived notion on the cost of turf. Less than 15 per cent of consumers believe it should be under \$10 per square metre (*Figure 2*).

Figure 2: Consumers' perceived cost/value of turf (Source: Brand Story 2010, 2000 respondents)



In October 2016, a secret shopper survey was conducted of 194 growers and suppliers. This survey showed that New South Wales was by far the cheapest source of turf even though the housing prices exceed other states. The grower results from this survey for Soft Leaf Buffalo and Kikuyu are shown in **Table 1** and **Table 2** respectively.

Table 1: Turf price survey – October 2016 – Soft Leaf Buffalo

| Segment (sample size) | Average price per square metre for 145 square metres | Percentage of businesses offering free delivery |
|---------------------------------------|--|---|
| South-East Queensland growers (21) | \$10.51 | 10% |
| North Queensland growers (12) | \$9.21 | 8% |
| New South Wales metro growers (30) | \$8.32 | 47% |
| New South Wales regional growers (22) | \$8.99 | 32% |
| Victorian growers (13) | \$11.27 | 15% |
| South Australian growers (8) | \$11.40 | 38% |
| Western Australian growers (12) | \$12.10 | 8% |
| Northern Territory growers (2) | \$17.00 | 100% |
| TOTAL AVERAGE (194) | \$11.40 | |

Table 2: Turf price survey – October 2016 – Kikuyu

| Supplier segment | Average price per square metre for 145 square metres | Percentage of businesses offering free delivery |
|---------------------------------------|--|---|
| New South Wales metro growers (24) | \$4.98 | 54% |
| New South Wales regional growers (19) | \$4.71 | 32% |
| Victorian growers (11) | \$7.88 | 0% |
| South Australian growers (9) | \$7.96 | 67% |
| TOTAL AVERAGE (100) | \$6.99 | |

Productivity and competitiveness

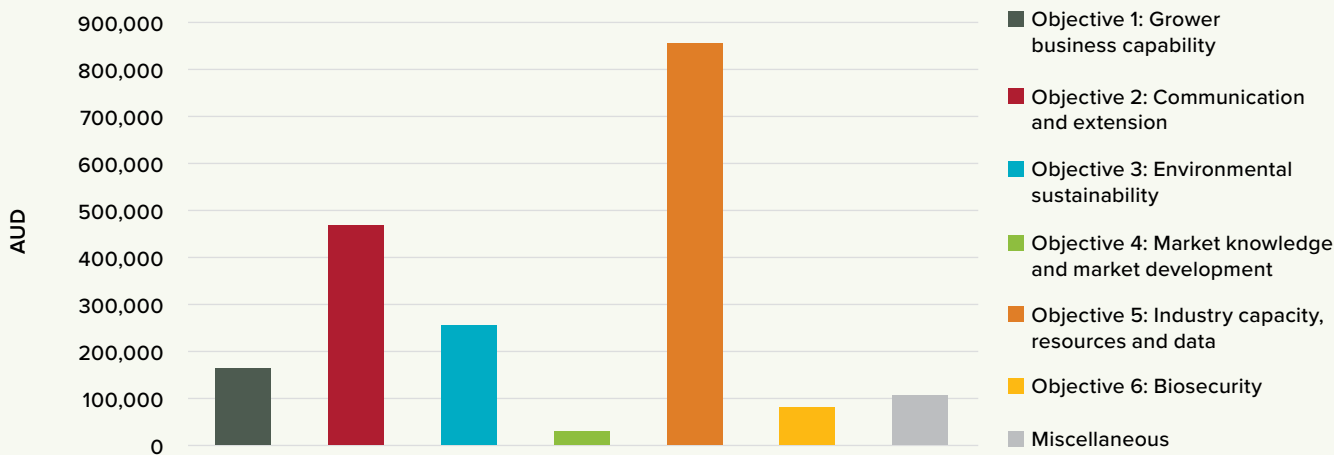
The turf industry is being proactive in better aligning pricing structures with the value that turf provides the Australian community and what the market will accept. The levy has funded the creation of a cost of production calculator in the project *National turf industry cost of production calculator development and extension program* (TU13005) and held workshops to assist growers develop more profitable pricing structures. One of the unique challenges that arise from owning the supply chain is that growers need to be good at sales and marketing as well as being good growers.

The turf Strategic Investment Plan 2012-17 had six objectives. These were:

- 1. Grower business capability:** raise profitability through improved business practices and increasing the use of benchmarking
- 2. Communication and extension:** maximise positive perception of turf and the turf industry through outstanding communication, and ensure best possible uptake of R&D outcomes through targeted and measurable extension activities
- 3. Environmental sustainability:** communicate about the environmental benefits of turf
- 4. Market knowledge and market development:** gather and use accurate information about current and potential markets to inform R&D and marketing, and identify, quantify, prioritise and exploit opportunities for existing or new market development
- 5. Industry capacity, resources and data:** support development of good leadership, better resourcing and collation of essential data about the industry, its structure, businesses and trends
- 6. Biosecurity and plant health:** build and maintain capacity to respond to biosecurity and plant health issues as they arise.

The collective value of the turf levy investments since 2013 per SIP objective is shown in **Figure 3**.

Figure 3: Portfolio review: All turf levy-funded projects from 2013 – presented by life of project value



The levy-funded project *Turf Brand Research* (TU12023) undertaken in 2013 asked 45 turf stakeholders about the activities they expect will be funded by the R&D levy program. The responses in level of importance were:

- Market research (35 per cent)
- Production (13 per cent)
- Soil erosion (13 per cent)
- Environmental/sustainability (13 per cent)
- Communication (nine per cent)
- Other (seven per cent)
- Water management (seven per cent)
- Capacity building (industry development) (four per cent)
- Biosecurity (0 per cent).

These responses were similar to those obtained from the four State Forums conducted in 2016. The investment priorities identified through the SIP consultation process are discussed in more detail in **Section 3** of this document.

Growers market their own turf. Some growers have collectively marketed under a single brand. ‘Lawnspiration’ is the current campaign funded through marketing levies and is focusing on three different campaigns over the year to increase consumer awareness of the value of turf and, therefore, demand for the product. The turf industry is also using social media to increase the awareness of turf.

Turf Australia is the National Industry Body and has state associations located in New South Wales, Queensland, Western Australia and Victoria. Turf Australia plays a vital role in the dissemination of information of both levy-funded R&D

and marketing outputs as well as industry intelligence. Each of the main growing states has a levy-funded part-time industry development officer. Turf Australia and the state associations currently receive funding from Hort Innovation to deliver industry development projects.

The key strategic trends impacting the future of the industry are:

- Larger homes being built on smaller residential blocks
- Community concern about the environment, including water availability and access to chemicals
- Increasing focus on human wellbeing
- Rising input costs
- Development in peri-urban regions
- Increased government regulations
- Maintaining a sustainable environment at a financial, production, consumer demand and human resources level.

Imports

The industry does not face competition from overseas turf products. The growth of the industry is dependent on an increase in domestic demand for turf products. The industry continues to compete against synthetic turf, pavers, concrete and lifestyle products in the fight for outdoor space.

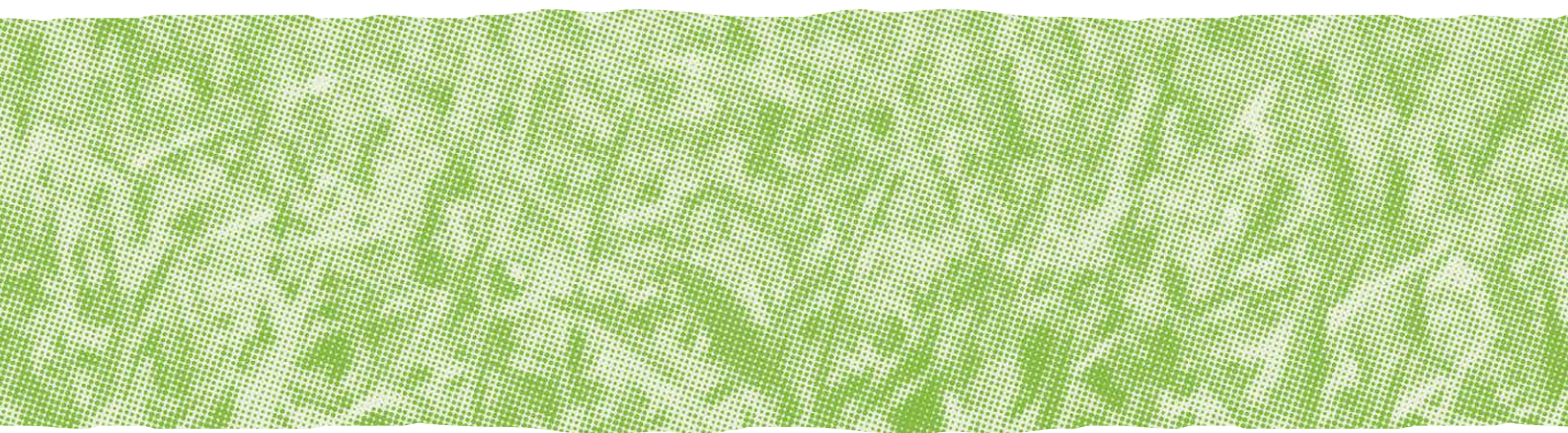
Exports

The industry is domestically focused and there is minimal exporting of turf products.

Operating environment

| The turf industry | |
|-------------------|---|
| Strengths | <ul style="list-style-type: none"> • Overall the industry and leadership is strong • Existing R&D and marketing levies that can be used for collective investment in R&D and marketing activities for the benefit of the whole industry • Good networks and opportunities to exchange ideas, including forums and conferences • A highly professional and passionate industry • Provides environmental, economic, social and health benefits to the Australian community, including its use in green space and erosion control • Provides venues for sporting and other community activities • Essential product for home owners and makes a difference in people's lives • Good demand for the product • Industry has excellent 'green' credentials and brings green industries into the cities • The growers have control, in most cases, over the whole supply chain as they sell directly to the end-user • There is good varietal development in the pipeline that are more drought tolerant, using less water and delivering better wear • Continues industry development with advancements in quality, services and technology transfer • Growth in housing assisting industry development • A well-recognised brand name in the market. |
| Weaknesses | <ul style="list-style-type: none"> • Industry is not communicating the benefits of turf to government and the general public • Insufficient marketing of turf and the benefits it offers the Australian community • Government and community lack of recognition of the value of turf • Poor understanding of business and marketing within segments of the industry, including cost of production and overheads • Treated as a commodity and, hence, price cutting • Growers' pricing structure does not reflect the value of product and, therefore, places undue pressure on enterprise profitability • Pockets within the Industry are not cohesive or working together • Poor and expensive levy-collection process • Not all growers are paying the levy • Growers are time poor as they have total control over the supply chain and, hence, must be able to cover production, marketing and installation • Reduced access to chemicals • Lack of water security for turf production • Availability of reliable labour • Slow uptake of technology, including the use of social media • Perception that the maintenance of turf requires large volumes of water • The number of available varieties can be confusing for the consumer. |

| The turf industry | |
|----------------------|---|
| Opportunities | <ul style="list-style-type: none"> ● Inclusion of turf in the 2020 Vision program and leverage with co-investment funded (Pool 2) projects, such as the <i>Greener Cities Healthier Lives</i> project ● Full-scale assessment of the industry’s value, including economic, environmental, social, health and wellbeing benefits to the Australian community ● Influence of government policy in regards to the role of turf in green spaces, soil erosion, ground water collection, and bio-filtration systems ● Education on all of the benefits of turf to government and community ● Research on managing industry risk, including access to chemicals and emerging WH&S issues ● Enhancement of growers’ business and marketing skills through targeted programs ● Industry certification on quality ● Change the mix of R&D and marketing levy expenditure ● Increase market research to better understand and target private and levy-funded marketing activities ● Research on more efficient production systems, including the production of greater quality for less money ● Education on soil erosion and use of potential Australian Standards regarding the use of turf in such circumstances ● Increased use of social media to build demand for turf products ● Enhancement of leadership and labour development within the industry ● R&D and investment in emerging technologies such as precision farming, and automation ● Greater alliance with other green space industries such as nurseries ● Leverage off existing recognition of turf branding. |
| Threats | <ul style="list-style-type: none"> ● Turf does not have a strong enough marketing and public relations presence ● Competition from other ground cover alternatives such as artificial turf and pavers ● Poor urban design and development resulting in reduced green space ● Misconception about turf in regards to costs, maintenance, and water usage ● Devaluation of turf by growers resulting in poor pricing ● Levy funds not delivering benefits to growers ● Increased government regulation, such as WH&S, adding to the cost of production of turf ● Water security and availability ● Continuation of trends to smaller residential blocks and increases in apartment living ● Environmental concerns about turf production, for example, water runoff and chemical usage. |





SECTION TWO

Turf industry outcomes

Industry outcomes

The turf industry views sustainability in a holistic context. Whilst it is important to uphold, maintain or even improve the natural environment, it is equally important that other parts of industry development are also sustainable. These include consumer demand, human resources, economic viability and production and the environment.

The turf SIP 2017-2021 focuses on achieving outcomes that deliver sustainable solutions through all facets of the industry, including increasing demand and profitability of turf production.

OUTCOME 1

Turf revenue has increased by five per cent per annum plus CPI from targeted marketing programs

The Australian turf industry has very low exports. The growth of the industry is reliant on increasing the domestic demand and value of turf.

Turf provides a range of benefits to the Australian community. There are various reports of environmental, economic, social and health and wellbeing benefits. However, there is a need to review and consolidate these research findings and identify and fill any knowledge gaps.

During the SIP consultation process, there was considerable discussion about promoting and educating customers, key decision makers and the Australian community about the social, environmental, economic, health and wellbeing benefits of turf. This was a strong message from all growers at the four State Forums, with more market and scientific research needed in this area.

The information gained from additional research will assist the industry to educate and communicate these benefits to governments, consumers and the wider community. This information is required to ensure the industry can improve demand for turf products, whether it is through the incorporation of turf in the planning process or demand from the direct consumer, or both.

The industry invests 20 per cent of the levy in marketing activities. The objective of both levy-funded and grower-funded marketing is to increase demand and sales of turf products. Targeted marketing programs will utilise the results of research about the benefits of turf to ensure consumers understand the true value of turf and the importance it plays in the Australian lifestyle and environment.

The turf industry is unique in Australian agriculture, where growers, in most cases, own the supply chain from production to dealing directly with the end-user. The information about the total benefits turf provides will also enhance marketing activities in both levy-funded programs as well as individual grower activities.

Hort Innovation's *Greener Cities Healthier Lives* project will examine some of these benefits associated with green space, and the industry has the potential to leverage their levy investment in this project.

To be sustainable, it is important that both demand and sales continue to increase to ensure the industry remains profitable. Prices need to rise by CPI to maintain increases in input costs.

The industry currently has no specific method of tracking total industry sales. One of the outcomes from this SIP is to develop a system that enables a valuation of the industry that results in an increase in turf revenues. Until this system is operational, the levy collected combined with annual price surveys of turf can be used to monitor the industry's success in increasing demand and price for turf products.

OUTCOME 2

Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights

The industry conducted market research into its brand in 2010 and 2013. This research highlighted a number of key findings about the consumer, the reasons why they purchase turf and their perception of the value of turf. The findings on consumers' perception of value have been stated previously in this document. This research highlights that industry profitability could be significantly enhanced through increased pricing.

The industry requires more frequent and targeted market research so that it can better understand and reach its customers. This information would be made available for the whole industry and would be used in both levy-funded marketing as well as part of a program that aims to enhance the marketing efficiency with businesses. The information can also be used by the industry to generate media stories about the industry's latest market research findings.

There is also a need to accurately determine the value of the industry. This will address two purposes. The first is to engage governments, consumers and the wider community on the importance of turf in the Australian lifestyle. The second is for monitoring and evaluation purposes. There is no benchmark data on the value of the industry. Industry statistics are inadequate and a better system is required to capture meaningful industry data, including its value.

The collection and monitoring of the average retail value of turf will be used in both extension activities, assisting in calculating industry value and also monitoring both levy-funded activities and, ultimately, this plan.

OUTCOME 3

Improved farm practices and profitability from increased awareness and adoption of turf R&D

Efficient production ensures businesses are sustainable through the use of less resources, lowering cost of production, increasing value of turf and capturing opportunities. The industry has, and will continue to, invest in R&D aimed at making the industry more efficient, profitable and sustainable. The transfer and adoption of this knowledge is essential for the development of the industry.

Turf growers can be summarised as practical, hands-on people by nature, and the transfer of information needs to be in a format that not only passes on knowledge, but also will lead to adoption of new on-farm practices. This information needs to be packaged and presented in a manner that accounts for all learning styles. It is important that the education be conducted in group situations as this is a more efficient use of resources. Any follow-up activity could be carried out by commercial entities.

Turf can follow other industries that have taken research findings and packaged them in programs that combine talks, videos, practical demonstrations and field days. These programs consist of regular short sessions that provide context to the research and show how different components come together to generate a more profitable and sustainable industry. This enables time-poor growers the opportunity to gain the information they need to drive profit as well as network from other growers (part of the diffusion model in extension).

The industry has used field days, State Forums and national conferences previously and these all combine to ensure that growers have access to, and can adopt, relevant R&D and marketing outcomes.

The communication and adoption of R&D and marketing outcomes are essential for industry development. Many growers in the industry indicate a lack of understanding of what the levy does for their business and of the impact of R&D and marketing activities and investment. Regular communication addresses this and ensures growers are up to date with R&D outcomes, including those that improve the profitability and sustainability of their businesses and, hence, the industry.

OUTCOME 4

Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making

Leadership is important to industry development because leaders are often the innovators who are inspiring their peers. For the industry to remain profitable and sustainable, it is important that future leaders have the opportunity to develop new skills, expand their networks and be at the forefront of the adoption of R&D and marketing outcomes.

The turf industry has catered for younger future leaders through the NextGen program. Opportunities for future leaders who are more mature are also being developed to ensure that the industry will continue to attract and retain the right people in order for the industry to develop.

It is important that this investment in people is optimised to expose them to the R&D and marketing outcomes and have them actively involved in promoting the adoption of these outcomes. Successful adoption of R&D outcomes results when innovators first trial and then modify the outcomes to their environment. Growers who are early adopters then see what the innovators are doing and adopt the outcomes on their farms. Mid-adopters in turn see that such outcomes are proven and implement them ahead of the final group, the late adopters.

This investment in future leaders and/or innovators provides the opportunity to ensure they embrace innovation and share their experiences to help the industry develop and be more profitable and sustainable.

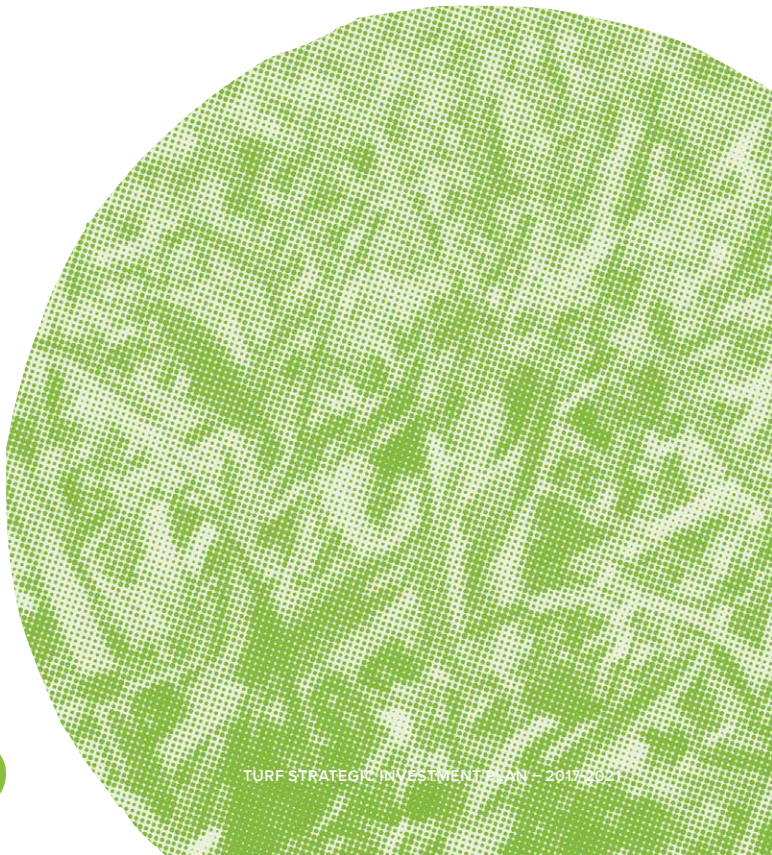
OUTCOME 5

Improved industry sustainability from identifying and managing risks

Managing risk is an important part of any industry and business to ensure longevity whilst minimising the impacts of potential threats.

Biosecurity encompasses many aspects of turf production. Managing the incursion or impact of pests and diseases is important. The use of suitable practices and chemicals ensures pests and diseases will have minimal effect on production and the wider environment. It is important that growers maintain access to existing and new chemical products. One of the issues for the industry is that, from a global perspective, the Australian turf market is small, and some chemical companies will not want to incur the cost of product registration within Australia for use of their product on turf. Historically, some horticultural industries have been able to maintain access to chemicals through the use of Minor Use Permits.

Biosecurity encompasses many aspects of turf production. Managing the incursion or impact of pests and diseases is important.



3

SECTION THREE

Turf industry priorities

Industry investment priorities

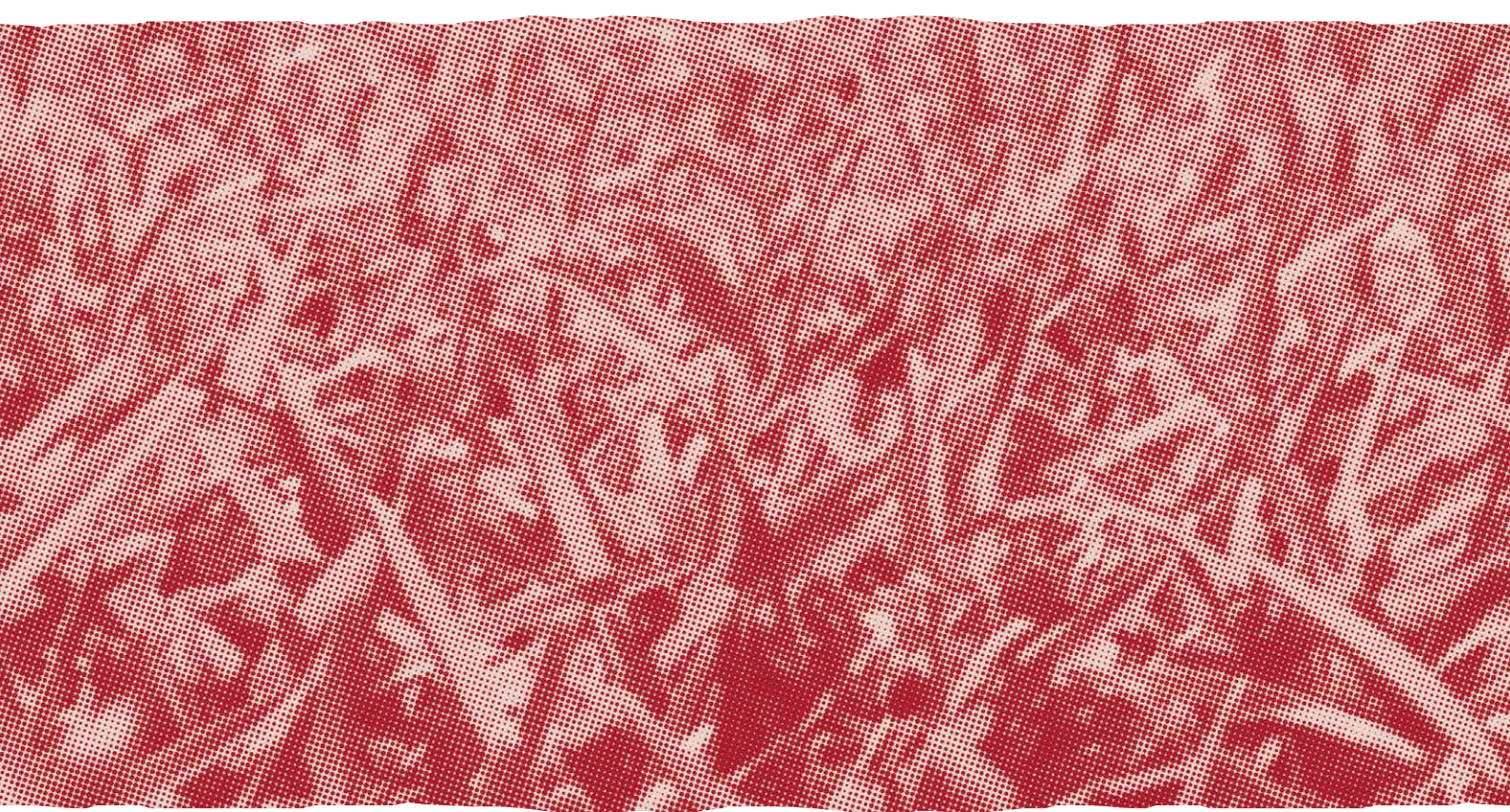
| OUTCOME 1 – Turf revenue has increased by five per cent per annum plus CPI from targeted marketing programs | |
|---|---|
| STRATEGIES | POSSIBLE DELIVERABLES |
| Use information gained from market research and research to align levy-funded marketing activities with the benefits that appeal to consumers | <ul style="list-style-type: none"> • Alignment between levy-funded marketing activity and market research findings |
| Disseminate the findings from market research and research to growers and encourage the use of this in their own marketing activity | <ul style="list-style-type: none"> • Information packages on market research findings and suggested techniques to incorporate these into grower-initiated marketing • Inclusion of material in extension and communication plans |
| Utilise strategic marketing techniques to leverage the turf marketing message and target opinion leaders and influencers | <ul style="list-style-type: none"> • Press releases around strategic marketing activities and key messages • List of key opinion leaders and influencers • Information packages for this group • Workshop/seminar for opinion leaders and influencers, with independent sources explaining benefits of turf |
| Undertake review of existing literature to collate benefits and identify information gaps | <ul style="list-style-type: none"> • Report of existing literature, benefits and identified R&D gaps |
| Conduct research to address information gaps | <ul style="list-style-type: none"> • Report on R&D outcomes and R&D gaps • Press releases • Regular project progress updates in turf industry communication outputs |
| Communicate key messages to growers, government and key stakeholders | <ul style="list-style-type: none"> • A component of the industry’s communication program that outlines the turf’s environmental, economic, wellbeing, social and emotional benefits |
| Monitor, contribute and, where appropriate, invest into Pool 2 projects that potentially will increase demand for turf products | <ul style="list-style-type: none"> • Turf industry involvement in relevant Pool 2 projects • Research reports • Information for use in marketing, extension and communication activities |

| OUTCOME 2 – Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights | |
|--|--|
| STRATEGIES | POSSIBLE DELIVERABLES |
| Monitor and understand turf consumers, their reasons for purchase, their customer journey and what they are willing to pay | <ul style="list-style-type: none"> Market research reports tracking key consumer and market insights |
| Monitor average retail price of turf (per square metre) by variety in all turf-producing states | <ul style="list-style-type: none"> Benchmark of average retail price for different varieties of turf in each state An important component to monitor and evaluate impact of levy-funded activities in generating changes within the industry |
| Obtain better metadata about the turf industry | <ul style="list-style-type: none"> More accurate industry data for use in planning, monitoring and evaluation of future programs |
| Define the different components of the turf industry | <ul style="list-style-type: none"> Scope for benchmarking project |
| Have a credible organisational benchmark for the industry in regards to social, environmental, economic and health benefits | <ul style="list-style-type: none"> Report and benchmark of the industry and its different components A system that can be used to monitor the contribution of turf to the Australian economy and community |

| OUTCOME 3 – Improved farm practices and profitability from increased awareness and adoption of turf R&D | |
|---|---|
| STRATEGIES | POSSIBLE DELIVERABLES |
| Identify and fill innovation gaps in smart farming of turf and its value-added chain | <ul style="list-style-type: none"> Monitoring and reporting on relevant innovation Identification of innovation gaps Research reports addressing innovation gaps |
| Develop and implement an integrated extension program | <ul style="list-style-type: none"> Detailed plan covering workshops, grower meetings, field days, communication in existing industry channels, State Forums, conferences, farm walks Regular monitoring to evaluate the effectiveness of extension activities and materials |
| Deliver industry training when required | <ul style="list-style-type: none"> Workshops, training modules and activities that align with the extension plan |
| Collate information into a single point for future reference | <ul style="list-style-type: none"> Electronic hub of information for 24/7 access by growers |
| Develop an effective communication program | <ul style="list-style-type: none"> Communication program |
| Regular monitoring to evaluate the effectiveness of communication activities and materials | <ul style="list-style-type: none"> Survey and/or focus group results for inclusion in communication activities |

| OUTCOME 4 – Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making | |
|---|---|
| STRATEGIES | POSSIBLE DELIVERABLES |
| Identify and engage future leaders and/or innovators into leadership programs | <ul style="list-style-type: none"> • Network of future leaders and adopters of R&D outcomes |
| Monitor effectiveness of programs to enhance networks, leadership skills, access and adoption of innovation | <ul style="list-style-type: none"> • Regular reports on effectiveness of programs and areas for improvement that enhance industry’s investment in human capital |
| Have future leaders involved in extending and promoting the adoption of R&D and marketing outcomes | <ul style="list-style-type: none"> • Grower network for extension activities • Grower speakers who can talk about their experience with the R&D and marketing outcomes and encourage others to make changes |

| OUTCOME 5 – Improved industry sustainability from identifying and managing risks | |
|---|---|
| STRATEGIES | POSSIBLE DELIVERABLES |
| Monitor major risks impacting on the long-term profitability and sustainability of the industry | <ul style="list-style-type: none"> • Industry risk assessments and potential areas for future R&D |
| Use of Minor Use Permits, where appropriate, to maintain access to chemicals | <ul style="list-style-type: none"> • Minor Use Permit for turf production • Industry maintains access to existing chemicals |
| Provide education, strategies, and documents on key risk areas when required | <ul style="list-style-type: none"> • Training programs • Fact sheets/Information sheets • Documents for use by growers |



Aligning to Hort Innovation investment priorities

In establishing investment priorities, Hort Innovation analysed both historical and current levy and co-investment portfolios and priorities. From this analysis, we identified 11 cross-sectoral investment themes. We consolidated these themes further and considered their alignment with the Australian Government’s Rural RD&E Priorities and National Science and Research Priorities, to arrive at five investment priorities outlined in **Figure 4**. **Figure 4** also shows how each cross-sectoral investment theme relates to the five investment priorities.

Figure 4: Hort Innovation’s investment priorities



The alignment of the turf SIP outcomes to the Hort Innovation investment priorities, and consequently, the Australian Government’s Rural RD&E Priorities and National Science and Research Priorities is shown in **Table 3**.

Table 3: Alignment of the turf SIP outcomes to the Hort Innovation investment priorities

| Hort Innovation investment priorities | Turf SIP outcomes |
|--|---|
| Support industry efficiency and sustainability | <p>Improved farm practices and profitability from increased awareness and adoption of turf R&D</p> <p>Improved industry sustainability from identifying and managing risks</p> <p>Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making</p> |
| Improve productivity of the supply chain | |
| Grow the horticulture value chain capacity | |
| Drive long-term domestic and export growth | <p>Turf revenue has increased by five per cent per annum plus CPI from targeted marketing</p> <p>Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights</p> |
| Lead strategically to enhance the development of the Australian horticulture industry through operational excellence | Enabler |



4

SECTION FOUR

Turf industry monitoring and evaluation

Turf SIP monitoring, evaluation and reporting

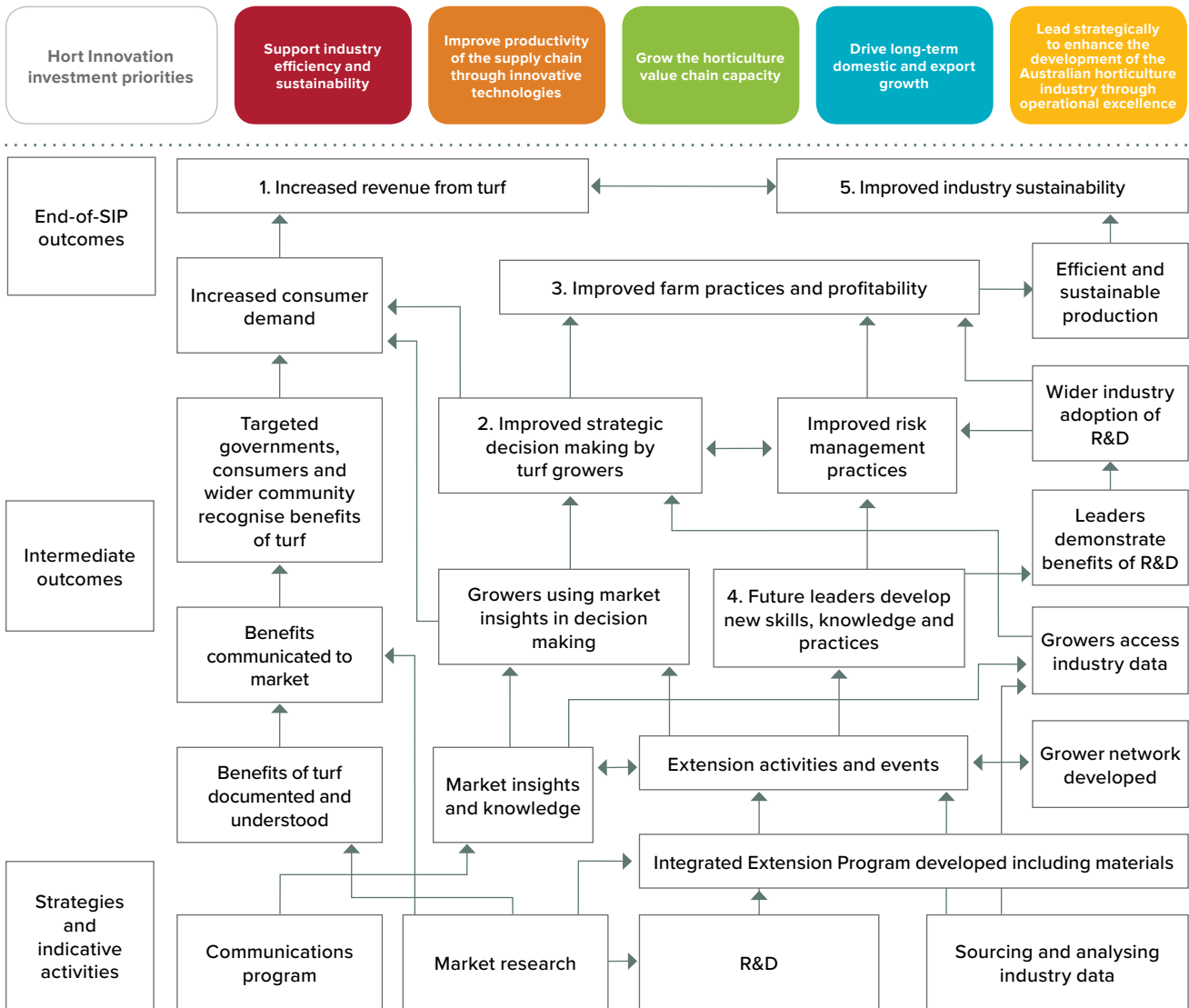
A SIP program logic and monitoring and evaluation (M&E) plan has been developed for the turf SIP. These are informed by the Hort Innovation Organisational Evaluation Framework. The logic maps a series of expected consequences of SIP investment. The M&E plan shows the performance measures that will be measured to demonstrate progress against the SIP and what data will be collected. Progress against the SIP will be reported in Hort Innovation publications and at industry SIAP meetings.

The SIP outcomes and strategies will be used to inform investments in individual projects to deliver on the SIP. The results of M&E will be used to reflect on the results of investments and in decision making. Hort Innovation will facilitate the regular review of SIPs to ensure they remain relevant to industry.

Turf SIP logic

An indicative turf SIP program logic is shown in **Figure 5**. The logic is based on the Hort Innovation SIP logic hierarchy (**Appendix 3**).

Figure 5: Turf SIP logic



Turf SIP M&E plan

The turf monitoring and evaluation (M&E) plan is shown in **Table 4**. The table includes key performance indicators (KPIs) and data collection methods both at a macro/industry (trend) level and at more specific SIP level/s.

Table 4: Monitoring and evaluation plan for the turf SIP

| Objectives | Strategies | KPIs | Data collection methods and sources |
|--|--|---|--|
| Turf revenue has increased by five per cent per annum plus CPI from targeted marketing | Utilise market research and research results to focus levy-funded marketing activities on the benefits customers are seeking | <ul style="list-style-type: none"> • The average retail price of turf/variety/state increases five per cent per annum plus CPI • 75 per cent of targeted opinion leaders and influencers understand the benefits turf provides • 75 per cent of growers are aware of turf’s key benefits and promoting these when marketing turf • Identification of Hort Innovation Pool 2 research projects that increase the demand for turf and/or highlight the benefits of turf • Turf industry consultation in at least two Hort Innovation Pool 2 project designs • Where appropriate the use of Pool 2 research outcomes in turf marketing, extension activities and communication | <ul style="list-style-type: none"> • Average retail price/variety/state as determined through secret buyer surveys • Area of turf grown as determined by levy collection • Survey of opinion leaders and influencers • Market research reports • Survey of growers • Meeting minutes |
| | Disseminate market research and research findings to growers and encourage use in their own marketing programs | | |
| | Utilise strategic marketing techniques to leverage turf’s marketing messages, including targeting of opinion leaders and influencers | | |
| | Undertake review of existing literature to collate benefits and identify information gaps | | |
| | Conduct research to address information gaps | | |
| | Communicate key messages to growers, government and key stakeholders | | |
| | Incorporate key messages into levy-funded marketing activities | | |
| | Monitor, contribute and, where appropriate, invest into Pool 2 projects that potentially will increase demand for turf products | | |

SECTION 4: TURF INDUSTRY MONITORING AND EVALUATION

| Objectives | Strategies | KPIs | Data collection methods and sources |
|--|--|---|---|
| Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights | Monitor and understand who consumers are, their reasons for buying turf, their customer journey, and what they are willing to pay for turf | <ul style="list-style-type: none"> 65 per cent of growers using market research outcomes in their businesses Benchmark of average retail turf prices/variety/state Trend of average retail turf prices/variety/state for use in monitoring and evaluation and extension activities Data from this outcome used in HortStats Baseline data that can be used in future monitoring and evaluation | <ul style="list-style-type: none"> Market research reports Average retail price/variety/state as determined through secret buyer surveys Grower surveys Research reports |
| | Monitor average retail price of turf (AUD per square metre) by variety on all turf-producing states | | |
| | Obtain better metadata about the turf industry | | |
| | Define the different components of the turf industry | | |
| | Have a credible organisation benchmark for the industry in regards to social, environmental, economic and health benefits | | |
| | Communicate results to growers, government, and key stakeholders | | |
| | Define the different components of the turf industry | | |
| | Have a credible organisation benchmark for the industry in regards to social, environmental, economic and health benefits | | |
| Demonstrated awareness and change in industry economics, practices and inputs | Identify and fill innovation gaps in smart farming of turf and its value-added chain | <ul style="list-style-type: none"> Attendance of growers at extension activities An average of 75 per cent of those attending extension activities rating activities as beneficial or better 65 per cent of levy payers making some changes to business and/or production practices as a result of R&D or marketing outcomes Average retail price/variety/state increasing by five per cent per annum plus CPI Annual increase in recognition by growers of levy-funded R&D and marketing outcomes and activities identified through communications Increasing grower responses that communication is effective in meeting their information needs SIAP minutes and/or report present to SIAP for discussion | <ul style="list-style-type: none"> Average retail price/variety/state as determined through secret buyer surveys Grower survey attending activities Follow-up survey on growers who have attended activities to gauge the percentage making changes to business or production practices Grower surveys M&E results |
| | Develop and implement an integrated extension program | | |
| | Deliver industry training when required | | |
| | Collate information into a single point for future reference | | |
| | Develop an effective communication program | | |
| | Regular monitoring to evaluate the effectiveness of communication activities and materials | | |
| | Annual review of SIP and underlying strategy | | |

| Objectives | Strategies | KPIs | Data collection methods and sources |
|---|--|--|---|
| Improved industry sustainability from identifying and managing risks | <p>Monitor major risks impacting on the long-term profitability and sustainability of the industry</p> <p>Use of Minor Use Permits, where appropriate, to maintain access to chemicals</p> <p>Provide education, strategies, and documents on key risk areas when required</p> | <ul style="list-style-type: none"> • Industry has access to the same level of chemicals, or a viable equivalent • Chemical options, Minor Use Permit information and documentation is incorporated into an integrated extension program aimed at improving industry profitability and sustainability | <ul style="list-style-type: none"> • Number of Minor Use Permits obtained |
| Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making | <p>Identify and engage future leaders and/or innovators in leadership programs</p> <p>Monitor effectiveness of programs to enhance networks, leadership skills, access and adoption of innovation</p> <p>Have future leaders involved in extending and promoting the adoption of R&D and marketing outcome</p> | <ul style="list-style-type: none"> • 80 per cent of future leaders and/or innovators and participants rating the program as beneficial or better • Have 20 future leaders involved annually in extension activities associated with R&D outcomes | <ul style="list-style-type: none"> • Survey future leader participants • Involvement of future leaders in extension activities/ grower meetings/ field days |

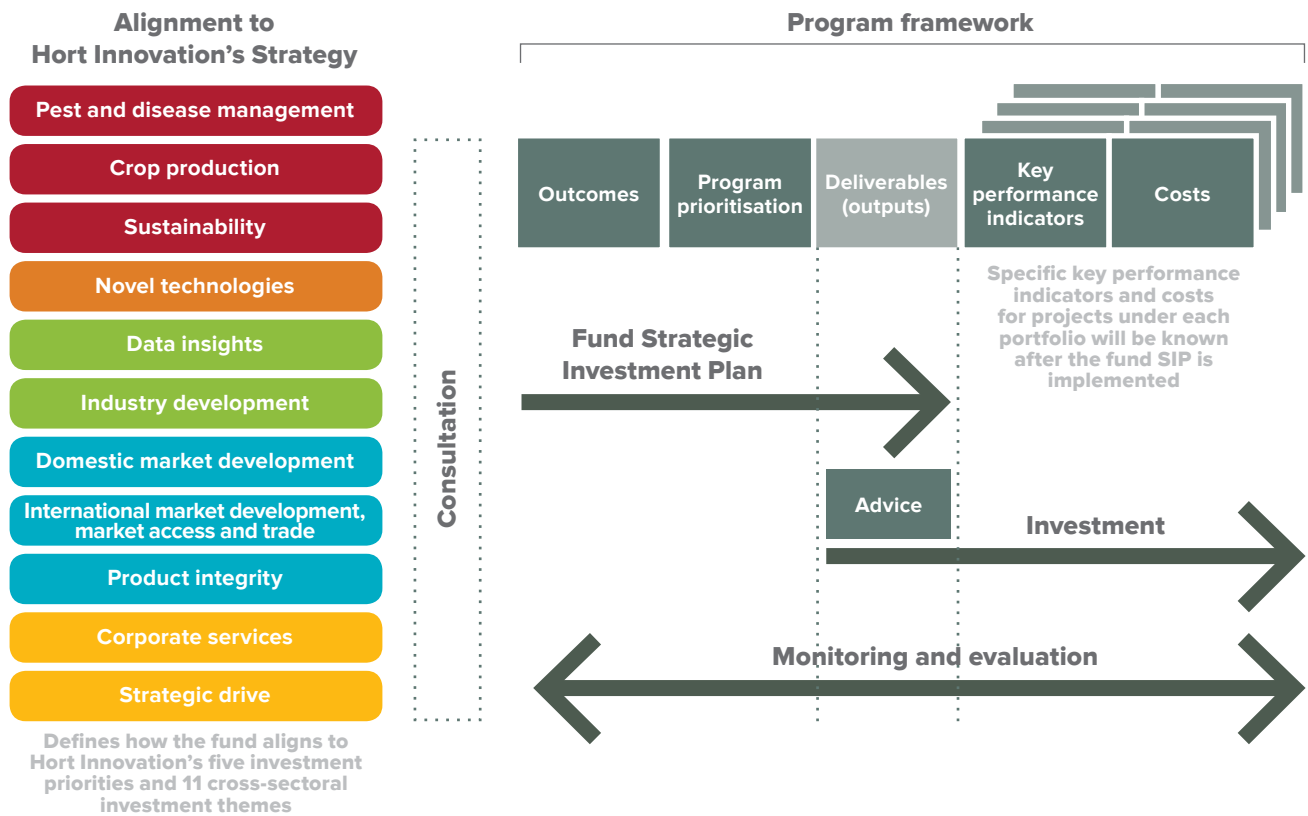


Reporting

The program framework in **Figure 6** is the mechanism that links Hort Innovation’s strategy and investment priorities to the investment process through the industry SIP. SIPs assist Hort Innovation to prioritise and implement the specific industry R&D, extension and marketing programs.

Hort Innovation will use dynamic reporting against our monitoring and evaluation framework to report on investment progress. The contribution of investments to each industry outcome will be reported regularly, including through industry Annual Reports, Hort Innovation’s Annual Report and Hort Innovation’s Annual Operating Plan.

Figure 6: Hort Innovation’s program framework

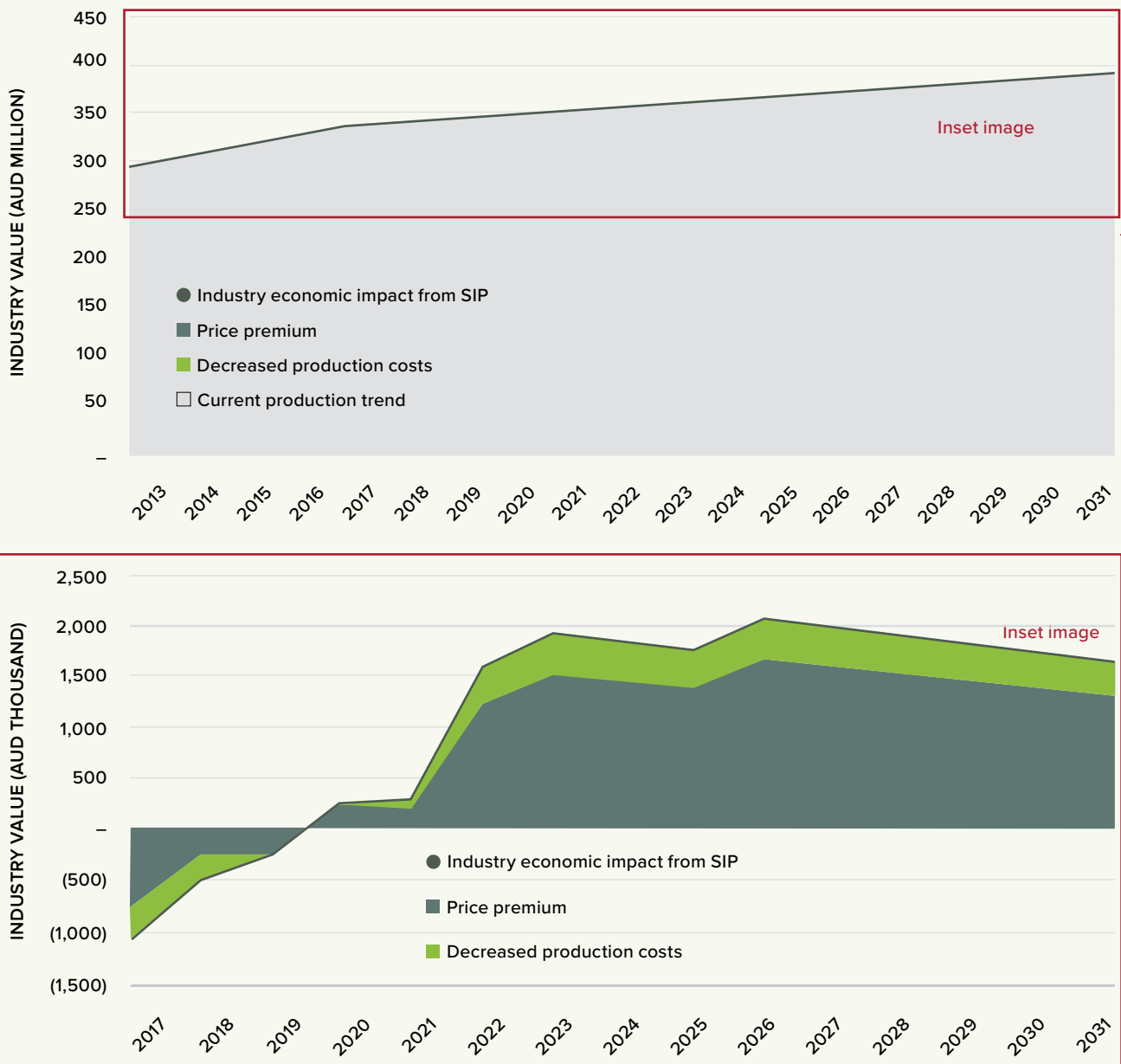




SECTION FIVE

Impact assessment

Figure 7: Economic benefit from investment in the turf SIP



An independent assessment of the potential economic impacts from investment into the turf SIP indicated a positive return on investment for the industry (**Figure 7**). The anticipated investment of \$4.80 million over the next five years in R&D, extension and marketing activities is expected to generate \$21.69 million in net benefits for the industry, representing a benefit cost ratio of 4.52 times to growers and service providers along the value chain.

The assessment draws from a wide range of available data sources, and projects economic impacts over a 15-year period starting from 2016/17. A five per cent discount rate has been applied, and all values are adjusted for inflation and presented in 2016/17 dollar terms. The assessment takes a highly conservative approach and the presented figures have been adjusted to account for risks associated with achieving research outputs, expected adoption and impacts.

In **Table 5**, the assessed impacts identified from the SIP are summarised as well as the anticipated deliverables, net economic benefits and benefit cost ratio.

Table 5: Overview of impacts assessed and alignment with SIP targets

| Outcome | Expected deliverables | Anticipated SIP investment (over five years) | Net benefits (over 15 years) | Benefit cost ratio |
|---|--|--|--|--------------------|
| <p>OUTCOME 1: Turf revenue has increased by five per cent plus CPI from targeted marketing</p> <p>OUTCOME 2: Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights</p> | <p>OUTCOME 1: Information packages on market research findings and suggested techniques to incorporate these into grower initiatives and marketing; extension and communication plans</p> <p>OUTCOME 2: Market research reports; benchmarking, monitoring and evaluating retail prices for different varieties of turf in each state; a system that can be used to monitor turf's contribution to the Australian economy and community</p> | \$3,522,709 | \$17,423,689 | 4.95 |
| <p>OUTCOME 3: Improved farm practices and profitability from increased awareness and adoption of turf R&D</p> | Research on innovation gaps; workshops and training modules and activities; communication program; electronic hub of information for 24/7 access by growers | Cost integrated into Outcomes 1, 2 and 5 | Benefits calculated in Outcomes 1, 2 and 5 | Not applicable |
| <p>OUTCOME 4: Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making</p> | Network of leaders and adopters of R&D outcomes; regular reports on effectiveness of programs and areas for improvements that enhance industry's investment in human capital; grower speakers | Cost integrated into Outcomes 1, 2 and 5 | Benefits calculated in Outcomes 1, 2 and 5 | Not applicable |
| <p>OUTCOME 5: Improved industry sustainability from identifying and managing risks</p> | Risk assessment and potential areas for future R&D; Minor Use Permits; access to existing chemicals; training programs; fact sheets; reference documents | \$1,280,982 | \$4,270,668 | 3.33 |

The quantified impacts associated with Outcomes 1 and 2 include:

- Price premium: This will be driven by R&D, extension and marketing activities to assist growers implement pricing strategies based on a value proposition rather than the typical cost-of-production approach.

The quantified impacts from Outcome 5 include:

- A decrease in the cost of production activities, such as fumigation, application of herbicides and pesticides, and weed control, through risk management strategies. An example of such an activity may be delaying the resistance of currently approved herbicides and pesticides through best management practice.

The impacts from Outcomes 3 and 4:

- Training and extension activities contribute towards the benefits in Outcomes 1, 2 and 5 and are part of their overall return on investment.

The net economic impact (NPV) is based on estimates projected over a 15-year period, starting from 2016/17.

6

SECTION SIX

Risk management

The purpose of this risk section is to highlight any unique or specific risks that qualify the SIP. This is not intended to be an exhaustive risk review of the industry risks which in part are considered in the SWOT. This is also not reflective of the general investment risks which will be considered in the project investment process.

This plan has a number of underlying assumptions that impact on achieving the above mentioned outcomes.

The risks associated with the achievement of the outcomes mentioned in this plan are:

- The market research results from 2010, indicating that consumers would be willing to pay more for turf, are no longer relevant. In fact, higher prices could lead to less turf being planted (*Brand Story*, July 2010). The strategy to manage this risk to is undertake regular market research that enables the industry to both monitor this issue and gain a better understanding of the price elasticity for turf
- A significant economic event that reduces the number of constructions and consumer confidence would have a negative impact on this plan. It would not only impact on achieving the outcomes but potentially on the resources to achieve this plan. Annual review by the SIAP of this plan is designed to minimise the impact and allow for changes if this event was to occur
- The turf industry is unique in that growers, in the majority of cases, deal with the end consumer. In order to achieve the outcomes in this plan, it assumes that by sharing market research results and key messages, growers would incorporate these into their marketing approach and hence assist in increasing the impact of levy-funded marketing and R&D outcomes. Failure by growers to utilise such information in their marketing will reduce the impact of these outcomes for improving demand and sales revenue
- The adoption of innovation outlined in this plan is based on the Everett Roger's diffusion model. There is a risk that in five years, less than 65 per cent of growers have adopted levy-funded marketing and R&D outcomes. This is because the information and benefits have not diffused down enough to account for 65 per cent of growers. Utilisation of best practice in extension will be used and monitored.

Figure 8: SIP development process



**APPENDIX 1:
Process to develop this SIP**

The SIP was developed in close consultation with the Australian turf industry through the four-stage process formulated by Hort Innovation and illustrated in *Figure 8*.

Pre-planning activities included review of relevant literature, analysis of past investments, preparation of an industry profile, and engagement with the SIAP and Industry Representative Body – Turf Australia (TA). Literature review focused on the Australian Turf Industry R&D Strategic Plan 2012-17 and a number of levy-funded project reports.

Preparation tasks included gathering input and data to inform the SIP, completion of an environmental scan, review of consumer and retailer trends, and discussion with industry on innovative technology relevant to their industry. This process involved a range of large and smaller consultation events.

Interactive sessions with growers were held at the State Forums in New South Wales, Queensland, Victoria and Western Australia. Over 150 growers attended these functions and a survey forum. Their input was captured through two mechanisms: interactive sessions and a questionnaire.

Key themes from this consultation were then discussed with the SIAP and an industry-wide online survey was carried out. The responses from the online survey were in line with the initial consultation of key stakeholders and the State Forums.

The SIAP provided advice on the need for a national workshop. It was decided that the workshop would be by invitation only. Members of the SIAP and TA were consulted to ensure the invitation list was reflective of the turf industry.

A one-day national SIP workshop was held in Sydney where growers discussed and identified levy investment priorities, outcomes and strategies.

The outcome from this workshop was used to develop the initial draft of the SIP. An interactive workshop held with the SIAP ensured the document reflected the industry’s intent.

Validation was completed by making the document available for public comment through December 2016 and January 2017.

The outcome from this workshop was used to develop the initial draft of the SIP and an interactive workshop was held with the SIAP to ensure the document reflected the industry’s intent.

APPENDIX 2: Consultation and validation

The following people are acknowledged for their contribution to the turf SIP development process.

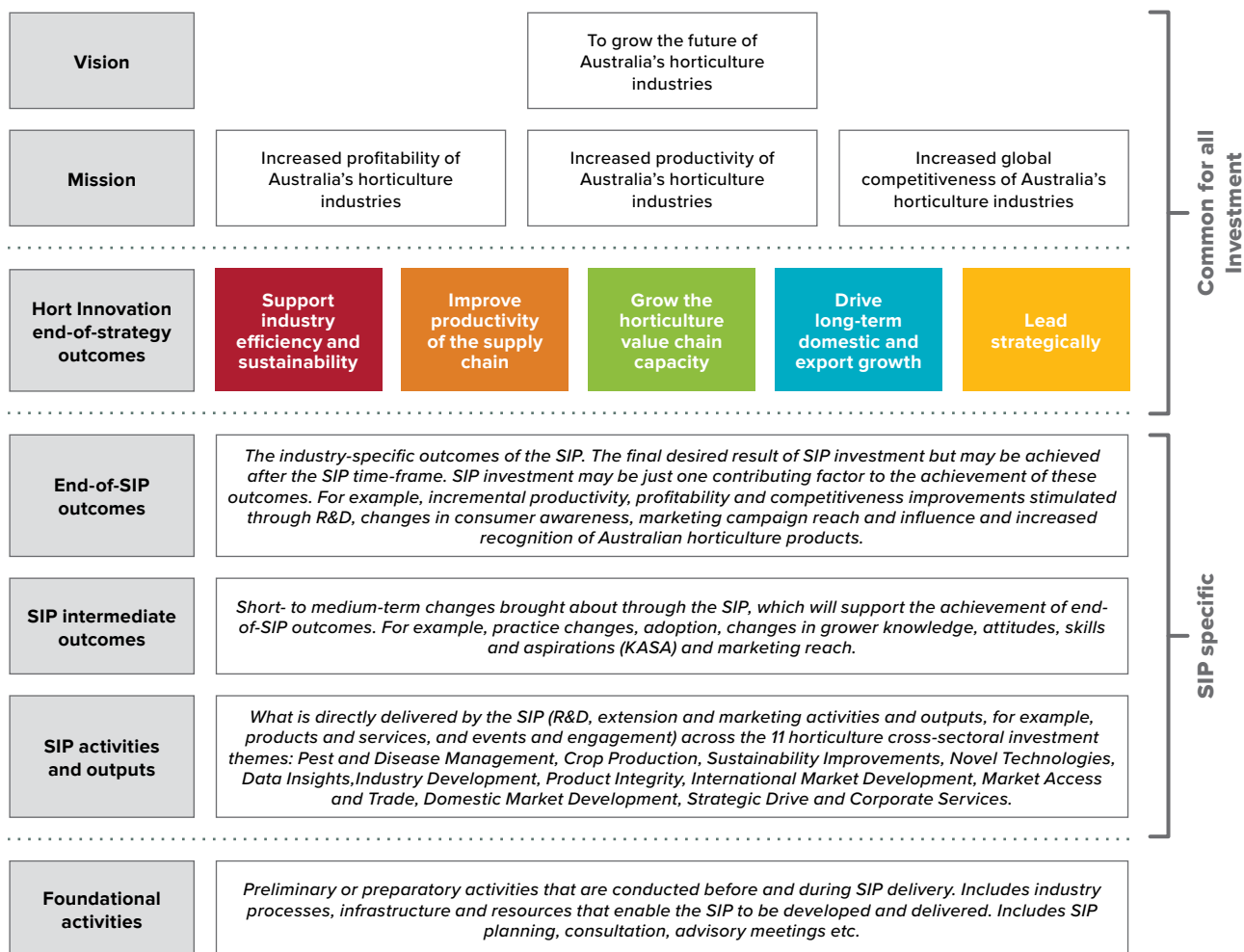
| Name | Organisation |
|-------------------|--------------------------|
| Mick Battam | AgEnviro Solutions |
| Steve Adams | Warialda Turf |
| Simon Adermann | Lawn Solutions Australia |
| Terry Allen | Consultant |
| David Allen | Turf Australia |
| Julie Allen | Turf Australia |
| Dale Baertschiger | Lilydale Instant Lawn |
| Karen Banbury | CT Lawns |
| Craig Banbury | Glenview Turf |
| Greg Banff | Golden Finch Lawns |
| Tony Blatch | I Love Turf |
| Mick Bowen | Turf the Lot |
| Lynelle Boyle | Rosemount Turf |
| Ross Boyle | Rosemount Turf |
| Emma Burstall | Turbiz |
| Justin Burstall | Turbiz |
| Matty Butler | Grech's Turf |
| Ryan Buttel | Nuturf |
| Phil Candy | Coolabah Turf |
| Peter Chaband | The Pump House |
| Annika Chase | Cowra Turf |
| David Chase | Cowra Turf |
| Steve Cole | Lilydale Instant Lawn |
| Graeme Colless | Dad and Daves Turf |
| Russell Cooke | Ord Valley Turf |
| Sophie Cooke | Ord Valley Turf |
| Tony Cornwell | Mardi Park Turf |
| Ryan Cotter | Anco Seed and Turf |
| Brett Currie | Waterwise Turf |
| Mick Cutts | I Love Turf |
| Terry Daley | Daleys Turf |
| Nick Dorney | AusGAP |
| Candice Fisher | Lilydale Instant Lawn |
| Katie Fisher | Turf Australia |

| Name | Organisation |
|-------------------|-------------------------------|
| Jerome Flugge | Superior Lawns |
| Rob Green | Nuturf |
| Troy Griffiths | Coolabah Turf |
| Jane Hartshorne | Ozbreed |
| Gavan Hegan | Nuturf |
| Sonya Heilig | GoTurf |
| Anthony Heilig | GoTurf |
| Rod Hollis | Magnum Turf |
| Barry Howard | Nuturf |
| Bill Keegan | Austurf |
| John Keleher | Australian Lawn Concepts |
| Darren Kirkwood | West Coast Turf |
| Kerrin Kirkwood | West Coast Turf |
| Nathan Layt | Ozbreed |
| Rachel Layt | Turf Australia |
| Todd Layt | Ozbreed |
| John Maas | Bullsbrook Turf |
| Tony Mason | Coastal Turf QLD |
| Sarah Mason | Coastal Turf QLD |
| Jessica May | Dad and Daves Turf |
| Peter McMaugh | Turfgrass Scientific Services |
| Liz Mecham | Turf Australia |
| Jonathan Mifsud | Rivers Edge Turf |
| Mary Mifsud | Rivers Edge Turf |
| Lachlan Moncrieff | Paragon Gardens |
| Sacha Moncrieff | Paragon Gardens |
| Emil Montibeler | Ozbreed |
| Anne Muscat | Active Turf NSW |
| Anthony Muscat | Greener Lawn Supplies |
| Charlie Muscat | Active Turf NSW |
| Michael Muscat | Green Life Turf |
| Frank Muscat | J&B Buffalo |
| Jason Muscat | Hi Quality Turf |
| Joseph Muscat | Greener Lawn Supplies |
| Joshua Muscat | Green Life Turf |
| Patrick Muscat | Green Life Turf |
| Robert Muscat | J&B Buffalo |
| Grant Nelson | Turf Australia |

| Name | Organisation |
|-----------------|--------------------------|
| Craig Nichols | Roberts Turf Supplies |
| Margot Nichols | Roberts Turf Supplies |
| Greg O'Dea | Bioactive Soil Solutions |
| Con Paino | Westland Turf |
| Greg Pelka | Rosemount Turf |
| Chris Pitcher | The Pump House |
| Adrian Pitsikas | Greenacres Turf Group |
| Leanne Pitsikas | Greenacres Turf Group |
| Gary Plummer | Rosemount Turf |
| Matt Plunkett | NSW DPI |
| Robert Prince | Consultant |
| Collin Purnell | Earthlife |
| Denise Purnell | Earthlife |
| David Raison | Turf Services |
| Brent Redman | Lawn Solutions Australia |
| David Reid | Turf Poducers Victoria |
| Eva Ricci | Turf Western Australia |
| Chris Roberts | Axedale Turf |
| Sharnie Roberts | Axedale Turf |
| Gavin Rogers | Lawn Solutions AUstralia |
| Bill Saliba | All Year Round Turf |
| Charlie Saliba | Qualturf |
| Daniel Saliba | All Year Round Turf |
| Margaret Saliba | All Year Round Turf |
| Paul Saliba | Qualturf |
| Pauline Saliba | Qualturf |
| Bec Sellick | The Lawn Doctor |
| Alyce Shaw | turfmate |

| Name | Organisation |
|---------------------|---|
| Paul Sinclair | Austurf |
| Wayne Smith | Dargle Turf |
| Andrew Smith | Nuturf |
| Iain Sommerlad | Heritage Turf Supplies |
| Richard Stephens | Turf Australia |
| Lawrence Stephenson | Twin View Waters |
| Gavin Sutherland | HG Turf |
| Daniel Swinton | All Turf Solutions |
| Duncan Swinton | All Turf Solutions |
| Paul Thomas | Bendles Mooloolah Valley Turf Glenview Warialda Turf Palmview |
| Helen Tramacchi | Sunset Turf |
| Scott Tramacchi | Sunset Turf |
| Peter Tune | Bioactive Soil Solutions |
| Kerrie Tweedie | Grech's Turf & Atlas Turf |
| Neale Tweedie | Grech's Turf & Atlas Turf |
| Mike Tyrrell | Bioactive Soil Solutions |
| Peter Vaughan | NGIA |
| Annette Vella | A View Turf |
| Steve Vella | A View Turf |
| Sam Wasmund | Rosemount Turf |
| Alex White | Turf the Lot |
| Andrew Wilmink | Rosemount Turf |
| Jenny Zadro | Turf NSW |

APPENDIX 3:
Logic hierarchy



Hort Innovation

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