

Final Report

2018 European Industry Leadership and Development Mission

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AUSVEG Pty Ltd

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2018 European Industry Leadership and Development Mission – VG15701

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Summary

The 2018 European Industry Leadership and Development Mission was held from 5-13 February and provided an opportunity for eight vegetable levy payers to visit the Berlin Fruit Logistica trade show – the world’s premier international meeting place for the fresh produce trade – as well as the Berlin wholesale market and leading researchers and agribusinesses in the Netherlands. The mission was funded by Hort Innovation using the vegetable research and development levy, voluntary contributions from vegetable growing businesses and contributions from the Australian Government.

The primary objective of the mission was to ensure that members of the Australian vegetable industry were exposed to the latest technical innovations, industry research and industry networks through their participation at the Berlin Fruit Logistica, the world’s leading fresh produce trade show, as well as gaining a hands-on, comprehensive understanding and appreciation of the European vegetable industry to bring back home to evaluate their own businesses and the national industry as a whole. The mission also provides a unique opportunity to interact with members of their local industry to strengthen their local networks that will be beneficial following the completion of the mission.

The experiences gained on the mission are then disseminated to growers through a variety of methods, including a report to Hort Innovation, article in leading industry publications Vegetables Australia and the AUSVEG Weekly Update and widespread dissemination by participating growers through their local networks, to ensure that the lessons learned from the mission are accessible to the wider industry to provide insights into current and emerging trends in the global fresh produce industry.

The mission incorporated attendance at the Berlin Fruit Logistica, the world’s largest trade show for the fresh produce industry, as well as tours of Berlin’s wholesale market (Berliner Großmarkt), leading Dutch research organisation Wageningen University, and leading Dutch seed company Rijk Zwaan and one of the world’s most innovative and unique food producers Koppert Cress.

Written evaluations were undertaken by participants to provide a record of each day’s events and ensure information was retained, while debriefing sessions were held regularly discuss key points of interest and insights that could be brought to Australia. This feedback has been included to form recommendations for future international study mission projects to ensure they remain relevant, interesting and worthwhile to delegates and the wider industry.

Keywords

Industry Leadership and Development; vegetable industry; Berlin Fruit Logistica; European horticulture; networking; grower mission; grower tour; new technology; vegetable research; wholesale market; seed production; Wageningen University; Rijk Zwaan; Koppert Cress; AUSVEG; Hort Innovation.

Introduction

For many years, Australia's vegetable growers have benefited from the opportunity to attend Berlin Fruit Logistica, the world's largest trade show for the fresh produce industry, as well as attend international grower tours to key vegetable production regions around the world. These tours have successfully allowed participants to be exposed to the global horticulture industry and meet their peers in different countries to discuss similar challenges and practices, as well as network with the world's leading agribusinesses and researchers.

The ability to temporarily step away from Australian horticulture and gain a new perspective on the industry has helped to foster innovation in the Australian vegetable industry, as participants have brought back new knowledge and practices to improve the efficiency and profitability of their operations. Upon their return, participants have also shared their findings with their networks and through industry communications, allowing the wider Australian vegetable industry to benefit from the tour.

The key objective of the 2018 European Industry Leadership and Development mission was to provide an opportunity for leading members of the Australian vegetable industry to gain a fresh insight into the latest technologies and innovations, new production practices, machinery and strategies that are currently being used to advance the global horticulture industry.

To ensure participants received the greatest benefit from the mission, the itinerary included visits to Berlin Fruit Logistica, a wholesale market and other leading agribusinesses and research institutions in the European horticulture industry. Given the timing of the mission (early February, when Berlin Fruit Logistica is held), visits to growing regions were unsuitable given the winter conditions.

The itinerary was developed to ensure participants were exposed to a range of technologies and innovations, as well as networking opportunities with other industry stakeholders and agribusiness representatives at Berlin Fruit Logistica. Meetings were organised to ensure a diverse range of topics were discussed throughout the mission. This included on-farm production practices and innovations, research and development, and cutting-edge technologies and processes that have the potential to revolutionise the global horticulture industry.

Regular debriefings were held throughout the mission to discuss the key insights and highlights from the meetings undertaken. Participants were encouraged to take notes of meetings and completed an evaluation form to provide feedback on the success of the mission.

The 2018 European Industry Leadership and Development Mission was a strategic levy investment under the Hort Innovation Vegetable Fund.

Methodology

A detailed e-itinerary was provided to the eight vegetable levy payers who participated in the 2018 Industry Leadership and Development Mission prior to their arrival in Berlin, as well as a hardcopy booklet including the mission's itinerary and participant contact details, which outlined the meetings and planned activities for the mission.

For monitoring and evaluation purposes, participants were required to share their feedback on the Logistica and the various tours organised by the AUSVEG Mission Leader. Written feedback was also recorded in the participant's evaluation forms.

The below is a detailed summary of the events and activities that took place on the 2018 European Industry Leadership and Development Mission.

Days 1 & 2: Monday 5 & Tuesday 6 February 2018

Travel Day

Participants travelled individually from Australia to Berlin, Germany.

Day 3: Wednesday 7 February 2018

Berlin Fruit Logistica

The 2018 European Industry Leadership and Development Mission began with the delegation attending the 2018 Berlin Fruit Logistica, the world's leading trade show for the fresh produce sector. The previous year's event attracted over 76,000 local and international delegates and featured 3,077 exhibitors; the 2018 Logistica surpassed those numbers, proving the event continues to be one of the premier meeting places for the international fresh produce industry. The 2018 Logistica featured around 78,000 delegates from 130 different countries, with the trade show featuring 3,239 exhibitors – 2,960 of which were international exhibitors. Such an expansive trade show provided the opportunity for the growers on the mission to split up and meet with numerous representatives from all different aspects of the fresh produce industry, from seed companies to agrichemical companies, farm machinery and robotic technology companies, packaging and logistics companies and all other areas of the supply chain. Delegates were encouraged to take notes of any stands of interest so that they could return for further discussions during the Logistica.

Throughout the time spent at the Logistica there were multiple networking events organised by AUSVEG for the participating growers to meet with representatives from some of the world's leading agribusinesses and to broaden their networks. These meetings were interspersed throughout the duration of the Logistica and included meetings with representatives from the following companies:

- Bayer
- Syngenta
- Rijk Zwaan
- Koppert Cress
- Produce Marketing Association

These companies hosted some or all of the growers at their stands and were generous with their time to discuss their products, services and experiences in the international fresh produce industry. These companies in turn were grateful for the chance to have face-time with some of Australia's leading vegetable growers to gain an insight into their concerns and issues that they face on farm back home. Many of these companies host the Australian vegetable industry delegation each year a mission travels to the Logistica and they continue to be highlights for the participating growers.

Throughout the Logistica, participants were able to explore new machinery and equipment on display that might generate efficiencies or improve production practices on their farms. Machinery exhibits make up an entire floor at Berlin Fruit Logistica, with growers stunned by the size and scale of the exhibition space, particularly as some stalls featured fully functioning machines to demonstrate how the technology worked.

Of particular interest was the latest innovations in product marketing and packaging that were on display from various different companies at the Logistica. Product innovations such as ‘collective ingredient’ packages that include the ingredients for a meal (such as a lasagne, ratatouille or risotto) so that consumers can pick them up in an easy and convenient way and cook the healthy meals at home. The packages also include clear plastic windows so that the consumer can see the produce before they buy it, responding to consumers’ desire to be able to see their fruit and vegetables, as well as the recipes that consumers can use to cook their desired meal.



Image 1.

Product packaging that includes the collective ingredients for a healthy meal for consumers to conveniently pick up and cook at home. The packages also include meal recipes and clear plastic windows so that consumers can inspect the produce before purchasing.

Another display of interest during the Logistica was the Alberts Smoothies juicing vending machine (one of the finalists for the Fruit Logistica Innovations Awards) that was available for delegates to create their own fruit and vegetable juices at the trade show. The automated station allows consumers to compile juices using a combination of their choice from strawberry, apple, blueberry, mango, raspberry, spinach, banana, celery, pineapple and beetroot.

The station was advertised for use at corporate offices, tapping into a potentially high-valued market for health-conscious professionals who want to eat healthily but who may find it inconvenient or too timely to incorporate into their daily lives – this juicing vending machine would provide them an opportunity to incorporate more healthy eating into their diets while being convenient and quick. While the vegetable juicing market in the Australian vegetable industry is relatively small (according to the Hort Innovation-funded report VG16016 Market opportunity for vegetable juices) targeting this market may be an opportunity for the industry to consider if it is looking to increase the consumption and popularity of vegetable-based juices, which would also provide an additional avenue for second-grade produce that does not meet the aesthetic specs of the retailers. The targeting of higher income-earning, health-conscious professionals is further emphasised by the inclusion of purified water and promoting the ‘no sugar’ element to the juices.



Image 2.

Alberts Smoothies vending machines allow consumers to custom-build their own fruit and vegetable juices.

Day 4: Thursday 8 February

Berlin Fruit Logistica

The delegation continued to visit different sections of the Logistica trade show. An important component of the Logistica trade show is the machinery component, which features a wide range of exhibitors displaying machinery (at times fully operational machinery) for every part of the supply chain from seedlings to on-farm, cold chain storage and transport and processing. The Australian delegation was particularly interested in the latest machinery and technology in salad washers and driers, automated robotic farm technology for both on-farm and for packaging/processing/sorting, and the latest innovations in automatic weeding. Visiting international exhibitors displaying these technological innovations was a great opportunity for the growers in the delegation to discuss the specifics of the machinery and assess the viability of its adoption and incorporation on their farms back home. The value of the networks and business connections made during these ad hoc visits may not be immediately apparent in the first few months following the mission, but over time these networks become hugely valuable for growers to investigate the newest innovations and technologies that can be incorporated on farm.

Fruit Logistica Innovation Awards

An important component of the Berlin Fruit Logistica is the Fruit Logistica Innovation Awards, which acknowledge the most innovative and ground-breaking advances and technologies that are taking place in the global fresh produce industry. This year's awards were awarded to highly-deserving candidates. The delegation had the opportunity to see the finalists at the trade show, which provided them with another avenue into the latest innovations in the global fresh produce industry.

The Gold Fruit Logistica Innovation Award went to Pook Coconut Chips from PookSpaFoods in Germany. The company was awarded the prize for its innovative crisps, which are made from Thai coconut without any oil or fat. These crisps are available in a variety of flavours, including Original Sea Salt, Mango Sea Salt and Chocolate Sea Salt and are vegan, gluten-free and free from preservatives. They are designed to complement a salad, ice cream, cereal, yoghurt, or even as a standalone snack.

The Silver award went to Spanish company HM Clause for the dark brown tomato variety Adora. The Adora tomato is a variant of the variety Marmande, a particularly robust old ribbed beef tomato variety that ripens early, and has a balanced, intensely sweet and sour taste as well as excellent shelf-life, good firmness and good nutritional values.

The Bronze award went to the grass paper from the German paper mill Scheufelen for its organic packaging material that consists of up to 50 per cent fresh grass fibre and is completely recyclable and biodegradable. The use of grass fibres, a renewable raw material is designed to help reduce energy and water consumption and requires zero litres of water and 150kW/h of energy per tonne, compared to conventional pulp fibres, which

require 30,000 litres of water and 6,000 kW/h of energy per tonne.

The other nominees for the 2018 Fruit Logistica Innovation Awards included:

- H2Hybrid, H2Hydroponics, Spain

A patented nursery and irrigation system for hydroponic plant breeding using oxygen enrichment to reduce water consumption by up to 80 per cent and energy consumption by up to 25 per cent.

- In-field Laboratory for Agricultural Testing, Cromptal, Israel

A mobile technological solution for carrying out accurate, real-time practical tests on crops, soil and water over a period of minutes rather than days.

- LogoFrucht, Kellermeister Manns, Germany

A process for printing on fruit and vegetables of any shape. Round objects can be accurately and individually printed with a neutral, water-resistant, high-contrast food colouring which is gentle on the product.

- Malver, Turatti, Italy

An electromechanical system for the precise automatic peeling of all kinds of pitted and halved mangos with an average capacity of approximately 48 pieces per minute.

- The Alberts Smoothie Station, Alberts powered by Greenyard, Belgium

A smoothie vending machine that prepares 100 per cent natural smoothies from frozen fruits and vegetables based on the user's own individual selection and recipe.

- Ulti-Mite Swirski, Koppert Biological Systems, Netherlands

A compostable bag containing a breeding medium for the predatory mite *Amblyseius swirskii* developed for the biological control of thrips (patent-pending).

- Wasabi Giftbox, East4Fresh – Color2Food, Netherlands

A gift box made of untreated wood containing a fresh wasabi rhizome and a wasabi rasp, described as “an additive-free umami adventure for the kitchen or dining table”.

Trend report

A new initiative of the 2018 Berlin Fruit Logistica was the publication of Fruit Logistics Trend report. This report was made freely available to delegates at the Logistica as well as interested parties online via the Berlin Fruit Logistica website. This report gives a forecast into the future trends that will impact the future of the global fresh produce industry and is broken into the following topics:

- Megatrends affecting fresh produce

This section of the report details the global megatrends that will have a tremendous impact on the future of fresh produce production, storage, consumption and research. These megatrends are further broken down into factors that include: Demographic asymmetries; Economic globalisation; Resource constraints; Innovation acceleration; New governance models; and Evolving consumption.

- Future trends in the fresh fruit and vegetable markets

This section delves into some of the factors that will affect the fresh fruit and vegetable market in more detail than the previous section, including the shifts in geographical influence and share of consumption, shifts in consumption occasions and changing channels to market.

- The fruit and vegetable supply chain transition

This section investigates the issues with the fruit and vegetable supply chain that will need to be investigated to satisfy a growing global population and consumer expectations to increase the rapidity, flexibility, precision and transparency of supply.

- Cold chain logistics and technology

This section lists the ideal innovation in logistics and technology to enable growers, suppliers and retailers to build faster, more reliable, flexible, precise and transparent supply chains. Each of these goals is investigated in more

detail, as well as case studies on examples where new technologies, innovations and processes have led to positive change.

- The rise of online retail

This section looks at the rise in online retail as an avenue to market for producers and retailers, investigating the variety of online grocery retail options available, the implications of online retail to traditional ‘bricks-and-mortar’ and grocery retailers, as well as fresh producers.

- Food service

This section is yet to be made available via the Berlin Fruit Logistica website.

These can be accessed via the links below.

- [Megatrends affecting fresh produce; Future trends in the fresh fruit and vegetable markets; and The fruit and vegetable supply chain transition](#)
- [Cold chain logistics and technology](#)
- [The rise of online retail](#)

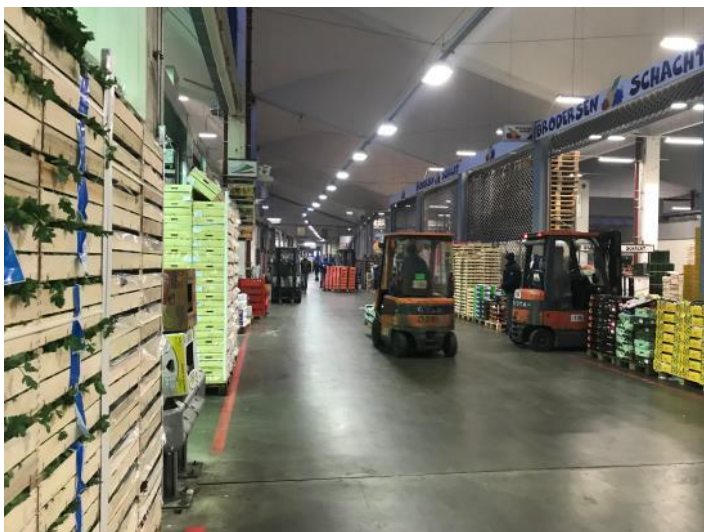
Day 5: Friday 9 February

Berliner Großmarkt and Berlin Fruit Logistica / free day

The delegation braved the Berlin cold to make their way to the Berliner Großmarkt, Berlin’s fresh produce market located twenty minutes from the city centre, allowing for easy accessibility for buyers from central Berlin.

While the delegation was unable to get a guided tour through the market given the Berlin Fruit Logistica resulted in our usual tour guide being unavailable, the delegation was still fortunate enough to be able to walk through the market and speak with some of the traders at the many stalls that operate out of the market daily. The total floor space of the market is 85,000 square metres, with a total of 50 wholesalers stocking more than 500 varieties of fruit and vegetables. The Großmarkt can handle 220,000 tonnes of produce per year through its 80 undercover loading docks, using 120 forklifts onsite.

During the visit to the market, the delegation was able to compare the market’s operations with those in their respective home states. The delegates were impressed with the packaging and quality of numerous lines that they had not seen in Australia, as well as learning about the origin of produce available at the market, including Spain, Greece and as far as Israel. The delegation noted that a lot of effort had gone into packaging, which is considered a key focus for the fruit and vegetable companies selling produce to European consumers. It was also noted that produce stored at the market was stacked in balsa wood-like crates, which were not recommended for use in the local markets of the participating growers due to the damage they can cause produce.



*Image 3.
The Berliner Großmarkt trading floor.*

At the conclusion of the market tour, the delegation had the option of returning to the Logistica for the third day or having a free day in Berlin. The delegation departed from the markets with greater insight into how fresh produce is traded in the wholesale market in Germany. The tour prompted much discussion with the delegation about how Berlin wholesale market and the produce and products it sold compared to Australian markets.

Day 6: Saturday 10 February

Travel day

The delegation travelled from Berlin to Rotterdam in the Netherlands.

Day 7: Sunday 11 February

Rest afternoon

The delegation had a day to recover from the previous day's travels.

Day 8: Monday 12 February

Wageningen University, Rijk Zwaan and Koppert Cress

Wageningen University

The delegation started the final day of industry visits with a tour of Wageningen University, which is one of the world's leading research institutions for the global horticulture and ag-robotic industries. The group was hosted by Janneke De Kramer, Wageningen Food and Biobased Research Postharvest Technology R&D Manager, who took the group on a facility tour of many of the university's research and development facilities. The group was provided a tour of the automated technology and robotics area, where they were shown prototypes of the latest in automated farm machinery, including an automated fruit picking machine that uses suction technology to pick fruit while limiting damage to the product.

The delegation was encouraged to ask questions about the latest research taking place at the university, and the host and various researchers that the group met during the day were generous with their time in sharing their expertise with the growers and eager to learn about the experiences of the Australian growers on the mission.

Due to confidentiality reasons, photos were not permitted during the tour of Wageningen University.

Rijk Zwaan

The next stop for the day was the global headquarters of Rijk Zwaan, one of the world's leading vegetable seed companies. The delegation was hosted by Rijk Zwaan Export Director Jan Omvlee, who took the group on a tour of the company's facilities, including Rijk Zwaan's proprietary seed technologies, including seed resistance technologies, as well as its seed germination facilities.



Image 4.

Delegates are given a presentation from Rijk Zwaan about the company's global operations and services.

Unfortunately photos were not permitted during the tour of the facilities.

Koppert Cress

The final stop for the delegation was Koppert Cress, one of the world's most innovative vegetable producers. Koppert Cress produces microgreens and has built a brand and marketing campaign that has set them apart as a premium producer that sells to high-end Michelin star chefs.

The delegation was hosted by Stijn Baan, who provided an in-depth presentation on the company's history and values in producing high quality niche vegetable products. The delegation was also given a tour of Koppert Cress' facilities, having a chance to look at its innovative micro herb production practices and learning about the company's focus on marketing and its different channels to market (all of which are for the food service industry). The group was highly interested on the company's strong focus on marketing and establishing a strong niche market for its unique products.

Day 9: Tuesday 13 February

Travel day

The participants had some free time in the morning and afternoon before flying back home that night.

Outputs

Since the conclusion of the mission, delegates have been required to share knowledge and networks gained from the mission with other growers through local grower networks, face-to-face discussions with their peers and any other opportunities to disseminate the information learned from the mission.

Participants each completed an evaluation form that outlined their thoughts on the mission, including feedback from each day of the trip. This will be used to ensure all future missions are organised and coordinated as effectively as possible in accordance to participant feedback.

AUSVEG has actively invited participants to attend industry and networking events to help disseminate the valuable information through different key stakeholders in the vegetable industry. This includes an invitation to attend Hort Connections 2018, the biggest horticultural event in Australian horticulture and the largest group of vegetable growers under the one roof, to provide as many growers with the opportunity to network and gain an understanding of what new technology and machinery is available. This event is organised by AUSVEG and is the optimum opportunity to disseminate the knowledge learned from the mission to other growers – an opportunity to present the findings from the mission at the AUSVEG Booth at the Hort Connections trade show will be made available to participants.

AUSVEG will publish a comprehensive article in the May/June edition of *Vegetables Australia*, detailing the objectives and outcomes of the mission, and providing a summary of the information and knowledge gathered. *Vegetables Australia* is the most widely distributed magazine in Australian horticulture, received by approximately 5,500 industry members. The publication of an article in this magazine will help to ensure that the knowledge and information gained by participants is available to all members of the Australian vegetable industry. An article on the mission also appeared in the [AUSVEG Weekly Update published on 20 February](#) detailing the activities that took place; the article was distributed to around 3,500 growers and industry members.

Outcomes

The 2018 European Industry Leadership and Development Mission successfully provided eight Australian vegetable levy payers with an invaluable opportunity to attend the world's leading fresh produce trade show, as well as some of Europe's leading agribusinesses and research institutions to investigate the latest in international growing production practices and technologies currently implemented around the world.

Giving Australian vegetable growers access to worldwide industry knowledge through attending the Berlin Fruit Logistica, as well as visiting the Berliner Großmarkt and Dutch companies Koppert Cress, Rijk Zwaan and Wageningen University offered participants the ability to increase existing industry networks and gain new insights into growing production and technologies and innovations that are being used and researched overseas. The learnings from the mission can be adopted by the participating growers to increase the efficiency and productivity of their growing operations. The widespread dissemination of these learnings can also help ensure that the wider Australian vegetable industry can benefit from the as well as ensuring the Australian vegetable industry is using the latest and most efficient technologies and processes through the dissemination of these learnings to the wider industry.

While attending the Berlin Fruit Logistica, participants attended a number of presentations, meetings and networking events. This gave the group exposure to influential contacts from leading international businesses and allowed them to increase their knowledge of global horticulture trends to ensure Australian horticulture is at the forefront of the international horticultural industry.

Participants have returned to Australia with a wealth of knowledge that can be used to improve their businesses and can be disseminated to fellow growers throughout Australia to help improve the overall viability of the national industry.

It was recognised that the mission was a highly rewarding experience and that all Australian growers should be encouraged to attend. The opportunity to gain an international perspective and get an insight into the research and development taking place in Europe allowed the growers to think of how they can change and update their practices on their own farms.

As a result of levy investment, participants gained a better understanding of the ways they can improve on-farm practices and develop their skills, and were inspired with new innovations and ideas to advance and grow the vegetable industry. This reflects a selection of the outcomes identified in the Vegetable Strategic Investment Plan 2017-21.

Monitoring and evaluation

Participants were asked to share their thoughts and feedback at the end of each day through the evaluation form. These evaluation forms can be used to determine the effectiveness of the mission and help to shape future missions to Europe. The below quotes provide a sample of the feedback received and have been extracted from the evaluation forms:

- “Experiencing the Berlin Fruit Logistica and the size and how it was organised it was, as well as the visit to Koppert Cress in Holland was a highlight.”
- “Fruit Logistica attendance gave me a lot of exposure to specific processing machinery that I was not expecting.”
- “Meeting other growers and networking ... seeing the latest in innovations at Fruit Logistica.”
- “Fruit Logistica, Koppert Cress and networking were the best parts.”
- “The networking and meeting new people [with other members of the mission] – this has also increased our exposure and can see increase of sales – enjoyed it greatly.”
- “Spending time with a group of growers, getting to know them and their operations better, being able to exchange ideas and discuss challenges faced on farm ... I would definitely recommend the tour to other growers for all the reasons explained above.”

Recommendations

Based on feedback from participants and observations made during the mission, the following recommendations are provided.

- All Industry Leadership and Development Missions (specifically the United States, European, Women in Horticulture and Young Grower missions) should be combined into one project to streamline reporting requirements and the development of tours.
- Introduce compulsory requirements for participants to attend the mission to ensure information and learnings from the tour are better disseminated to the wider industry. This can include short, individual presentations to the group on what the participants' main findings were at the conclusion of the mission (prior to departure), as well as the requirement to contribute to industry communications (magazines, newsletters etc.) and present at one or more industry seminars upon their return to Australia.
- To ensure the mission is beneficial to all parties, include a thorough vetting process for participant selection and ensure the visits organised are well aligned with participants' backgrounds.
- Accommodation budget should be increased slightly to ensure that the delegation can stay in adequate accommodation. As the prices of hotels in Berlin is significantly higher than normal due to Fruit Logistica, some additional budget would be good to ensure that the standard of accommodation meets the expectations of growers.
- The addition of The Netherlands onto the itinerary was well received by delegates. Due to the long distances travelled for Fruit Logistica, it is recommended that additional visits be added in The Netherlands or other European countries to maximise the exposure for Australian growers.
- A tour app should be created for all Industry Development Missions that could replace booklets provided to delegates. The same app could be used for all missions with the details updated for each one. Use of the booklets was minimal on this trip.
- Investigate the potential for more grower input on future grower tour itineraries.

The evaluation form also included a prompt for ideas/technology that would be suitable to submit as a concept to Hort Innovation to be reviewed by the Vegetable Strategic Investment Advisory Panel. Participants' suggestions are outlined below:

- Research into developing tray sealing equipment.
- Weed sensing for manual cultivation to reduce chemical use.
- Steam weeding as a sustainable, non-chemical way for removing weeds.

Refereed scientific publications

None to report.

Intellectual property, commercialisation and confidentiality

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

Acknowledgements

The 2018 European Industry Leadership and Development Mission was the third study mission from project VG15701, which is a strategic levy investment using the Hort Innovation Vegetable Fund. The mission was funded by Hort Innovation using the vegetable research and development levy, contributions from Australian vegetable growing businesses and contributions from the Australian Government.

The mission, including Berlin Fruit Logistica registration, travel, accommodation and meetings, were organised by AUSVEG Ltd.

Thanks must go to all businesses that hosted the AUSVEG group during the Berlin Fruit Logistica, including Bayer, Syngenta, Rijk Zwaan, Koppert Cress and the Produce Marketing Association, as well as the many growers and business managers who spoke to participants during the event. Thanks must also go to the Berliner Großmarkt, Rijk Zwaan, Wageningen University and Koppert Cress for accommodating the group and taking the time to offer extensive and comprehensive tours of their operations.

Appendices

Appendix 1: Mission participants

Name	Company	Position	State
Rick Butler	Butler Market Gardens	CEO	VIC
Tony Croft	Arahura Farms	Managing Director	VIC
Gary Spotswood	Mt Alma Fresh Organics	Owner	QLD
Ryan McLeod	Dicky Bill Australia	Director	QLD
Daniel Quattrocchi	Monika's Organics	Manager	SA
Andrew Dewar	Pilton Valley Produce	Managing Director	QLD
Bill Bulmer	Bulmer Farms	Director	VIC
Marie-Astrid Ottenhof	Schreurs and Sons	Technical Director	VIC
Nathan McIntyre	AUSVEG Ltd	Mission Leader	VIC

Appendix 2: Itinerary

<p>DAY 1</p> <p>Monday 5/ Tuesday 6 February</p>	<p>Local Departure City* – Dubai – Heathrow – Berlin</p> <p>Depart – Local Departure City – Dubai (arrive Tuesday 6 February)</p> <p>*Depending on City of participants</p>
<p>DAY 2</p> <p>Tuesday 6 February</p>	<p>Arrive in Berlin</p> <p>Arrive in Berlin in afternoon</p> <p>Check into hotel, rest time</p> <p>Group dinner will be organised for the evening.</p> <p>Hotel:</p> <p>Park Inn by Radisson Berlin Alexanderplatz</p> <p>Alexanderplatz 7 Berlin Germany (DEU) 10178</p> <p>Germany</p>
<p>Day 3</p> <p>Wednesday 7 February</p>	<p>Berlin Fruit Logistica</p> <p>07:30 – Breakfast at hotel</p> <p>09:00-17:00 – Berlin Fruit Logistica</p> <p>20:00 - Group dinner</p> <p>Hotel:</p> <p>Park Inn by Radisson Berlin Alexanderplatz</p> <p>Alexanderplatz 7 Berlin Germany (DEU) 10178</p> <p>Germany</p>
<p>Day 4</p> <p>Thursday 8 February</p>	<p>Berlin Fruit Logistica</p> <p>07:30 - Breakfast at Hotel (included)</p> <p>09:00-17:00 – Berlin Fruit Logistica</p> <p>16:00-18:00 – PMA networking reception (Hall 23, C.1)</p>

	<p>20:00 – Group Dinner</p> <p>Hotel: Park Inn by Radisson Berlin Alexanderplatz Alexanderplatz 7 Berlin Germany (DEU) 10178 Germany</p>
<p>DAY 5</p> <p>Friday 9 February</p>	<p>Berlin Fruit Logistica</p> <p>07:30 - Breakfast at Hotel</p> <p>09:00-17:00 – Berlin Fruit Logistica</p> <p>20:00 – Group dinner</p> <p>Hotel: Park Inn by Radisson Berlin Alexanderplatz Alexanderplatz 7 Berlin Germany (DEU) 10178 Germany</p>
<p>DAY 6</p> <p>Saturday 10 February</p>	<p>Market tour + Travel to Rotterdam</p> <p>Approx times (based on 2017):</p> <p>06:30 – bus departs from hotel</p> <p>06:50 – Arrival at Markets – Beusselstrasse 44 N-Q 10553 Berlin</p> <p>Fruit & Vegetable section of the Berlin Wholesale Markets. [Tel: 030 395 50 07]</p> <p>08:00 – Bus departs from Markets and returns group to hotel.</p> <p><i>This huge wholesale fruit and vegetable market consists of many wholesale distributors supplying groceries and markets in the greater Berlin area.</i></p> <p>14:35 – 15:55 – Fly to Amsterdam KL1862</p> <p>16:30 – Transfer to hotel</p> <p>Hotel: Rotterdam Marriott Hotel</p>

	<p>Weena 686 3012 CN Rotterdam, Netherlands Phone: +31 10 430 2000</p>
<p>DAY 7</p> <p>Sunday 11 February</p>	<p>Rest day</p> <p>Free day in Rotterdam</p> <p>Hotel:</p> <p>Rotterdam Marriott Hotel Weena 686 3012 CN Rotterdam, Netherlands Phone: +31 10 430 2000</p>
<p>Day 8</p> <p>Monday 12 February</p>	<p>Netherlands tours</p> <p>08:30-10:00 – Drive to Wageningen University</p> <p>10:00-12:00 – Tour Wageningen University (Bornse Weilanden 9, 6708 WG Wageningen, Building 118) Matthijs Montsma +31 0 317 48 70 13</p> <p>12:00-13:00 – Lunch</p> <p>13:00-14:30 Drive to Koppert Cress</p> <p>14:30-16:00 Tour Koppert Cress (De Poel 1, 2681MB Monster) Tara Vester +31 6 274 250 76</p> <p>16:00-16:30 Travel to Rijk Zwaan</p> <p>16:30-17:30 Rijk Zwaan tour</p> <p>20:00 – Group Dinner</p> <p>Hotel:</p> <p>Rotterdam Marriott Hotel Weena 686 3012 CN Rotterdam, Netherlands Phone: +31 10 430 2000</p>

Day 9 Tuesday 13 Feb	Flight home Free day depending on flight.
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Appendix 3: Tour Leader Diary

Tuesday 6 February – Travel Day

- Delegates arrived in Berlin.

Wednesday 7 February – Berlin Fruit Logistica

- Delegates attended a full day of Berlin Fruit Logistica and saw many of the several thousands of exhibitors that were on display.

Thursday 8 February – Berlin Fruit Logistica

- Delegates again attended Berlin Fruit Logistica as there was far too much to cover in one day.
- Delegates attended two networking receptions with Bayer and PMA in the evening.

Friday 9 February – Berlin Wholesale Markets

- The delegation visited the Berliner Großmarkt, Berlin's fresh fruit and vegetable wholesale market.
- Total floor space of the market is 85,000 square metres.
- 50 wholesalers stocking more than 500 varieties of fruit and vegetables.
- The Großmarkt can handle 220,000 tonnes of produce per year.
- The common theme among growers was that the safety protocols at the markets were much more relaxed than in Australia.

Saturday 10 February – Travel Day

- The group travelled to Rotterdam.

Sunday 11 February – Rest Day

- The delegation enjoyed the sights of Rotterdam.

Monday 12 February – Visits to Wageningen University, Koppert Cress & Rijk Zwaan

- Delegates visited one of the most prestigious Agricultural Universities in the world in Wageningen.
- Delegates got to see firsthand some of the robotics concepts that they are working on.
- Delegates then visited Koppert Cress which sells Micro greens to the food service industry.
- Along with having fantastic products, Koppert Cress's ability to market their business was the biggest difference between them and their competitors.
- The final visit was to Rijk Zwaan, one of the top 10 seed suppliers in the world. Rijk Zwaan showed delegates how their seeds are coated to provide greater protection against diseases and pests.

Tuesday 13 February – Travel Day

- Delegation flew home from Amsterdam.