Deloitte.

BioMelbourne Network
Progressing BioIndustry

GLOBAL VICTORIA

Assessing the impact of the COVID-19 pandemic on air freight within the Victorian healthtech industry

October 2021

Consulting

Contents

1. Introduction

1. Project Background and Approach

Project Background

The COVID-19 pandemic has created significant freight and logistics challenges for the Victorian health technology (healthtech) industry. Many organisations, including those conducting clinical trials, companies manufacturing medical devices and pharmaceuticals, or those operating commercial labs all require a reliable, cost effective and robust air freight infrastructure.

The Federal Government established the International Freight Assistance Mechanism (IFAM) at the beginning of the pandemic, to maintain air freight connections necessary to support the export of high-value perishable goods and import of nationally important goods such as medical supplies and equipment. Funding of IFAM has been extended on multiple occasions since it was launched in April 2020, with the most recent funding commitment extending the IFAM to June 2022.

As Australia moves towards a "new normal", there is uncertainty over ongoing arrangements for air freight and the potential flow-on supply chain impacts to the healthtech industry in Australia.

Project Scope

Global Victoria has partnered with BioMelbourne Network to bring attention to the key freight and logistics challenges faced by the healthtech industry and the potential risks and impacts. BioMelbourne Network has engaged Deloitte to support the development of this Issues Paper, outlining current use of air freight transport, key issues and impacts being faced across the healthtech industry, how companies have shifted to adapt, and suggested next steps to address issues and concerns raised.

Project Approach

Development of this Issues Paper has been informed by targeted stakeholder consultation and a survey of BioMelbourne Network's member organisations.

Specific activities undertaken in compiling the Issues Paper include:

- **Consultations** with:
  - eight organisations from within the healthtech industry (including representation from biotech companies, pharmaceutical manufacturers, medical device manufacturers)
  - two freight and logistics providers, and
  - the Australian Government's appointed Freight Controller for the IFAM program.
- **Survey of industry participants** – a survey was issued to approximately 250 individuals that had registered to attend an "Information Session and Discussion with IFAM" hosted by BioMelbourne Network in November 2020. A total of 43 responses were received.

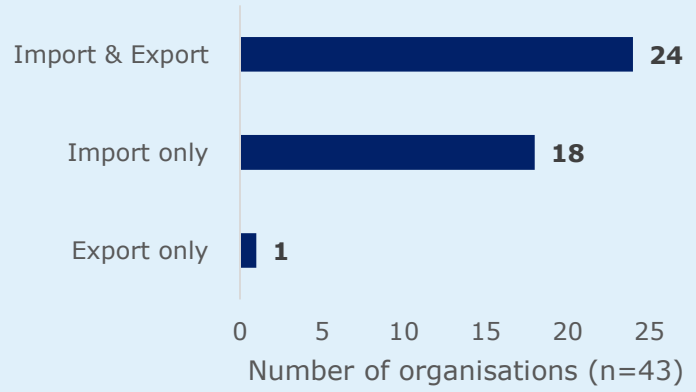
Both the consultations and the industry survey sought stakeholders' input on current freight use, impacts of the COVID-19 pandemic on air freight, mitigation approaches adopted by healthtech organisations, anticipated future freight requirements, and desired outcomes.

2. Current Freight Use

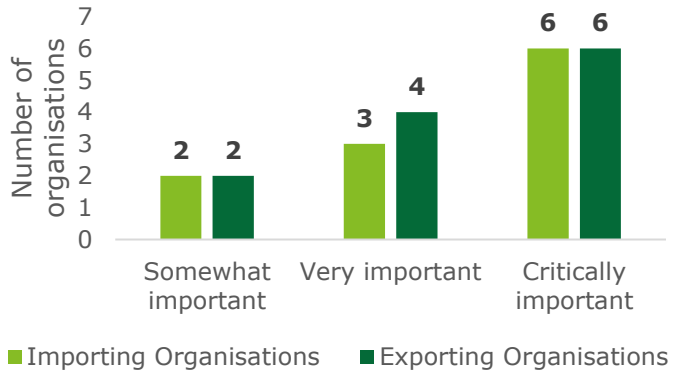
2.1 Current Freight Use

We worked with BioMelbourne Network to develop and administer a survey of BioMelbourne Network members to capture information on current freight use and impacts of the COVID-19 pandemic. The following infographic summarises the key characteristics of survey respondents.

Use of air freight – number of organisations

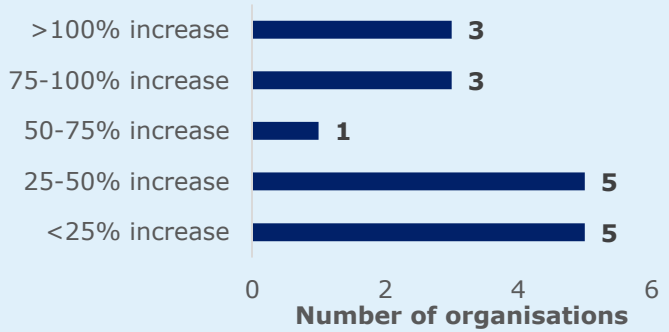


Importance of air freight to operations (n=21)

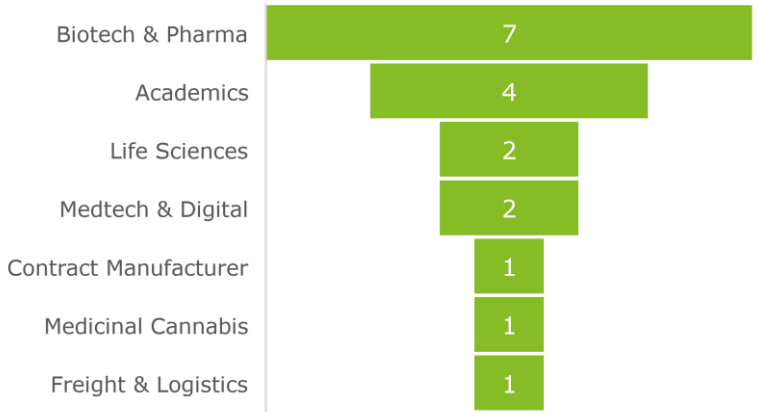


Cost pressures faced by organisations (n=21)

17 Organisations faced increased freight costs as a result of the pandemic



Sector breakdown – no. of organisations (n=18)



Top 3 origins and destinations

(number in brackets denotes number of responses received)

Origins (import)	Rank	Destinations (export)
USA (9)	**1**	USA (8)
European Union (4)	**2**	European Union (7)
China; New Zealand (3)	**=3**	UK; Singapore; New Zealand; China (2)

Costs, lead times, and alternative options

(percentage of organisations surveyed)

42% Current costs are unsustainable (n=19)

56% Current lead times are unsustainable (n=18)

83% Sea freight is NOT a viable alternative (n=18)

2.2 Unique Needs of the Healthtech industry

Our consultations and survey highlighted the unique nature of many healthtech organisation's freight requirements. Key characteristics of the air freight needs of the healthtech industry include:

- Typically freighting goods that are small in size and volume, but often high value.
- Many products (both import and export) require temperature control (cold chain and ultra-cold chain) to ensure product viability, including requirements for real time monitoring. In some cases, temperature control requirements means that freight forwarders are topping up dry-ice in transit.
- Need for rapid turnaround and predictability of schedules (in some cases hours count).
- In the case of fresh samples, both temperature control and timeliness are absolutely critical to avoid deviations in clinical protocols and ensure optimal clinical outcomes. One stakeholder noted oversees suppliers had ceased shipping fresh samples to Australia due to the lack of certainty around transportation timeliness to meet sample protocols and requirements.
- The main destinations for export sales within the healthtech industry are not always aligned to common destinations for other perishables, such as fresh produce.
- In some cases, raw materials and components may be reliant on only a small number of producers globally, so healthtech organisations often have highly developed and critical supplier relationships and can't easily pivot to new providers.
- Therapeutic Goods Administration Good Manufacturing Practice guidelines limit the ability of pharmaceutical manufacturers to explore the use of alternative active ingredients, limiting options available to respond to supply issues.

3. Key Issues and Impacts

3.1 Key Issues and Impacts

Our consultations and industry survey sought to elicit information from key stakeholders on current air freight use, issues that have arisen since the onset of the COVID-19 pandemic and their associated impacts to business, steps taken by organisations to mitigate or minimise those impacts, their perspectives on future freight needs, and key requirements to ensure a sustainable and thriving healthtech industry in Australia.

The five key issues emerging from consultations and surveys included:

- Lack of awareness of Government support for air freight and logistics
- Increased freight costs on exports
- Increased freight costs on imports
- Increased lead times on imports, and
- Sea freight is not a viable alternative to air freight for most healthtech companies.

Each of these issues and the associated impacts on healthtech organisations are explored in further detail on the following pages.

3.2 Lack of awareness of Government support for air freight and logistics

Healthtech organisations in general, were unaware of Government support for air freight during the pandemic. Those who were aware, reflected on support as being focused on perishable foods and not applicable to healthtech. Some stakeholders identified that the healthtech sector may indirectly benefit from additional capacity created by Government-supported flights.

Key Issues / Impacts

- Many healthtech stakeholders had no awareness of, or interactions with the current Government-support program for air freight, IFAM.
- For those that were aware of Government support, there has been minimal uptake. While BioMelbourne Network and IFAM hosted a forum in late 2020 to raise awareness of the program, many stakeholders perceived the IFAM as primarily intended to support the agriculture industry and not designed to support the relatively low volume, high-value goods exported by healthtech companies.
- Consultations with freight and logistics companies indicated that healthtech organisations may have received indirect benefits of Government support, such as increased access to flights or reduced freight costs due to the additional air freight capacity created.
- Some stakeholders identified that there was an opportunity for Government-supported flights to better support destinations of need (in particular, to Europe).

Mitigations and Strategies employed

- Several organisations consulted (of varying sizes and scales) reported proactively responding to put in place mitigations to overcome challenges associated with disrupted supply chains.
- Examples of such mitigations include a multinational biotech company chartering a plane to the USA once a week for a period of three months at the outset of the COVID-19 pandemic.
- Similarly, a medical devices manufacturer also indicated that it is in the process of setting up a warehouse in Belgium (to cater to its European customers), with the rationale of minimising the likelihood of last-minute supply chain disruptions preventing it from exporting finished product.
- Several organisations have also described working with a wider variety of freight forwarders and directly with airlines to maximise their available freight options.

Future Considerations

Industry participants have worked independently in implementing mitigations that suit their business needs. However, a collective approach involving direct engagement and lobbying of Government, to raise awareness relating to the needs of the sector may provide support to the sector at large, and facilitate the process of overcoming challenges in a coordinated manner. The likely solution will not rely on a single program, but will require a multi-pronged approach.

Examples of impacts on Victorian healthtech companies

61% of organisations surveyed DID NOT have any awareness of the IFAM

"The IFAM is very narrow in its scope. It can only be used for food products, and only for exports. It is very hard to compare what we do with large-volume fast moving consumer goods."
-Contract manufacturer

"We are not participating in the IFAM, but we would be keen to hear more about the initiative"
- Multinational biotech business

3.3 Increased freight costs on exports

Increased freight costs on exports may result in Australia becoming a less desirable destination for manufacturing, as the costs of getting finished products to overseas customers increases.

Key Issues / Impacts

- Healthtech businesses have reported increased freight costs up to 3x pre-pandemic costs. For most companies, there is limited scope to pass on increased costs to customers, resulting in a direct impact on their bottom line. Companies are continuing to bear this cost in the short term, to ensure continuity of business, and maintain client relationships. However, these costs are likely to be unsustainable in the longer term.
- In contrast, other companies who operate on an ex-works basis (whereby the customer takes responsibility for shipping the finished product to their intended destination) have experienced limited cost impacts. However, there is a growing concern that once current contractual arrangements come to an end, international customers of Australian manufacturers may look for suppliers closer to home in order to avoid paying excessive international air freight costs from Australia.

Mitigation Strategies employed

- Several companies reported the need to identify cost savings in other parts of their businesses to offset increased freight costs and reduce the impact on profit margins.
- One organisation reported investing in developing their own temperature controlled shipping boxes instead of paying a premium cost for refrigerated containers. This was reported to have the potential to reduce costs from ~$25k per container to around ~$3k per container.
- Building stronger relationships with freight forwarders and airlines in order to pre-empt anticipated changes, and gain a sense of on-the-ground situation, thereby facilitating more robust planning.

Future Considerations

Australia has historically been a high labour cost jurisdiction. Since the onset of the pandemic, this issue has been further exacerbated by the increase in freight costs, thereby further reducing Australia's competitiveness on the global scale. Going forward, it is imperative for the industry to work within to identify solutions (e.g. avenues to reduce its cost base and overcome the competitive disadvantage), as well as working with Government to improve Australia's competitive position.

Examples of impacts on Victorian healthtech companies

38% of organisations surveyed indicated that **at least half** of their sales were to export markets

"The true impact of increased freight costs will only become apparent when our current contracts expire and we begin the process of renegotiating new contracts"
- Contract manufacturer

"Customers are already looking at local manufacturing to offset the impacts of increased freight costs. If costs remain high, we may need to look at setting up manufacturing in the US closer to our customer base."
- Contract manufacturer

"In 2020, the cost of air freight peaked at 10x, that is if we could get our product on a plane in the first place"
- Multinational pharma company

3.4 Increased freight costs on imports

Increased costs of importing raw materials and components results in flow-on effects to costs of production. In many cases, Australian healthtech companies are unable to pass on these costs increases, resulting in a direct impact to the bottom line.

Key Issues / Impacts

Increased freight costs on imports has resulted in:

- Increased costs of production for Australian manufacturers with limited opportunity to defray these costs and sales pricing mostly fixed, resulting in decreased margins.
- While many organisations have been absorbing these costs, this is not sustainable for all. In the medium-longer term, as contracts become set for renewal, attempts to pass on increased costs of production in the form of increasing pricing, may reduce the competitiveness of Australian manufacturers and potentially drive overseas customers to look to cheaper producers closer to home.
- In some cases, organisations are ordering increased quantities of raw materials to reduce the relative unit cost of freight, however doing so requires increased working capital for inventories and in some cases increased storage costs.

Mitigation Strategies employed

- A number of organisations indicated that they were currently exploring opportunities for efficiencies and cost savings in other areas of the organisation to minimise the impact of increased freight costs on overall production costs.
- A pharmaceutical manufacturing company reported that it has increased its ordering quantities of raw materials to achieve greater economy of scale, reducing the unit cost of freight as a proportion of the value of goods being transported.
- Another solution that was reported by organisations is placing more frequent orders for raw materials to average out volatile freight costs, and also reduce the impact on production cycles if a particular shipment is delayed.

Future Considerations

To mitigate the increased costs of imports and overcome the lack of reliability of supply chains, both caused by the COVID-19 pandemic, businesses have increased their warehouse capacity and raw material inventory. Such mitigations have expanded the working capital requirements of businesses, with the issue being further compounded by the inability to pass on increased costs to customers. As a result, there exist opportunities for peak industry bodies to work with industry representative and/or partner with Government and identify long-term sustainable solutions.

Examples of impacts on Victorian healthtech companies

5% of organisations surveyed were **able to pass on** increased freight costs to customers

"Overstocking, sourcing from multiple suppliers, look to offset costs in other areas of the business."
- Contract manufacturer

"If we are looking at freight becoming a more material aspect of costs and that cost can't be defrayed, then it makes us less competitive."
- Pharmaceutical manufacturer

"Hard for us to pass on higher costs to our clients, as we are a contract manufacturer and we enter into pricing arrangements that usually last 12 months."
- Contract manufacturer

3.5 Increased lead times on imports

Extended lead times are requiring Australian manufacturers to hold more stock, increasing inventory and warehousing costs, and devoting additional staff time and other resources to effectively manage their supply chains.

Key Issues / Impacts

Increased lead times on imports has resulted in two key impacts on the healthtech industry:

- Increasing the risk of stock outs and impacts on production due to delays in shipments.
- Increased resourcing going into micro-managing the supply chain to ensure adequate stock on hand at all times.

Mitigation Strategies employed

To address these issues, the sector has already taken many positive steps. Examples include:

- Pre-planning for earlier ordering of materials.
- Increased frequency of ordering to ensure a more consistent stream of raw materials coming in, and reducing the potential for long delays between shipments.
- Holding increased stock levels locally (but this also lengthens cash conversion cycle and increases warehouse storage demand).
- Working with multiple freight forwarders and in some cases directly with airlines to negotiate for freight.
- Sourcing materials from alternative suppliers (though not feasible for active pharmaceutical ingredients (APIs) due to regulatory requirements).
- Conversion of sea freight to air freight (at a premium cost) to ensure on-time deliveries.

Future Considerations

While many organisations have been able to adapt to impacts on lead times by making changes to their supply chain planning, this has largely relied on investment from individual companies. Recognising the sovereign capability that many healthtech companies represent, there may be a role for Government and industry bodies to provide increased advice and support to improve supply chain security.

Examples of impacts on Victorian healthtech companies

56% of organisations surveyed indicated that current lead times are **not sustainable**

"We import raw materials as little as 2kgs to make our finished product, but even importing such small quantities has been a challenge"
- Pharmaceutical manufacturer

"Raw materials from Malaysia were being delivered in 4 days pre-pandemic, now they are taking 2-3 weeks"
- Medical device manufacturer

"We are pre-planning for earlier dispatch and request of materials to mitigate freight delays"
- Biotech & Pharma business

3.6 Sea freight is not a viable alternative for most healthtech companies

Freight and logistics sector stakeholders reported that sea freight is currently operating at around 10% of its pre-pandemic capacity, while experiencing similar cost growth to air freight and greatly extended lead times. As a result, sea freight is not considered to be a reliable alternative to air freight in the short-medium term.

Key Issues / Impacts

- Sea freight has historically focused on low value, high volume products with longer lead times. For most organisations in the healthtech industry, sea freight would not be a viable alternative irrespective of the current impacts of the pandemic.
- For those organisations who do use sea freight, the key impacts of the pandemic have included:
  - Substantially increased costs (in some cases up to 5x pre-pandemic levels).
  - Lead time delays resulting in organisations having to review supply chain planning and increase the level of inventory on hand. This has a flow-on effect to increase working capital requirements and warehousing capacity requirements.
  - In some cases, delays in shipments have had the potential to impact production, resulting in a need to expedite deliveries via air freight at a premium cost which in many cases is not recoverable from the customer.

Mitigation Strategies employed

- Conversion from sea freight to air freight to ensure that raw materials and components for production are available in time and do not impact on production schedules.
- Reviewing supply chain planning to order goods earlier than would previously have been necessary.
- Working with multiple freight forwarders, as well as working directly with airlines and shipping companies to consider all available freight options.

Future Considerations

The ability to return air freight to a more sustainable level is contingent upon the recovery of sea freight, with lead time issues in sea freight currently driving increased demand for air freight services. Estimates from key industry stakeholders suggest that this may take more than 12 months to achieve and may depend on reopening of international ports and changes in sailing schedules.

Examples of impacts on Victorian healthtech companies

83% of organisations surveyed DID NOT believe that sea freight was a viable alternative to air freight.

"We were expecting raw materials via sea freight in August, but the shipment got delayed by 2 months. Our stockpile of raw materials is expected to run out in mid-October, so we've had to air-freight the materials to avoid impacts on production."
- Medical devices business

"Multinationals are freighting product by air that you would never ordinarily see. They are willing to pay whatever it takes to get their product on the shelf."
- Freight / logistics company

3.7 Other key issues emerging

While not directly related to scope of this Issues Paper, our consultations revealed several other key issues that healthtech companies have experienced as a result of the COVID-19 pandemic, as well as broader considerations for how industry and Government can better support air freight to and from Melbourne.

These included:

- Domestic lockdowns are causing many challenges, particularly in relation to timing for transport and processing of fresh samples which are required within 24 hours. In particular, if shipped on a Friday, several additional days delay is frequent, resulting in deviation in clinical protocols and impacting quality of results or ability to complete the project at all.
- Lack of refrigerated storage at Melbourne airport has a direct impact on materials being shipped with temperature sensitive requirements (which is most healthtech products). Exporters are paying a premium, to ensure that goods are transported to the airport as late as possible to minimise exposure to temperature risks.
- Ground handlers at Australian airports have been working reduced hours during the pandemic, impacting the timeliness of product being unloaded once it arrives. This can result in delays in certain temperature sensitive product being unloaded, increasing risks of product spoilage.
- Inability to fly in specialist engineers from overseas to support commissioning, testing and maintenance of key production equipment, performing upgrades, and training staff on the use of equipment.
- Limitations on travel having a direct impact on business development and ability to grow into new markets (both domestic and international).

3.8 What does the industry want to see?

Based on our consultations and survey responses, three key themes emerged from healthtech industry participants in terms of what they hope to see in support of future air freight requirements:

1. **Opening up Australia's borders to international travel** is the most immediate way to support improvements in air freight arrangements. Increased passenger flow is expected to partially offset airlines' operating costs, with a potential to reduce air freight costs.

2. **Government support to subsidise the costs of empty passenger flights and guarantee availability of air freight capacity.** Recognising that while borders may open in the coming months to certain destinations, it may take 2-3 years or longer for air travel to return to pre-pandemic levels. Government and/or industry collaboration and support to subsidise costs or guarantee availability of flights to certain destinations (e.g. US, Europe) may be required to ensure a sustainable healthtech sector.

3. **Priority and predictable system for high-value biotech and COVID-19 research related goods.** Healthtech organisations often have critical time and temperature sensitive requirements. It is important to know that products will arrive when and as expected.

4. Next Steps

4. Next steps

The global freight and logistics industry has faced many challenges as a result of the COVID-19 pandemic, with airlines temporarily reducing or exiting routes and sea freight reportedly operating at around 10% of pre-pandemic levels driving increased demand towards air freight. The impacts felt by healthtech businesses have included cost increases, extended lead times and increased resources required to manage freight and logistics needs.

Given that many healthtech organisations have time critical or temperature sensitive requirements for their freight, the risk of a shipment being delayed could have the potential to impact on product viability. In light of the critical role that the Victorian and Australian healthtech sector plays in providing cutting edge solutions to complex health problems globally, there is a need to recognise and support the ongoing growth and development of this sovereign capability within Australia.

To support this, BioMelbourne Network has committed to establishing a Working Group to develop strategies to address the key freight and logistics challenges identified through this Issues Paper. The Working Group is expected to include representation from Government, the healthtech industry and the freight and logistics industry. Key areas of focus for this Working Group could include:

- How best to demonstrate the value that the healthtech industry provides to the Australian economy;
- Increasing collaboration between the healthtech industry, Government and the freight and logistics industry to improve understanding of the unique freight and logistics needs of the healthtech industry;
- Identifying opportunities to work within the healthtech industry and with Government to develop solutions that prioritise freight and logistics activities that support sovereign manufacturing capabilities;
- Identifying and developing solutions to key infrastructure needs to support a thriving healthtech industry (e.g. warehousing, refrigeration at airports).

The Working Group will be tasked with providing firm, actionable recommendations to industry and Government.

About BioMelbourne Network

BioMelbourne Network

Progressing BioIndustry

20 CelebratingTwentyYears

Our purpose

BioMelbourne Network was established in 2001. Since then, we have grown from strength to strength, proudly serving as the peak body for the Healthtech Industry in Victoria. We have been a catalyst for development and strengthening of the ecosystem over the past two decades.

Our purpose is to foster and grow an innovative, globally competitive Healthtech Industry in Victoria.

We've been here for over 20 years, and we remain as committed as ever to our members, our industry, and our exciting plans for the future.

See our strategy video

Our vision

What do we want to achieve? Our vision is to drive Victoria's Healthtech Industry to be a leading global hub for research, innovation, commercialisation, and manufacturing. The Healthtech Industry is a key sustainable driver of the economy, employment and value-added growth in Victoria.

Who are our members?

Our members are experts in their respective fields, which include Healthtech, biotechnology, pharmaceuticals, and health innovation. Their career stages range from early career researchers to executives.

Our member organisations come in all sizes, from the smallest start-ups to the largest multinational corporations. We represent universities, researchers, manufacturers, as well as the services sector, which includes commercialisation, product design and development, intellectual property and legal.

What do we do?

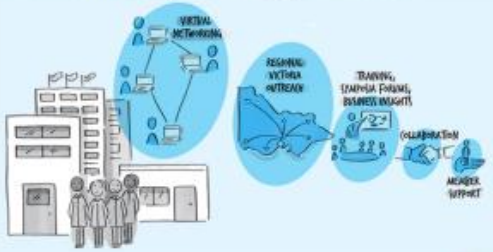
BioMelbourne Network performs 5 key strategic functions developed in partnership with our members:

Data and insights BioMelbourne Network are the leading source of valuable data and insights on the sector's potential, priorities, and needs.

Identifying opportunities BioMelbourne Network works with stakeholders to identify strategic initiatives that support and strengthen the local ecosystem.

Advocacy As the industry peak body, BioMelbourne Network builds and maintains a supportive policy, regulatory and investment environment through advocacy.

Sector promotion BioMelbourne Network strives to be the central gateway for the promotion of the Victorian Healthtech Industry, domestically and overseas.



Healthtech Industry development
BioMelbourne Network seeks new opportunities to strengthen the industry and increase our value to members, keeping them informed on sector trends and issues with valuable webinars and events.

How to get involved

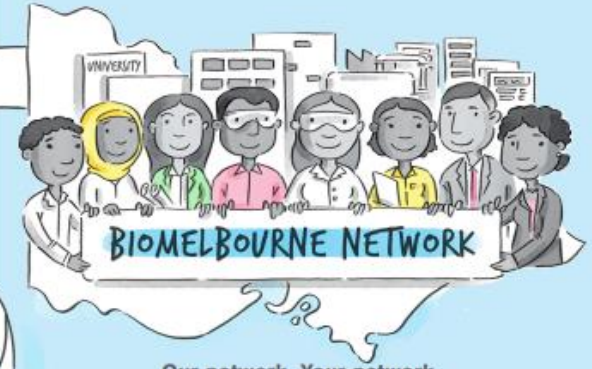
We look toward an exciting future in which we secure Victoria's position as a world-leading hub for Healthtech research, commercialisation, and manufacturing.

Members, you have our thanks. Your support ensures the continued strength and growth of the entire Healthtech Industry ecosystem in Victoria. Here are some of the ways you can engage with BioMelbourne Network to directly support your interests:

- Identifying strategic issues and priorities in the industry
- Engagement in advisory panels and working groups
- Supporting training and events through sponsorship and speaking opportunities
- Participation in advocacy work

Help us help you. Let us know about your priorities and how we can support them. We are your link to our deep and valuable ecosystem and your input will help guide our future priorities.

Non-members, become a member today to engage in supporting the future of the Healthtech Industry in Victoria. Sign up to our newsletter to learn more about what we do and how we support our members.



Our network. Your network.
BioMelbourne Network.

www.biomelbourne.org
+61 3 9667 8181

About Global Victoria

Global Victoria, the Victorian Government's premier trade facilitation agency, connects Victorian exporters with international buyers and businesses leaders through its network of 23 international offices. Its extensive network is the largest of any Australian state or territory, headed by seven Victorian Commissioners and Heads of Posts across 13 countries.

Global Victoria's experienced trade specialists and relationship managers are uniquely positioned to provide high level market and cultural intelligence, strengthen global connections, advocate for the interests of Victorian industry and exporters in national and international arenas and encourage collaboration and innovation between Victorian and international partners.

Global Victoria Trade Alliance: Forging new pathways for Victorian exports

The $4.7 million Global Victoria Trade Alliance (Alliance) program is part of the Victorian Government's $15.7 million Export Recovery Package.

The Alliance aims to help Victorian exporters adapt their export strategies to respond to the rapidly changing global market conditions by:

- connecting them to new markets
- helping them adapt their export strategies
- helping them remain globally competitive.

The program will play a critical role in Victoria's export ecosystem by supporting Victorian businesses to leverage the in-market expertise of its network of international offices, as well as helping them adapt their business models and supply chain operations to better respond to global impacts by piloting new and innovative solutions for getting products to market.

Global Victoria has a range of programs to help you go global

Global Victoria can guide you through your export journey. Here's a snapshot of some of the activities we offer Victorian businesses to build their knowledge and readiness for exporting.

- The Export Skills Program provides online training and seminars as well as local and international workshops and briefings on specialist and topical themes essential for international trading success.
- Our Virtual Trade Mission program aims to connect businesses to global opportunities and help them conduct their international business across digital platforms.
- Global Victoria also has a team of regional specialists that provide regular updates highlighting current and emerging opportunities in Victoria's key export markets.
- Go Global is our free and comprehensive online diagnostic tool to help you assess your export capability and readiness. Whether you're looking at entering new markets or diversifying and expanding your export footprint, Go Global can help your business achieve its goals by identifying gaps in capabilities and recommending the next steps to bridge those gaps.

Ready to take on the world?

- Visit our website to explore upcoming events and initiatives to support your export journey.
- Contact us by email or call us on **1800 325 224** to connect with one of our trade specialists in Melbourne, Regional Victoria or our international Victorian Government Trade and Investment offices.
- Keep up to date with our future plans and activities by subscribing to our newsletter.
- Join us on LinkedIn and follow us on Twitter.

Deloitte.