

# **Refine the Southern Rock Lobster Cold Chain**

**KPMG**

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## Refine the Southern Rock Lobster Cold Chain

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#### Researcher Contact Details

Name: Peter Liddell  
Address: Tower Two, Collins Square, 727 Collins St, Docklands VIC 3008  
Phone: 61 3 9288 5693  
Fax: Not applicable  
Email: [pliddell@kpmg.com.au](mailto:pliddell@kpmg.com.au)

#### FRDC Contact Details

Address: 25 Geils Court  
Deakin ACT 2600  
Phone: 02 6285 0400  
Fax: 02 6285 0499  
Email: [frdc@frdc.com.au](mailto:frdc@frdc.com.au)  
Web: [www.frdc.com.au](http://www.frdc.com.au)

In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

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# Acknowledgments

The research team would like to thank the 29 stakeholders that we were able to engage with in person or via the phone for this project.

## Abbreviations

CTO - Cargo Terminal Operator

FRDC – Fisheries Research and Development Corporation

SRL - Southern Rock Lobster

# Executive Summary

## What the report is about?

The report aims to assist the Southern Rock Lobster (SRL) industry with refining the live export supply chain to China. Research has identified issues relating to the cold chain, particularly at the domestic air freight stage, and practical solutions have then been proposed to address them.

The researchers spoke to and met with 29 stakeholders across the supply chain to conduct this analysis, including fishers, exporters, CTOs, freight forwarders and airlines. Desktop analysis was also completed. This research was conducted over a period of 3 months.

## Background

Project 2018-176 was commissioned in order to improve export outcomes for the SRL industry – with particular focus on exports to the Chinese market. Exporters have experienced increased issues relating to lobster mortality in the supply chain and maintaining effective temperature control, which has impacted upon returns to industry.

Feedback from industry stakeholders engaged during the project identified the domestic supply chain and specifically air freight operations as critical areas of focus. This research therefore targeted understanding challenges and opportunities at this stage of the supply chain, and crucially, the ways in which the industry can collectively address the pain points and refine the live export supply chain.

## Aims/objectives

There are three key objectives that the research team agreed with Southern Rocklobster Limited and the FRDC at the start of the project. These were:

- Develop a full understanding of the supply chain for Southern Rock Lobster into export markets, to be able to pinpoint the key challenges faced in ensuring quality and maintaining temperature control.
- Understand the range of options for improvements to the export cold chain, considering best practice, technologies and efficiencies. This includes opportunities for temperature control, regulatory reform and collaborative infrastructure.
- Identify the innovations and initiatives likely to have the most significant impact on the quality of Southern Rock Lobster exports, and practically prioritise these for future implementation.

## Methodology

The research team followed four phases of work, designed to contribute to the project's outcomes in a logical way.

- The first phase (2 weeks) focused on kicking off the project with confirmation of the research focus and the goals of the research. A collaborative kick-off meeting was conducted, and a review of background information and contact lists for stakeholder consults.
- The second phase (5 weeks) focused on reviewing the current value chain, with the research team speaking to/visiting 29 stakeholders to uncover pain points experienced by SRL exporters across the supply chain, and then conducting additional analysis to verify and add detail to the identified issues.
- The third phase (4 weeks) formulated a range of solutions to address identified supply chain issues. Each solution was workshopped, discussed with industry stakeholders to verify suitability, and researched.

- The fourth and final phase (2 weeks) focused on creating an implementation plan for the proposed solutions, with timelines and activities listed for Southern Rocklobster Limited and other industry stakeholders to action.





## Results/key findings

Southern Rock Lobsters (SRLs) are a premium, high value product, where the end product quality is a key indication of the performance of the export supply chain. Catch quality by fishers and subsequent handling must be effectively managed throughout the supply chain as the product is highly sensitive to poor handling and temperature variation during transit.

The key findings of Project 2018-176 include the identification of key issues faced in the live export supply chain for SRLs, proposed solutions to address them, and implementation work packages to assist the industry with actioning the aforementioned solutions.

### Issues

The 14 issues identified are grouped into four main themes as illustrated below. Issues are explored in depth in the results section of this report.

 <b>Airport Operations</b>	<b>1</b>	Product handling at the airport is poor
	<b>2</b>	No SRL live export policies adopted by airlines
	<b>6</b>	Flight arrival and customs timings rarely align
	<b>7</b>	High competition for air freight space
	<b>11</b>	No cold chain and handling capability after freight forwarder
 <b>Regulation and Standards</b>	<b>4a</b>	Overlapping departmental jurisdiction of regulations
	<b>4b</b>	Variances in customs and quota documentation
	<b>8</b>	Handling guidelines are not compulsory or export focused
	<b>9</b>	The Clean Green Program is not focused on exports
 <b>Industry Coordination</b>	<b>10</b>	Lack of industry collaboration for live exports
	<b>12</b>	Data analysis is reactive and poorly utilised
	<b>13</b>	Industry innovations have not been harnessed
 <b>Markets</b>	<b>3</b>	No accountability for SRL mortalities
	<b>5</b>	Lack of formal contracts and supply chain success metrics
	<b>14</b>	Over-reliance on exports to China

### Solutions




To address the specific challenges and choke points identified in the current state export supply chain assessment, solutions have been formed which detail how Southern Rock Lobster Limited can support the industry through particular initiatives. These are structured within three classifications, which broadly align to how disruptive and innovative the solutions may be for the SRL industry. The solutions are explored in depth in the results section of this report.

<b>Incremental</b>	Addressing specific and highly targeted supply chain choke points, these solutions are likely to be easier to implement and able to be addressed in isolation from broader industry drivers. They are smaller opportunities that refine single points of the supply chain, however have a limited impact on the overall picture.
<b>Innovative</b>	The solutions classified under this level are more innovative and thought-provoking – they are likely to have a significant impact upon points in the SRL supply chain, however be supported by clear paths to implementation. They are likely to be able to have a noted impact on the supply chain, without requiring major upheaval.
<b>Fundamentally disruptive</b>	These solutions are likely to fundamentally change the ways that the SRL industry operates and conducts live exports. They are likely to require significant industry cross-collaboration, investment and changes to the existing supply chain. Despite being challenging to implement, they will transform the way in which SRLs are exported.

Potential impact	Incremental	Innovative	Fundamentally disruptive
Proposed solutions	<div>1</div> <div>Establish a framework and mechanism to facilitate greater industry collaboration</div> <div>2</div> <div>Extension of Clean Green Program (CGP) to other industry stakeholders</div> <div>5</div> <div>AVE labels applied to signal they contain live lobsters</div> <div>6</div> <div>Roll-out of the Known Consigner and Trusted Trader schemes across the SRL industry</div> <div>7</div> <div>Development of supply chain performance metrics</div> <div>8</div> <div>MICoR entry for SRLs should be created</div>	<div>3</div> <div>Transform paperwork to digital documentation</div> <div>4</div> <div>Industry-wide approach to data management and tracking solution</div> <div>9</div> <div>Future ChAFTA amendments</div> <div>10</div> <div>SRL supply chain analytics and issue response framework</div> <div>14</div> <div>Explore new export markets</div>	<div>11</div> <div>Independent or industry-sponsored entity to consolidate industry scale</div> <div>12</div> <div>Investigate alternative airports to support future SRL exports</div> <div>13</div> <div>Shared industry infrastructure at the domestic airport</div>

### Implementation work packages

Six programs of activity have been developed to support the SRL industry with implementing supply chain solutions that address the issues identified in the review. The timeframes, costs and complexity of each package varies. The formed work packages will facilitate the industry to work towards the incremental and innovative solutions through general industry engagement, stakeholder incentivisation and a combined program of activity. The fundamentally disruptive solutions are broken down from the significant projects into targeted activities. Work packages are explored in depth in the results section of this report.

	 <b>Timeframe</b>	 <b>Estimated Costs</b>	 <b>Complexity</b>
<b>Work Package</b>			
<b>1</b> Industry change program	<i>1 year (and ongoing)</i>	<i>Low</i>	<i>Low</i>
<b>2</b> Engagement with airport stakeholders	<i>1 year</i>	<i>Low</i>	<i>High</i>
<b>3</b> Program to address incremental solutions	<i>&lt;1 year</i>	<i>Medium</i>	<i>Low</i>
<b>4</b> Program to address innovative solutions	<i>2 years</i>	<i>Medium</i>	<i>High</i>
<b>5</b> Development of shared industry infrastructure and consolidated exports	<i>&gt;3 years</i>	<i>High</i>	<i>High</i>
<b>6</b> Identifying alternative airports for export	<i>2 years</i>	<i>Low</i>	<i>High</i>

### Implications for relevant stakeholders

The findings detailed within this report have implications for all stakeholders engaged across the SRL live export supply chain – particularly at the domestic end. SRL exporters in particular will need to action change if they are to realise the maximum benefits of the proposed solutions. This will range from minor initiatives such as AVE labelling, to significant endeavours such as fundamentally changing the way that supply chain transactions are managed and contracted.

Cross-industry collaboration will be required if the industry is to progress these interests as a whole, meaning that Southern Rocklobster Limited will be required to take on a leadership and coordination role, whilst other supply chain stakeholders such as freight forwarders, CTOs and airlines will need to be incentivised and engaged for many of the solutions to be progressed.

### Keywords

Southern Rock Lobster - SRL (*Jasus edwardsii*), Supply Chain, Export, Freight, China, Cold Chain, Air Freight



# Introduction

The Southern Rock Lobster (SRL) supply chain involves many stakeholders in the flow from ocean to plate. To ensure that product flows quickly and under strict temperature control, each leg and handover needs to be controlled, consistent and focused on quality to the end consumer. Project 2018-176 was developed specifically to assess this process and to improve the quality of Southern Rock Lobster exports, which is a strategic initiative of the sector. Addressing this challenge will benefit fishers, end consumers, and the broader industry value chain participants.

The majority of Southern Rock Lobster catch is exported to Asian markets and in particular China – 95% of Australia's 2,986 tonne harvest lands in this country. However, this lengthy supply chain requires enhancement, to protect the sensitive and temperature-dependent product and ensure that the end consumer receives a premium SRL. With price directly correlated to quality of the lobster, ensuring that a high-quality product is received by the end consumer has direct financial outcomes for Southern Rock Lobster stakeholders back in Australia. The SRL processor does not control the supply chain, and loses visibility when the product is delivered to the freight forwarder. Brand image and product quality are being compromised by the inconsistencies in packing and transporting of product.

Recent developments in technologies, logistics, techniques, and best practice could help to transform the cold chain to ensure that there is greater visibility and consistency of Southern Rock Lobster supply to China. Each leg and handover needs to be controlled, consistent and focused on quality to the end consumer. Therefore, this cold chain review has been commissioned to investigate ways to improve the integrity of the end-to-end cold chain and reduce time to market. A consistently fresher, less spoiled product will generate higher prices and enhance the brand reputation of all Southern Rock Lobster members.

The project scope was developed from initial conversations with Southern Rocklobster Limited, following stakeholder consults and a kick-off meeting. Industry feedback revealed a focus on the airfreight node to preserve the cold chain when exporting live lobsters to China, and this directed the following supply chain review and formulation of strategic solutions.

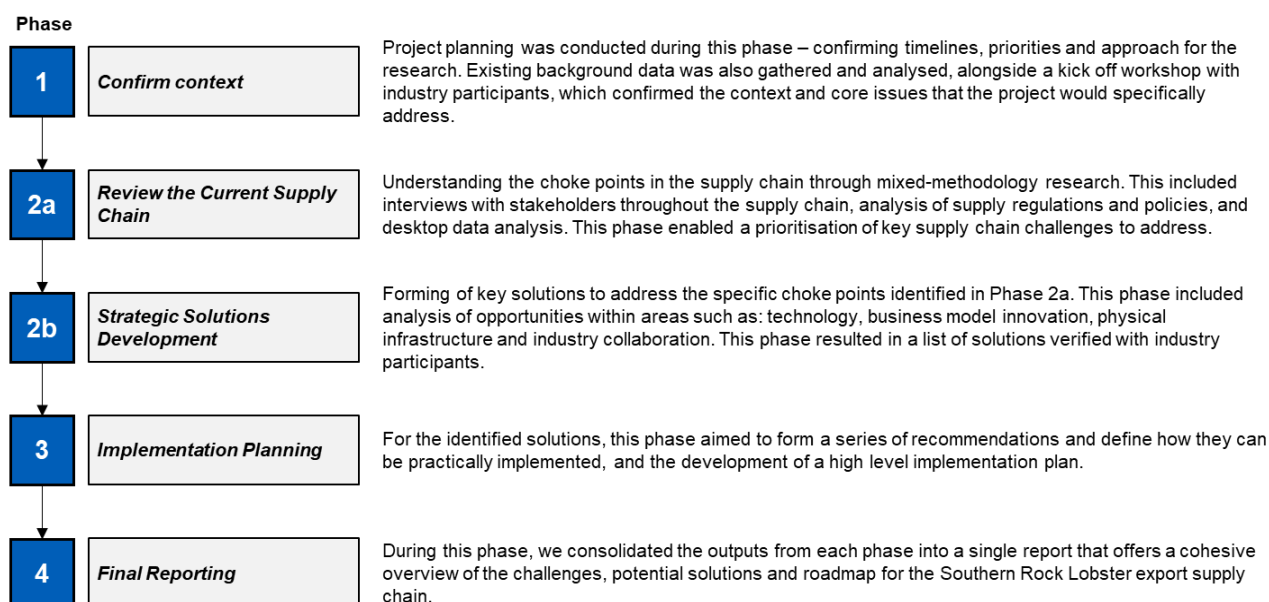
# Objectives

The following objectives were agreed with Southern Rocklobster Limited and the FRDC at project commencement:

- 1 Develop a full understanding of the supply chain for Southern Rock Lobster into export markets, to be able to pinpoint the key challenges faced in ensuring quality and maintaining temperature control.
- 2 Understand the range of options for improvements to the export cold chain, considering best practice, technologies and efficiencies. This will include opportunities for temperature control, regulatory reform and collaborative infrastructure.
- 3 Identify the innovations and initiatives likely to have the most significant impact on the quality of Southern Rock Lobster exports, and practically prioritise these for future implementation.

## Methodology

The research team followed the four distinct phases of work to address the project objectives in a logical manner.



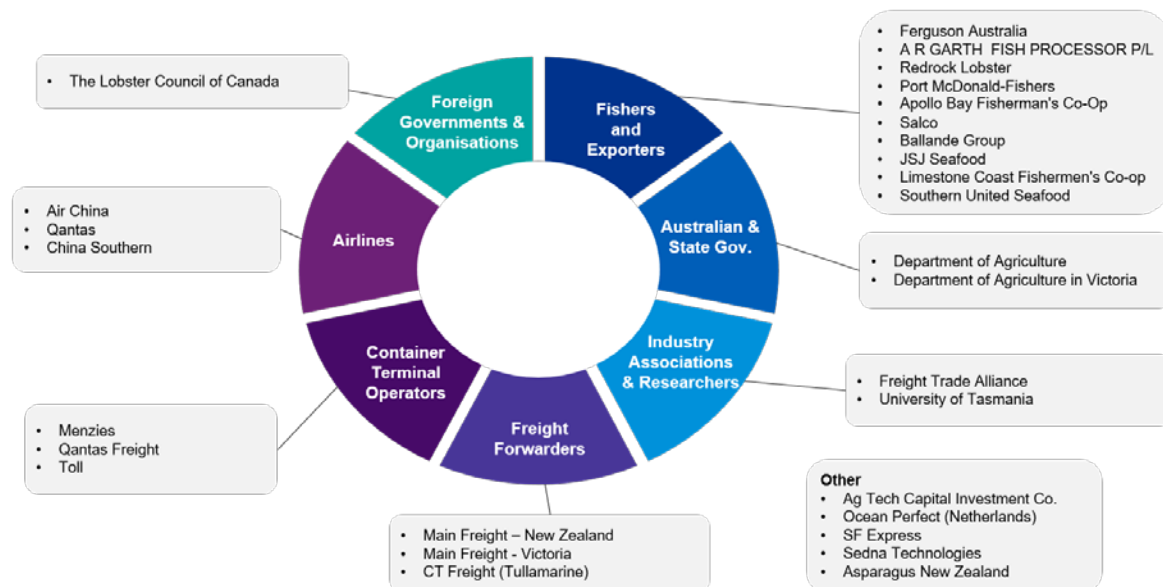
The phases within the methodology are broken down below:

### Phase 1 – Confirm Context – 2 weeks

- The aim of this phase was to understand the existing strategy, context and objectives for the project, to ensure that the work throughout the project was relevant to member's needs. An initial scan of the landscape for cold chain innovations was also conducted.
- Project mobilisation occurred at the start of this phase, including completion of required kick-off documentation. A data request was also made at this stage.
- Project plan, outlining objectives and activities for the project, and including the template extension strategy, was created.
- A workshop with major stakeholders was held to gather targeted insights and validate the approach.
- The research team spoke with the leader of Project 2018-004 Safefish 2018-2021 to ensure learnings from this project were applied.

## Phase 2a – Review the current value chain – 5 weeks

- The objective of this phase was to review current links in the supply chain and to identify the potential causes of product degradation and delay to delivery – thus those areas most critically requiring updates.
- Interviews (in person or over the phone) of key operators in the supply chain were conducted to uncover pain points (total of 29).
- This primary research was supplemented by a desktop review of aspects of the cold chain and related technologies, including case studies from other fresh or live export industries



## Phase 2b – Strategic solutions development – 4 weeks

- The objective of this phase was to formulate a series of strategic solutions for SRL exporters to refine the cold chain and address challenges identified in phase 2a. The research team tested initiatives with supply chain stakeholder to confirm practicality, viability and likely benefits.
- Each solution option was profiled and classified according to their potential for change in SRL industry exports. Additional research was conducted as to similar case study examples where the solution has been applied elsewhere.

## Phase 3 – Implementation planning – 2 weeks

- The objective of this phase was to understand how shortlisted cold chain solution initiatives could be practically implemented, placing these on an estimated timeline.
- The research team created practical strategies on how the SRL industry can improve elements in the supply chain to make enhancements identified in Phase 2b.
- Each suggested work package detailed set activities and timelines for implementation, and stakeholder involvement that would be required across these activities.

## Phase 4 – Final reporting – 2 weeks

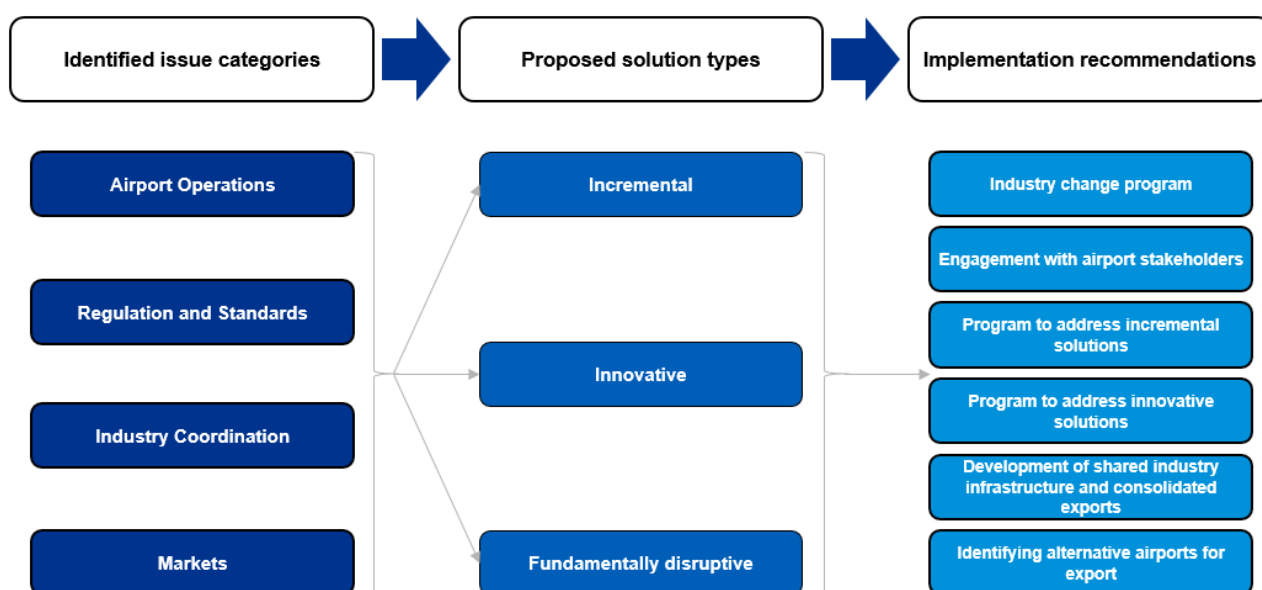
- Running concurrently to Phase 3, this activity brought together the findings and outcomes of the above phases into a single coherent report that logically flows through the identified issues, solutions and practical considerations.

# Results & Discussion

SRLs are a premium, high value product, where the end product quality is a key indication of the performance of the export supply chain. Catch quality by fishers and subsequent handling must be effectively managed throughout the supply chain as the product is highly sensitive to poor handling and temperature variation during transit.

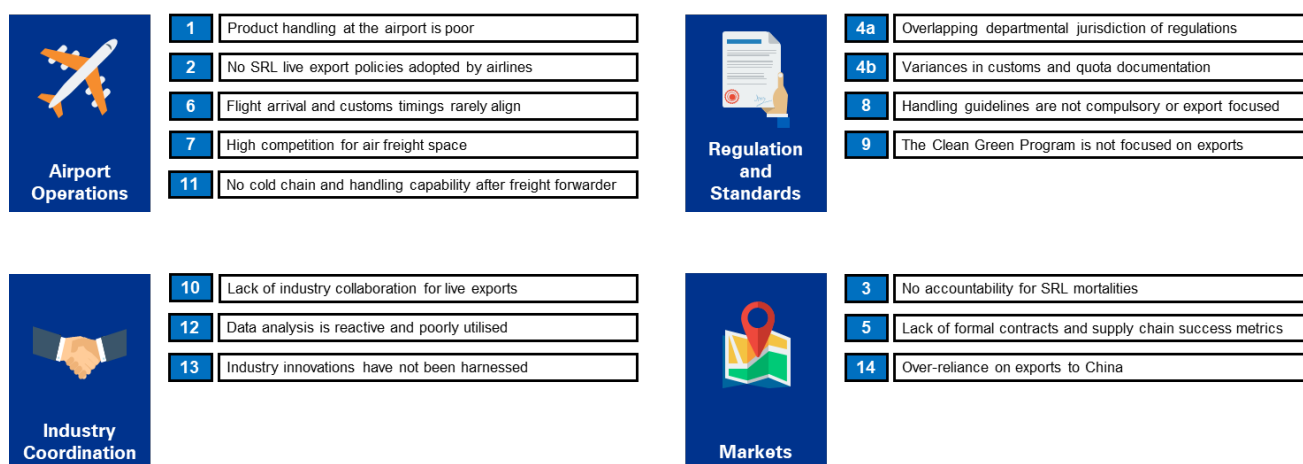
In order to address these project objectives and enhance the outcomes for the Southern Rock Lobster industry, Project 2018-176 was designed around three core requirements explored in the previous section.

The report's findings follow the format listed below, exploring the issues identified across the supply chain review, proposed solutions to address them, and implementation work packages that will support the industry with realising the supply chain enhancements.



## Issues

The key findings outlined in this report are based upon interviews with stakeholders represented across the value chain and subsequent research and analysis. The findings particularly address the issues identified within transport and airfreight activities. The 14 issues identified are grouped into four main themes.



*Issue 1: Expertise and understanding in the handling of live SRLs for export is poor at the domestic airport and associated logistics activities within the domestic supply chain*

Many industry stakeholders have outlined that individuals handling live lobsters at the domestic airports are not trained nor informed as to how to properly manage SRLs as a live product in transit. There is a lack of specific training and understanding for the handling of live products, and as a result mistakes are frequently made by domestic airport operations staff relating to the positioning and treatment of SRL shipments.

*Issue 2: There are no specific SRL live export policies implemented by the airlines, therefore SRLs do not receive appropriate handling during air transport*

Though many airlines and CTOs operate general policies for temperature control and other freight management variables, few have specific live export policies that designate controls and processes for managing products (such as SRLs) in transit. None have specific handling policies for SRLs. This lack of common practice results in variable management and mortality results are heavily dependant upon flight operator and handler.

*Issue 3: There is no accountability for SRL mortalities and limited visibility and traceability of product through the supply chain*

SRL exporters are liable for the condition of the product until it reaches the end buyer in the export market. However, there is limited visibility of product condition through the supply chain, including at the high risk nodes, therefore assigning accountability for mortalities is very difficult. Despite some limited data gathering using RFID, extensive traceability is missing and product oversight varies by exporter.

*Issue 4a: Regulatory inconsistencies and 'black spots'*

The domestic SRL supply chain is regulated by a number of bodies that provide policies and legislation within their specific areas of jurisdiction, particularly the Department of Agriculture and the Department of Infrastructure, leading to inconsistencies and overlaps. Certain requirements relating to catch records and reporting requirements also differ by state.

*Issue 4b: Market and state-based variances in documentation formats create conflicts for recording and managing information*

Stakeholders, particularly those with regulatory oversight, have different requirements for paperwork. Within Australia, catch data varies in how it is managed across the states, meaning inter-state movement faces inefficiencies and conflicting data recording methods. Additional challenges are experienced at Chinese Customs, requiring paper documentation – whereas Australia can approve exports digitally.

*Issue 5: Formal contracts outlining service and handling expectations are not used with supply chain trading partners*

From exporter to buyer, there is a lack of formal contracts with specific success metrics. Airlines, CTOs and freight forwarders are not held accountable to a set of mortality rates or quality metrics, thus the exporter remains solely liable for the majority of issues in the supply chain. Furthermore, sales and prices for China are often managed via WeChat as opposed to formal trading systems.

*Issue 6: Flight arrival and (destination) Customs operating timings rarely reconcile, resulting in additional handling and storage, and challenges in cross-border communication*

Dealing with Customs officials in foreign markets is challenging due to the varying practices, languages and time zones. Coordination of flights arriving in China is a significant challenge for the SRL industry. Direct flights are preferable, however these face additional complexity, i.e. timing inconsistencies between arrival and Customs clearance (opening hours) which increases product exposure to poor temperature and handling risks.

*Issue 7: Air freight space is becoming increasingly competitive*

The Australian agricultural export trade has rapidly grown in recent times, however capacity of air freight has not kept pace. SRL faces competition from other high value and volume categories such as beef, dairy and pharmaceuticals – decreasing availability on specific flights and therefore increasing cost of air freight. This limits SRL supply chain responsiveness and can lead to delays at the airport, and issues with prioritisation for loading product onto flights.

*Issue 8: SRL's Recommended Guidelines are not compulsory and do not cover all export supply chain processes*

Southern Rocklobster Limited's recommended guidelines for live SRL handling are focused on food service channels and processes as opposed to being export-specific and including dedicated practices for stakeholder groups such as airlines and freight forwarders. Furthermore, monitoring and governance can be challenging as the guidelines are not enforced – acting as an optional best practice guide.

*Issue 9: The Clean Green Program advocates a 'pot to plate' standard, however, with the program not covering the entire supply chain, the value proposition and end impact is limited*

The Clean Green program was formed as an independently audited, standards-based program. However, it is heavily focused on the fishing stage and OH&S standards rather than export or supply chain activities. Furthermore, there is a perceived lack of benefits for the end consumer to eat a lobster that is Clean Green certified – the program acts as a cost to exporters rather than having visible upside.

*Issue 10: The SRL Industry lacks supply chain collaboration, resulting in limited economies of scale and potential shared efficiencies*

Current industry collaboration between exporters is minimal. There is significant distrust between industry players, and the scale of various businesses, as well as geographic spread, means that initiatives such as collective negotiation, shared shipments, and other related efficiencies are not realised.

*Issue 11: SRLs are subject to varying storage conditions*

Live SRLs are kept in a cold chain environment for only part of the export supply chain. Once custody moves from the Freight Forwarders to CTOs, the cold chain ends as AVEs are stored in open environments subject to outside air temperatures. Site visits observed that although there are processes in place to transport SRLs as quickly as possible to the aircraft, variables such as flight delays and other factors can influence this outcome.

*Issue 12: Data format and analysis is highly variable and reactive*

The export supply chain involves a large number of stakeholders with varying systems, competencies and capabilities. The amount of information that is collected includes key insights such as temperature, length of transit and storage time, issues logging or abnormalities. The current systems are predominantly paper based, with varied and limited digital integration, restricting the opportunity for effective data analysis and insights.

*Issue 13: Innovation in packaging and processing has not been harnessed by the SRL industry*

Despite having engaged with a number of domestic and international businesses that provide innovative supply chain technologies such as enhanced packaging and containers for live product, there has been a lack of innovation applied within SRL for export product. Exporters tend to manage upgrades to their supply chains in isolation, limiting the impact of these technologies being applied by the broader industry. There is limited collaboration around innovation in the industry.

#### Issue 14: The industry is over-reliant on Chinese demand

The vast majority of SRL exports are destined for China due to the high prices achieved and consistent demand. However, this exposes the SRL industry to significant market risk. Market disruption could halt trade entirely and damage livelihoods of fishers and processors. Similarly, many inefficiencies in the supply chain are located at the China-end – only trading into this market means that SRL exports have associated risks and challenges.

#### Solutions

To address the specific challenges and choke points identified within the current export supply chain, solutions have been formed, providing details of how Southern Rock Lobster Limited and the FRDC can support the industry through the particular initiatives. The solutions are structured within three classifications, which broadly align to how disruptive and innovative the solutions may be for the SRL industry.

Potential impact	Incremental	Innovative	Fundamentally disruptive
Proposed solutions	1 Establish a framework and mechanism to facilitate greater industry collaboration	3 Transform paperwork to digital documentation	11 Independent or industry-sponsored entity to consolidate industry scale
	2 Extension of Clean Green Program (CGP) to other industry stakeholders	4 Industry-wide approach to data management and tracking solution	12 Investigate alternative airports to support future SRL exports
	5 AVE labels applied to signal they contain live lobsters	9 Future ChAFTA amendments	13 Shared industry infrastructure at the domestic airport
	6 Roll-out of the Known Consigner and Trusted Trader schemes across the SRL industry	10 SRL supply chain analytics and issue response framework	
	7 Development of supply chain performance metrics	14 Explore new export markets	
	8 MiCoR entry for SRLs should be created		

#### Solution 1: Establish a framework and mechanism to facilitate greater industry collaboration

There is a need for Southern Rocklobster Limited and the SRL Exporters Association to form close and trusted relationships with CTOs and airlines, which will enable issues to be raised and addressed on behalf of the industry. This will assist stakeholders to develop a greater understanding of the specific handling needs of SRLs, and how to swiftly and directly rectify issues in order to limit impacts to SRL product quality during shipments.

#### Solution 2: Extension of Clean Green Program (CGP) to other industry stakeholders

The SRL will benefit by extending CGP practices and processes mandated under the scheme to ‘certified handlers’ alongside the current ‘certified vessels and fishers’. Including all participants from the export supply chain (e.g. freight forwarders, CTOs and airlines) within the scheme, will help to improve understanding of SRL handling and encourage accountability. The CGP can be used as a compulsory mechanism across all fishers and exporters to ensure that quality being exported is standardised across the industry.

#### Solution 3: Transform paperwork to digital documentation

Digital paperwork in Australia across the SRL export supply chain will significantly reduce delays that are caused by errors on paperwork and manual data entry. Extending this from quota management through to air freight bookings will result in faster, more responsive supply chains that can improve the just-in-time delivery model to the airport and the integrity of lobster shipments. Subsequently rolled out to China Customs Authority with e-certification and no requirement for physical health certifications with each SRL shipment, delays will be significantly reduced.

#### *Solution 4: Industry-wide approach to data management and tracking solution*

Standardised data captured by exporters and participants throughout the supply chain (such as how lobsters are stored, duration of transit and temperature etc.) will enable industry-wide trends to be monitored and addressed. An integrated traceability solution that is non-intrusive and tamperproof can then be implemented to track this data from the point of catch until reaching the end consumer.

#### *Solution 5: AVE labels applied to signal they contain live lobsters*

Labelling occurs on the polystyrene boxes to prepare live lobsters for export, however, once placed in the AVEs for preparation to be boarded on the aircraft, there is no prominent labelling on the AVE. Adding simple, visible labels to this infrastructure can prompt workers handling a significant number of AVEs to consider the specific handling needs of live lobsters.

#### *Solution 6: Roll-out the Known Consignor and Trusted Trader schemes across the industry*

The Known Consignor scheme significantly reduces the time that a shipment must spend at the airport for security scanning and additional Customs checks. By allowing pre-clearance for cleared exporters, shipments will have greater flexibility in timings between transportation modes, whilst costs of security scans and related documentation also decline. Accreditation with the Trusted Trader scheme will also have similar benefits, though is less specific to air freight

#### *Solution 7: Development of supply chain performance metrics*

The SRL industry should implement baseline standards and measures for export to ensure product quality is maintained, and for animal welfare and food safety to be measured throughout the supply chain. These measures should be included within formal contracts with supply chain participants, to increase accountability for performance throughout the supply chain and to form more binding evidence when claims need to be submitted.

#### *Solution 8: MiCoR entry for SRLs should be created*

The Manual of Importing Country Requirements (MiCoR) should be developed and regularly updated to offer greater depth of information specific to SRLs. Treatment requirements, supply chain processes and other technical information should be added on a species specific basis for SRLs within MiCoR, acting as a repository of information that is accurate, thereby enabling exporters to check compliance.

#### *Solution 9: Future ChAFTA amendments*

Through a combination of strategic export and a longer free trade relationship with China, New Zealand's Free Trade Agreement (FTA) is in the process of being upgraded, with benefits such as confirmed Customs clearance times and easier access to China. The Australian SRL industry should work with the Australian Government and seek to follow suit, aiming to achieve improved Customs commitments and improved market access that can support the industry with faster processing and reduced costs of export to China

#### *Solution 10: SRL supply chain analytics and issue response framework*

Develop an SRL industry-level framework that measures key supply chain KPIs and monitors critical issues relating to live exports. This may include emergency response planning for existential events, or processes to expedite claims for particular shipment damages. Data should be utilised to track SRL exports and offer



full supply chain traceability to facilitate issue monitoring, with the action plan offering a clear framework for managing challenges that arise. The supply chain Framework should adopt digital technologies that collate and share supply chain data with all participants in an easy to use format.

*Solution 11: Independent or industry-sponsored entity to consolidate industry scale*

Economies of scale deliver increased competitiveness and bargaining power. A collaborative approach to industry exports would assist exporters to have more presence and influence in negotiations with customs, airlines, airports, transport providers etc. as a result of leveraging greater volumes and/or more frequent shipments. This entity will provide value to smaller exporters who do not fill a whole AVE, as consolidation can drive cost efficiencies and facilitate leverage with all trading partners to strike better deals for SRL as an industry.

*Solution 12: Investigate alternative airports to support future SRL exports*

Alternative routings should be explored for future SRL exports, where SRL can leverage airline transit networks through different Australian capital hubs (and potentially abroad). Particularly for those SRLs that require significant transportation to Melbourne airport, efficiencies should be reviewed. Timings may reconcile better with Chinese customs and overall transit time from pot to plate may be shorter.

*Solution 13: Shared industry infrastructure at the domestic airport*

Shared infrastructure such as tanks, holding facilities and packing infrastructure either at or near the airport will provide an opportunity for aggregation of SRL, enabling greater control over these processes (and associated costs). SRL exporters can handle shipments in appropriate ways to increase quality of SRL transportation and reduce the likelihood of damage, and ensure that SRL 'just-in-time' logistics is made more efficient by meeting cut-off points at the airport without being exposed to loading delays.

*Solution 14: Explore new export markets*

The SRL industry is nearly exclusively dedicated to exporting live products to China, meaning that it is heavily reliant upon these markets and supply chains' performance in order to sustain the industry as a whole. Developing new markets through building of a brand and presence in alternative Asian markets would both facilitate demand growth that offers new revenue opportunities, and help to protect the industry from failure or issues specific to the China market.

## Implementation Recommendations - Work Packages

Six programs of activity have been developed to support the SRL industry with implementing supply chain solutions that address the issues identified in the review. The timeframes, costs and complexity of each package varies.

	Work Package	Timeframe	Estimated Costs	Complexity
1	Industry change program	1 year (and ongoing)	Low	Low
2	Engagement with airport stakeholders	1 year	Low	High
3	Program to address incremental solutions	<1 year	Medium	Low
4	Program to address innovative solutions	2 years	Medium	High
5	Development of shared industry infrastructure and consolidated exports	>3 years	High	High
6	Identifying alternative airports for export	2 years	Low	High

#### *Work package 1: Industry change program*

An Industry Change Program is required to prepare exporters for the actioning of improvements in their supply chains, and to form a channel of communication for Southern Rocklobster Limited to inform industry around the solutions being implemented. These channels can also be used to promote best practice in export supply chains, and encourage collaboration across exporters.

#### *Work package 2: Engagement with airport stakeholders*

Manufacturing a win-win scenario for those stakeholders that handle SRLs at the airport, as well as the exporters, will produce better outcomes for all parties. Airport handlers require incentives and engagement through regular communications and negotiations around improving performance. An SRL-led process of agreeing optimal handling requirements and creating engagement strategies to enable this will ensure greater understanding of the SRL handling requirements and motivate airport stakeholders to comply with SRL-specific policies.

#### *Work package 3: Program to address incremental solutions*

The proposed incremental solutions are considered by industry participants to be 'hygiene factors' that need to be stood up quickly, making immediate impacts on the export supply chain. Initial planning and a coordinated approach is critical to manage the concurrent implementation of the six solutions - a targeted PMO will need to be responsible for tracking these solutions.

#### *Work package 4: Program to address innovative solutions*

The proposed innovative solutions require a similar process, but will require more time consuming and resources to execute. The solutions are more complex and will involve more stakeholders, meaning effective project management and monitoring is critical.

#### *Work package 5: Development of shared industry infrastructure and consolidated exports*

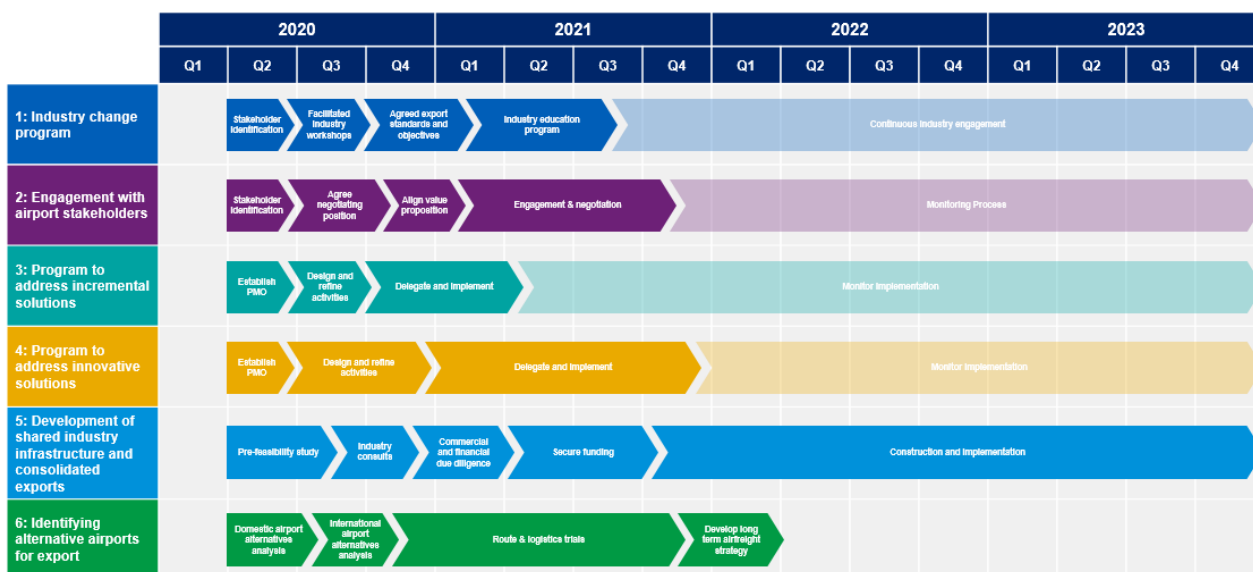
Solutions 11 and 13 in the previous section of the report propose shared industry infrastructure at the airport, and consolidation of exports at this point, to enable greater control of the supply chain and collective economies of scale. To implement this, feasibility and strategies for entity structures, investment and ongoing operations need to be established.

#### *Work package 6: Identifying alternative airports for export*

With particular issues identified at Melbourne Tullamarine airport, where the majority of SRL exports currently transit, domestic and international alternatives provide the opportunity to circumvent and enhance supply chain performance. Feasibility analysis is required to understand the supply chain implications that a change may have upon SRL exports, alongside appropriate logistics planning.

## Timeline of work packages

Targeted activities completed over designated time periods will help the SRL industry to commit appropriate resources in order to achieve the supply chain enhancements related to each proposed solution. The following timeline for the 6 work packages is outlined below.



## Conclusion

Overall, a number of key prevalent issues challenging SRL exporters have been identified in the export supply chain to China, particularly at the airfreight and logistics node within the supply chain. To address these challenges and work towards improved export outcomes for the industry, there are a series of strategic solutions that offer opportunities for the SRL industry to refine specific areas of the supply chain.

Clear practical pathways to implement these solutions have also been formed to provide the industry with practical insights. Southern Rocklobster Limited and industry stakeholders need to work together in a collaborative manner to progress refinements to the cold chain, including a focus on areas in physical infrastructure, regulation/policy, industry collaboration and business model innovation.

## Implications

The proposed supply chain refinements for export of live SRLs affect each stakeholder group differently in terms of their operations. To ensure optimal quality and preservation of the cold chain, the following implications for each critical stakeholder group are listed below:

**SRL Exporters** - there will be an increased need for SRL exporters to engage further down the supply chain (e.g. with stakeholders that handle the product) and to make a series of investments into proposed industry initiatives.

**Freight Forwards, CTOs and Airlines** – will be required to engage actively with the industry to progress solutions that will have mutual benefit. Temperature control, enhanced handling processes and updated guidelines and policies are particular areas where discussion is required.

**Southern Rocklobster Limited** - will be required to take a leading role in coordinating industry activities and managing work packages to implement the proposed solutions.

**The FRDC** - will be required to support Southern Rocklobster Limited in implementing findings and prioritising solutions based on timelines.

# Recommendations

It is recommended that the SRL industry further explores the proposed solutions through the implementation Work Packages.

## Work package 1: Industry change program

An Industry Change Program is required to prepare exporters and other industry participants for actioning the improvements to their supply chains, and to form a channel of communication for Southern Rocklobster Limited to inform industry stakeholders around the solutions being implemented. These communications channels can also be used to promote best practice in export supply chains, and encourage collaboration across exporters.

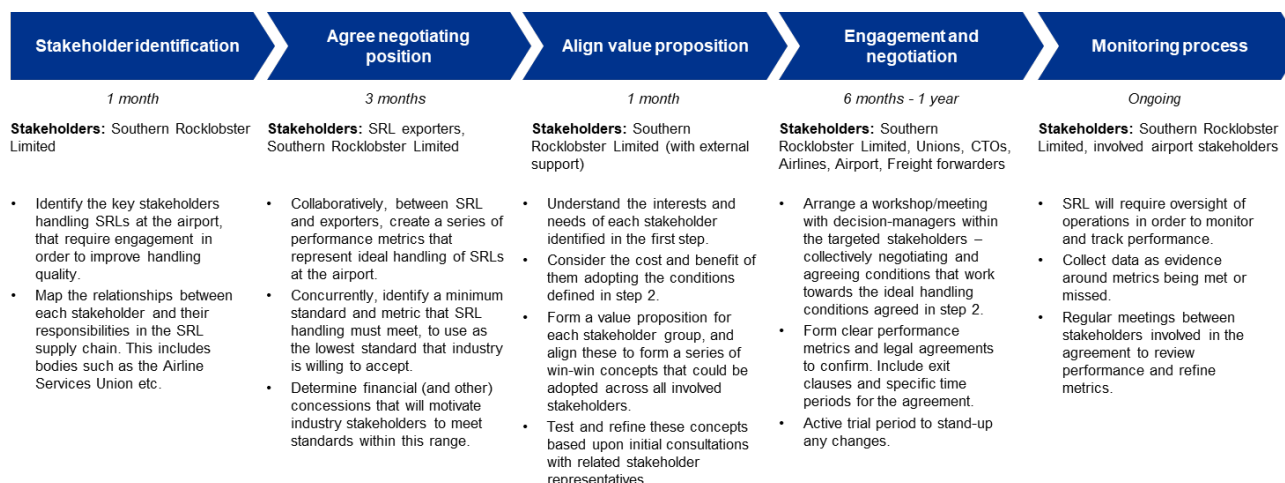
### Activities:



## Work package 2: Engagement with airport stakeholders

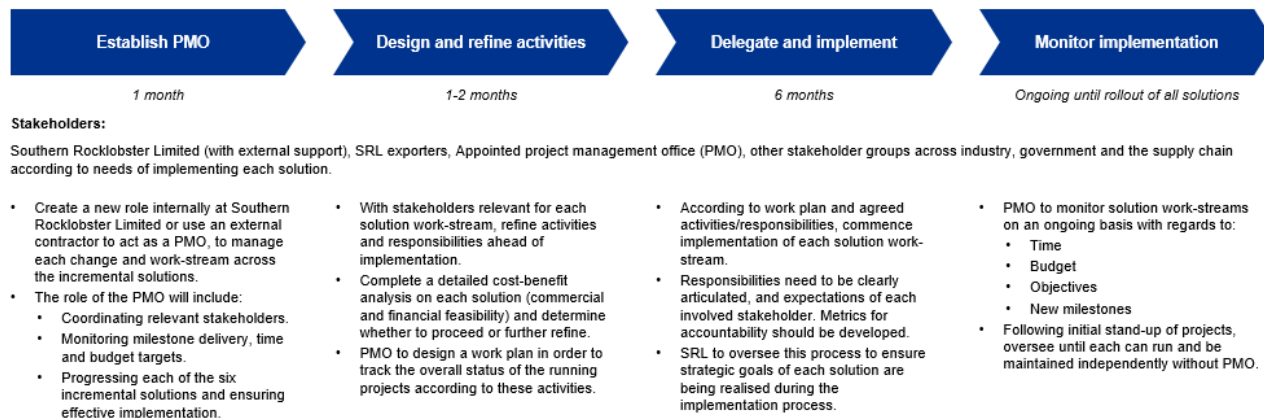
Manufacturing a win-win scenario for those stakeholders that handle SRLs at the airport, as well as the exporters, will produce better outcomes for all parties. Airport handlers require incentives and engagement through regular communications and negotiations around improving performance. An SRL-led process of agreeing optimal handling requirements and creating engagement strategies to enable this will ensure greater understanding of the SRL handling requirements and motivate airport stakeholders to comply with SRL-specific policies.

### Activities:



### Work package 3: Program to address incremental solutions

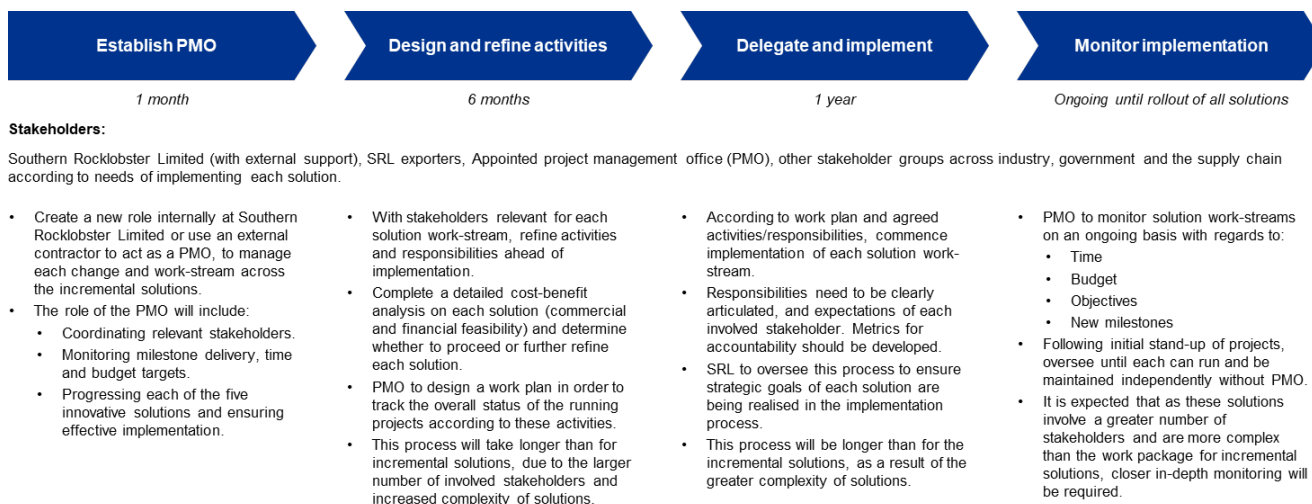
The proposed incremental solutions are considered by industry participants to be ‘hygiene factors’ that need to be stood up quickly, making immediate impacts on the export supply chain. Initial planning and a coordinated approach is critical to manage the concurrent implementation of the six solutions - a targeted Project Management Office (PMO) will need to be responsible for tracking these solutions.



### Work package 4: Program to address innovative solutions

The proposed innovative solutions require a similar process, but will require more time consuming and resources to execute. The solutions are more complex and will involve more stakeholders, meaning effective project management and monitoring is critical.

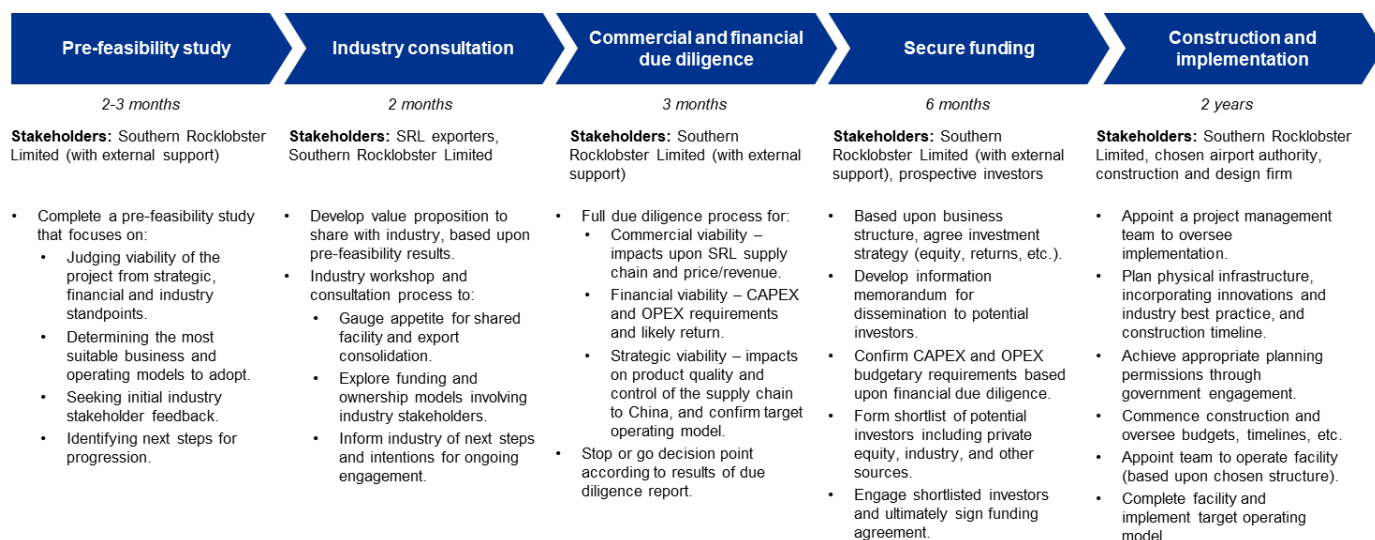
#### Activities:



### Work package 5: Development of shared industry infrastructure and consolidated exports

Solutions 11 and 13 in the previous section of the report propose shared industry infrastructure at the airport, and consolidation of exports at this point, to enable greater control of the supply chain and collective economies of scale. To implement this, feasibility and strategies for entity structures, investment and ongoing operations need to be established.

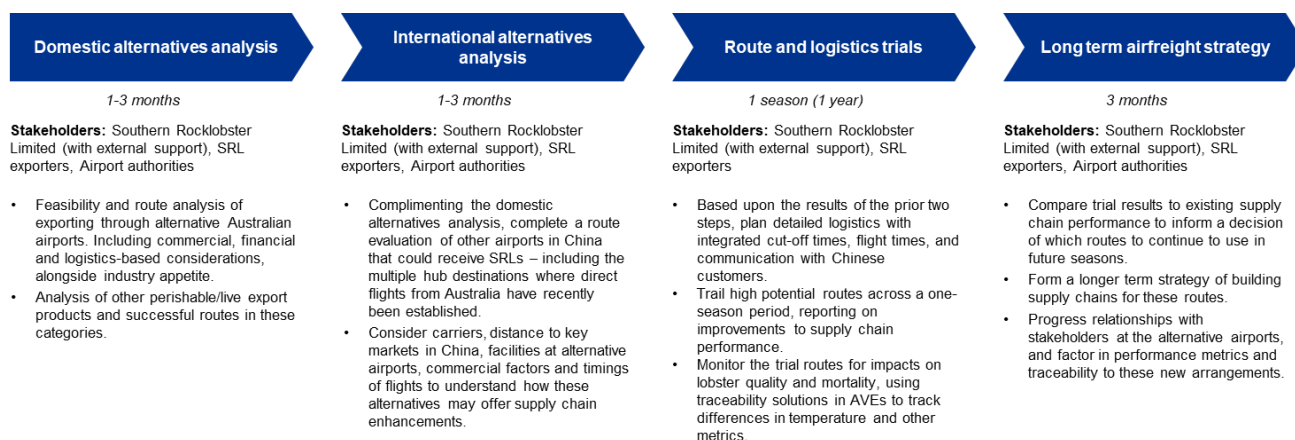
## Activities:



## Work package 6: Identifying alternative airports for export

With particular issues identified at Melbourne Tullamarine airport, where the majority of SRL exports currently transit, domestic and international alternatives provide the opportunity to circumvent and enhance supply chain performance. Feasibility analysis is required to understand the supply chain implications that a change may have upon SRL exports, alongside appropriate logistics planning.

## Activities:



## Further development

Not applicable

## Extension and Adoption

Researchers will be liaising with the FRDC to discuss extension of the report and Southern Rocklobster Limited have plans to release the findings independently.

## Project coverage

Not applicable

# Glossary

Not applicable

# Project materials developed

Not applicable

# Appendices

Not applicable