



Centre for Supply Chain and Logistics

Strategy

2020-2022

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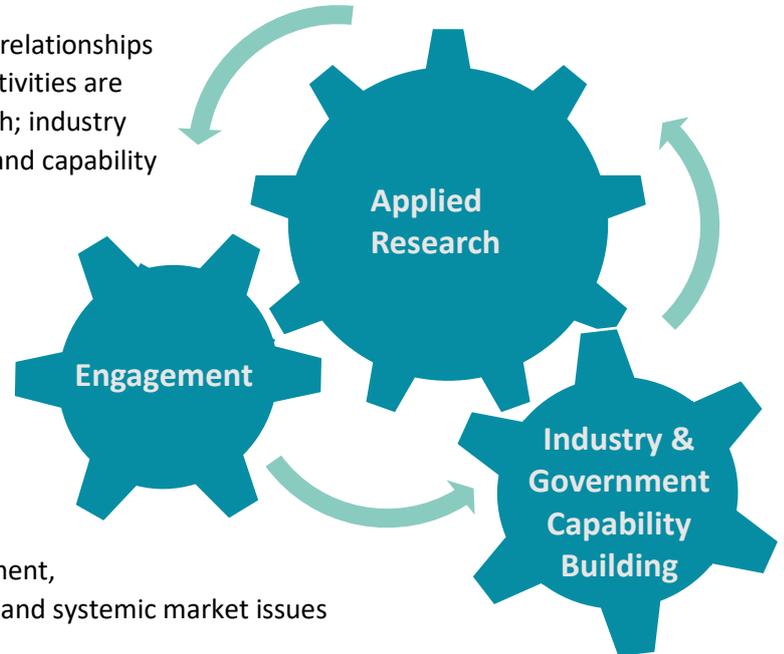
About CSCL

The Centre for Supply Chain and Logistics (CSCL) at Deakin University is Australia's leading research centre focusing on freight logistics and value-added supply chains. CSCL is a cross-disciplinary centre, which works closely with its government and industry partners, enabling them to make better investment, strategic and operational decisions for their supply chains.

CSCL has profound industry networks and deep relationships founded on mutual respect and trust. CSCL's activities are built on innovative and rigorous applied research; industry engagement throughout Australia and SE Asia; and capability building including Doctoral programs.

Our research model has three interacting components or cogs.

1. A focus on **cross-disciplinary applied research**
2. **Robust engagement with our stakeholders**, fostering open dialogue with industry and government partners
3. **Building capability** in industry and government, developing programs to address skills gaps and systemic market issues



Dr Hermione Parsons,
Industry Professor &
Director CSCL

From the Director

CSCL relocated to Deakin from Victoria University in 2017. The first phase at Deakin has been a period of consolidation, affirming government and industry stakeholders, establishing revenue streams and continuing to build CSCL's strong industry base. In 2018 and 2019 CSCL secured the foundation for future growth, testing to ensure robust foundations and building the capability that will sow the seeds for the future.

Every industry in Australia depends on supply chain and logistics to some degree; it creates the cost efficiencies so important to company success and customer satisfaction. Rapid growth in population, the impact of digital change, and changing consumer expectations has brought new challenges to logistics and supply chains globally.

The next few years will involve significant transformation as the industry responds to accelerating technology development and new modes of operation. The advent of Big Data, AI, automation, additive manufacturing, urban air mobility and autonomous vehicles present exciting opportunities. Filings for patent put in by Amazon suggest a future where it's possible to print the goods ordered by customers on demand, while in transit to their addresses, on board moving delivery trucks. Blockchain technology has the potential to be a game changer for the traceability and verification of goods.

In the next phase of its development, CSCL is committed to improving the research and education capabilities of those involved in supply chain and logistics, contributing to the growth of knowledge and improved practice which will lead to a competitive, balanced and sustainable future in a period of transformational change in our industry.

Our Values

Our core goal is to support improved public and private sector decision making for the development of competitive and sustainable supply chains and positive societal outcomes.

As Australia's leading research and development centre focussing on supply chain and logistics matters, CSCL is in a uniquely privileged position: linked closely to industry and government; at the intersection of applied research, human capability building and industry engagement, and located in a future- and outcomes-focused university.



Our priorities

CSCL's strategic focus is on industry engagement and impact in its core research areas of urban and regional freight transport and logistics, food and agriculture and talent and capability.

CSCL recognises that, to make significant and sustainable contributions to urgent supply chain issues, it must work in partnership with industry and government, using recognised and rigorous investigation methods and approaches.

Research at Deakin takes place through its Research Laboratories, a model first developed at Massachusetts Institute of Technology's (MIT) Centre for Transportation and Logistics. The model has been adapted by CSCL to leverage engagement with all stakeholders and is unique in Australia – a triple helix with academe, industry and government working together to address the difficult issues that no single agency or institution can address alone.

Industry engagement underpins research at CSCL, and its Industry Advisory Board (IAB) includes Australia's most notable captains of industry. Each of the Research Labs is chaired by an industry leader from the IAB, and working with stakeholders, the Labs prioritise the issues and scope the projects, following up to seek funding from industry and government partners. The research work of CSCL's PhD students also takes place within the Laboratories.

CSCL's research crosses discipline boundaries and its three Research Laboratories are in its areas of strategic focus.

- Food and agribusiness (Food Traceability Research Laboratory)
- Urban and regional freight transport and logistics (Urban Logistics Research Laboratory)
- Talent and capability and disruptive technologies (Talent and Capability Research Laboratory)

Food and agribusiness



Agri-food exports are a major source of national wealth and the ability to deliver on Australia's "clean, green" image rests on maintaining and improving the quality of Australian food brands through traceability and supply chain productivity.

GOAL

To develop effective solutions to the need for visibility and traceability of products, events and processes in the whole supply chain, to improve safety, security, customer service and efficiency.

Priority projects

- Food Traceability Implementation
- Halal Food Logistics
- Food Exporters and compliance documentation
- Industry Development Programs

Deakin's Food Traceability Laboratory is one of the five core areas of Deakin Future Food

Key Performance Indicators

We will measure our success by reporting annually on:

- Research income in food and agribusiness (increasing the value per project and income per researcher)
- Research impact (influence on policy and practice in food and agriculture)

RESEARCH IMPACT

- Enhancing consumer safety, product recalls and regulatory compliance
- Enabling product identification, biosecurity protection, brand trust and market access
- Saving the cost of integrating across incompatible systems
- Providing the guidelines which will give Australian businesses a significant competitive advantage in the global market



The *Australian Food Traceability Implementation Guide* will map critical traceability events in a food supply chain, identifying what data fields are required and providing technical guidance for solution providers on how to identify, capture and safely share data with supply chain partners and regulators.

Urban and regional freight logistics



The growth in urban population and changing consumer expectations present new challenges to urban logistics and supply chains. The fast, cost-effective and sustainable movement of goods within the urban environment is a crucial factor in ensuring that cities remain competitive, liveable and environmentally viable.

GOAL

To build in-depth expertise and awareness, managing the challenges to urban logistics and the nation's supply chains resulting from the growth in urban population and changing consumer expectations present new challenges.

Priority projects:

- Envisioning the future of urban logistics
- Opportunities for cross-docking in urban areas
- Reserving parking spaces for logistics
- Exploring barriers to change in urban planning

Key Performance Indicators

We will measure our success by reporting annually on:

- Research income in urban and regional freight logistics (increasing the value per project and income per researcher)
- Research impact (influence on policy and practice in urban and regional freight logistics)

RESEARCH IMPACT

- Responding to growing demands for increased convenience and safety
- Addressing the issue of increased freight volume on traffic congestion
- Incorporating new technologies into established complex urban supply chains



In collaboration with Deakin's Institute for Intelligent Systems Research and Innovation (IISRI) CSCL has developed a white paper looking at future transport initiatives including remotely piloted aircraft (drones) and automated vehicles.

Building talent and capability



The impact of digital change and an aging workforce is driving a global talent shortage in supply chain and logistics. The issue is compounded by fast changing skills requirements as AI, robotics and data analytics become increasingly important. Supply Chain and Logistics is also a poorly understood industry, dogged by stereotypes that have made it less appealing to women and millennials.

GOAL

To conduct applied research on issues related to talent acquisition, development and retention.

Priority projects:

- The under-representation of women in supply chain roles
- Development of an online interactive career map
- Paper on the economic significance of the supply chain and logistics sector to the Australian economy
- An analysis of the future skills requirements in supply chain

Key Performance Indicators

We will measure our success by reporting annually on:

- Research income in talent and capability (increasing the value per project and income per researcher)
- Research impact (influence on policy and practice in meeting the workforce needs of the supply chain and logistics industry).

RESEARCH IMPACT

- Addressing the lack of diversity in the supply chain sector
- Responding to the challenge of a global talent shortage, fueled by an aging workforce and a lack of diversity in the supply chain workforce
- Responding to the impact of digital change on future skills demand



Wayfinder is sponsored by 14 of Australia's key supply chain industries. It is addressing the gender gap in the supply chain work force, breaking down industry stereotypes and rethinking talent acquisition, retention and promotion. Gender diversity contributes the variety of perspectives, backgrounds and experience so important for 21st century businesses and Wayfinder program initiatives reach across education, research and community.

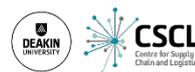
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2020 and beyond

To achieve its objectives and maintain its strong industry reputation CSCL must build capacity, capability and productivity across all research focus areas, including the support of its graduate students.

If it is to continue to meet the needs and opportunities in industry and government, CSCL must develop and grow in sustainable, intellectual and strategic ways. The Centre must grow both its income (based on high-quality research and capability building programs) and resource capability and capacity.

CSCL priorities for 2020 are to:

- continue to extend its research excellence and impact, further strengthening its strong networks with industry and government
- continue to work with other research centres within Deakin, building links through collaborative research and by leveraging its strong industry partnerships
- Ensure that its contract funding model factors in the time necessary for CSCL to increase its publications output.

Opportunities in 2020

There are major opportunities in the pipeline in food traceability, transport and urban logistics and future skills and ensuring CSCL has the staffing talent in place to meet the growing demand will be a key challenge. CSCL currently has \$2.7million in projects in the pipeline for 2020, with project partners including VicTrack, Woolworths, Toll, the Victorian and Australian Governments and ASEAN.

There is also growing potential in the area of future skills, liaising with industry to align industry need with graduate skillsets. Given Deakin's strong base in credentialing there is the potential for CSCL to work with DeakinCo in the development of professional credentials in this area.

Supply chain is cross disciplinary and provides an opportunity for whole of university research collaboration in the areas of: intelligent systems research and innovation, transport, optimisation, regulation, food, IT, cyber security, data and data analytics, business management, economics, behavioural science, AI and robotics.

CSCL's cross-disciplinary expertise and focus inherently strengthens opportunities for partnerships with other research centres in areas of supply chain optimisation, food security, agribusiness and technology.

Transport is in a period of immense growth, with change and disruption bringing new ways to travel and new ways to deliver cutting-edge services to customers. In collaboration with IISRI, CSCL will be working on a range of future transport initiatives for Victoria.