



CONSULTANTS EXPRESSION OF INTEREST



MANUFACTURING COMPETITIVENESS

Evaluate the feasibility of new technologies and processes in timber and wood products industry to deliver a range of cost-competitive products

Our goal is to maximise manufacturing processes and products through innovation, science and technology, and add value through improved supply chain logistics.

EXPRESSION OF INTEREST

Evaluate the feasibility of new technologies and processes in timber and wood products industry to deliver a range of cost-competitive products

Key EOI Information

The South & Central Queensland Regional Forestry Hub is seeking Expressions of Interest (EOI) from individuals and organisations with the necessary expertise to assist Hub members in evaluating the feasibility of new technologies and processes (e.g., “spoke and hub”, central processing) to deliver a range of cost-competitive products including sawnwood, engineered wood products and biocomposites materials.

This study is expected to be delivered through a combination of desktop work and stakeholders’ consultations and will include a literature review and summary of best-in-industry work practices (both in Australia and internationally). It will also include an overview of the current state of the latest commercially accessible technologies and products.

It is proposed that a staged project plan and execution process be used to address each of the project objective outlined in Section 3. It can be conducted as a single project or as a series of separate but complementary sub-projects.

If you believe that your expertise satisfies the requirements outlined in this document, please complete and submit an Expression of Interest (EOI).

Closing date for the EOI submission: 5.00pm, 1 April 2022

Email your EOI to: k.fullarton@seqfh.com.au

Contact person: Kerry Fullarton, Hub Manager

South & Central Queensland Regional Forestry Hub

Phone: 0498 018 144

Once submitted, your EOI will be considered by the Hub Committee. If the proposal is deemed acceptable for consideration, a Hub representative will contact you to discuss your proposal.

1. Introduction

South & Central Queensland Regional Forestry Hub

In September 2018, the Australian Government launched the National Forest Industries Plan: Growing a Better Australia – A Billion Trees for Jobs and Growth. The Plan outlines the Commonwealth Government’s strategy to drive growth in the renewable timber and wood fibre industry. It provides the vision and certainty needed for Australia’s forestry industry and supports the sustainable forest industries as long-term growth engines for regional Australia.

The plan ambitiously aims to deliver a billion new trees over the next decade (including 400,000 new hectares of plantations nationally) to meet a projected fourfold increase in global demand for timber and wood fibre products by 2050. This translates to planting the right trees, at the right scale, in the right places.

The Commonwealth Government supported the Plan in the 2018-2019 Federal Budget with a \$20 million commitment over four years to help implement actions identified in the Plan. The Hub was setup as part of the Commonwealth’s commitment which, pursuant to the Plan, includes nine forestry hubs across Australia.

The South & Central Queensland regional forestry hub will determine the opportunities and barriers for the forestry and wood products sector and detail the finding of its assessment and growth pathways in reports to the Commonwealth Government and stakeholders.

The steering committee is representative of industry and includes key stakeholders in the region. In order to drive the Commonwealth’s key objective of planting one billion trees in the next decade under the plan, the Hub has identified a number of key priorities in consultation with both industry, community, and government stakeholders.

The Hub’s five priorities include:



Skills & Training

We will support forestry training and education and promote further uptake of forestry-related courses. In addition, we will support sustainability and contribute to growing a skilled and safe workforce to meet industry’s future needs.



Manufacturing Competitiveness

Our goal is to maximise manufacturing processes and products through innovation, science, and technology, and add value through improved supply chain logistics.



Plantation Investment Models

Our focus is to grow the forestry sector to deliver strong financial outcomes and design and test new models of investment for plantation forest.



Native Forest Management

We want to ensure ecological and sustainable forest management of native vegetation on private and state property for increasing timber supply.



Bioenergy & Carbon

We aim to promote the benefits of forestry in reducing climate change, by delivering bioenergy, carbon storage, and biomass for future sustainable growth.

2. Project Justification

Queensland is home to 41% of Australia's forests. The Smart State has the most forested land area in the country, with 52.5 million hectares of native forests and 233,000 hectares of plantations. The majority of Queensland's timber comes from mature softwood plantations dominated by exotic pine and native hoop pine. The processing sector employs 90 percent of Queensland's forest industry workforce. The softwood processing industry meets 87 percent of Queensland's current softwood demand and nearly quadruples the timber resource's value. The industry, which stretches from Ravenshoe in Far North Queensland to the outskirts of Brisbane, provides significant economic, social, and environmental benefits¹.

According to ABARES, Queensland produced over 280,000 m³ of hardwood native logs, approximately 28 000 m³ of plantation hardwoods, and nearly 2.46 million m³ of plantation softwood logs in 2019-2020. Further down the supply chain, Queensland's processing sector – arguably one of Australia's most diverse value-added forestry sector – timber, engineered wood products, wood-based panels, and wood processing residues value-adding produced approximately 2.4 billion \$ in sales and service income in 2019-2020, with the pulp and paper sector producing approximately 1.35 billion \$.

A more efficient and adaptive forestry sector that employs cutting-edge processes and technologies can move forwards with confidence that it will remain competitive against regional and global counterparts and will continue to supply cost-effectively produced sustainable wood products.

¹ Timber Queensland

3. Project Scope

The scope of this project is to conduct:

- an inventory of the existing and prospective volumes of native and plantation logs (by species, logs specs), their location and their proximity to the current timber processing centres;
- an inventory/description of Queensland’s main timber and wood product categories by volume and main uses;
- an analysis of the potential value adding opportunities to the current product range, followed by product range diversification opportunities through innovations, adoption of products with an existent market or the development of new product using local timber species.

The assessment should identify and discuss the following key components:

A. Technologies and processes

Collect information and determine:

- processes, work practices and technologies for improving the efficiency and raw material recovery – with applicability to the current processing companies/practices;
- centralised processing hubs opportunities – “spoke and hub model”– from sawmill to integrated processing unit (value adding and diversification opportunities), joint ventures of 2-3 processors, product specialisation and collaboration with other players along the value chain (sawnwood + landscape products + glulam, CLT, i-joist + frame and truss + prefabricated timber components + wood pellets/briquettes);
- product specialisation and centralised manufacturing options.

B. Products

Collect information and determine:

- potential value adding to the current timber products across the state (for example: wood plastic composite, cement fibre, structural insulated panels², prefabricated building components, log cabins, timber tiny houses, LVL, parallam – for veneer and ply manufacturers, Glulam, CLT, etc.).
- are there any domestically and/or internationally produced timber products that can be adopted, adapted (including under licence) or ready to be produced (i.e., acetylation – Accoya, MDF acetylation – Tricoya, Structural Insulated Panels (SIP), OSB, Parallam³, Laminated Structural Lumber (LSL)⁴) using QLD log resource and primary processed timber products (veneer, sawnwood, raw reconstituted wood panels)?

² SIPS are a modern (but not new) alternative to traditional timber framed construction and function as the structural element for walls, roofs, and suspended floors. They consist of two outer layers of Oriented Strand Board (OSB) sandwiched around an Expanded Polystyrene (EPS) core.

³ Parallam is manufactured from veneers laid into long, parallel strands and bonded together. PSL beams are primarily used in beam and header applications where high strength is required

⁴ LSL are beams manufactured from flaked wood strands. generally cheaper and is ideal for short spans.

- is there a market for the above products? For each potential application/market, what are the primary supply chain requirements, stakeholders, roles, and impediments/challenges?

4. Methodology

This study is expected to be delivered through a **combination of desktop work and stakeholders' consultations** and will include a literature review and summary of best-in-industry work practices (both in Australia and internationally). It will also include an overview of the current state of the latest commercially accessible technologies and products.

It is proposed that a **staged project plan and execution process** be used to address each of the project objective outlined in Section 3. It can be conducted as a single project or as a series of separate but complementary sub-projects.

- Desktop study / literature review – to undertake a review of the latest international developments, technologies and products and assess their appropriateness to the QLD forest resource and processing capacities
- Screen the above options and determine which are the top 3-5 technologies and/value adding processing and work practices ready to be implemented in the QLD forestry sector and estimate the associated costs and skills requirements, as well as potential threats and opportunities.

Stakeholder interviews and/or consultation workshops must be done at least once during the report development process.

Key stakeholders to be consulted during the project include, but are not limited to:

- Processors (including primary processors and value adding manufacturers)
- Other groups as per the priority issues for the region, for example, relevant supply chain actors.

LGAs covered by the Hub include:

- Banana Shire Council
- Bundaberg Regional Council
- Central Highlands Regional Council
- Cherbourg Aboriginal Shire Council
- Fraser Coast Regional Council
- Gladstone Regional Council
- Goondiwindi Regional Council
- Gympie Regional Council
- Livingstone Shire Council
- Lockyer Valley Regional Council
- Maranoa Regional Council

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- Moreton Bay Regional Council
- Noosa Shire Council
- North Burnett Regional Council
- Rockhampton Regional Council
- Scenic Rim Regional Council
- Somerset Regional Council
- South Burnett Regional Council
- Southern Downs Regional Council
- Sunshine Coast Regional Council
- Toowoomba Regional Council
- Western Downs Regional Council
- Woorabinda Aboriginal Shire Council

5. Project Deliverables

Key deliverables include the completion of the following at the satisfaction of the Hub Committee:

- Detailed project plan, including stakeholder identification and consultation methodology, is completed by applicant
- Draft reports are completed and presented to the Hub Committee at different stages of the project life (as agreed)
- Final report is completed and presented to the Hub Committee before the project completion.

6. Project Timeline

The project is scheduled to begin 1 May 2022 and conclude 1 July 2022.

7. Selection Criteria

The Hub will select the successful applicant for the report based on evaluation of all submitted proposals against the following criteria.

CRITERIA 1: Capabilities and expertise in producing technical reports related to the project scope

To address this selection criterion, the expression of interest should describe the following:

- An overview of the applicant's organisation and business operations;
- Applicant's experience, skills and capabilities relating to the project's scoping requirements as outlined in Section 3 above;

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- Examples (list) of any publicly available reports that the applicant has produced related to the project scope;
- An overview of the proposed project team;
- A brief description of professional experience for each project team member, highlighting their experience and capabilities in relation to the project requirements;
- A key point of contact for the Hub who will act as the Project Manager for the project.

CRITERIA 2: Total cost and cost structure (against the identified deliverables)

To address this selection criterion, the expression of interest should provide the following:

- Total cost that will be charged, inclusive and exclusive of GST, for completing the project;
- Breakdown of cost structure against key project deliverables.

The Hub may additionally request candidates to engage in interviews and/or to present their plans formally as part of the selection process.

Attachment 1: EXPRESSION OF INTEREST FORM

Evaluate the feasibility of new technologies and processes in timber and wood products industry to deliver a range of cost-competitive products

PART A: Applicant Details

Lead Organisation Name	
Address	
Primary Contact Name	
Position Title	
Telephone	
Email	

Part B: Selection Criteria

CRITERIA 1: Capabilities and expertise in producing technical reports related to the project scope

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- Applicant’s experience, skills and capabilities relating to the project’s scoping requirements as outlined in Section 3 above;
- Examples (list) of any publicly available reports that the applicant has produced related to the project scope;
- An overview of the proposed project team;
- A brief description of professional experience for each project team member, highlighting their experience and capabilities in relation to the project requirements;
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