

Bioeconomy as a solution for South Australia's declining forest industry

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South Australia's forest industry is being significantly challenged as production levels fall due to declining export competitiveness and accordingly means for improving the industry's competitiveness are being sought. The South Australian State Government's Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE) has invited VTT Technical Research Centre of Finland experts to undertake a study that identifies potential routes by which the increased competitiveness can be achieved.

Achieving world class productivity in existing business combined with the development of higher-value add products is key to creating a sustainable future for the [forestry industry](#). The VTT study into increasing industry productivity and developing more sustainable and higher-value add products from the Limestone Coast's forestry resources involves working with local industry to identify achievable short, medium and longer term sustainable market opportunities.

The study is a key initiative of the State Government's Manufacturing Works strategy, and is also one of the key actions identified in the Limestone Coast Economic Diversification report.

The traditional sawn timber production industry must be continuously improve and develop to ensure world class productivity, but in the emerging [bioeconomy](#) this is not enough. The new opportunities presented by bioenergy, biochemicals and biomaterials must be captured, in addition to further developing opportunities in more

traditional but evolving areas like construction elements, wood residue laminates, wood-plastic composite products, value added packaging materials etc. This could mean, for example, that in addition to the focus on developing the industry through productivity improvements and product extensions, next-generation biorefineries could be established in the region, utilising the side streams or unutilised raw material streams from the forest industry as input into the production of bioenergy, biochemicals and biomaterials. The goal is to identify new business opportunities suitable for local companies as well as raising the technological level of the region's industry to meet the requirements of a competitive modern fibre-based industry.

VTT's project well-received

In addition to this study the State Government has launched "the South East Forestry Partnerships Program" which is a \$27 million State Government assistance package designed to encourage a viable and strong timber sawmilling industry in the region.

The first phase of the project executed by VTT Technical Research Centre of Finland, examined the current business structure in the Mount Gambier region. The findings from this first phase identify that the present situation is difficult, but that the situation could be improved by implementing existing solutions and approaches already in use elsewhere. John Kettle, International Operations Manager at VTT Technical Research Centre of Finland, notes that improvements are about two parallel action streams. The first is about improving the productivity in existing operations whilst simultaneously increasing the value adding by firms in their existing or adjacent value chains. The second is about adding higher value adding activities drawing on new technologies that will allow for the entry into the bioenergy, [biochemicals](#) and biomaterials value chains.

"As cheap competition increases, the traditional cost-based model is no longer viable in a high operating cost country for companies whose business depends on export and export-based value chains. The forest industry must move to a value-based concept in order to guarantee competitiveness. The purpose of this study is to help smaller companies develop their business towards effective and efficient production with higher added value."

According to Kettle, local companies have had a positive attitude towards VTT Technical Research Centre of Finland's project. Based on the results from the first phase, the players in the area share the same goals: forests are still considered to be the anchor of the future in the Mount Gambier region, and there is a desire to bring about a new renaissance for the industry through a long-term effort.

The second phase of the study will chart the future pathways for the forest industry in Mount Gambier and the opportunities for production with a higher added value. During the second phase, road maps will be prepared with the goal of guiding the development of new, fibre-based industries in the Mount Gambier region as well as identifying business opportunities utilising emerging technologies. The governments of the State of South Australia and the Commonwealth of Australia have committed the necessary resources for the two phases of the study.

The Cellulose Fibre Chain Technology Roadmap project is supported by Regional Development Australia Limestone Coast and the project's steering group includes central players in the Australian forest industry, academia and labour union together with representatives from the Commonwealth, State and local government.

More information: The report for the first phase of the research: [www.dmitre.sa.gov.au/files/966 ... al stage1 report.pdf](http://www.dmitre.sa.gov.au/files/966...al_stage1_report.pdf)

Provided by VTT Technical Research Centre of Finland

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