TAFISA®

particleboard **panels** – decorative **panels**

Rewood Technology Overhaul and Optimization

Application Dossier
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TAFISA®

Une société du groupe / A company of the group
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Tafisa® Canada has invested 5.4 million dollars to optimize its **Rewood** technology in order to achieve a 100% increase in the recycled post-consumer wood content of its panels, thus enabling the recycling of 244,000 tons of diverted wood fibre annually and saving millions of trees.

Green to the Core!

Leading the way is second nature at **Tafisa® Canada**, owner and operator of North America's largest particleboard and decorative panel manufacturing facility. Since its inauguration in 1992, the company has quadrupled its production, increased its employee base from 60 to 325 and firmly established itself as an industry leader.

Tafisa® operates out of the magnificent Mégantic region, where its seven-days-a-week manufacturing facility measures close to 71,000 square metres. Over the past 20 years, the company has invested more than $400 million to ensure continuous process improvements, leveraging the expertise of 27 sister plants located across the world. Tafisa® is a subsidiary of the Sonae Industria Group.

Selling to both residential and commercial markets, Tafisa® has maintained a balanced share of business between Canada and the United States. Each week, more than 700 truckloads of wood fibre are transformed into 300 truckloads of finished products - particleboard or decorative panels.

Tafisa® conforms to the most stringent environmental standards and is an industry leader in recycling and sustainable development.

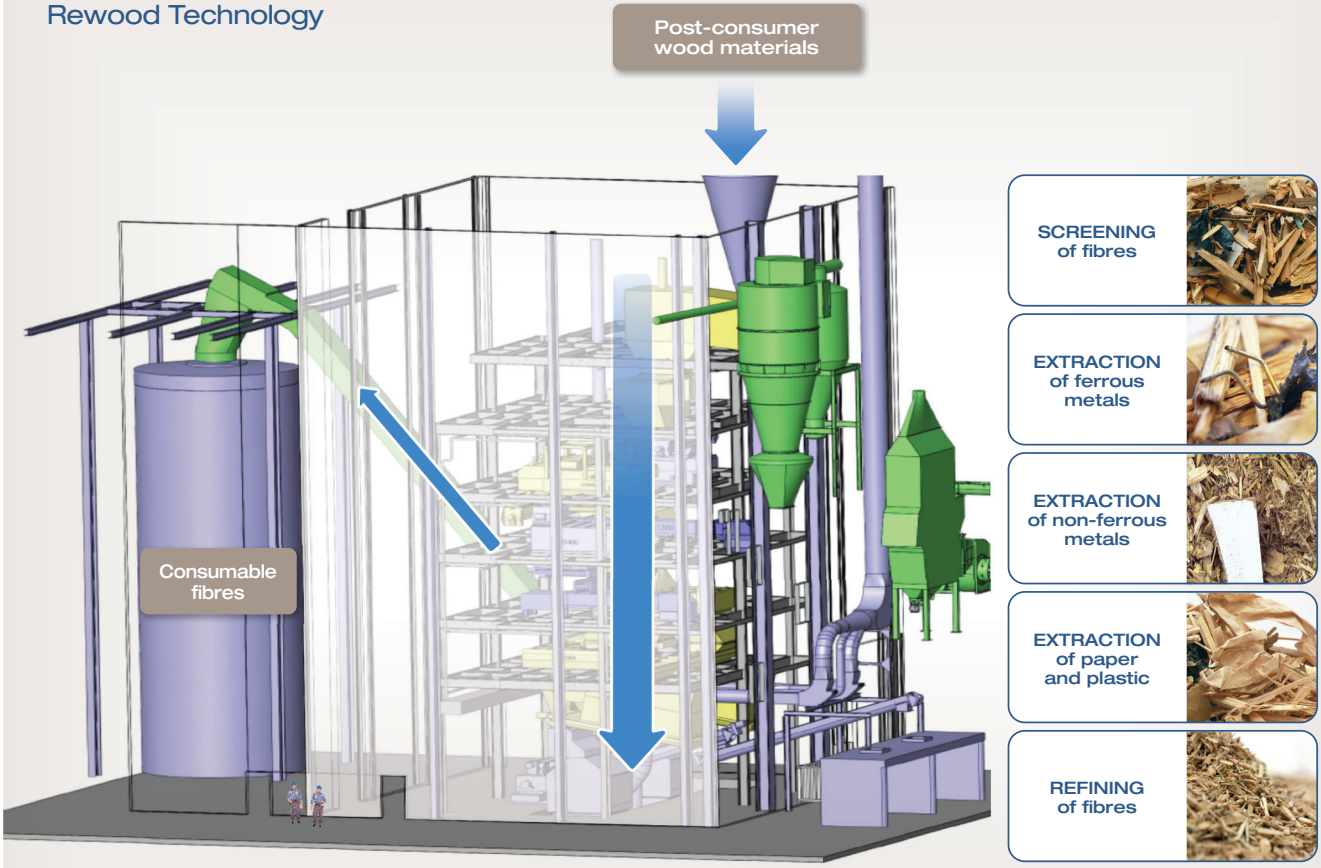
Rewood – An Innovative Project

Within the framework of this project, Tafisa® Canada has invested 5.4 million dollars in the overhaul and optimization of its **Rewood** technology. The primary goal was to increase the content of recycled post-consumer wood fibre in its panels by 100%. This project was carried out in partnership with Investissement Québec and Recyc-Québec.

The **Rewood** processing tower is a seven-storey treatment unit used to decontaminate, clean and refine post-consumer wood materials generated mainly in the CRD (construction, renovation and demolition) sectors (see diagram on page 3).

Overhaul and Optimization – List of Modifications	
Wood yard and receiving	Modification of the chip tippers to increase capacity
	Installation of a fibre pre-screening unit and two magnetic separator units
	Installation of a grinder
Rewood treatment tower	Replacement of the main screening machine to increase cleaning capacity and efficiency
	Installation of a second ferrous metal separation unit
	Installation of a second non-ferrous metal separation unit
	Installation of a fine-particle screening unit
	Increase in dryer feeding and overall processing capacity

Rewood Technology



The overhaul and optimization of the entire Rewood facility has enabled Tafisa® to achieve the **following objectives**:

- to increase the content of recycled post-consumer wood fibre in its panels by 100%, resulting in equal parts post-industrial and recycled post-consumer wood fibres;
- to expand the processing unit's initial capacity from 13 tons per hour to over 26 tons per hour; and
- to ensure continuous employment for its 325 employees by maintaining a constant, renewable supply of raw wood fibre.

	Before overhaul and optimization	Overhaul and optimization
Post-industrial wood fibres per panel	75%	50%
Recycled post-consumer wood fibres per panel	25%	50%
Post-consumer wood materials processed per hour	13 tons	26 tons
Recycled post-consumer wood fibres processed per year	122,000 tons	244,000 tons

Outstanding Results!

The achievement of these objectives enables the recycling of 244,000 tons of post-consumer wood fibre annually, thus saving millions of trees. Moreover, this wood-recycling process extends the carbon storage period. It is estimated that a cubic metre of particleboard stores one ton of carbon. Tafisa® particleboard panels therefore store over 700,000 tons of carbon each year, a significant contribution to the reduction of greenhouse gas emissions.

A Pioneering and Visionary Company

Right from its inception in 1992, Tafisa® has been committed to using only 100% recovered and recycled fibres in the manufacturing of its panels. No roundwood derived from logging is used. Since 2005, over 17 million dollars have been invested to develop a **unique** technology, named **Rewood**, which enables Tafisa® to replace a portion of the post-industrial wood fibres in its panels with recycled post-consumer wood fibres. This **innovative** technology ensures a constant and renewable supply of raw material without compromising the environment for future generations.

Rewood Technology Cycle

The **main** source of supply for Quebec manufacturers of composite wood panels is post-industrial residues generated by the primary processing sector — a supply source that is heavily influenced by economic conditions and product demand.

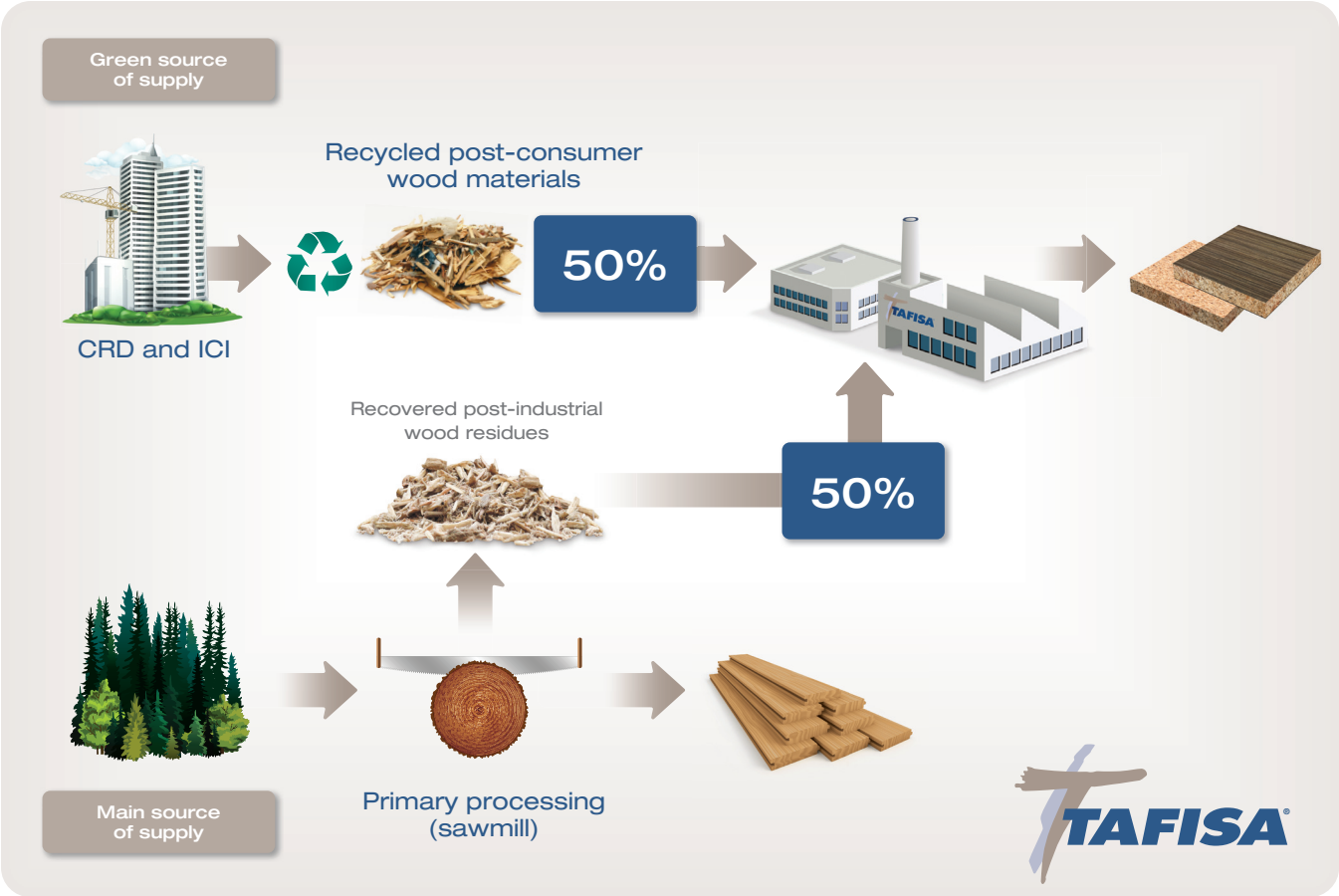
Due to the forestry industry crisis and the closure of several primary processing facilities, the availability of this post-industrial source has been considerably reduced. This problem causes seasonal closures of production lines and a decrease in productivity, with long-term economic consequences. In order to maintain their operations at the lowest point of the crisis, Quebec manufacturing facilities sought alternative sources of supply.

In 2005, inspired by the European model, **Tafisa®** developed a visionary long-term investment plan to secure its future and that of its employees; rather than staying in the traditional forestry sector, Tafisa® Canada decided to adhere to the 3 RV-E hierarchy, investing in green technology in order to further enhance its capacity to recycle wood materials derived from the CRD and ICI (industrial, commercial and institutional) sectors. This marked the beginning of the **Rewood** era, an innovative plan that would enable the company to develop a **new green** source of supply. This approach extends a tree's useful life cycle; instead of ending up in a landfill site, post-consumer wood materials are recycled and integrated into the company's panels. By taking the sustainable development route, **Tafisa®** reaffirms its commitment to the environment and proudly takes a leading role in the industry.

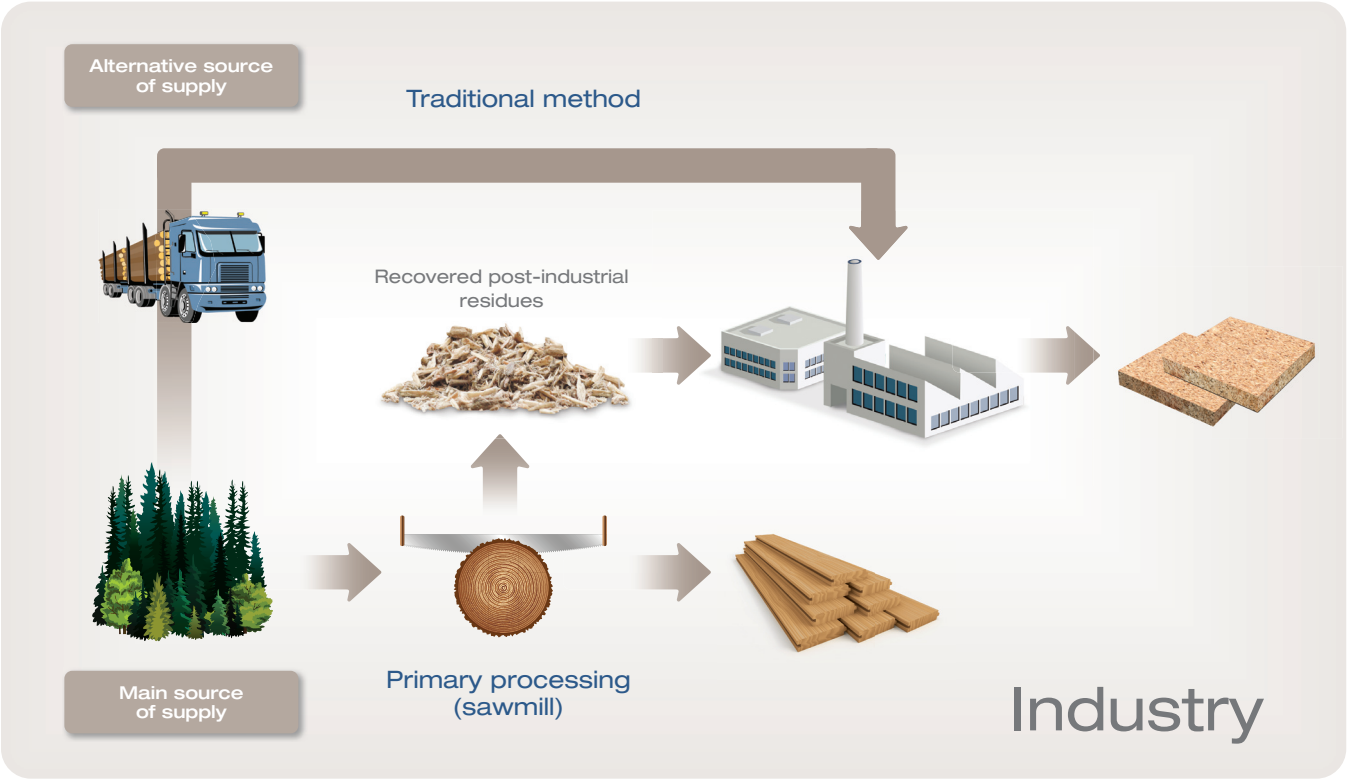
Post-industrial wood residues: *residues derived from primary processing facilities (sawmills).*

Post-consumer wood materials: *recycled wood generated by the CRD and ICI sectors.*

Tafisa® Sources of Supply



Traditional Sources of Supply for the Quebec Industry



A Top-notch Team

The new **Rewood** technology was conceived thanks to the ingenuity of Tafisa®'s engineering and processing personnel. In order to meet demand, their team of supply experts collaborated with local sorting centres to develop the resource. Ultimately, production, maintenance and quality control groups worked together to launch and optimize the process. In total, about 50 people were heavily involved in this project.

A Catalyst for the Green Industry

Tafisa® Canada's initiative has enabled many of the company's suppliers — the sorting centres — to find an outlet for their recycled wood materials, and to attract major investments allowing them to consolidate and enhance their processing capacities. Since then, several new sorting centres have opened, resulting in a significant increase in the processing of residual materials.

The economic and environmental spin-offs, as well as the new jobs generated by these investments as a whole at the height of the crisis, have greatly benefited Quebec's economy.

A Sustainable Vision

Tafisa®'s vision is to develop a product made entirely of recycled fibres. The increasing demand for green products, and the government's environmental policies, give good reason to adopt this approach. An example of provincial legislation is the *Quebec Residual Materials Management Policy*, of which one of the objectives is to ban wood from landfills by 2014. **Rewood** technology is only the start of a long journey to fulfill a major challenge. **Tafisa®** is committed to pushing boundaries on the environmental front and is proud to contribute to the collective effort towards making our planet a greener world. **And that says it all!**