

Forest2Mill Baltic Rim Benchmark

Roundwood markets in the Baltic Sea Region – now and tomorrow

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Indufor ...forest intelligence



FOREST2MARKET

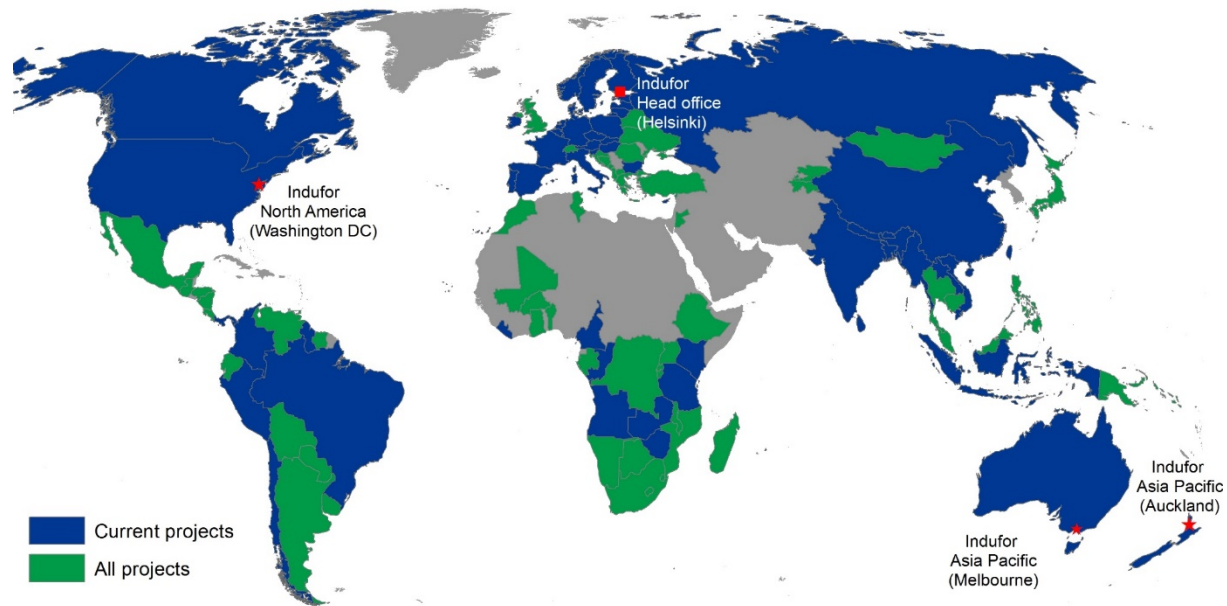
Agenda

- Introduction to Indufor and Forest2Market
- Benchmarking
- Forest2Mill Baltic Rim Benchmark
- Take Away Messages



Introduction – Indufor

- Independent international consulting company based in Finland, New Zealand, Australia and the US with over 35 years of experience in the field of forestry, forest industry and bioenergy
- Provide world class advisory services to a wide range of private and public sector clients
- More than 300 clients in over 800 projects in 5 continents



Introduction – Forest2Market

Forest2Markets was established in 2000. US headquarters is located in Charlotte, NC and South American operations in Curitiba, Brazil. Expansion to a Global benchmark service provider underway.



Introduction – Forest2Market

The only way to achieve a true measure and understanding of the market is to collect transactional data.

Forest2Market serves industries that consume wood raw materials:

- Wood products, pulp and paper products and lumber manufacturers
- Biomaterials, biofuels and biochemical producers

These industries rely on Forest2Market's market price reports, performance benchmarks, resource studies and supply chain expertise to make high value decisions and measure the results.

The company has long-term and loyal relationships in North America since 2000 with

- 100% of TIMOs
- 85% of large landowners
- 80% of the largest forest products companies

An Exponentially Better Business Model

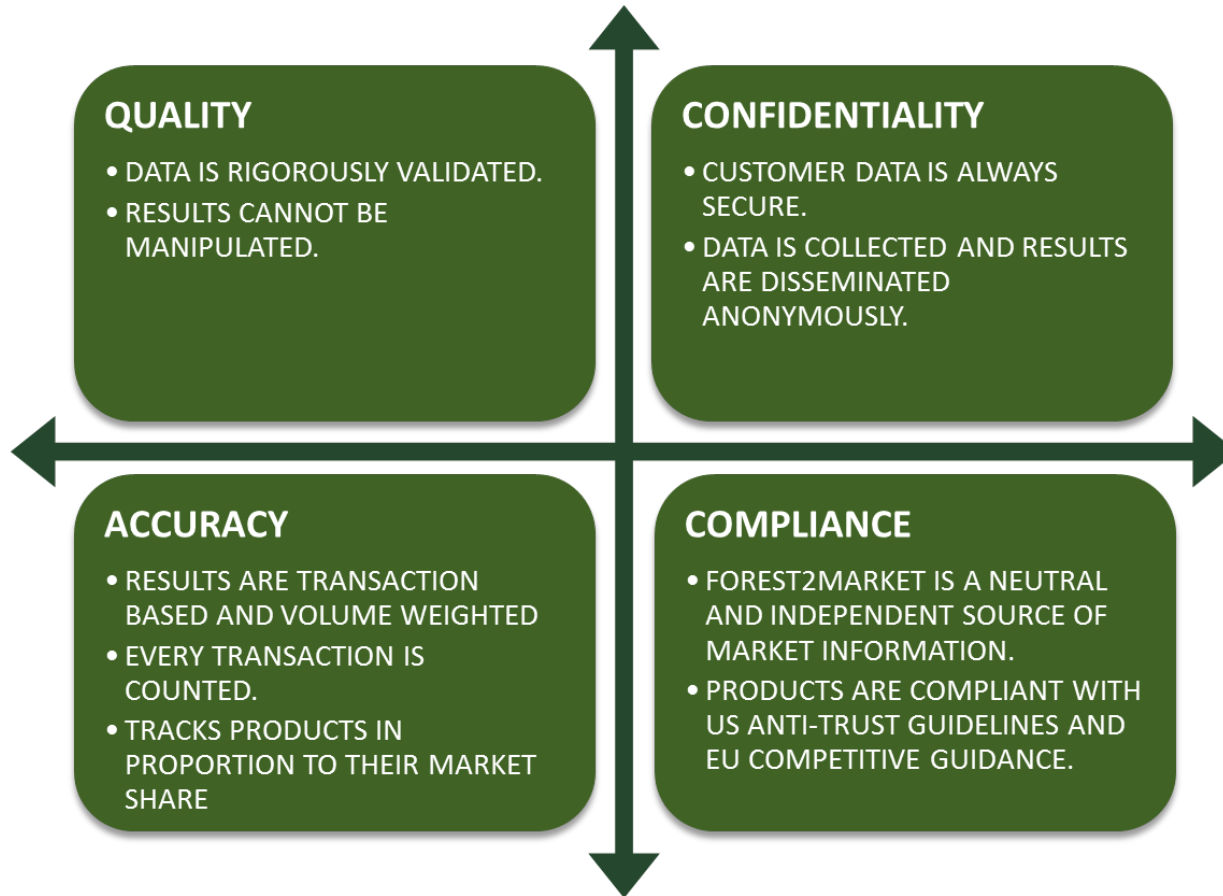
The foundation of all Forest2Market products and services is the unique, current and proprietary database of delivered wood raw material transactions and the underlying extensive data collection infrastructure that enables the collection of millions of market transactions every year (opened sales orders, purchase orders, scale tickets).

Forest2Market is a neutral third-party, independent in ownership and structure. While actively involved in the industries we serve, we do not buy or sell timberland, timber, lumber or biomass.



Introduction – Forest2Market

Forest2Market is a neutral and independent source of cost information.



Transaction-Based Benchmarks are inclusive of all transactions and are volume weighted to reflect actual market conditions and minimize spot market variability.

UNLIKE

Survey-Based Indexes may include only selective data and be biased towards unique products if those are overly weighted due to lack of a broader data set.



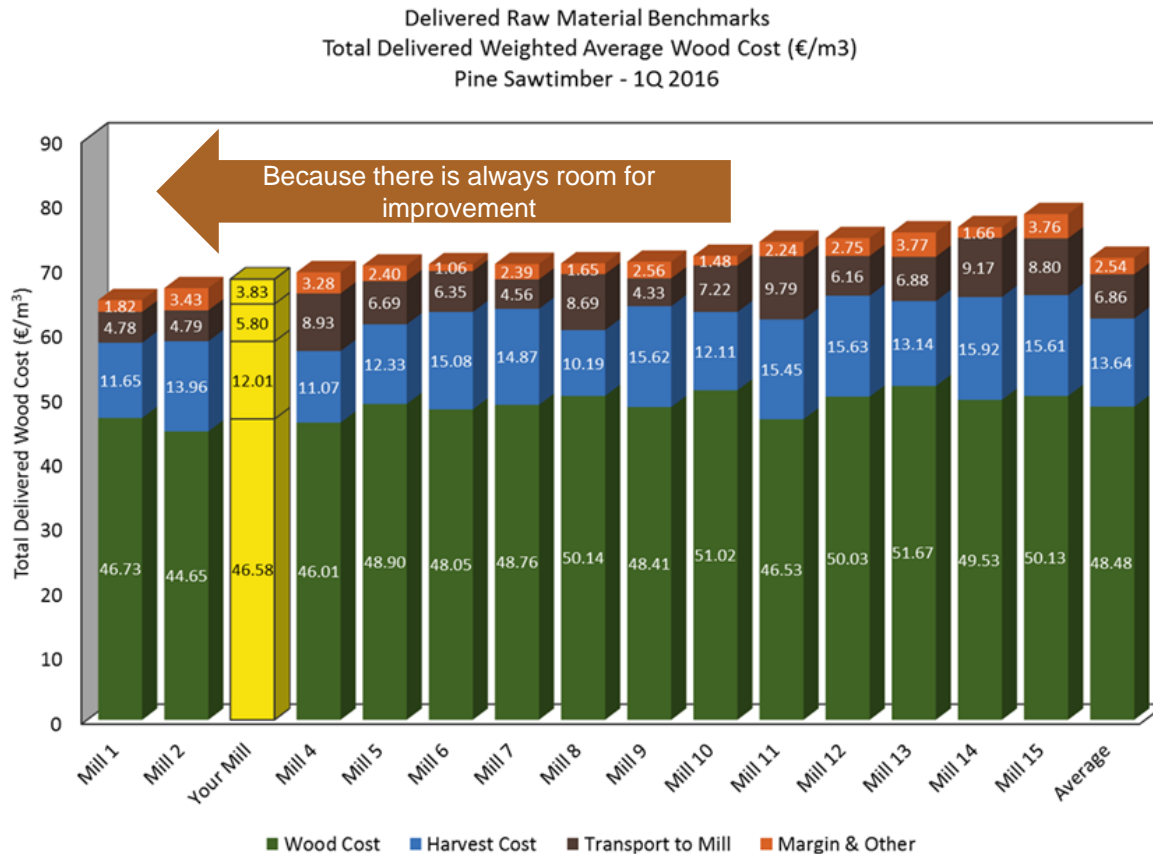
Benchmarking – Best Practices

Only participants to the service, that is, those that contribute data can get the benchmark report. Customers agree to give Forest2Market all of their transaction data for all their mills in certain geography. Each data transaction includes:



Benchmarking – Forest2Market Benchmarks

Forest2Market delivered raw material cost benchmarks are the standard against which suppliers and consumers of wood raw materials around world measure performance.



Identify market and cost position for cost-saving opportunities

Set goals

Compare results to the market, as well as the effects of decisions

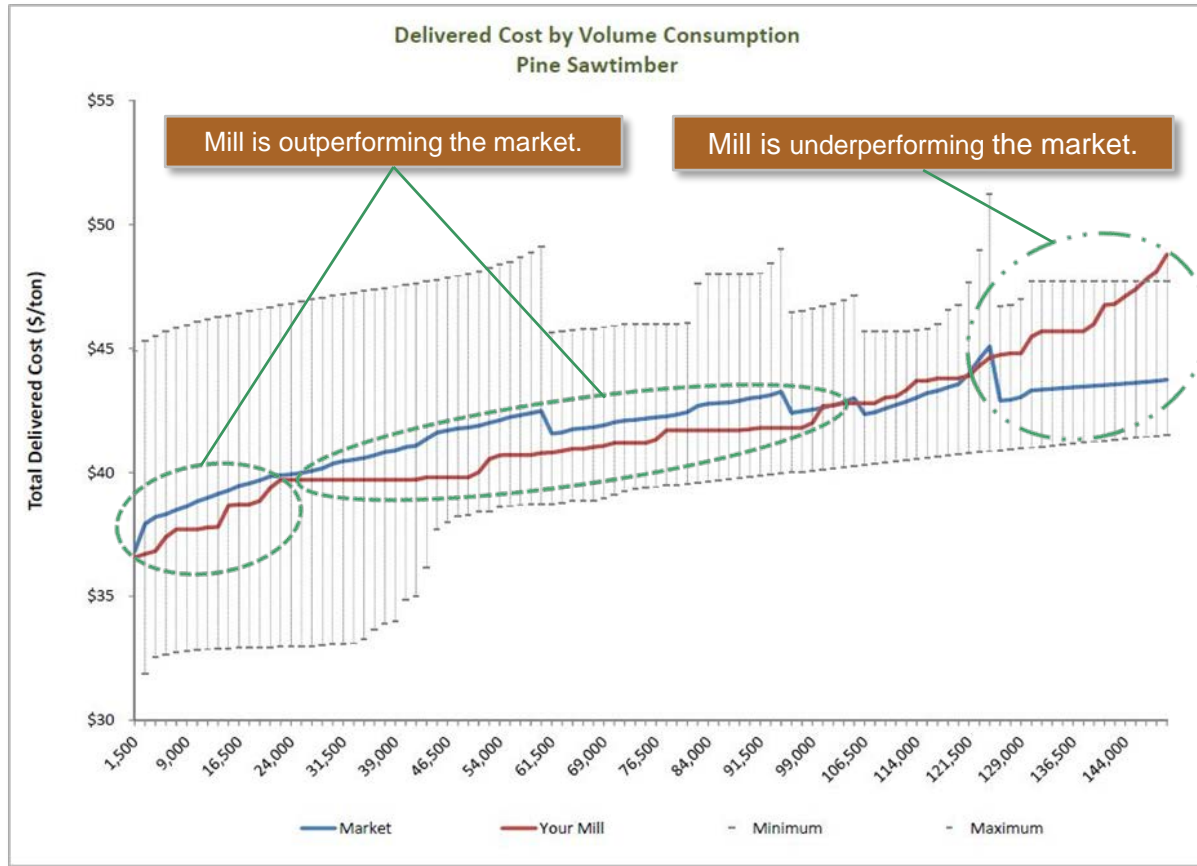
Improve staff and facility effectiveness

Strengthen trading relationships as well as investor, regulator and other stakeholders' trust



Benchmarking – Forest2Market Competitive Cost Curves

By comparing average mill costs to average market costs, competitive cost curves identify where a mill outperforms the market, and where it underperforms compared to the market.



Identify the causes of underperformance

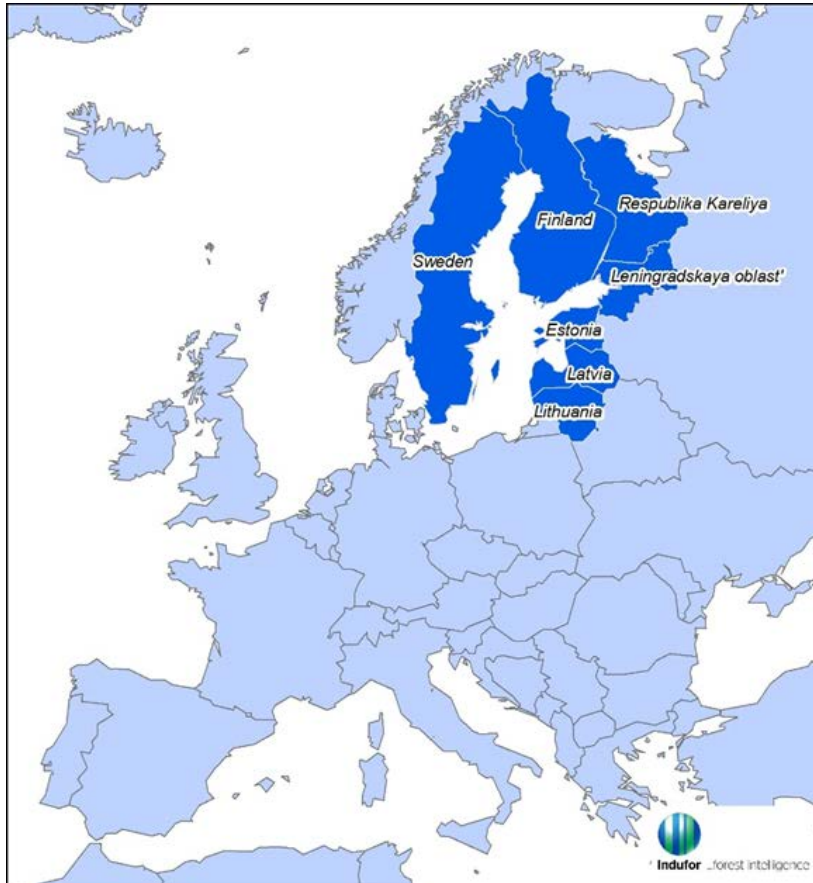
Recommend actions to replace higher cost volume with lower cost volume

Recommend actions for bringing costs into closer alignment with the market minimum, regardless of whether the mill is over performing or underperforming the market



Forest2Mill Baltic Rim Benchmark – Scope

In Q1/2017, Forest2Market produced Forest2Mill Baltic Rim Benchmark covering Sweden and Northwest Russia. Finland, Estonia, Latvia and Lithuania will follow in 2018.



Species

- Pine
- Spruce
- Birch
- Aspen

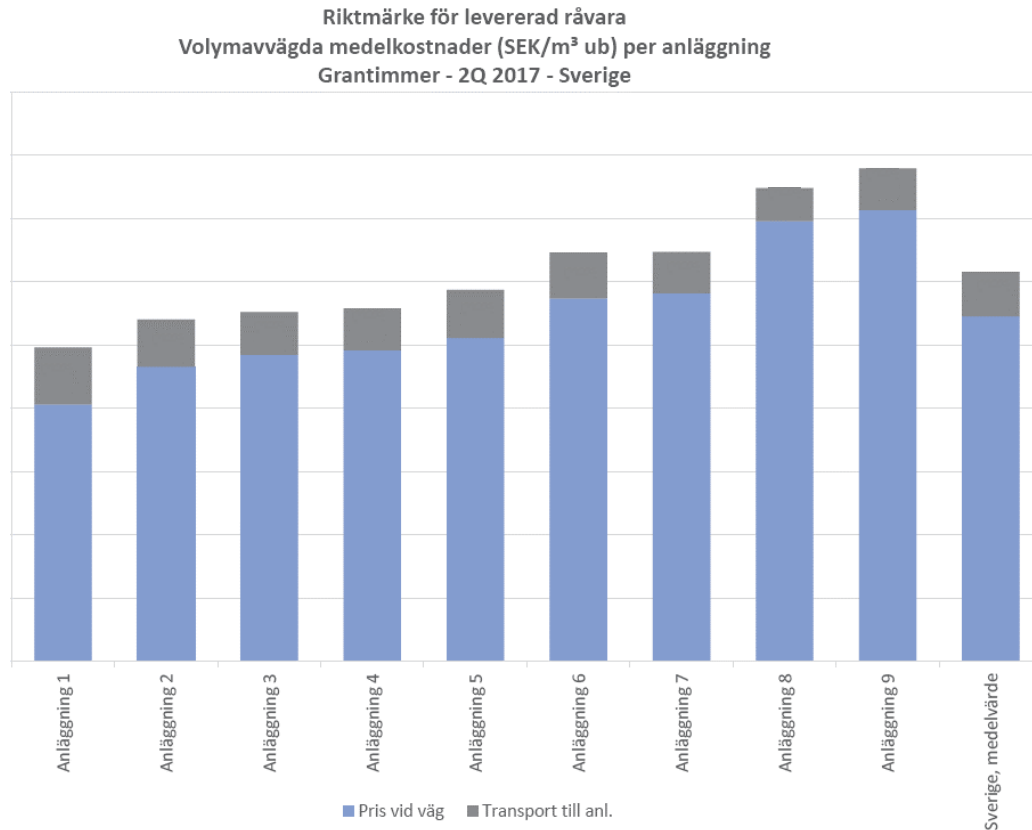
Products

- Logs
- Pulpwood
- Pulp chips
- Sawdust
- Forest chips



Forest2Mill Baltic Rim Benchmark – Initial Results

The results for 1Q and 2Q2017 show that in Sweden, there are significant differences in delivered wood costs for sawmills.



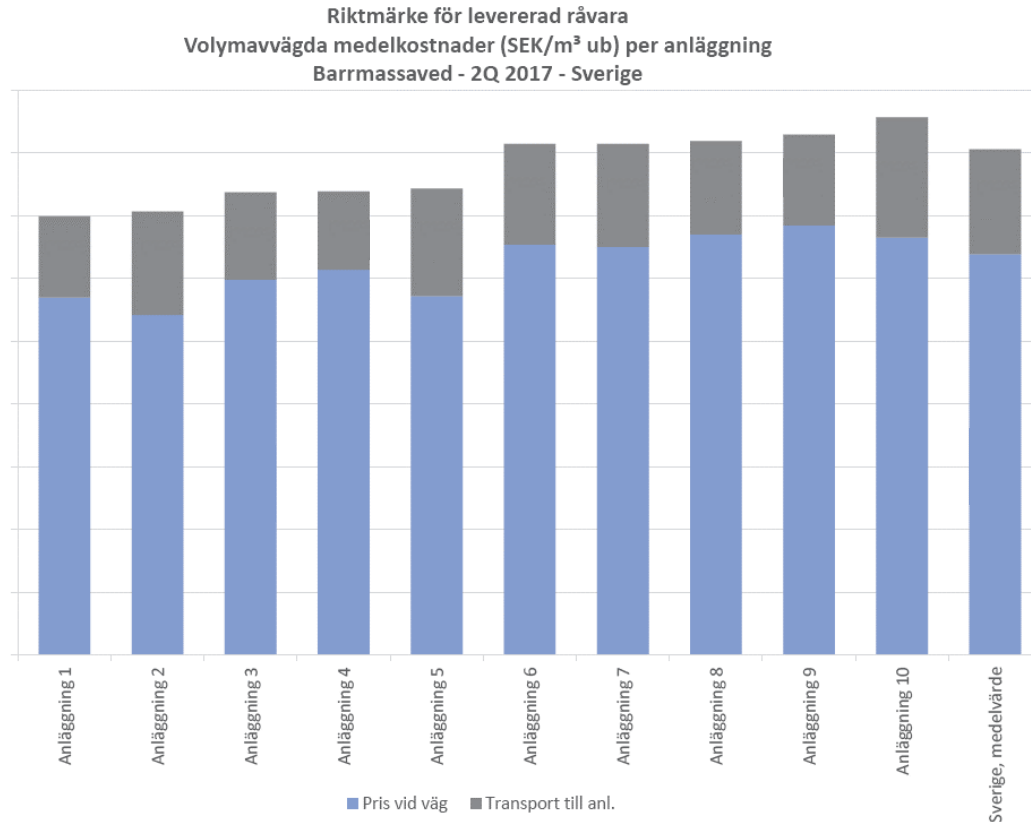
In 2Q2017, the highest-cost mill paid 57% more for delivered spruce sawlogs than the lowest-cost mill.

Annualized, for a sawmill consuming 500 000 m³ of sawlogs, the cost savings potential for the highest-cost sawmill can be 147 million SEK (15 million EUR).



Forest2Mill Baltic Rim Benchmark – Initial Results

The results for 1Q and 2Q2017 show that in Sweden, there are significant differences in delivered wood costs for pulp producers.



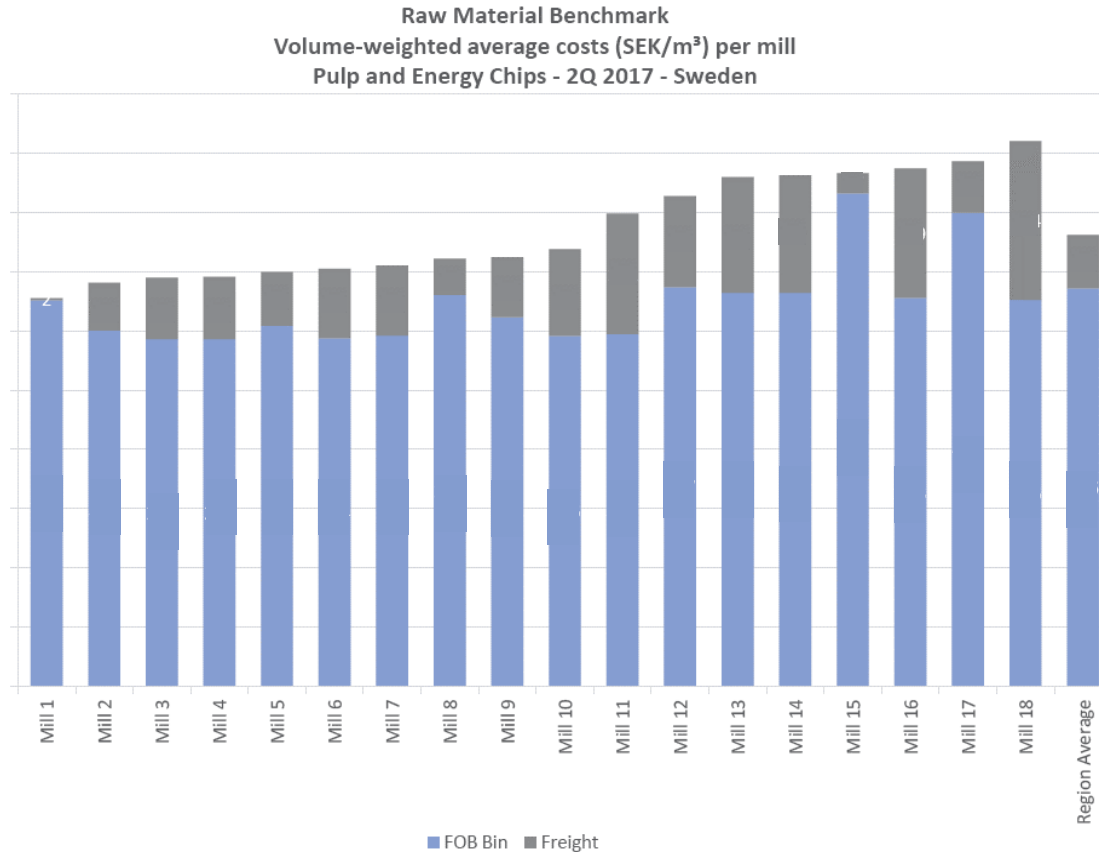
In 2Q2017, the highest-cost mill paid 22% more for delivered conifer pulpwood than the lowest-cost mill.

Annualized, for a mill consuming 2.5 million m³ of pulpwood, the cost savings potential for the highest-cost mill can be 200 million SEK (21 million EUR).



Forest2Mill Baltic Rim Benchmark – Initial Results

The results for 1Q and 2Q2017 show that in Sweden, there are significant differences in delivered pulp and energy chips for pulp and bioenergy producers.



Take Away Messages

- One of the most important services that Forest2Market can lend to the industry is to provide price transparency
- A high degree of price transparency leads to less volatility and better management of log costs and a healthier industry
- With a healthier industry, both buyers and sellers benefit by being able to better compete in the global market
- Forest2Mill Baltic Rim Benchmark is now up and running benefiting the participants.



Thank You for Your Attention!



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