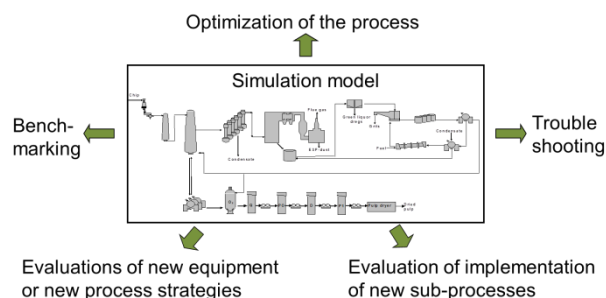


# Full mill model

## Process modelling

Process models are valuable tools for mills that are considering capacity increases, changes in operating strategy, or need to comply with stricter environmental regulations. Process simulations can be the basis for cost minimization or revenue maximization; they can also be used to assist during troubleshooting. With a comprehensive mill model, it is possible to study specific details while maintaining the broad overview of the whole process.

## Examples of the models

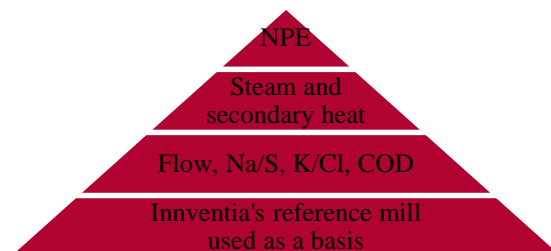


The simplest models consist of water and pulp, Na/S and basic organic matter (COD/TOC). Most simulation models also include K, Cl and other non-process elements. Steam balance with power generation and secondary heat system can be included. An initial model can further be developed as the need changes. The

models are built and used by Innventia on behalf of the customer. Some examples of model applications include troubleshooting in case of scale formation, evaluation of different strategies for bleach plant closure, or introduction of biofuel in the lime kiln and its effects on the NPE balance. Assessment of implementing various biorefinery processes as well as dynamic simulation of the mill processes can be conducted.

## Model of your mill

A model of a mill is created from Innventia's reference model modified to reflect a given mill at the desired detail level. The process starts with data collection and a sampling campaign in the mill; the necessary analyses could be made at Innventia or in the mill's own laboratory. The collected data and the composition of process streams are used to create the model. In the validation phase, discussions with the mill improve the accuracy of the model; after that, the model is ready to be used for investigating current issues at the mill or to evaluate different scenarios. Should new questions arise in the future the existing model can be applied to these new issues in a short time frame.



Please contact us for a discussion about how we may help you!

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