

world models. But only one has been manufactured for the Kondopoga Pulp and Paper Combine and only part of one for the Skytyvkar Timber Industry Complex, notwithstanding the 15 that are planned. Such experience will not be enough for our machine builders to compete with the leading foreign firms.

It is evident that we have learned little from the mistakes of the past and have failed to draw the correct conclusions from them. The purchase from foreign firms of machines that are 8 metres and more in trim width obviously means a higher unit capacity. But has anyone made a comprehensive, in-depth economic estimate of the prospects of using them to advantage? Almost certainly not. While the productivity of a machine when manufacturing a particular type of paper is determined by the product of the width and speed of the web, over the last 200 years the width has only increased 10-fold, whereas the speed has increased almost 200-fold. This is because the latter is achieved at lower cost. Also, the percentage of rejects is lower on the narrower machines and it costs less to maintain them.

In the near future the problem of whether to replace or modernize about 30 machines with trim widths of 6 to 6.72 metres will have to be faced. Some of them will have to be replaced by new ones, but not with 8-metre machines, for, where would we get them? Either they will be made by our machine builders by taking them away from building the present-day machines, or what is more likely, both the replacements and the modernization will be accomplished mainly through imports. And this despite the fact that the two largest plants in Europe were built 30 years ago for the very purpose of furnishing pulp and paper mills with up-to-date equipment and that two research and design institutes