

MEGGA TRENDS

by Raimo Laitinen, ANDRITZ

Megatrends are big, long-term changes that have a clear direction. They may consist of a group of smaller trends and phenomena. The most important ones are technological development, population growth and urbanization, shifts in economic power, and increasing environmental awareness caused by resource stress and climate change. For the pulp and paper industry, these megatrends emerge as both opportunities and challenges.

1 Technological advancements are changing how we shop, access information, communicate, and produce things.

The explosive growth of e-commerce is becoming an increasingly important driver for packaging materials demand. Individually delivered goods require significantly more packaging material than store-delivered goods. On the other hand, there is no denying that digitalization has put pressure on graphic paper demand. Global total and per capita consumption peaked in 2007 and has been in decline ever since.

Digitalization is revolutionizing the pulp and paper production processes. Industrial IoT solutions for quality measurement, predictive maintenance, and optimization offer many exciting opportunities for mill performance improvement.

2 World population is expected to grow from 7.6 billion to 9.8 billion by 2050. There will be approximately 2.5 billion more people living in cities than today.

Accelerating urbanization, which correlates with higher incomes, drives demand for pulp, paper, timber, and textiles. Urban areas also typically have higher waste paper collection rates, which provide greater opportunities for recycled paper and board producers.

Population growth without economic growth would not have a very dramatic impact on world paper consumption, because world population is growing fastest in the poor regions with very low per capita paper consumption (see Figure 2).

3 Global competition has moved production from the West to low-cost regions in Asia. This has shifted the global economic center of gravity to the East and is fueling the explosive growth of the middle class.

Fast economic growth in Asia is boosting incomes and increasing demand for paper products in the new manufacturing locations.

Growing middle class is probably the most important positive driver for the traditional pulp and paper products for the next decades. It is estimated that about 140 million people are joining the middle class annually and this rate is accelerating. An overwhelming majority of new entrants into the middle class will live in Asia.

4 Increasing environmental awareness is supporting demand for renewable, recyclable products.

Climate change is seen by many as the main threat to the well-being of our planet. This combined with competition for finite resources and ocean pollution caused by plastics is improving the status of all recyclable and renewable products, raw materials, and energy sources.

The pulp and paper industry has emerged as a solution provider for many of today's environmental issues and its image has improved considerably. Wood-based material and products are substituting fossil-fuel-based products in packaging, textiles, chemicals, construction materials, energy generation, and as fuels.

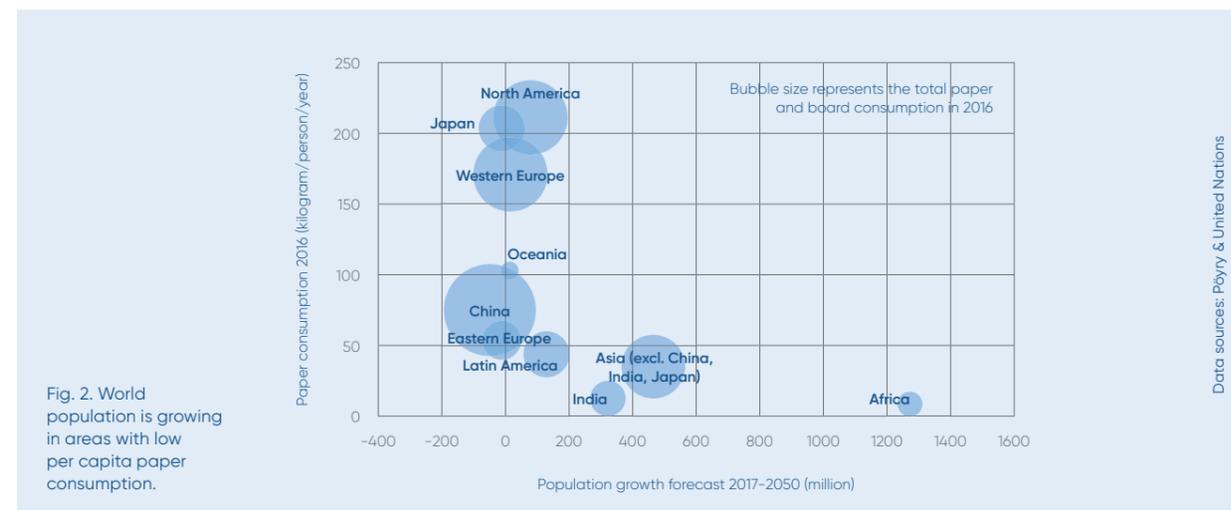
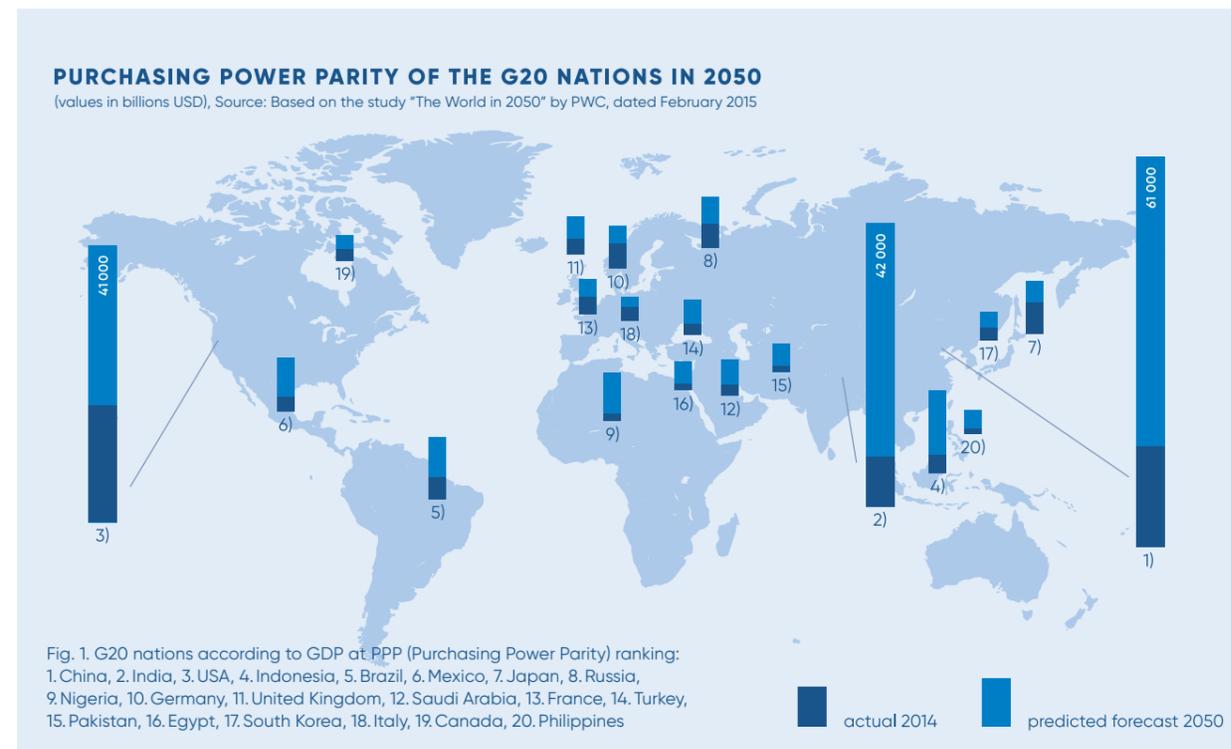


Fig. 3. Main challenges and opportunities for the pulp and paper industry.

Author: Raimo Laitinen
Director Business Intelligence
ANDRITZ Pulp & Paper