

AFRY Long Term Outlook
**World Paper Markets
up to 2035**

2023 EDITION

AFRY's new study, **World Paper Markets up to 2035**, offers insights into long-term trends in the paper and paperboard market, encompassing various supply and demand drivers that will shape the growth of the market in the coming years. The study itself is a direct result of AFRY's global business research activities, continuing our 40-year tradition of publishing periodic market studies for the pulp and paper industry cluster.

World Paper Markets up to 2035 – 2023 edition assesses the current scenario and long-term outlook for paper and paperboard markets by main product area, region and country. It is essentially a demand study describing the key trends and dynamics of the market, including demand drivers, end uses and growth patterns through 2035. The study also examines the industry structure and capacity changes by main product area and estimates supply by country considering past and current production, announced future entries/exits, competitive advantages of various geographies, and trade patterns. Besides standard chapters, the 2023 edition contains a selection of '**hot topics**' of the global bioindustry, including insights into China's future role in global economy and paper market growth, evolving FBB opportunities in North America, the sensitivity of the European paper industry on energy costs, and many more.

Asian companies
energy costs **power struggle**
evolving FBB opportunities
CAGR% **insights into China**
overcapacity **sustainability**
economic uncertainties
opportunities

For the paper industry, the past decade has been full of challenges following one another. With the universal move to digital communication, the demand for print has been on a steep decline, triggering massive shutdowns in the graphic paper sector and sizeable entries in the packaging board market through conversions and grade changes from graphics to packaging grades. The worldwide COVID-19 pandemic deepened the paper markets' decline as decreasing economic activity and lockdowns further contracted the demand for graphics and office papers, while hygiene and corrugated packaging businesses recovered more effectively.

WHO BENEFITS



The study will provide a valuable strategic platform and essential information for all business participants across the bioindustry cluster, including:

- pulp and paper companies,
- suppliers of machinery, equipment, chemicals and related inputs,
- investors, financiers, institutions,
- paper merchants and traders, logistics companies and other stakeholders.

The cyclical slowdown in the graphics paper market in 2020 seems to have expedited the secular decline of the paper market as people have become more accustomed to digital solutions. The question is – how is the global graphic paper market expected to develop after the current downcycle phase?

On a wider perspective, policy responses to COVID-19 - including border closures and lockdowns - resulted in significant supply chain disruptions and delivery schedule delays, leading to rising raw material and freight costs. In the aftermath of the pandemic, geopolitical incidents further aggravated the global supply chains, while economic sanctions led to rapidly increasing prices of energy and wood raw material. The paper industry, especially in Europe, faced an era of extremely high energy costs which could not be passed to consumers in full. With simultaneous deterioration of market conditions and decreasing prices, the paper industry posted significant profit declines in 2023. Even though a modest improvement in economic conditions is expected in 2024-2025, the business conditions for the paper industry will remain difficult. The proposed study shows, among other things, how resilient the European paper industry has been, in fact, and will be in the face of escalating energy costs.

Whilst the global paper and paperboard market has been on a roller coaster, the packaging board industry continues to build new, large-scale assets in the hope of gaining market share from unsustainable packaging solutions. However, at the same time, the industry risks to create a global glut in the fibre-based packaging market. Especially Asian companies have been active in packaging market investments. Would this trigger restructuring in their home regions or cause massive trade flows from East to West, given the simultaneous capacity build-up in Europe and the Americas? How is the power struggle between the Asian and Western packaging board industry expected to evolve?

Apart from the traditional global paper and paperboard market outlook, we are also updating our **speciality paper market** section that highlights the current consumption for over 70 speciality grades and their projected demand development through 2035. The exposure of the top global producers to various grades and a regional split of where capacities are located will shed light on the balance between Europe, North America and Asia.



PRODUCT AREAS

Newsprint

Printing/writing

- Uncoated wood-containing
- Coated wood-containing
- Uncoated woodfree
- Coated woodfree

Tissue paper

Containerboard

- Kraftliner
- NSSC Fluting
- Recycled containerboards

Cartonboards

Sack paper

Other paper & board

Speciality papers

- Over 70 grades



GEOGRAPHIES

Global overview and regional coverage

North America

Western Europe

- Nordic countries
- Rest of Western Europe

Eastern Europe

Middle East

Japan

China

Rest of Asia

Latin America

Africa

Oceania



MARKET PARAMETERS

Consumption volumes

Production volumes

Net trade



TIME SPAN

Historic data 2000–2022

Future outlook 2023–2035



Analysis and synthesis

Driving forces of the paper industry

- Demographics
- Economic growth
- Consumer behavior
- Distribution of advertising spending
- Circulation development
- Industrial production
- Technological development
- End use trends etc.

Demand trends through 2035, end uses, CAGR% by main product area

Production trends through 2035 by main product area

Trade flows and net trade by main product area

Paper industry structure by main product area

- Asset quality
- Main suppliers
- Industry concentration



Deliverables

Executive report covering all main grades by region and globally

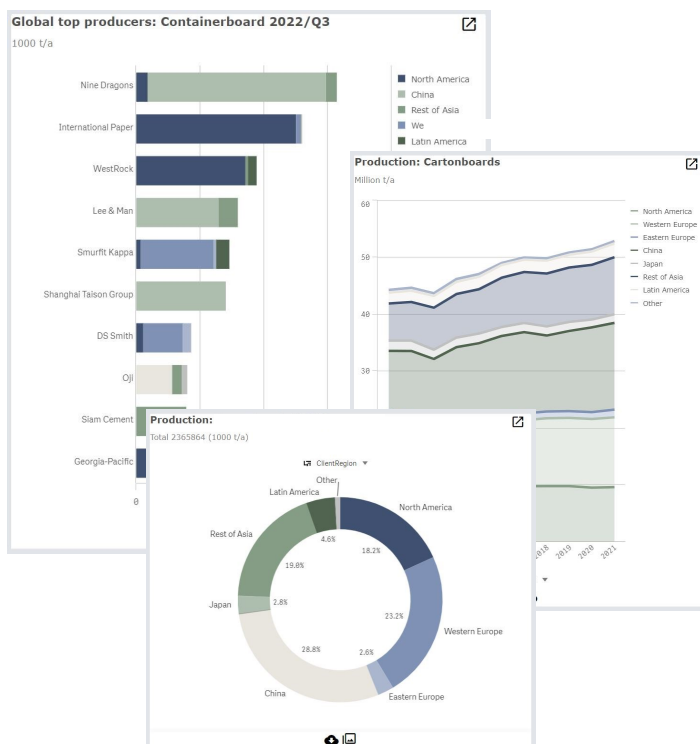
- Overview of 10 major product areas
- Graphical illustrations with key messages
- Text pages for issues covering in-depth description
- Global view split down to the main region
- Available in pdf format

Statistical annexes accessible and downloadable via the web platform

- For over 80 countries or country groups
- Personal visualisation and drill-down ability via web platform
- Possibility to merge data across product areas and countries/regions
- Option to download data behind the report charts
- First delivery available in late 2023
- Outlook updates available in late 2024 and 2025



Digital platform



Digital platform in AFRY Smart

All data will be available and visualised via an online data platform, where charts from the report will be made accessible through a browser-based platform. This provides the option to download data behind the report charts.

Furthermore, a 'free browse' option enables you to merge data across regions or grades. Annual data and forecast updates will be available through the online platform as well.

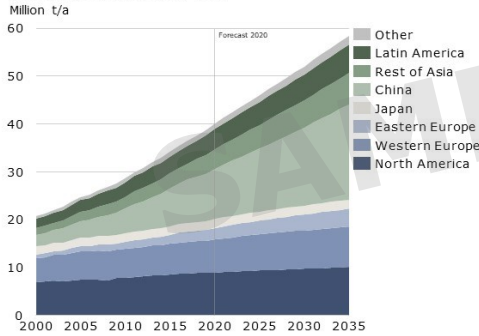
Overall, this enables you to combine, visualise and download the most recent data based on your specifications.

TISSUE PAPER DEMAND BY REGION AND GROWTH

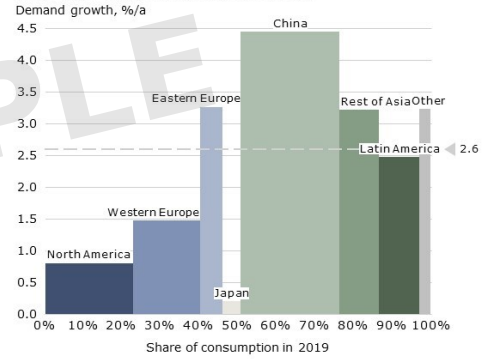
TISSUE PAPER

In the emerging economies, an increase of personal income pushes tissue consumption much stronger than in the more mature economies

DEMAND BY REGION 2000-2035



LONG-TERM DEMAND GROWTH 2019-2035



Note: This chapter relates to tissue paper for converting
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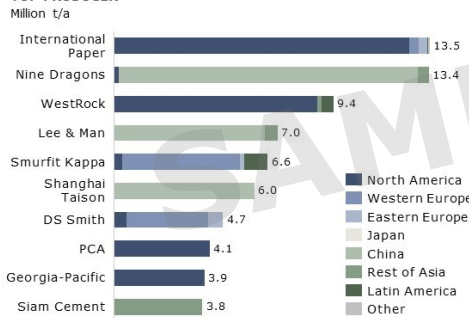


CONTAINERBOARD TOP PRODUCERS AND INDUSTRY CONCENTRATION

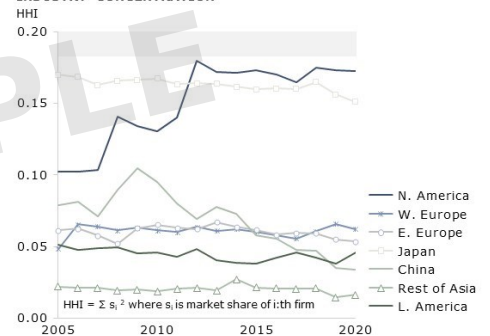
CONTAINERBOARDS | PACKAGING PAPERS

Largest corporations are located in North America and China; the industry is very fragmented in all regions outside North America and Japan

TOP PRODUCER



INDUSTRY CONCENTRATION



Note: Decreases in the Herfindahl-Hirschman index (HHI) generally indicate a loss of market power and increase in competition, while increases imply the opposite. An industry is considered to have market power if its concentration exceeds the level of 0.18-0.20

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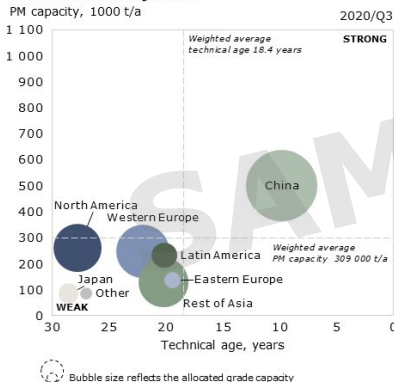


CARTONBOARDS REGIONAL AND TOP PRODUCER ASSET QUALITY

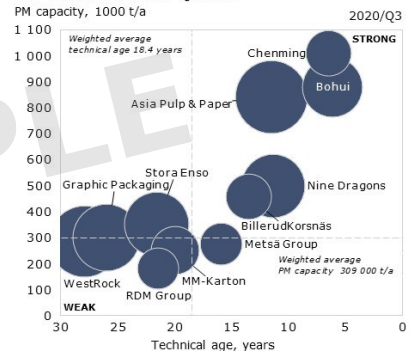
CARTONBOARDS | PACKAGING PAPERS

Chinese companies have invested heavily in large-scale cartonboard machines in the past two decades

REGIONAL ASSET QUALITY



TOP PRODUCER ASSET QUALITY



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World Paper Markets up to 2035

2023 EDITION

Subscription alternatives

- | | | |
|--------------------------|---|---------------------------|
| <input type="checkbox"/> | Executive report (pdf) + Digital data tool in AFRY Smart ¹⁾ available in late 2023 | 16 000 EUR (excl. VAT) |
| <input type="checkbox"/> | Executive report (pdf) + Digital data tool in AFRY Smart + data updates 2024 & 2025 ²⁾ | 30 000 EUR (excl. VAT) |

1) PDF report issued in Dec 2023 + digital data tool access for up to 10 users for one year, larger number of users can be agreed on a case basis + payable upon ordering

2) PDF report issued in Dec 2023 + digital data tool access for up to 10 users until the end of Dec 2026, larger number of users can be agreed on a case basis, + updates of data and forecast available in Dec 2024 and Dec 2025 + payments split in three instalments of 10 000 EUR, payable upon ordering and in Dec 2024 and Dec 2025

Contact details:

Christoph Euringer

Principal
christoph.euringer@afry.com
Tel. +49 175 430 8386

AFRY Smart

Minna Luukka

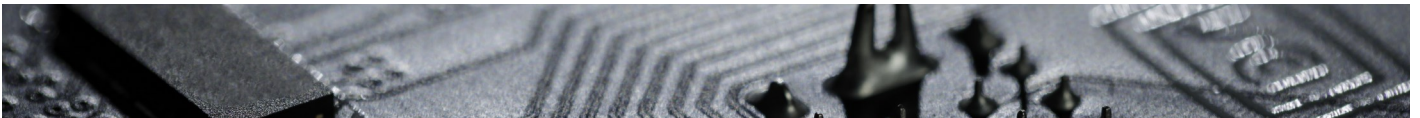
Manager
minna.luukka@afry.com

Tatyana Yakunina

Manager
tatyana.yakunina@afry.com
Tel. +358 50 307 7569

AFRY Management Consulting Oy

P.O.Box 4, Jaakonkatu 3
FI-01621 VANTAA
Finland



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