

The background of the slide is a faded image of a pulp mill facility with various buildings, pipes, and a large pile of wood chips. A vibrant rainbow graphic is positioned in the top right and bottom left corners, curving around the central text.

# **TTO BMA™**

## **Market Update Milan Pulp Week**

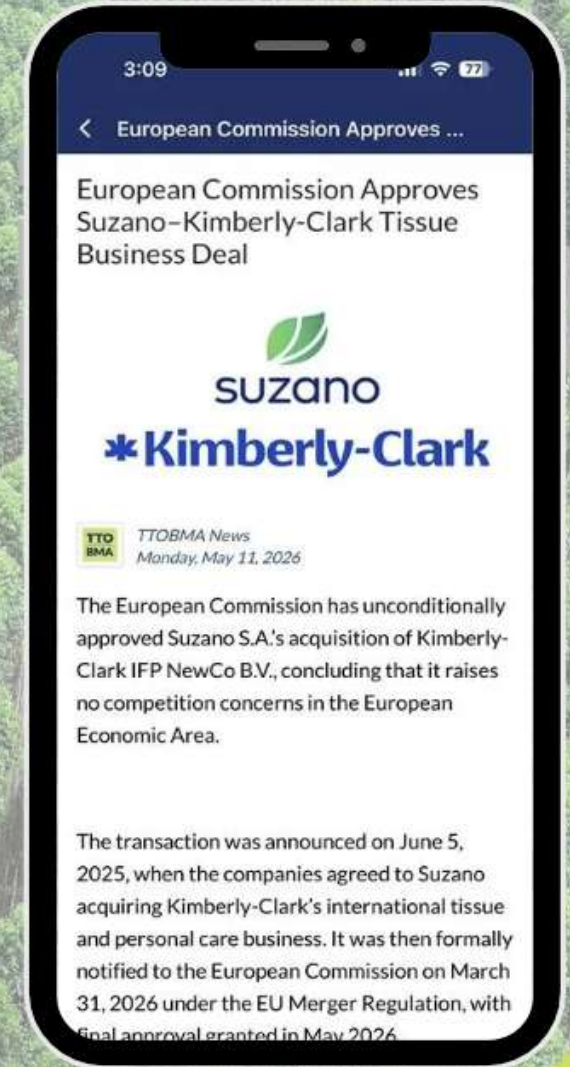
**June 2026**

## Market Intelligence

- Monthly reports and commentary covering the market pulp, recovered paper, and tissue markets
- Price forecasts and long-term outlook work
- Market presentations, infographics, and videos
- Market intelligence tools and database
- Management consulting including market research, strategy, and investment analysis

## Net Pricing Indices

- Open-market net-price indices
- Pulp price indices include: NBSK, BHK, SBSK, UKP, Fluff pulp, BCTMP and Dissolving pulp
- Recovered Paper North America including: OCC, SOP, Hard White, Light Print, and Mixed Paper
- Tissue North America including: Virgin Bath, Virgin Towel, Recycled Bath and Recycled Towel
- Downstream Tissue North America including: Ultra bath, premium bath, ultra towel, premium towel
- TTO Now real-time pricing – China, Latam, and Japan pulp and paper prices (more grades/regions being added!)



# Pulp market is booming

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1. NBSK – where can I find it?!



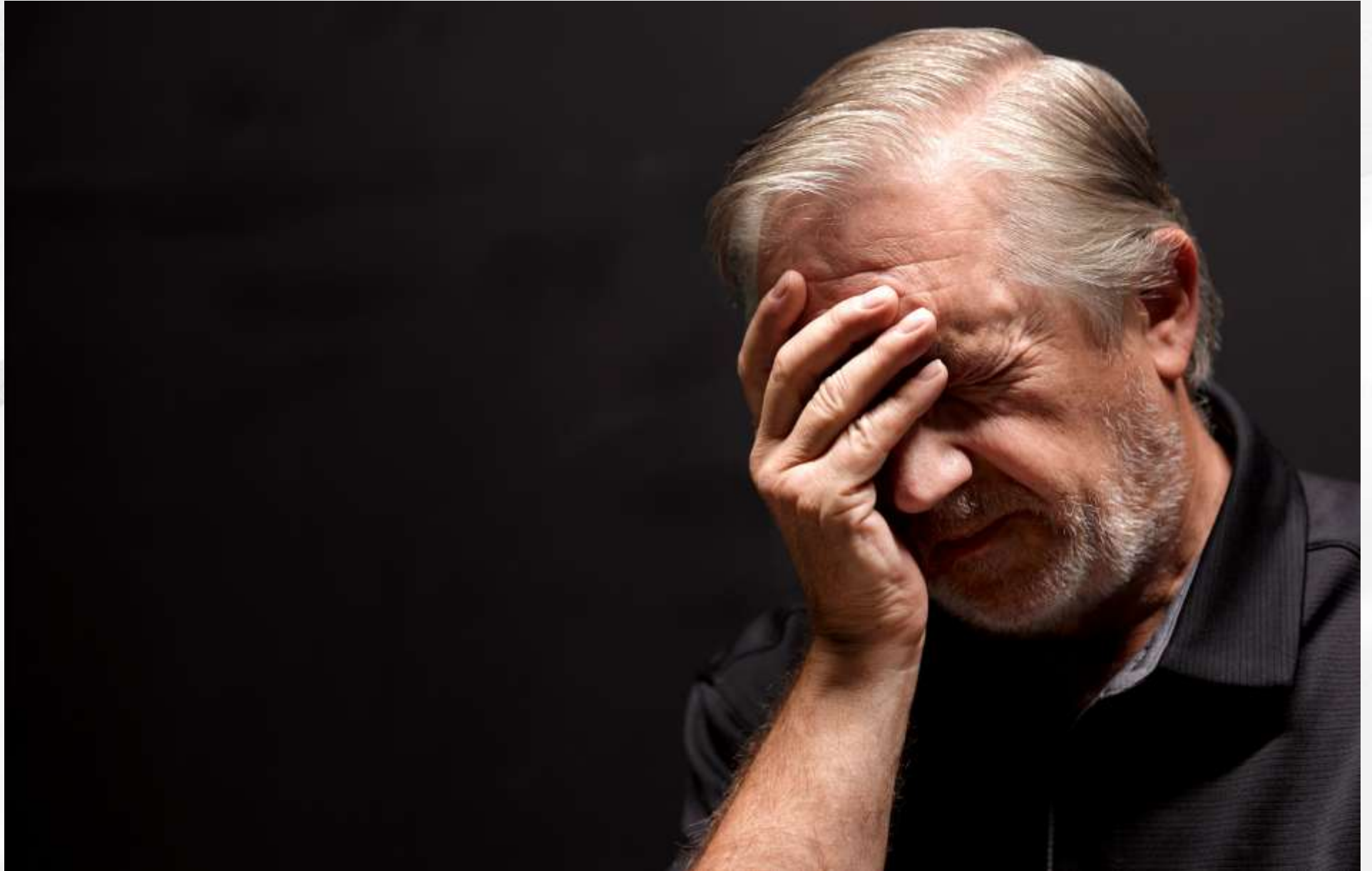
2. Why is demand so strong?!



3. Pulp market : **RED HOT!**

# Meetings this year

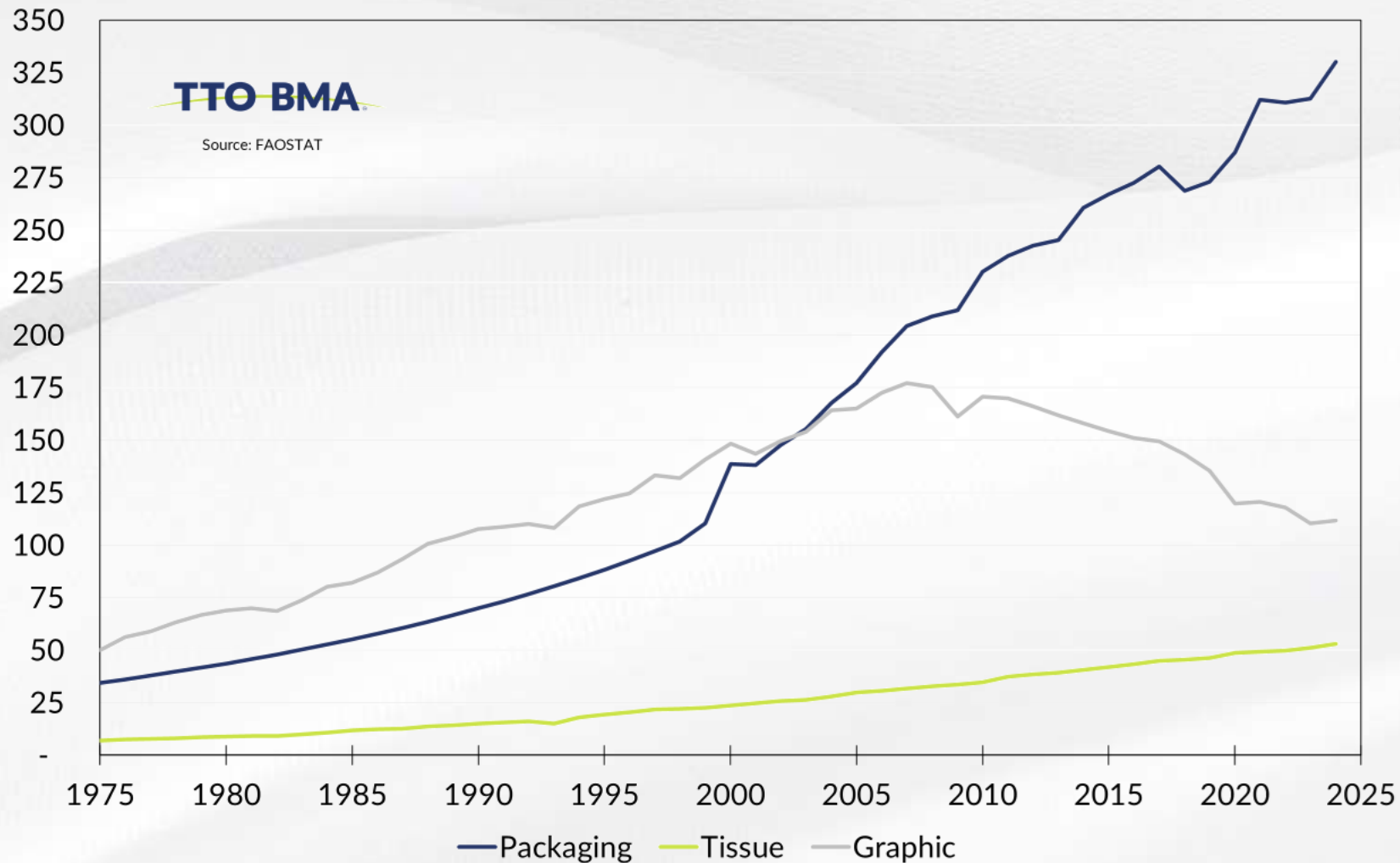
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# Structural change in industry

## World Paper & Board Demand by End-Use

Million MT, 1975-2024



# Major shifts playing out

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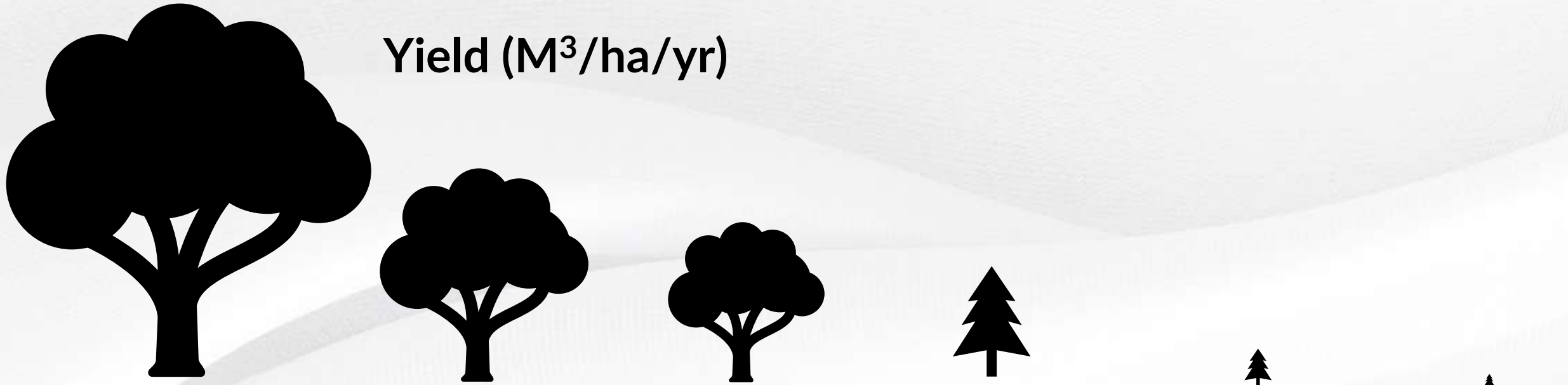
**1. BHK taking share from BSK**



**2. China pulp and paper production plays by different rules and West needs to adapt**

# Productivity of Forests

Yield (M<sup>3</sup>/ha/yr)









Avg. time to harvest (years)



# Demand by Grade

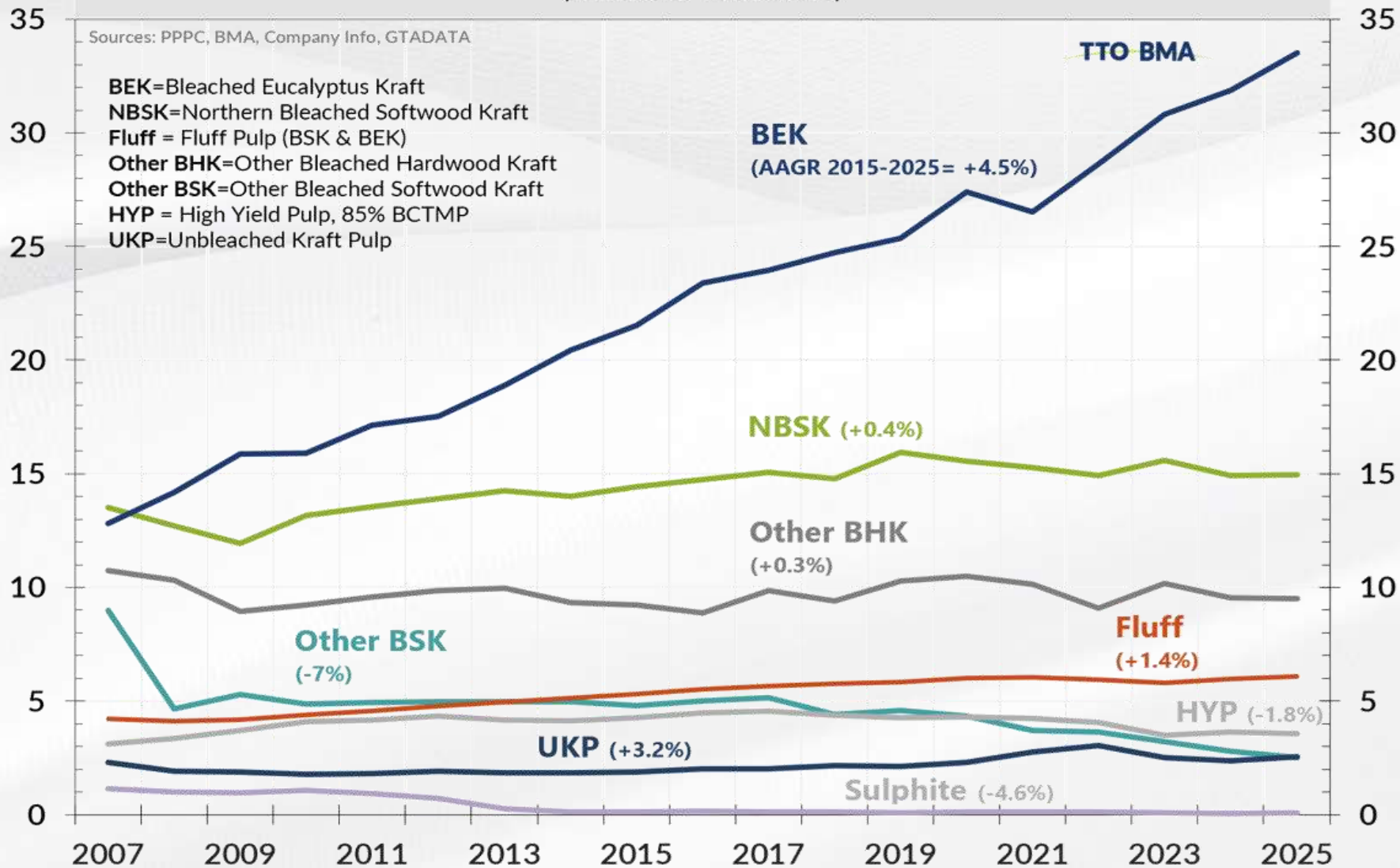
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## Pulp Grades 2025 Total

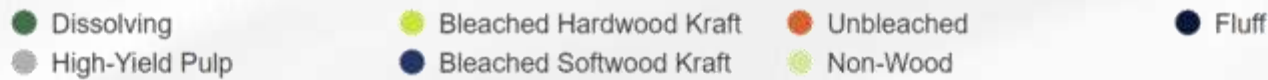
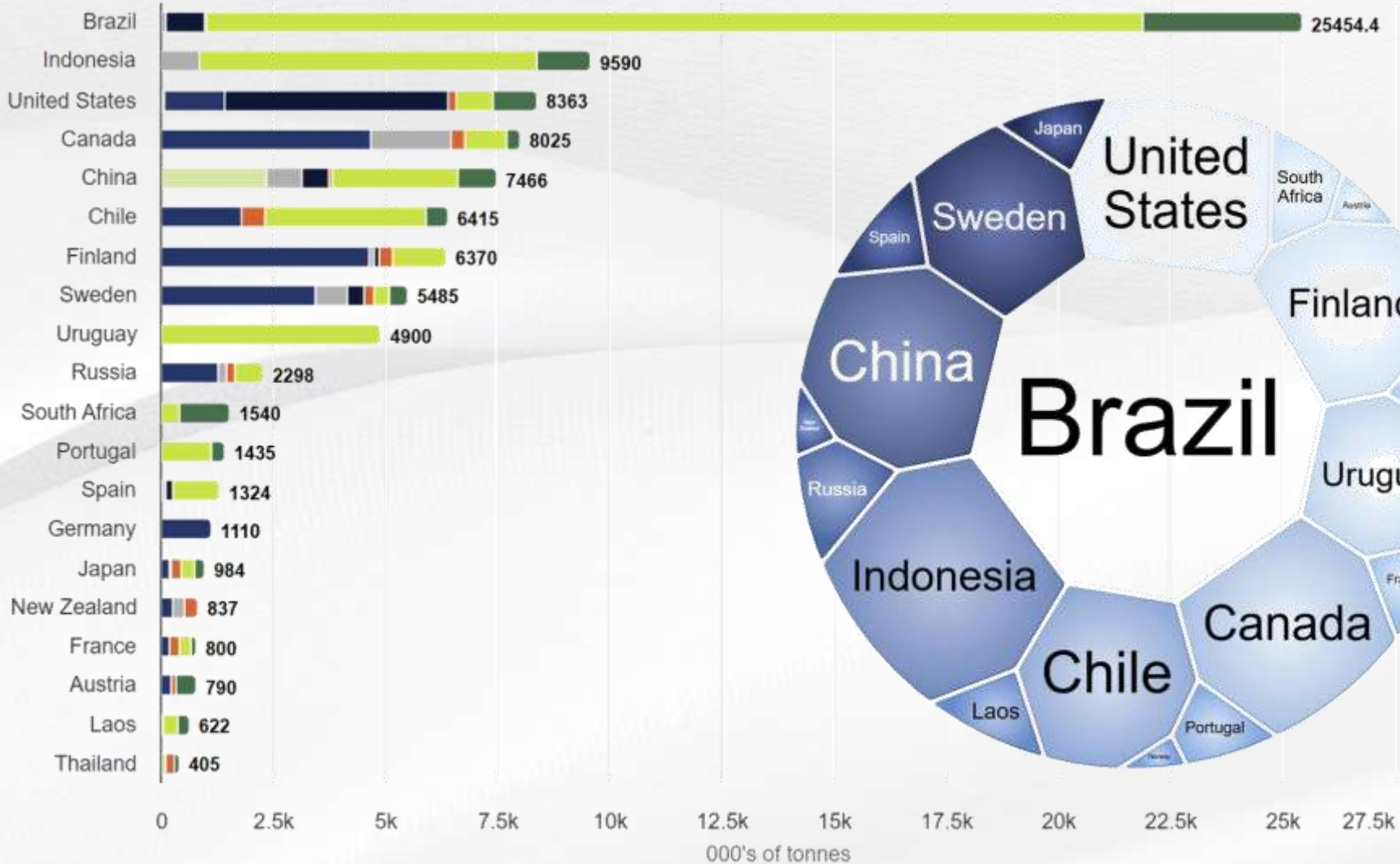
<b>BSK</b>		18,268
<b>BHK</b>		44,304
<b>HYP</b>		3,550
<b>UKP</b>		2,528
<b>Fluff</b>		6,101
<b>Dissolving</b>		8,212
<b>TOTAL</b>		82,962

## World Market Pulp Shipments by Grade through 2025

(millions of metric tons)



# Market Pulp Capacity by Country



# Softwood Made in Slower Growing, Higher Cost Regions

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Total BSK Capacity (2024)



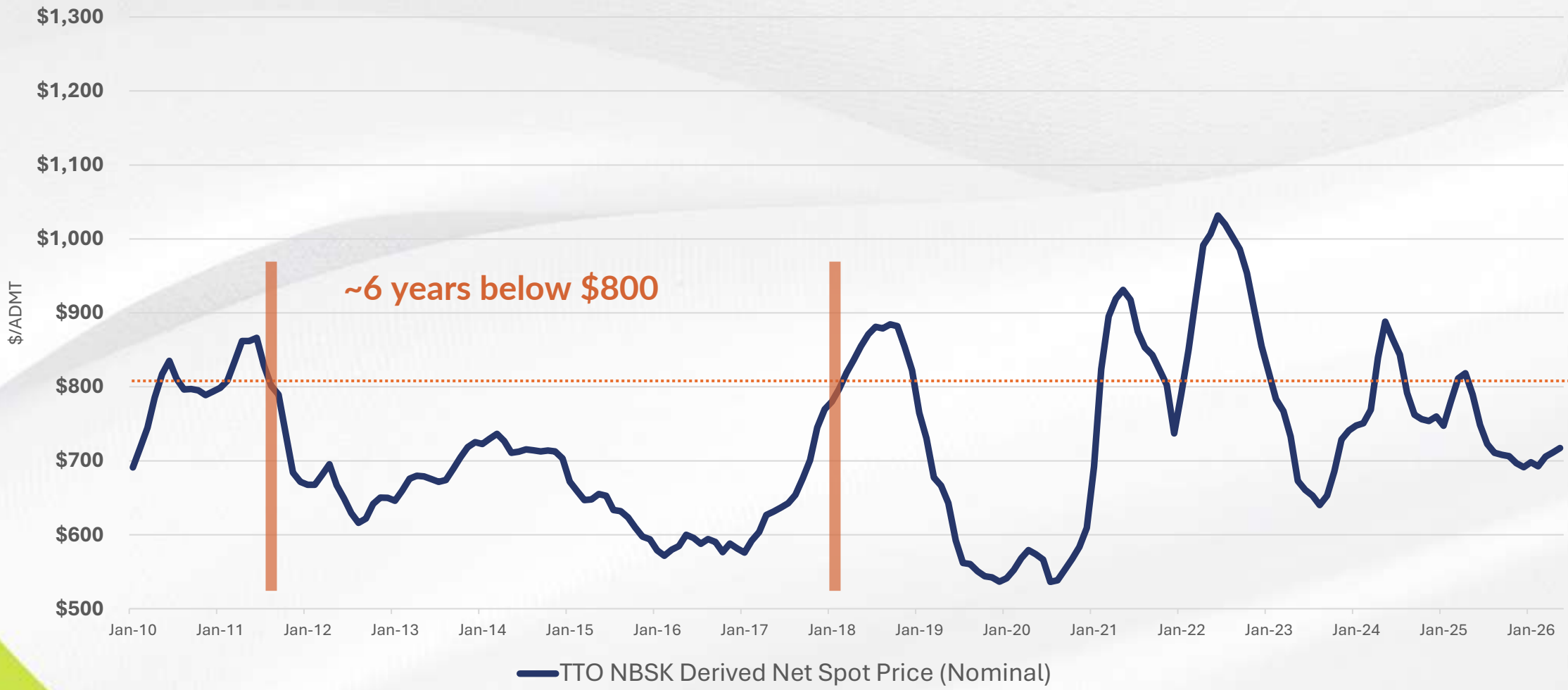
Total BHK Capacity (2024)



# Historical NBSK Market Pulp Prices

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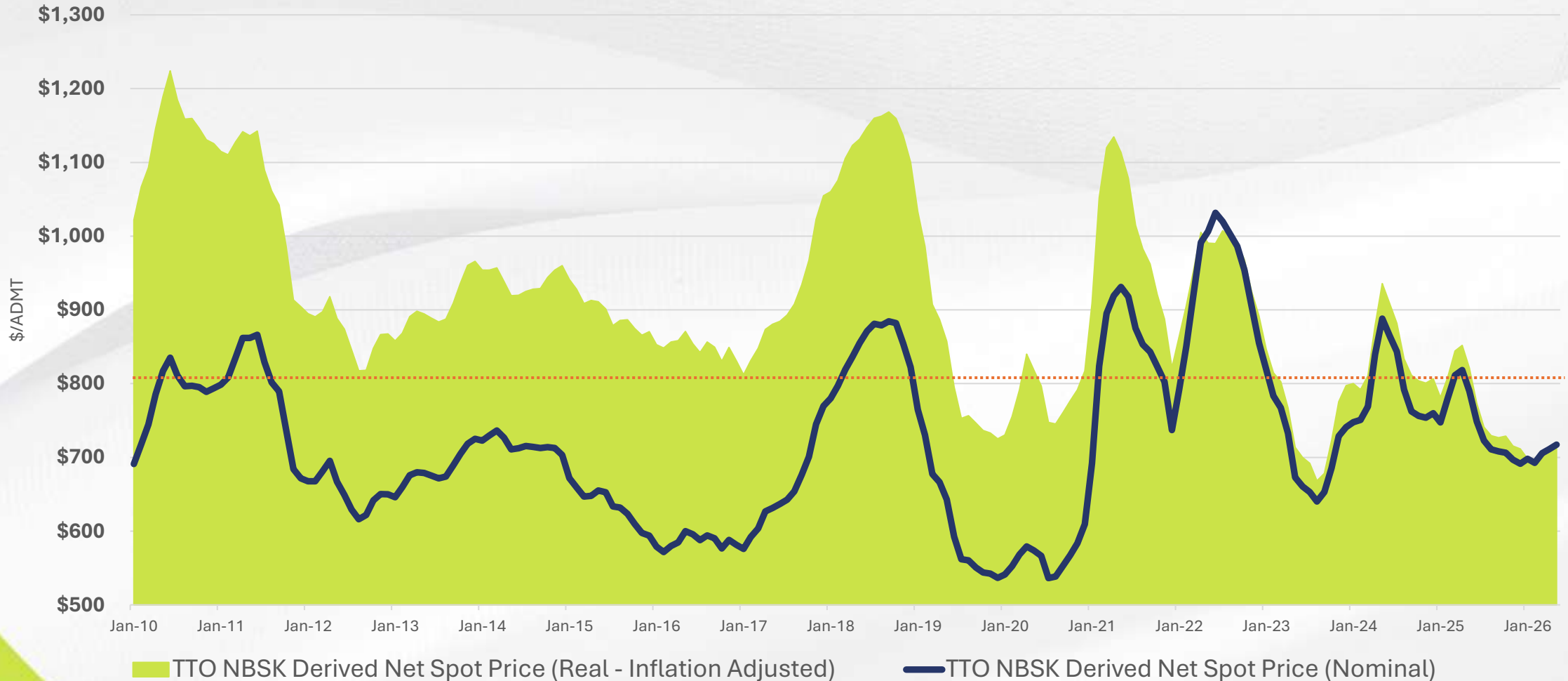
## TTO Europe NBSK Net Price



# Inflation – Prices Putting Pressure on SWD

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## TTO Europe NBSK Net Price (Nominal vs Real)



# >5M Tons of SWD Capacity Closed since 2022

Global Softwood Capacity Closure Announcements					
Kt/Y. Since 2022					
Country	Company	Mill	Grade	Capacity Lost Kt/Y	Closure Announcement
United States	Domtar	Calhoun	SBSK	90	2022
Canada	West Fraser	Hinton	NBSK	380	2022
United States	West Rock	Panama City	Fluff/SBSK	215	2022
Finland	Stora Enso	Sunila	NBSK	225	2023
Canada	Paper Excellence	Espanola	NBSK	220	2023
United States	Nine Dragons	Old Town	UKP	160	2023
United States	West Rock	Tacoma	UKP	70	2023
Canada	Canfor	Prince George	NBSK/UKP	280	2023
Chile	Arauco	Liancel	UKP	155	2023
United States	International Paper	Pensacola	Fluff/SBSK	355	2023
United States	International Paper	Riegelwood	Fluff/SBSK	145	2023
United States	Georgia Pacific	Foley	Fluff/SBSK/SW DF	450	2023
Canada	Birla	Terrace Bay	NBSK	30	2024
Canada	RYAM	Temiscaming	SW DP	150	2024
Canada	Canfor	Northwood	NBSK	300	2024
United States	International Paper	Georgetown	Fluff/SBSK	320	2024
New Zealand	Winstone Pulp	Karioi	SW BCTMP	215	2024
Canada	Domtar	Crofton	NBSK	380	2025
United States	Domtar	Coosa Pines	Fluff/SBSK	265	2026
Sweden	Stora Enso	Skutskär	NBSK/NBHK	140	2026
France	Fibre Excellence	Tarascon*	UKP	250	2026
France	Fibre Excellence	Saint-Gaudens*	SBSK/SBHK	280	2026
<b>Total</b>				<b>5.75 MMT</b>	

\* indicates idle

**\*\* More than 1.3M tons out since December 2025**

# Capacity Closures Concentrated in NA, EU

### Global BSK Closures (Since 2015)



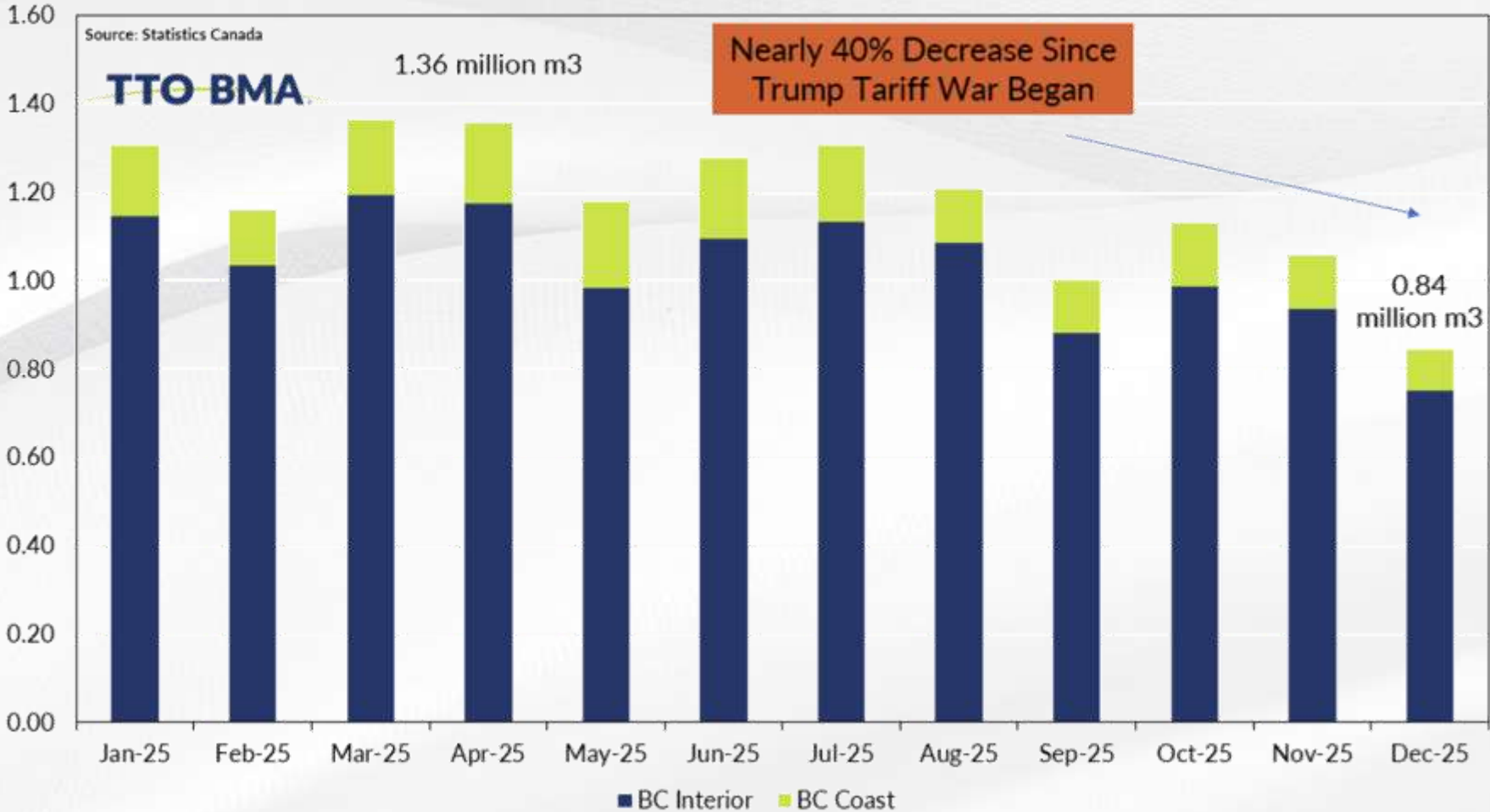
### Multiple Injuries Reported After Chemical Explosion at Longview Paper Mill



# Canadian Lumber Down After US Tariff Increase

## British Columbia Lumber Production – Coast & Interior

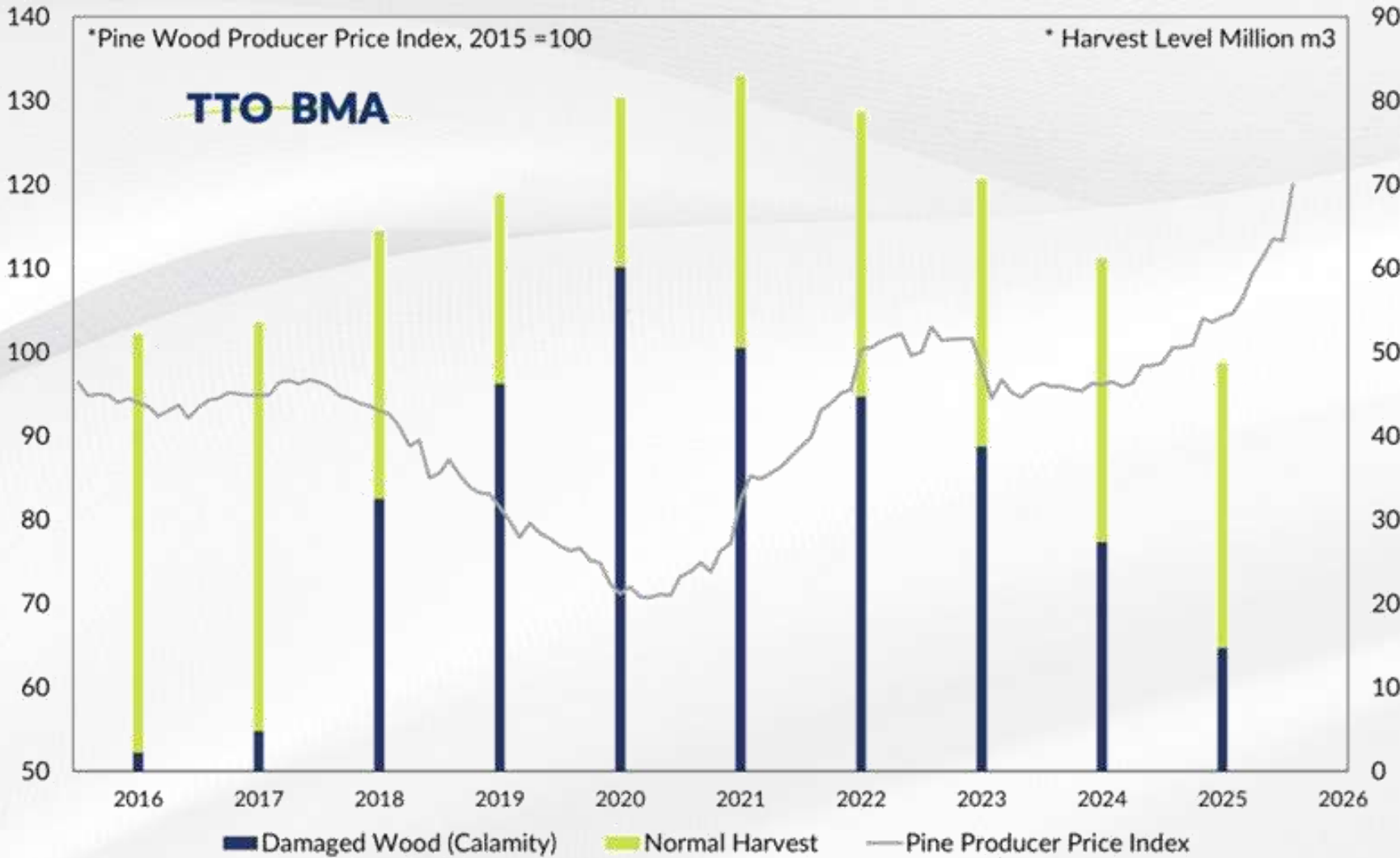
Million m3 per Month, January 2025 to Present



# Germany Wood Supply a Concern Moving Forward

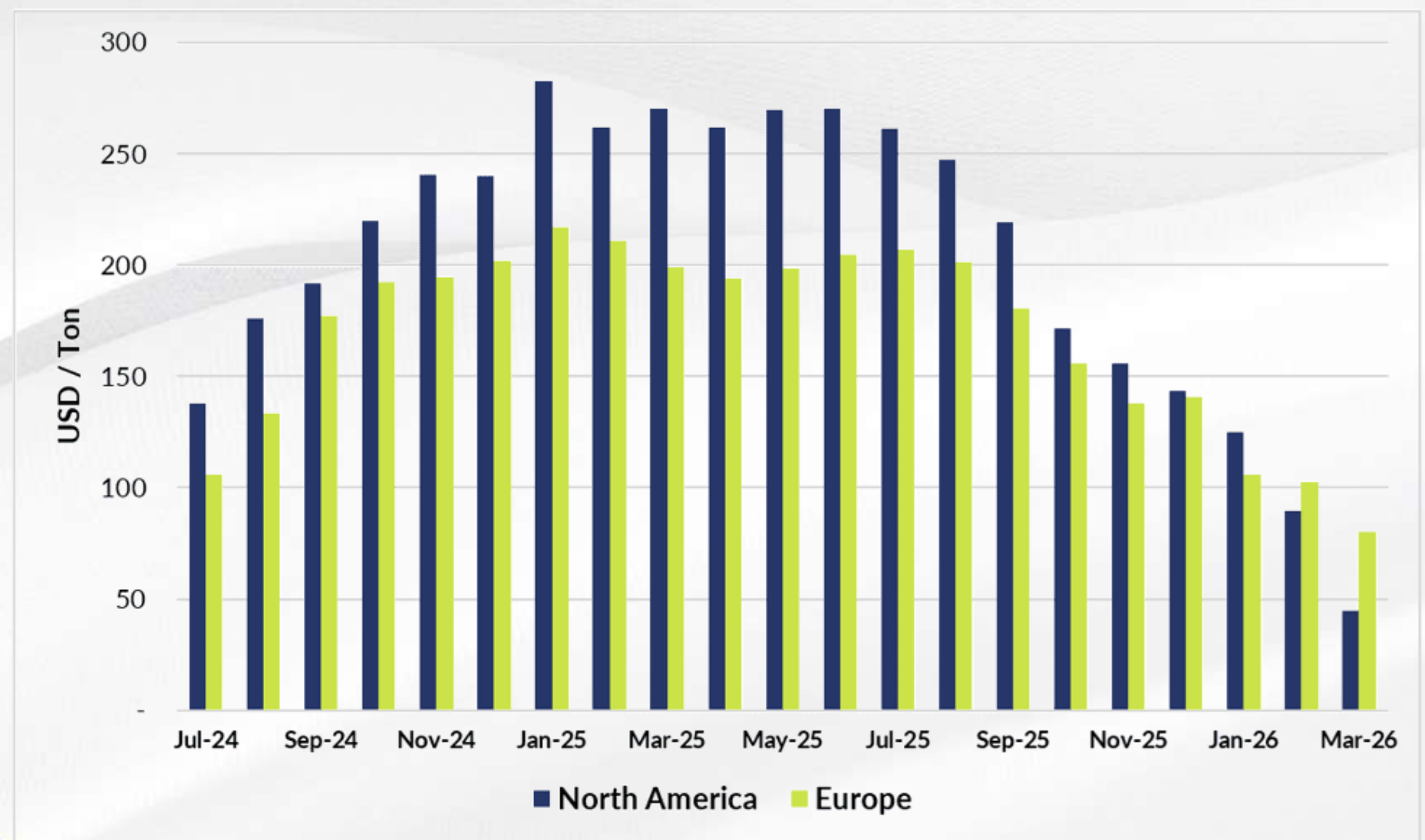
## Germany – Wood Harvest vs. Pine Wood Price

Wood Harvest = Normal Harvest + Damaged Wood, 2016 – 2026

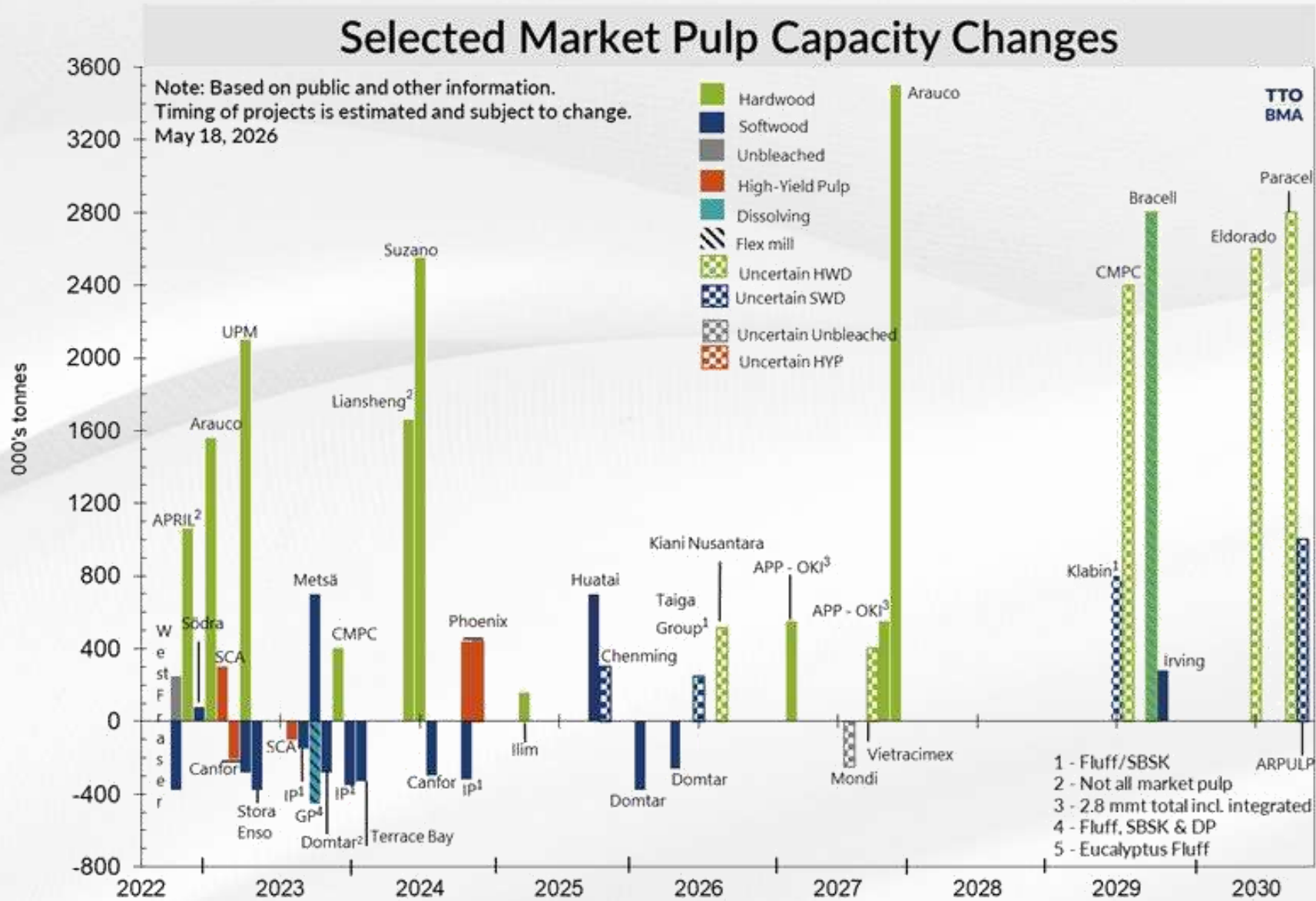


# Reduced Gap Hasn't Led to Big Shift in Mix

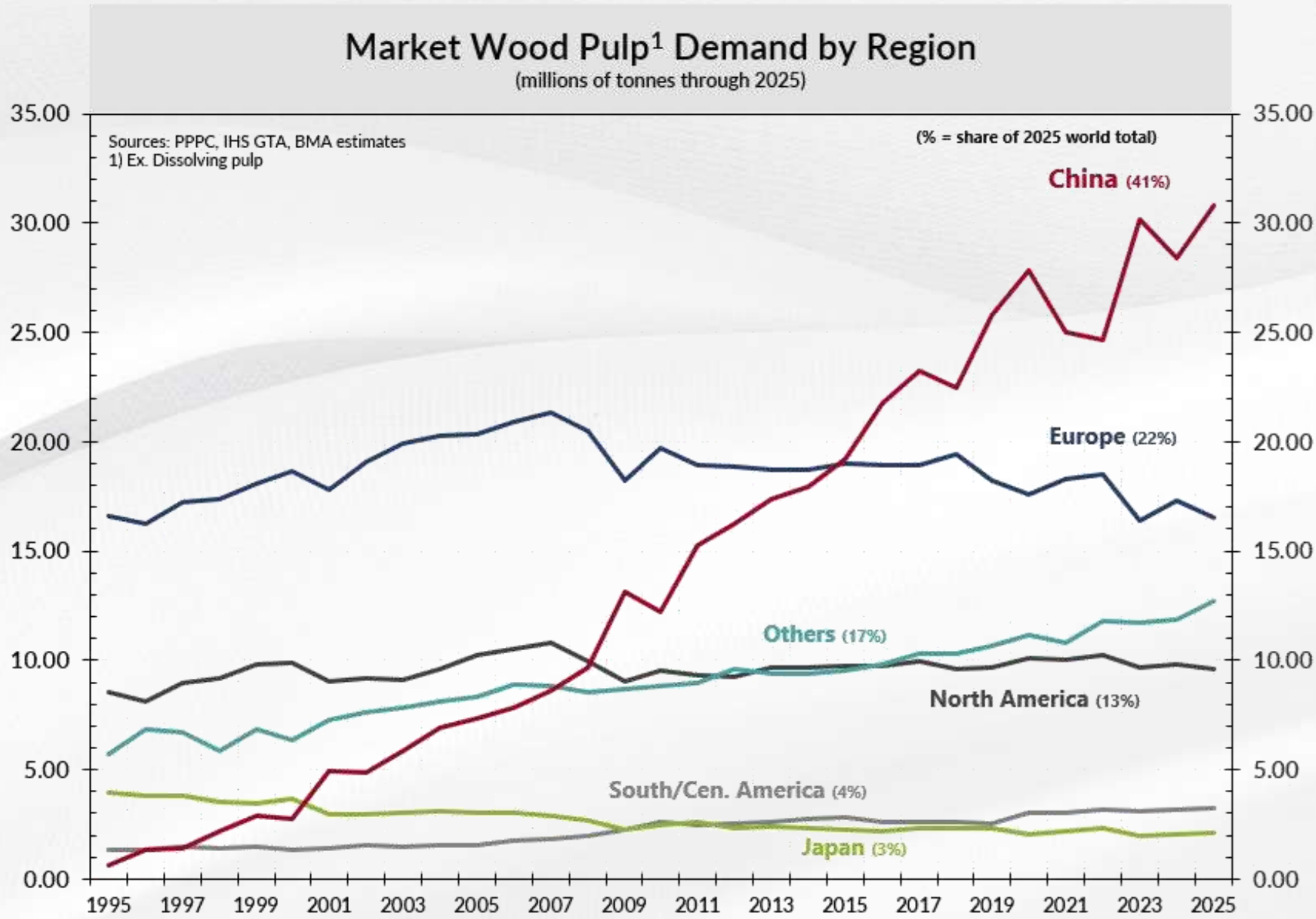
## BHK vs. NBSK Price Gap



# Hardwood Projects Still Dominate



# China Still Main Driver of Growth





**1. Can the long-term trend price produce an acceptable ROI?**



**2. Does the market need this capacity?**



**3. Do I have a full procurement and sales strategy?**



**1. Is this the best machine in the world?**



**2. Will this create jobs in my region?**



**3. Will this support local infrastructure investment and competitiveness?**

# China Capacity Expansions

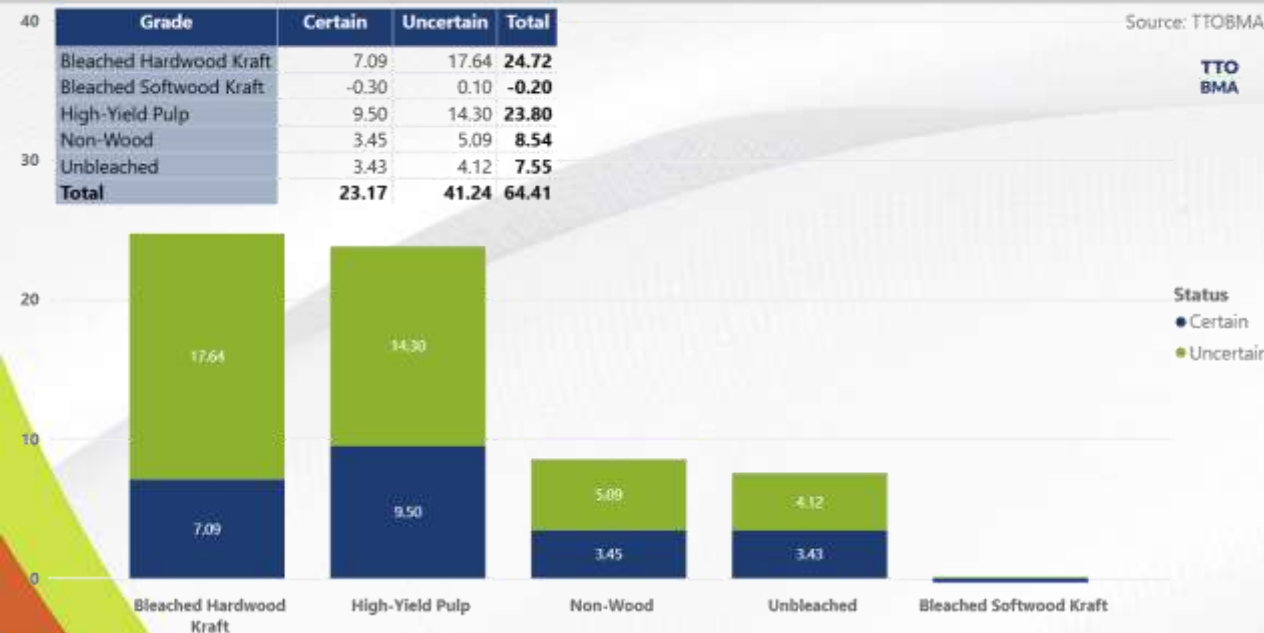
## China Pulp Projects - Base Case

2021 Forward; in MM mt

Source: TTOBMA

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BMA

Status  
● Certain  
● Uncertain



## China Paper Projects - Base Case

2021 Forward; in MM mt

Source: TTOBMA

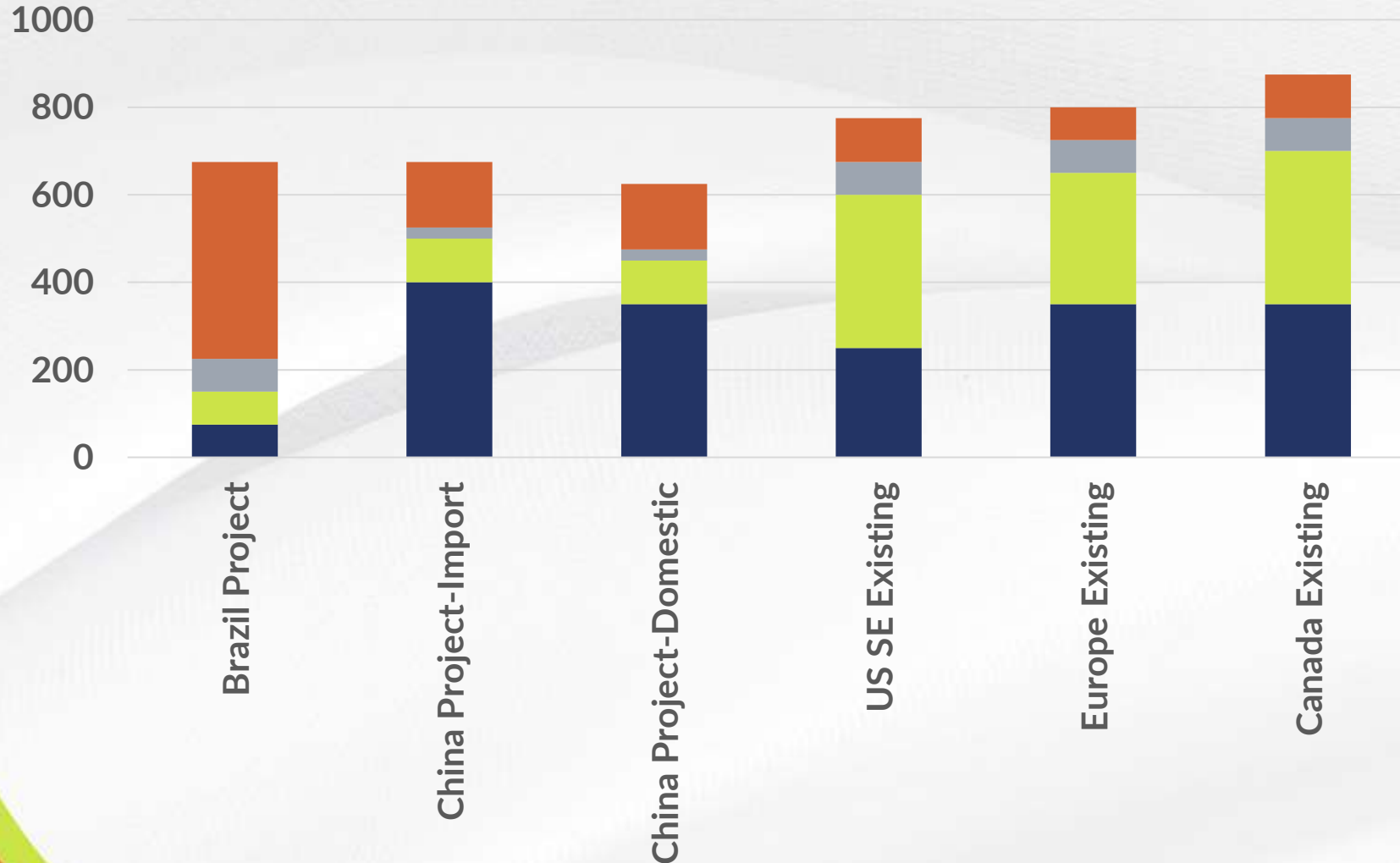
TTO  
BMA

Status  
● Certain  
● Uncertain



# Project Costs by Region

■ Wood ■ Other Costs ■ Freight/SG&A ■ Capital



## China Advantages:

Debt financing – low interest rates at 20% down

Low capital costs for projects

Domestic engineering and construction

Low non-wood cost structure

Good wood MAI

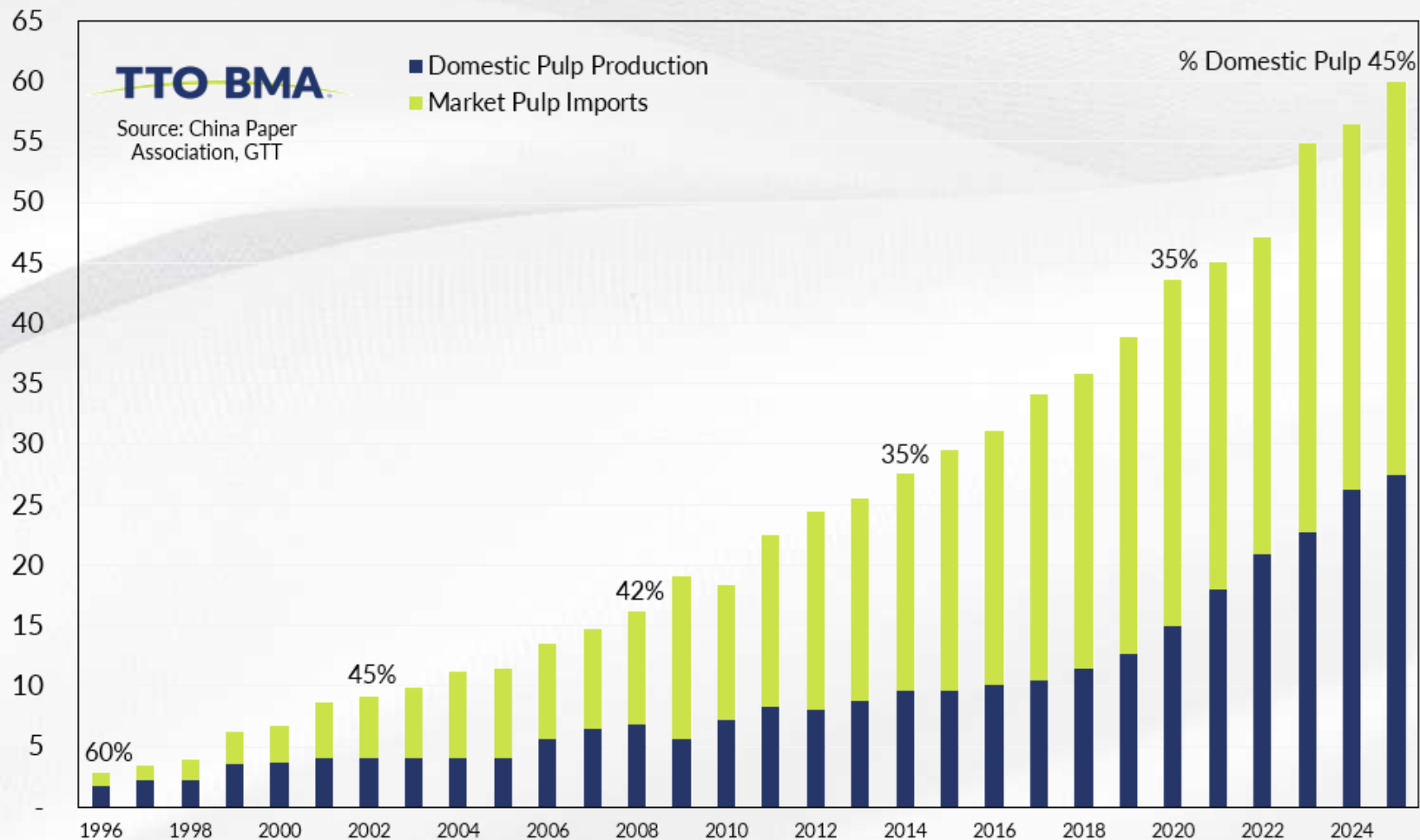
Good, not great scale of projects



# China Demand Shifting More Toward Domestic Pulp

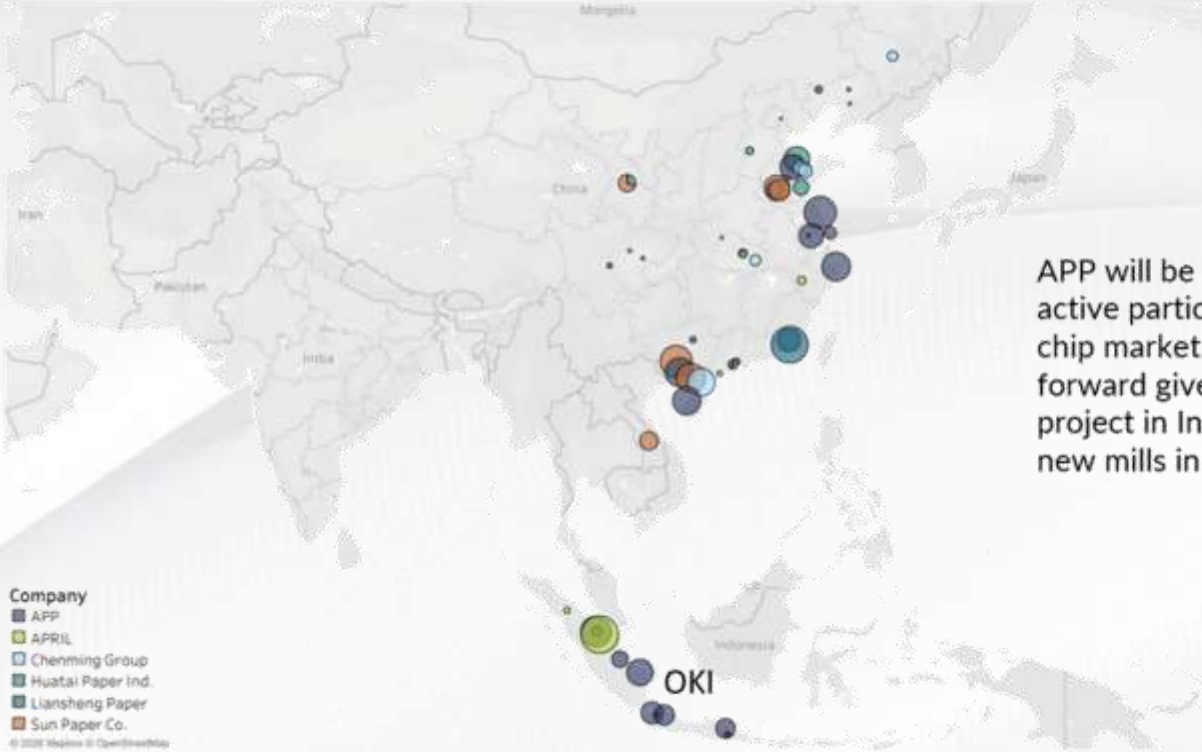
## China Wood Pulp Demand

Million MT/Y, 1996-2025



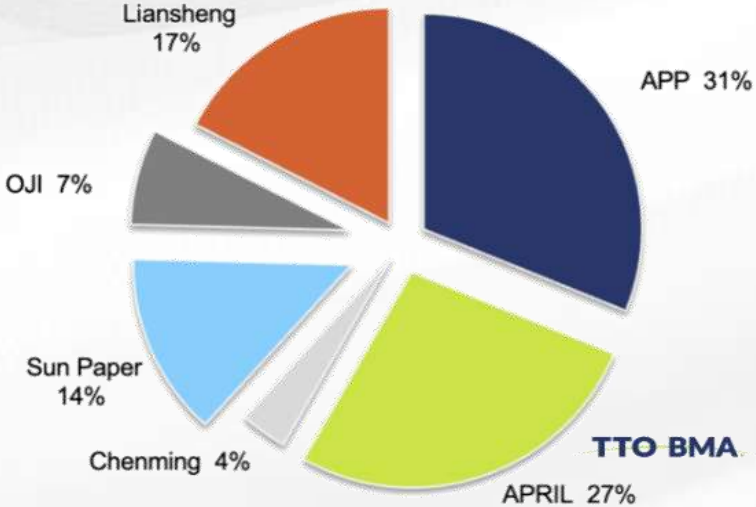
# Mills in SE Asia Rely on Woodchip Imports

## Wood Chip Buyer Locations



APP will be the most active participant in wood chip market moving forward given the OKI project in Indonesia and new mills in China

## China: Hardwood Chip Imports, Share of Total Volume by Company, 2026

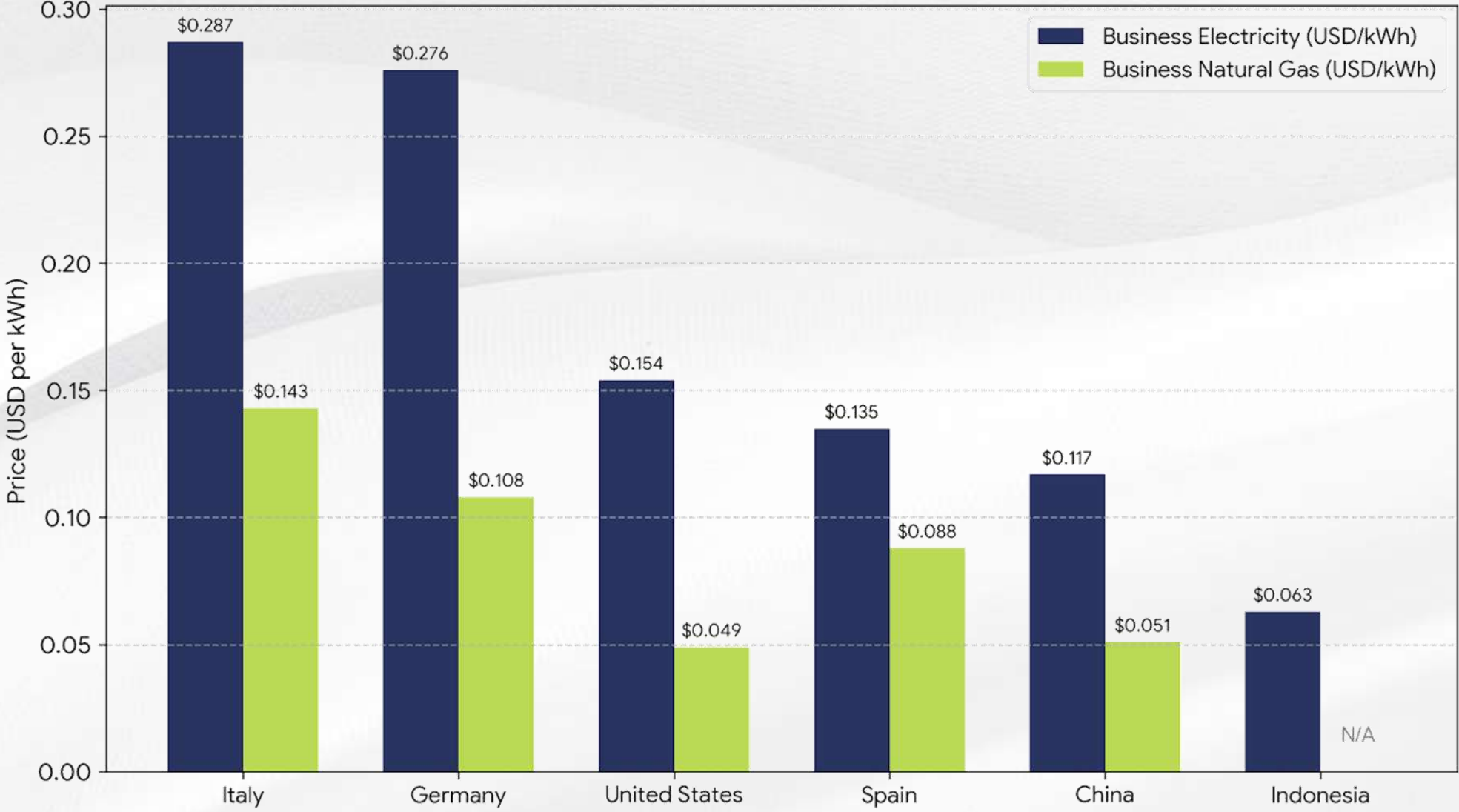


# China innovation



# Energy Prices in Europe Challenging vs Global Peers

Manufacturing/Business Energy Prices Comparison (September 2025 Data)



# Essity Exploring Options for Tissue Business

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Essity Tissue Mills  
(Dot Size Indicates Volume)



- ~1.7M tons of market pulp

# Sappi and UPM Graphic Paper

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UPM & Sappi JV Market Pulp Consumption  
(Dot Size Reflects Volume)

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- <1M tons of market pulp

- EU producers are competing with mills in China and Latin America that have significant structural advantages
- Compliance regulations like FSC and EUDR can act as partial trade barriers - without them domestic producers will struggle to compete
- Expect pulp market to fragment increasingly along regional lines
- EU Tissue and paper producers must learn to better adapt to price volatility

# It's not that bad!

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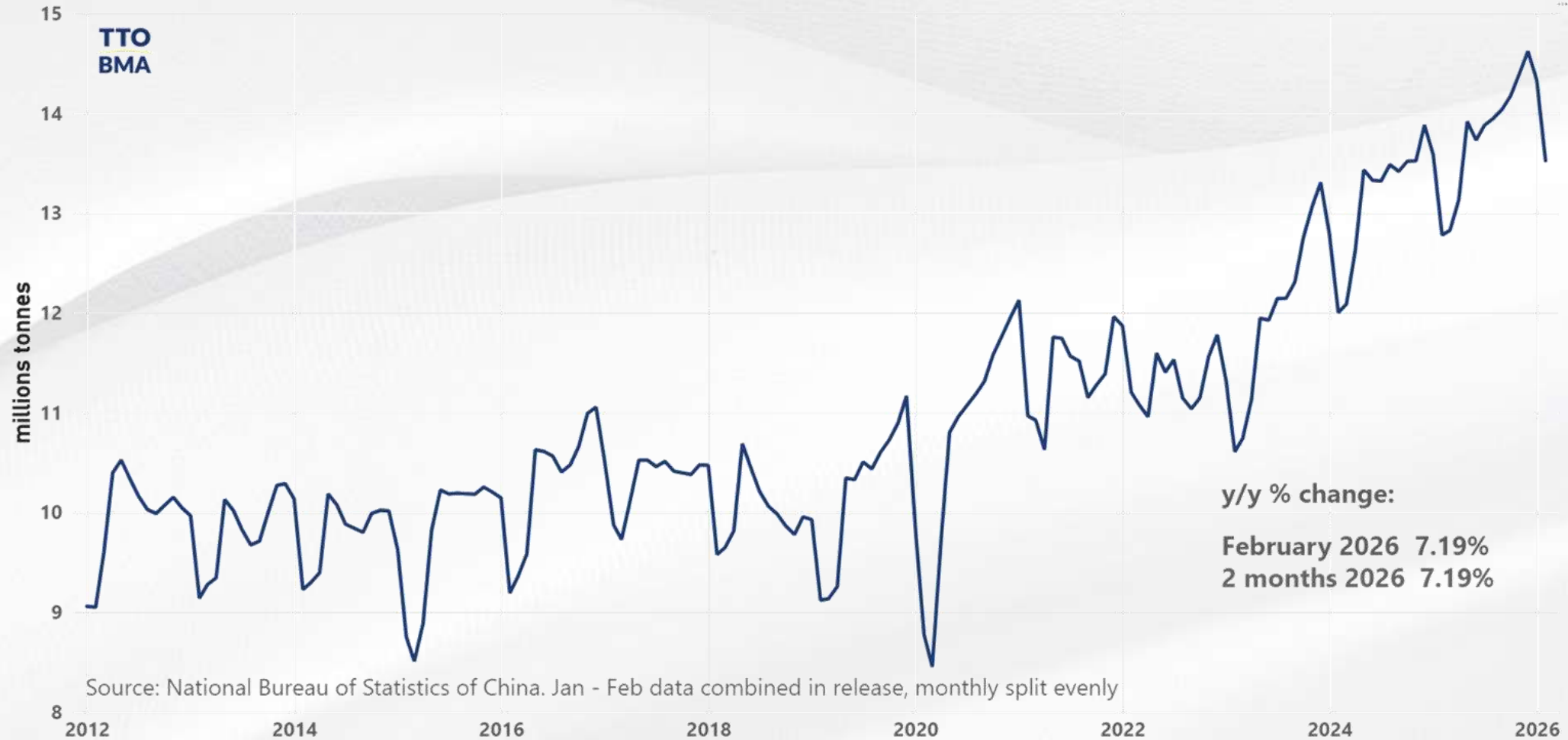


# Paper and Board Output Still on a Strong Upward Trajectory

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## China Paper and Paperboard Output

3-mma through February 2026

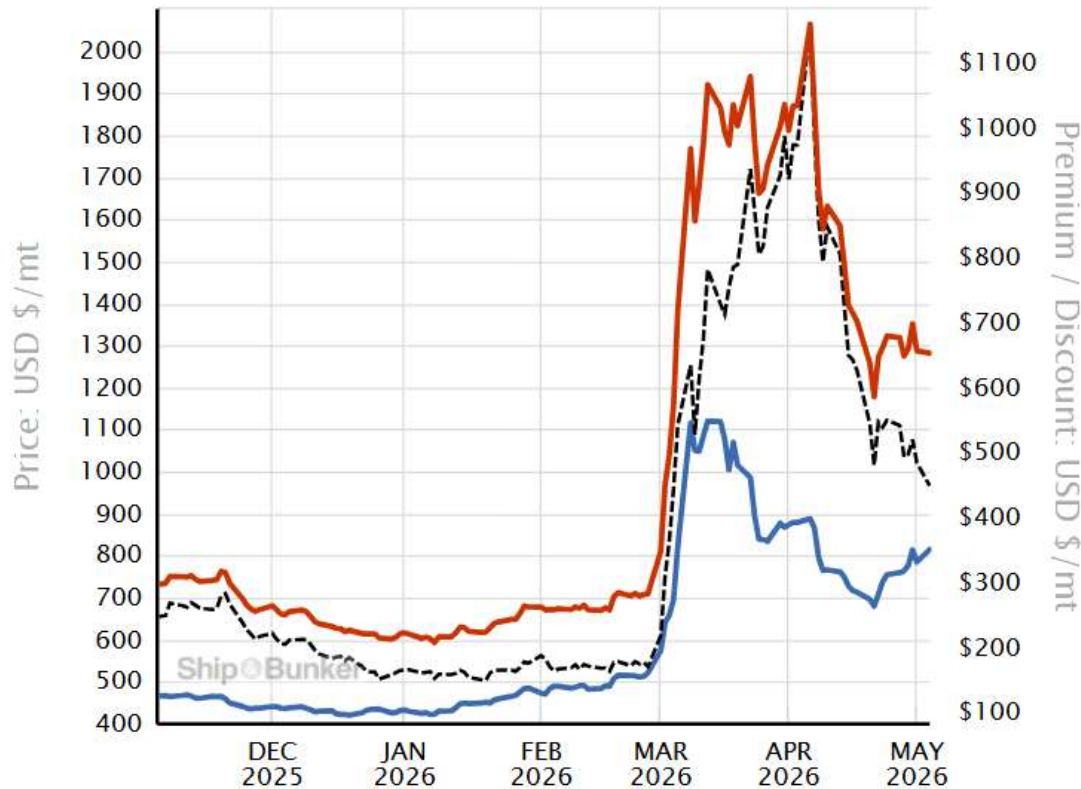


# SE Asia Hardwood Fiber Flows Impacted by High Diesel Prices

## SE Asia Imported Wood Chips

Marine Fuel Cost Benchmark - 90% VLSFO, 10% MGO

— Singapore MGO — Singapore VLSFO  
 - - - Singapore MGO Premium/Discount



Industrial Diesel costs up 140% in Indonesia, via local intel

Diesel physical shortages occurring in pockets of SE Asia

Most Diesel used to truck logs/chips to mills in Indonesia is non-subsidized, companies/contractors pay market rate

Lumber prices in Indonesia are very low, sawmills not running, weak China demand for lumber/plywood due to housing crash

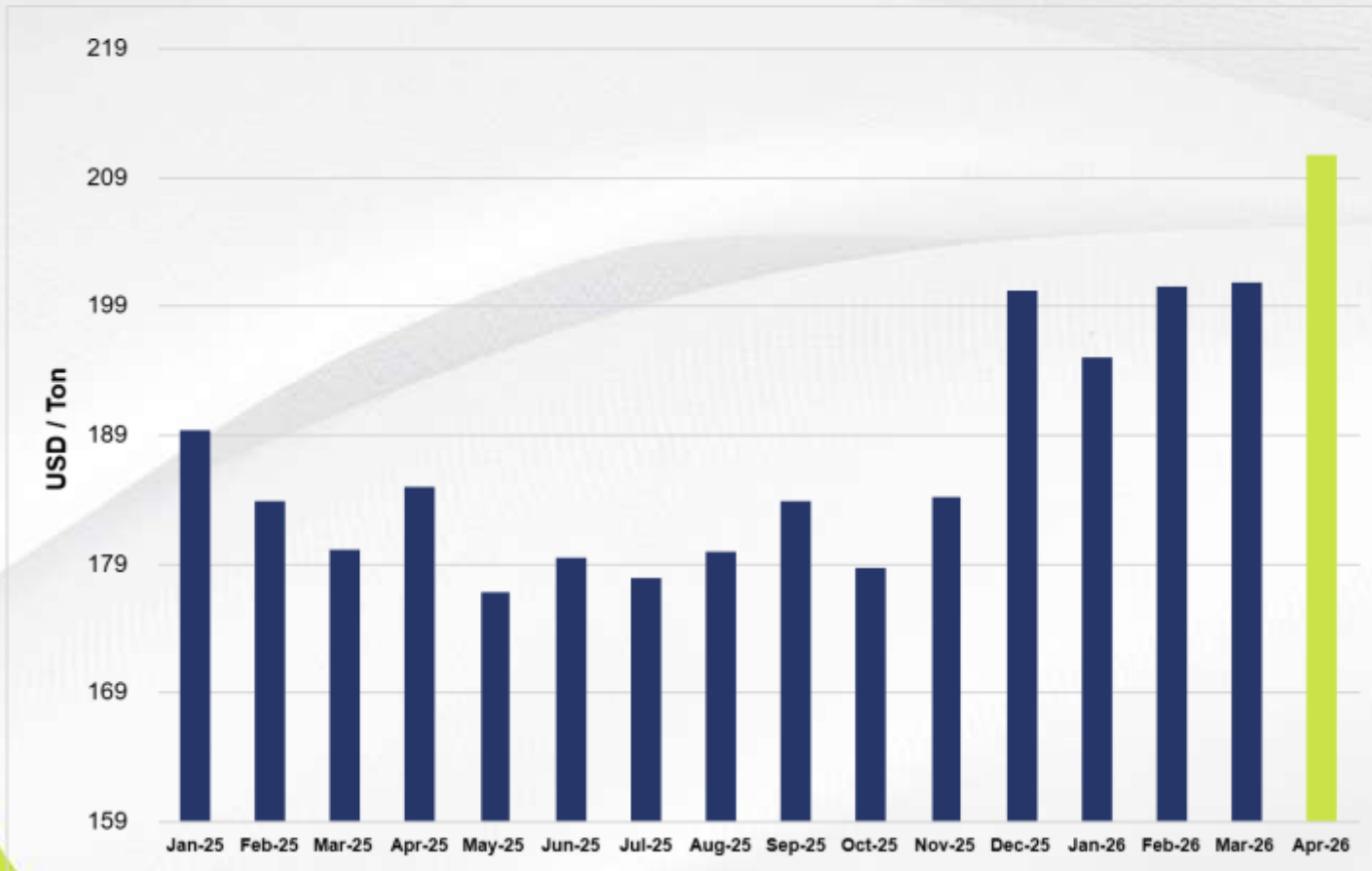
## SE Asia Trucking - Diesel Benchmark

Singapore Gasoil Platts Futures



# Woodchip Prices have increased in Asia

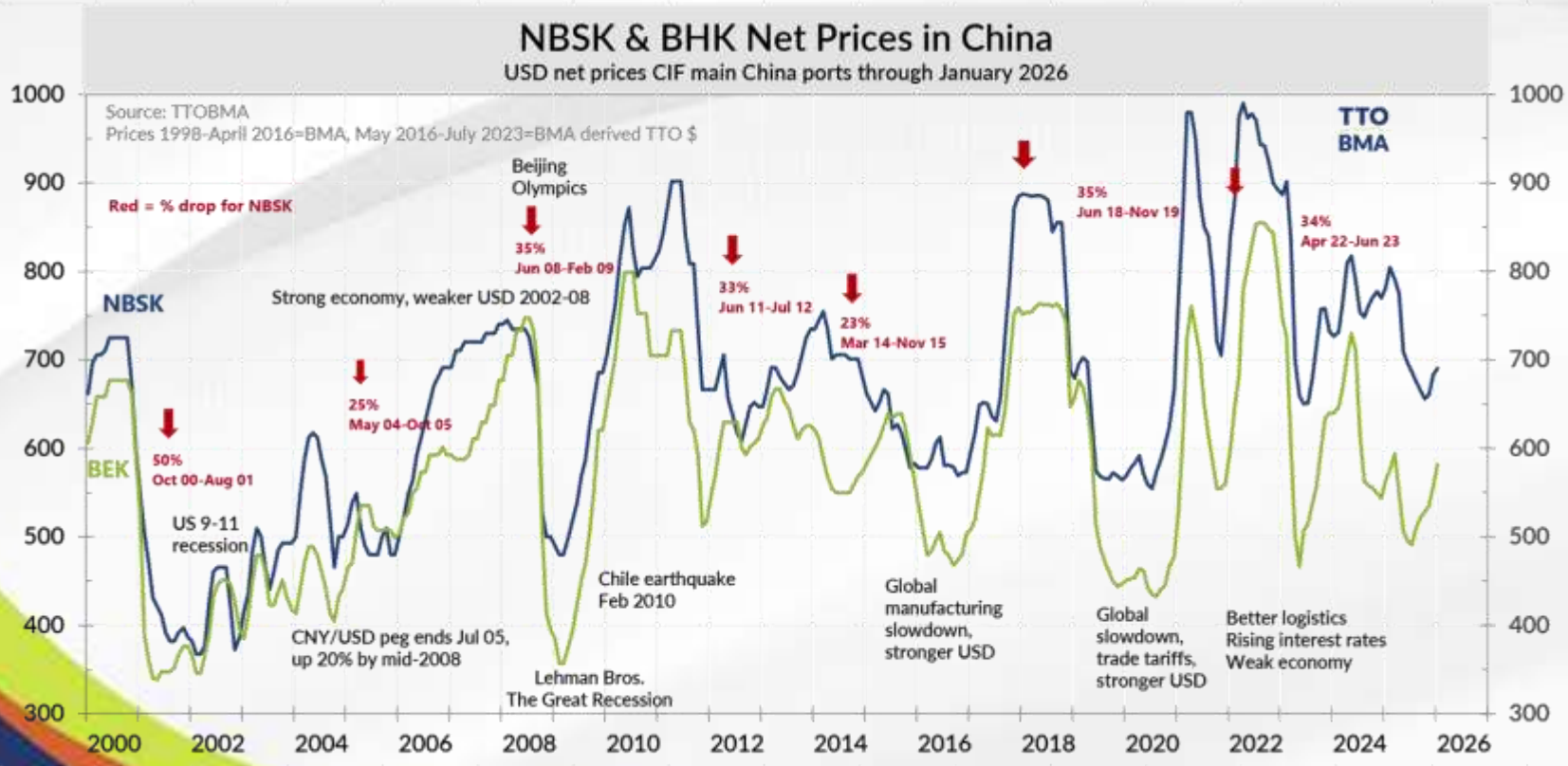
Hardwood Chip Prices Imported into China  
(major partners weighted average)



- Imported woodchip demand is now three vessels higher per month to cover the shortfall in domestic wood in Indonesia
- Typhoons have impacted age classes over the last 2 years, limiting overall harvest potential
- TTONow has released new woodchip pricing in China

# Downcycles Historically Lasted 16-18 Months, Currently at 18 Months

Scenario	Above Trend (Months)	Magnitude (\$/mt/month)	Below Trend (Months)	Magnitude (\$/mt/month)
2000 - 2023	16	\$135	16	\$(120)
2024 - 2025			18	\$(105)



## Notable Supply Shocks:

Finnish Strike

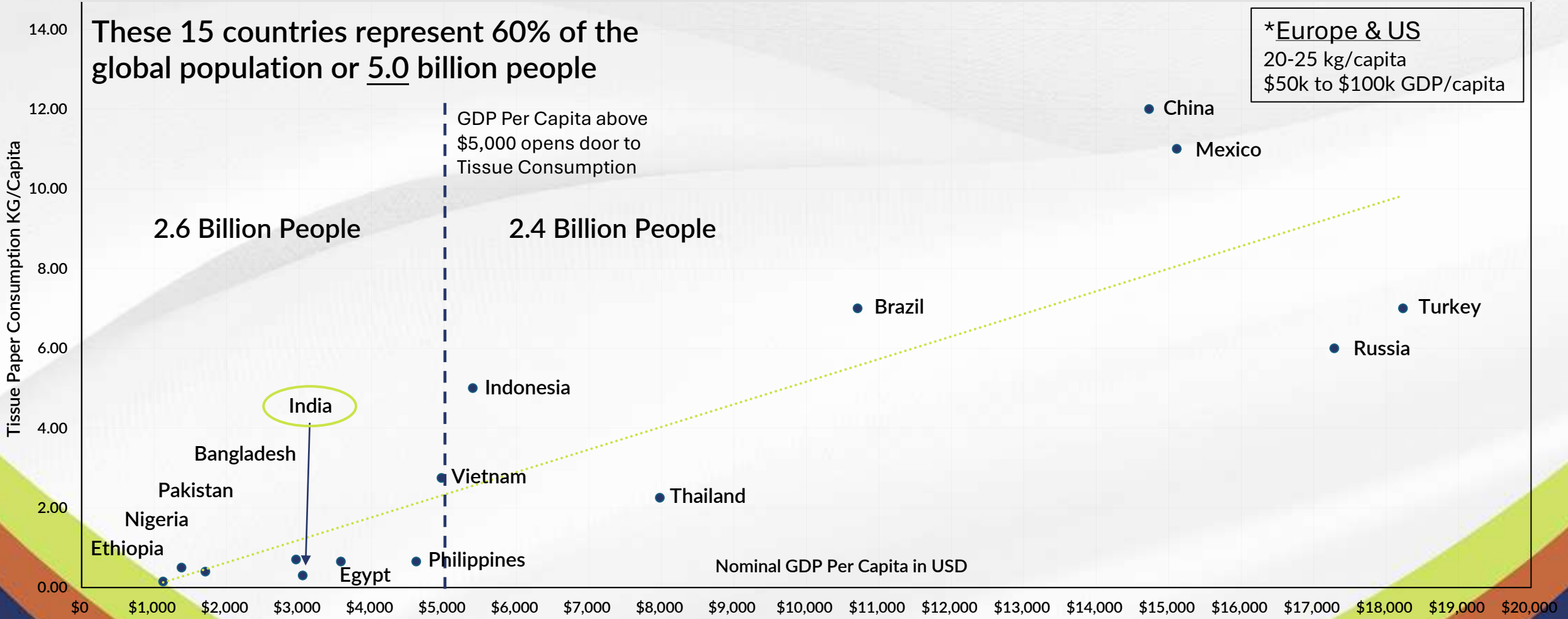
Chile earthquake

Numerous projects with delays

Logistical congestion

# Tissue Demand Growth in Emerging Regions

## Tissue Consumption Rates in Key Developing Countries KG/Capita vs. GDP/Capita Nominal



# Growth markets important

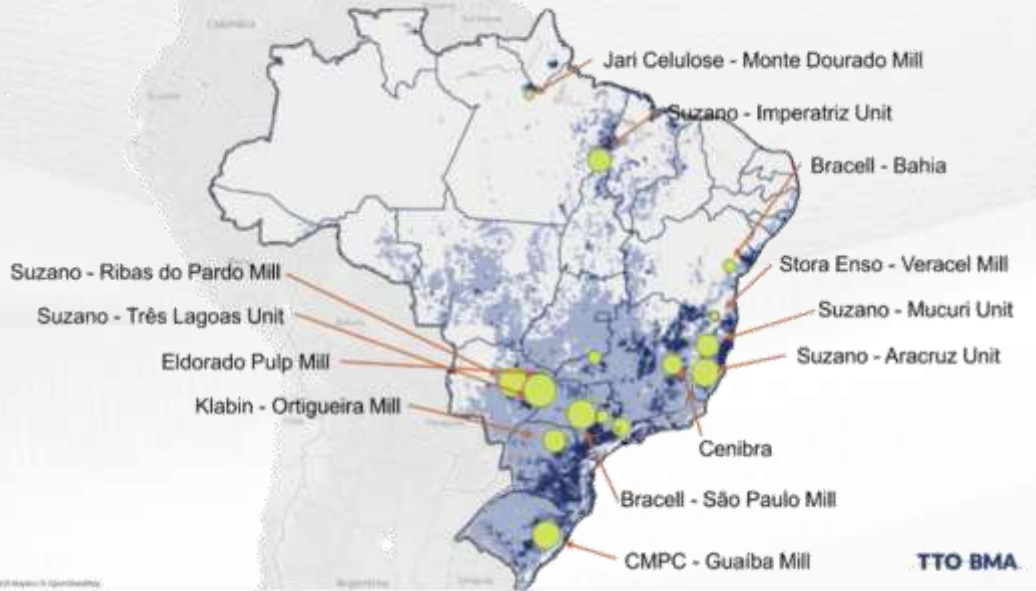
## BEK Market Pulp Buyers & Importing Ports - Latin America



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(Dot size on demand map is proportionate to estimated Latin America share).

## Brazil Market Pulp Mills



## New Tissue Capacity 2016- Present



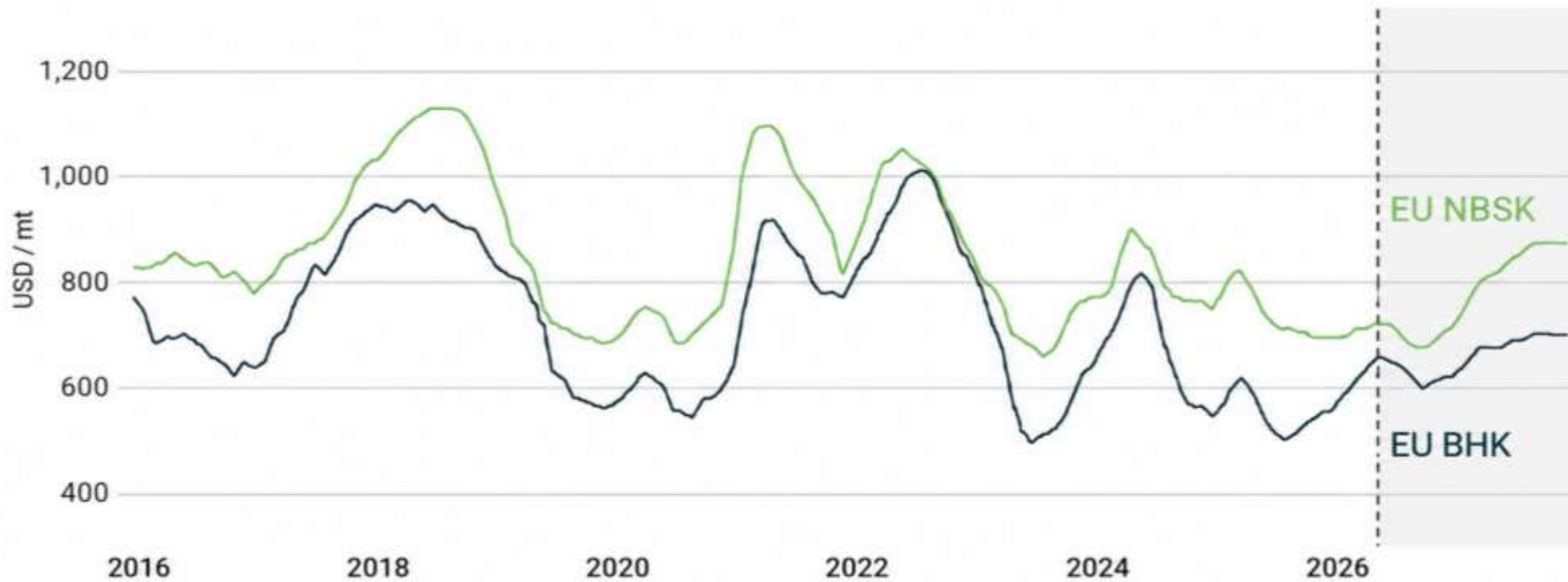
- TTOBMA Latam report available now

Status  
 ■ Installed  
 ■ Planned

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# Pricing Still Up in 2027, Dependent on Supply Disruption

TTO Historical Pulp Indices- Derived Net US\$ Prices  
Through 2027, US\$/ mt



Region/Grade	2021-2025 Average	2026	2027
Europe NBSK	807	700	Higher
Europe BHK	684	619	



**1. BHK maintaining share despite BSK spread narrowing**



**2. China integration helps set floor / ceiling price – producers have different mindset to the West**



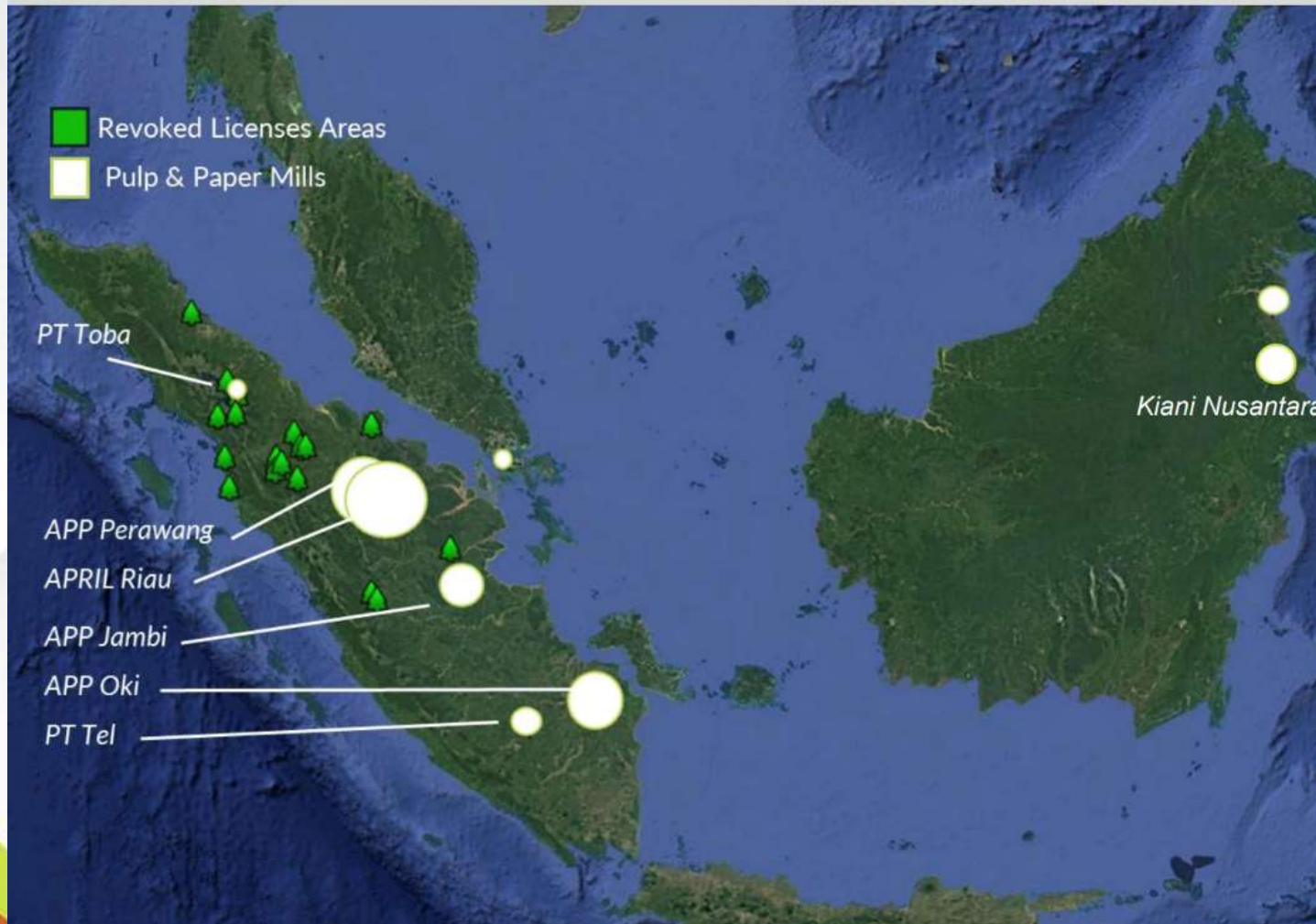
**3. EU pulp and paper producers need to fight hard to survive against imports, but the industry has a lot of positives going forward**

Thank  
you!

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Pulp and Paper Mills at Risk from Forest License Revocations



January 2026: Government revoked Forestry Exploration Licenses of 28 companies.

22 are forestry, and 11 have direct links to pulp and paper, which hold 500k hectares of concessions

Gold mining company has achieved its revocations resolved.

PT Toba has fired workers in its mill, indicating troubles to guarantee fiber supply

RGE is planning another 150,000 mt of downtime in Q2 as a result of the revocations. This is the same amount as Q1.

Appeals affecting pulp and paper are still pending.