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# Fueling growth or hitting a wall: How wood availability shapes the pulp industry?

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# Introduction

**TOMI  
AMBERLA**



**DIRECTOR**

Head of Fibre Processing  
Practice Cluster

AFRY Management  
Consulting

WE HAVE

**19,000**

Employees globally  
(as of 2024)

WE HAVE NET SALES OF

**2.4 bn**

euros in 2024

NUMBER OF COUNTRIES  
WITH OFFICES

**>50**

NUMBER OF COUNTRIES  
WITH PROJECTS

**>100**





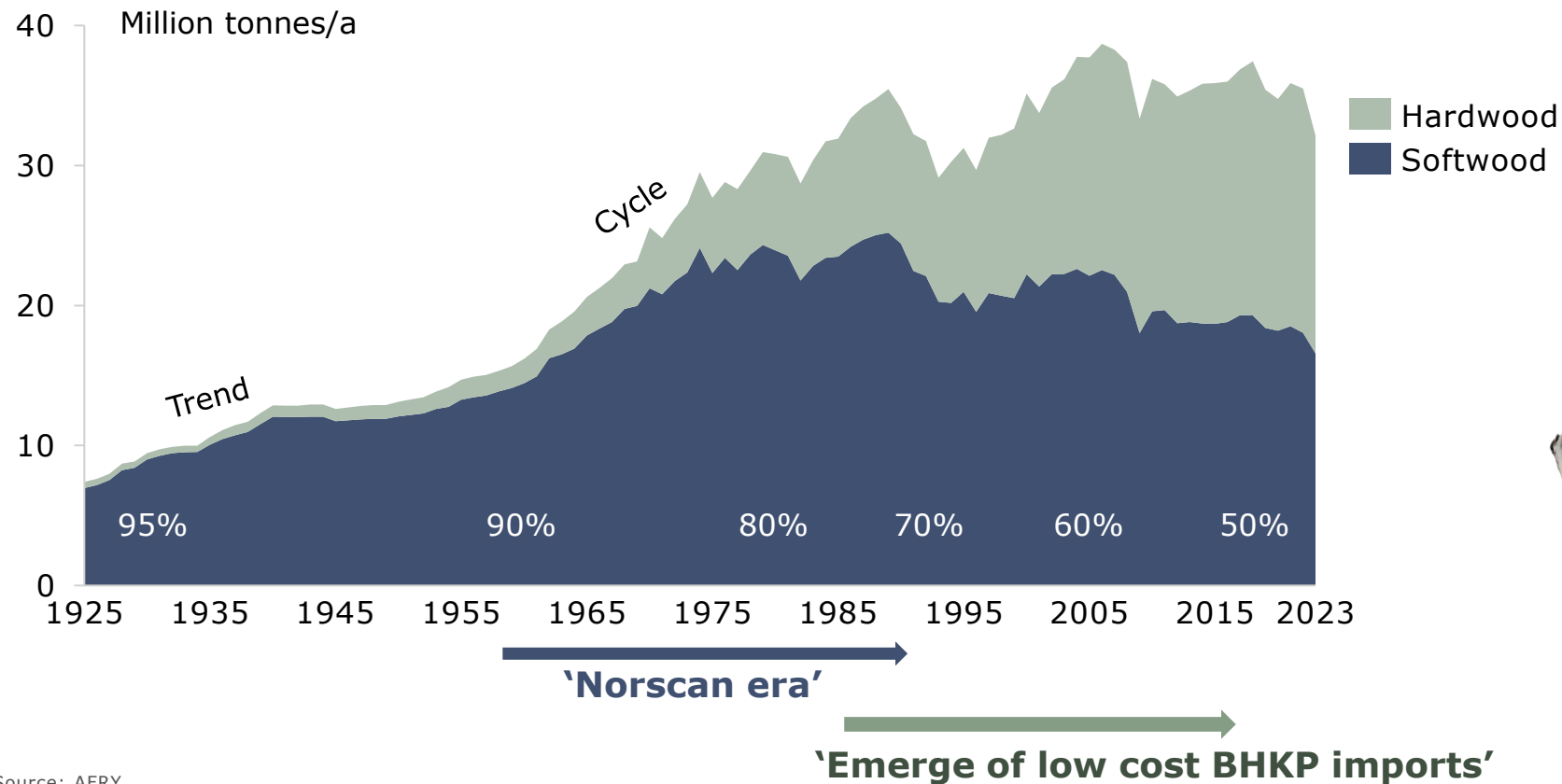
# Situation



## SITUATION

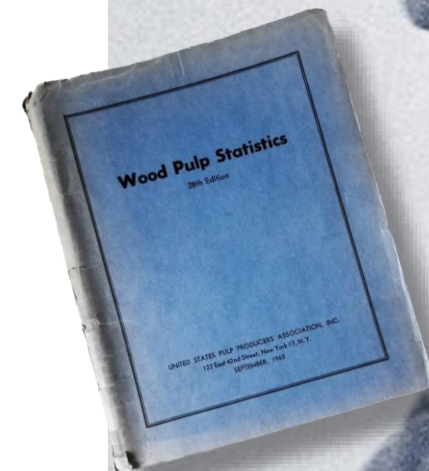
# Pulp industry in constant evolution..

## CHEMICAL WOOD PULP<sup>1</sup> CONSUMPTION IN EUROPE 1925-2023



Source: AFRY

<sup>1)</sup> Includes BSKP, BHKP, UKP, Sulphite and Dissolving pulp

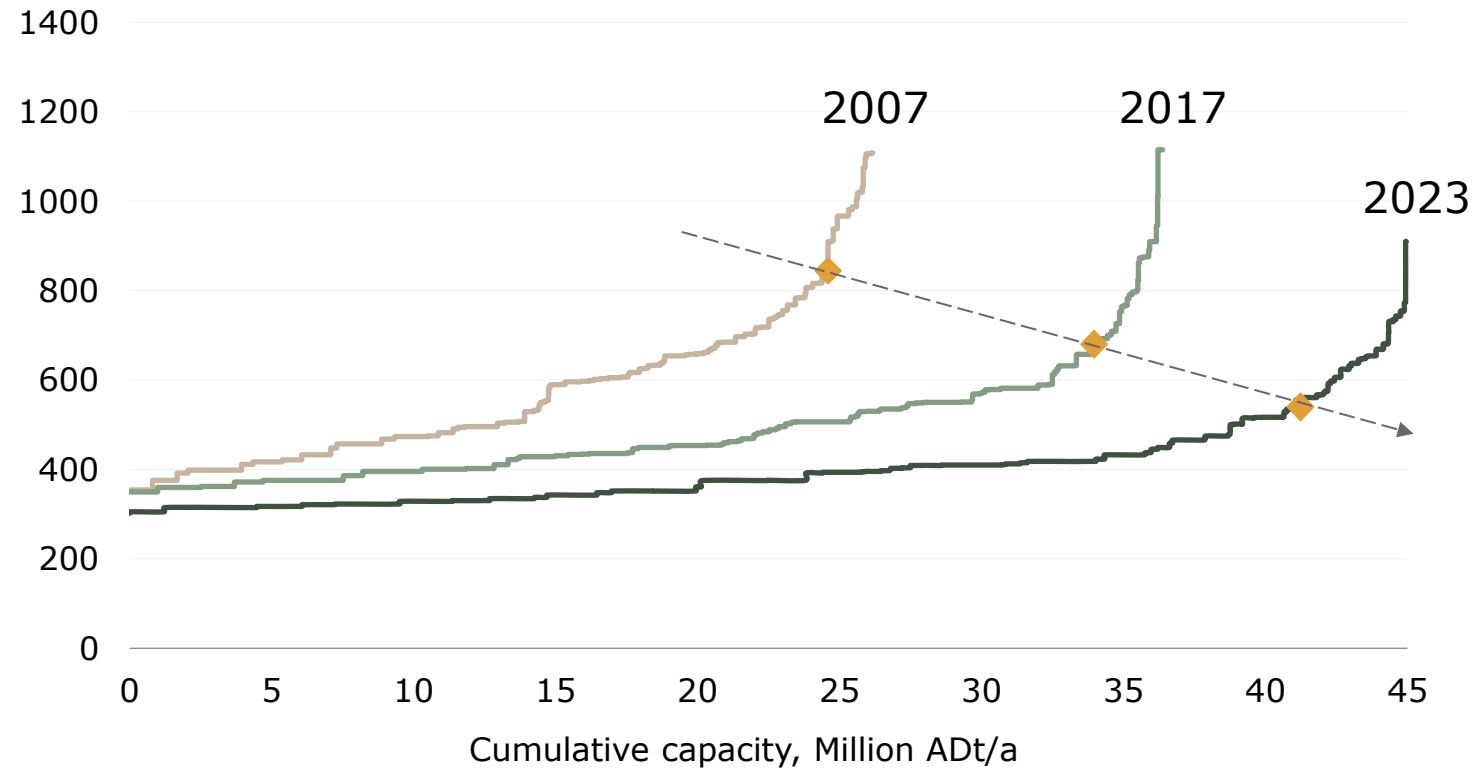


## SITUATION

...with continuous changes in the industry structure

### MARKET BHKP GLOBAL COST CURVE (DELIVERED TO SHANGHAI) – HISTORICAL DEVELOPMENT

USD/ADt, 2023 price level



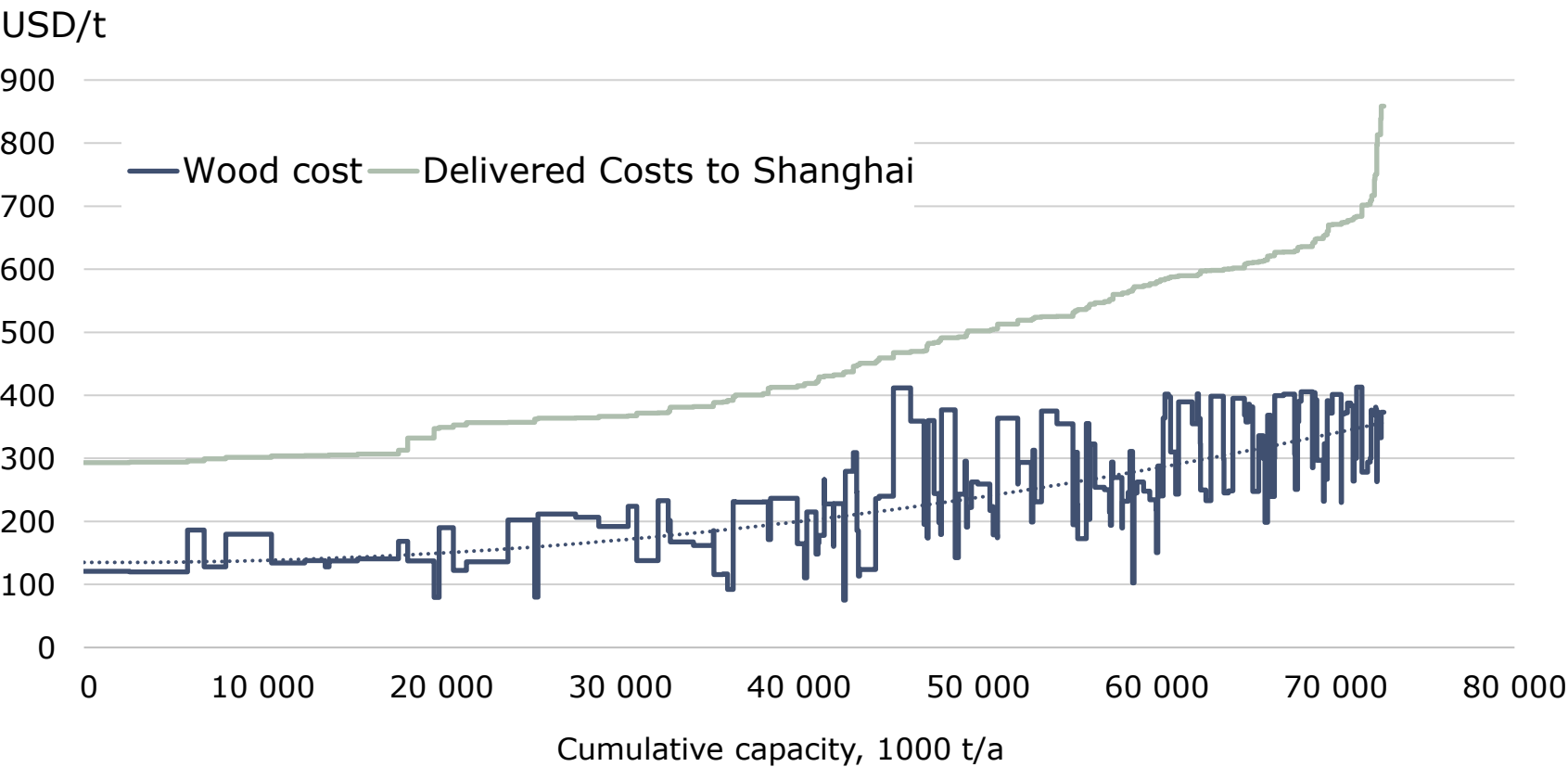
Cost and price differential between market BHKP and BSKP edging up

Elevated wood costs hitting BSKP in particular – adding another layer to the challenge in the recent years

SITUATION

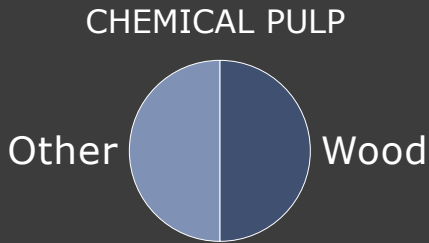
Wood costs play significant role across the value chain

GLOBAL MARKET BKP – TOTAL CASH COSTS VS. WOOD COSTS

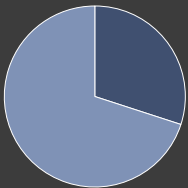


Source: AFRY

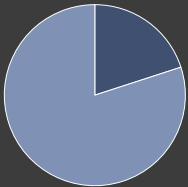
Share of wood costs in...



TISSUE PAPER (VF)



TOILET TISSUE (VF)



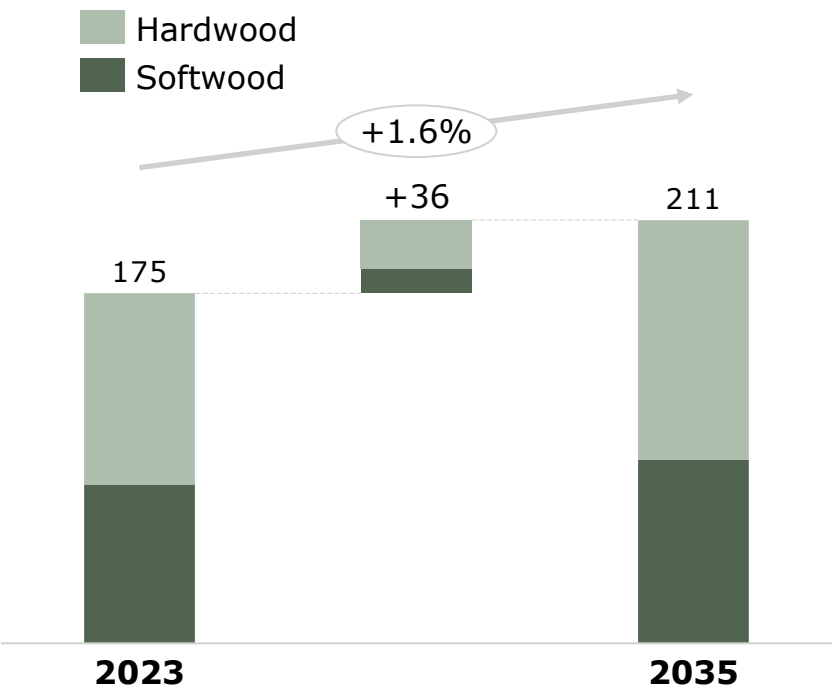


SITUATION

More demand for pulp – Where is the wood?

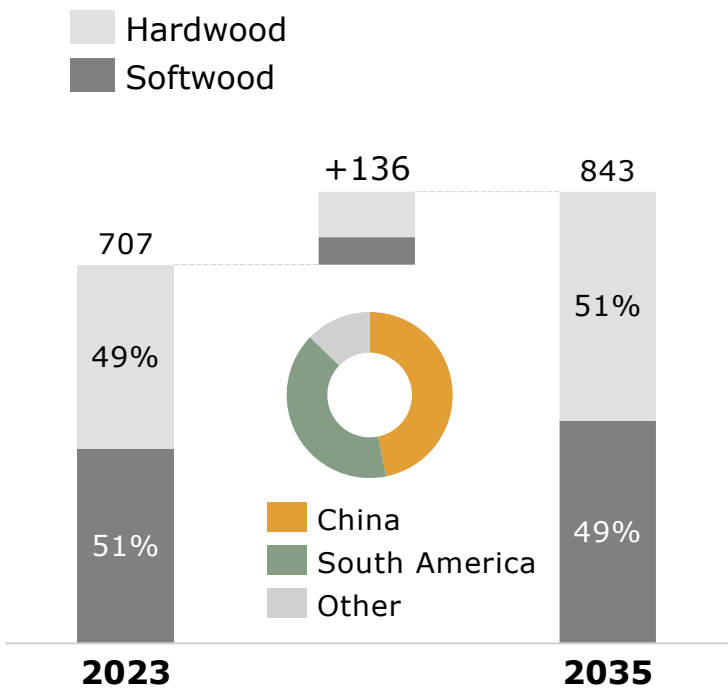
GLOBAL WOOD PULP PRODUCTION OUTLOOK

Million tonnes



GLOBAL PULPWOOD DEMAND OUTLOOK

Million m<sup>3</sup>



Source: AFRY





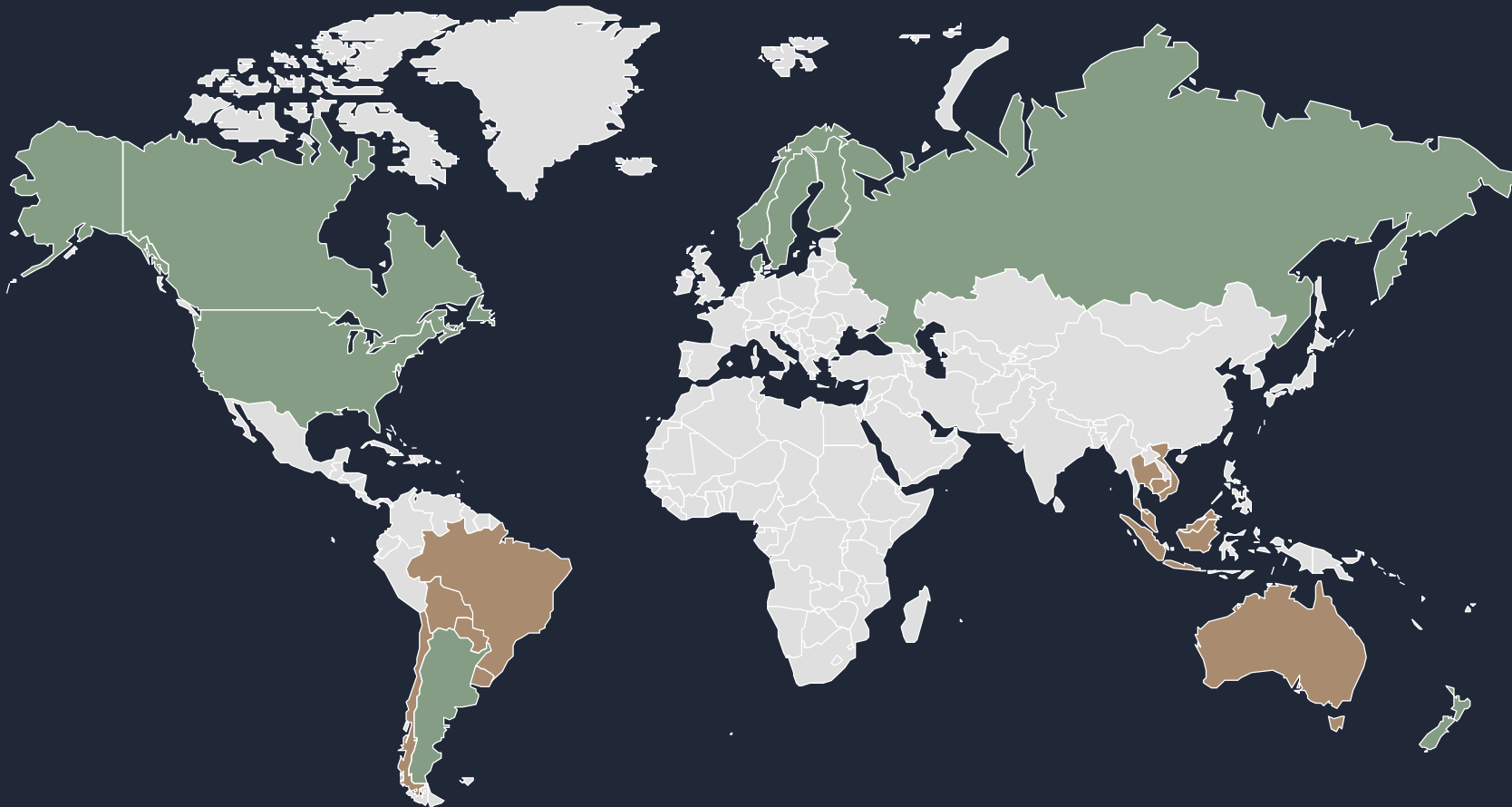
# Complication



## COMPLICATION

Wood availability affects the implementation of new pulp projects but also impacts the competitiveness of existing mills

■ Predominantly softwood    ■ Predominantly hardwood



## PRIMARY EXAMPLES

Forest fires and damages in North America

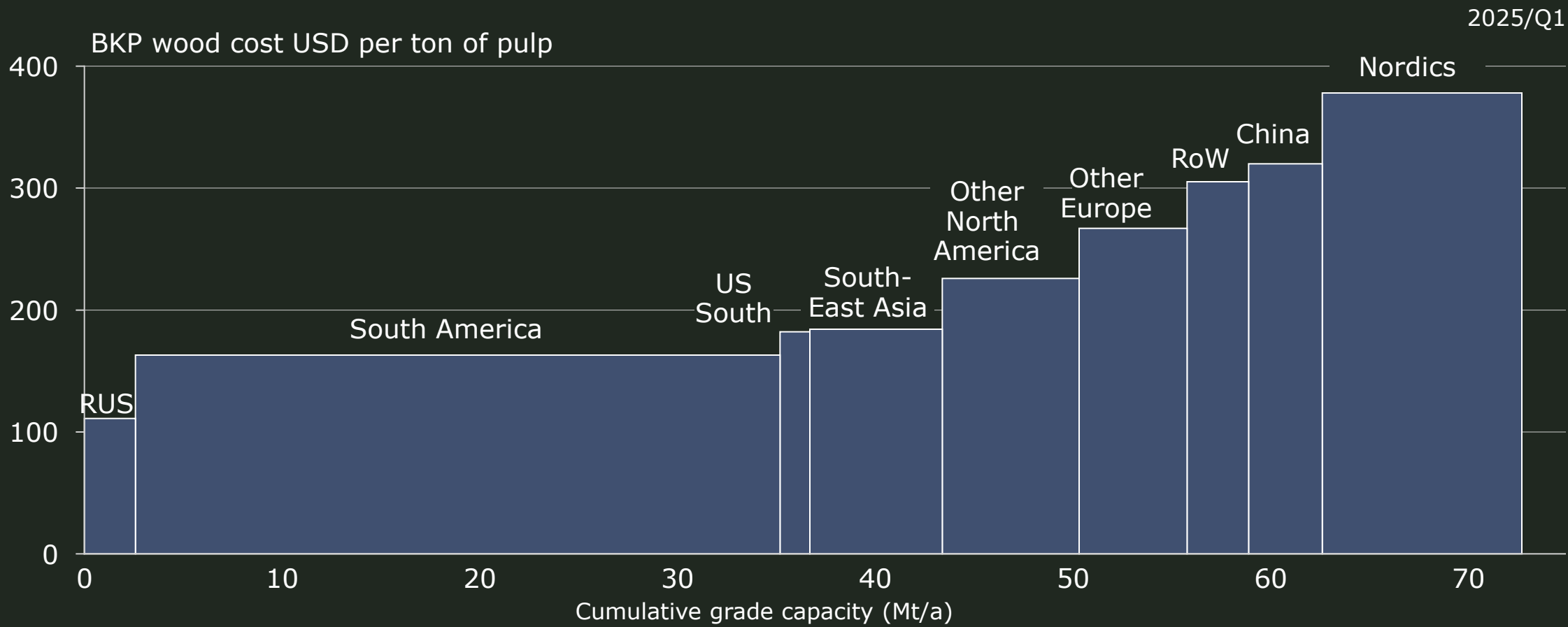
Sustainable long-term harvesting levels debated in Nordics

Restricted access to global markets from Russia

Limited plantation expansions in optimal areas in South America

COMPLICATION

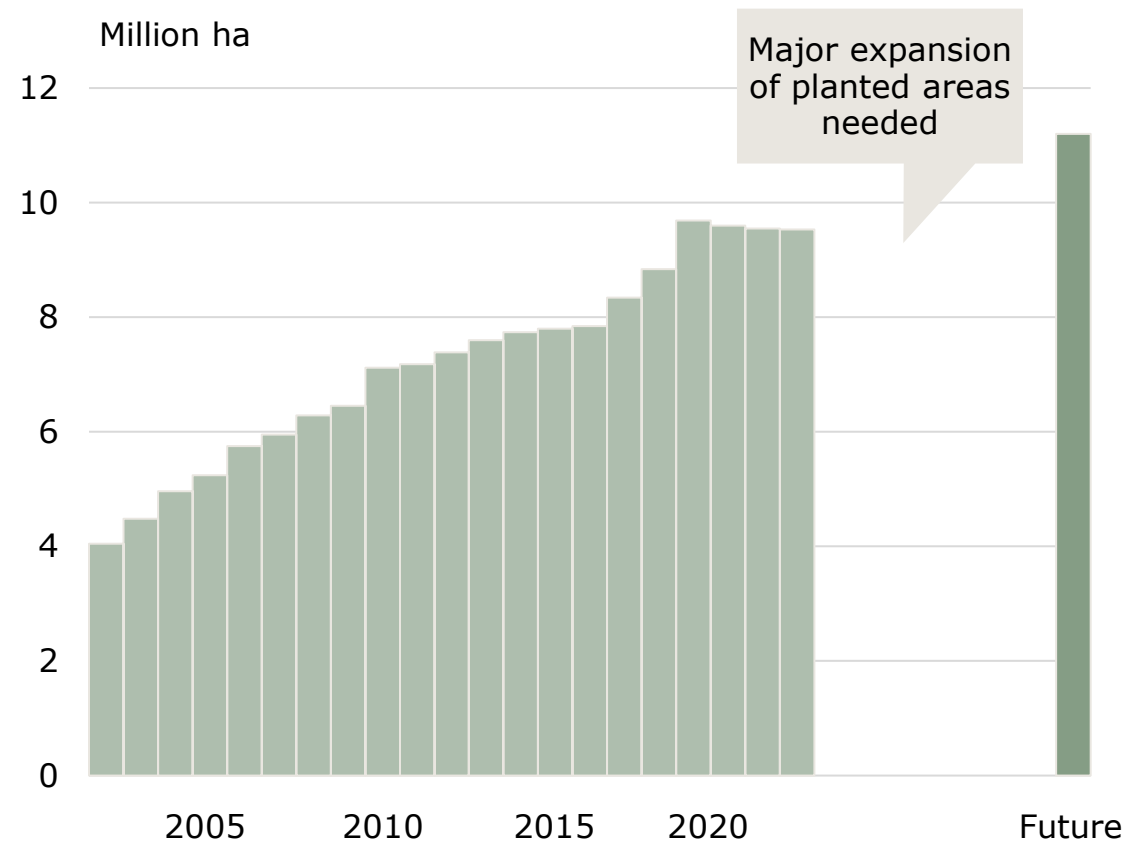
Wood costs at different levels globally



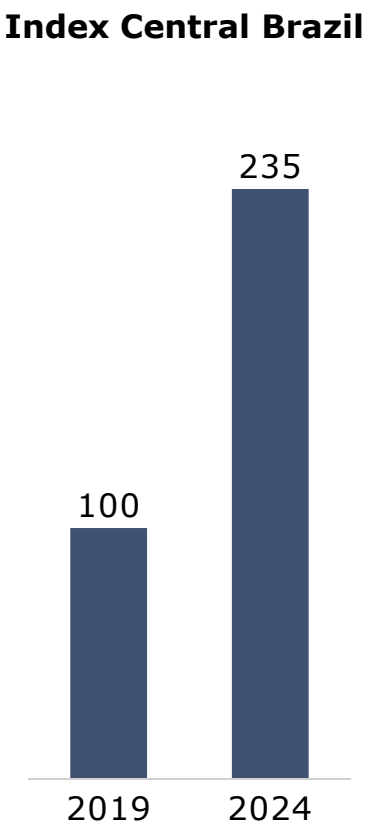


# Plantation expansion not synchronised with industrial growth plans

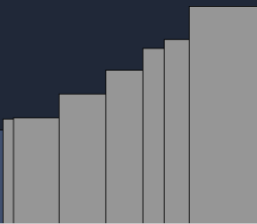
PLANTATION FOREST AREA IN BRAZIL



FOREST LAND PRICE



South America



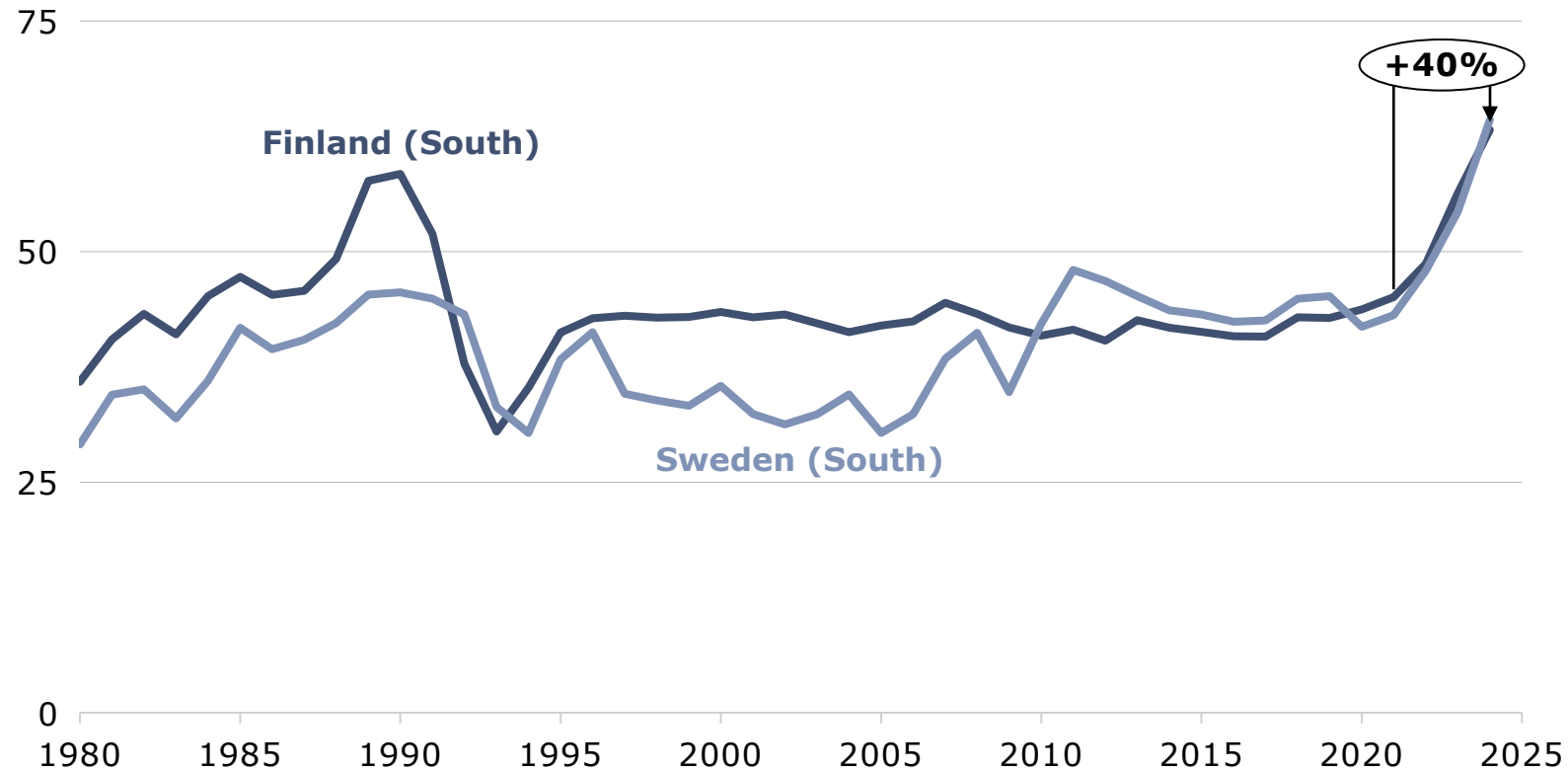
Major need to expand forest plantation areas in Brazil...

...amid steeply increased forest land prices

## Wood balance extremely tight in the Nordics

### DEVELOPMENT OF DELIVERED AT-MILL COST OF PULPWOOD (SPRUCE)

EUR/m<sup>3</sup>sob, nominal



Nordics



Pulpwood imports from Russia disappeared from the market...

...increasing competition with energy wood...

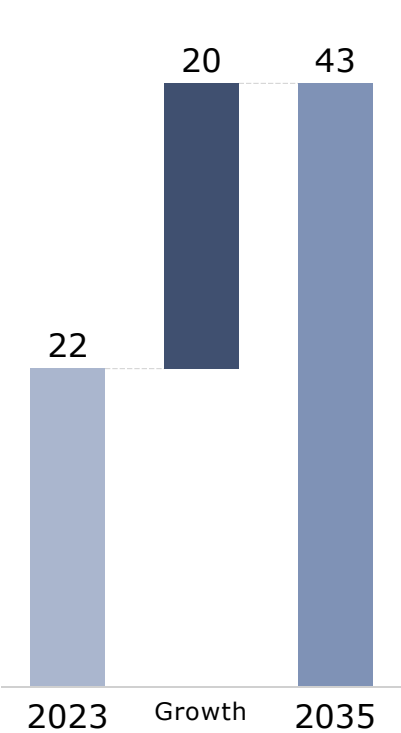
...resulting in steeply elevating wood costs



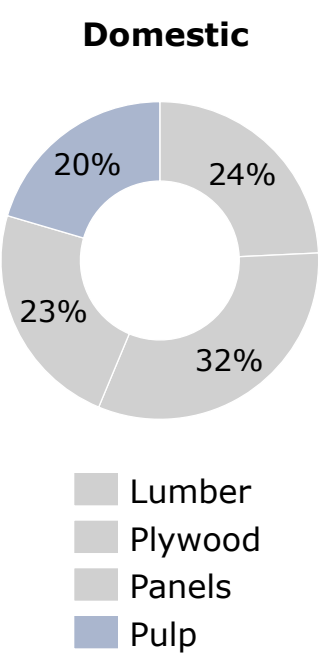
# Pulp integration in China developing fast

## PULP PRODUCTION<sup>1</sup> GROWTH IN CHINA

Million tons

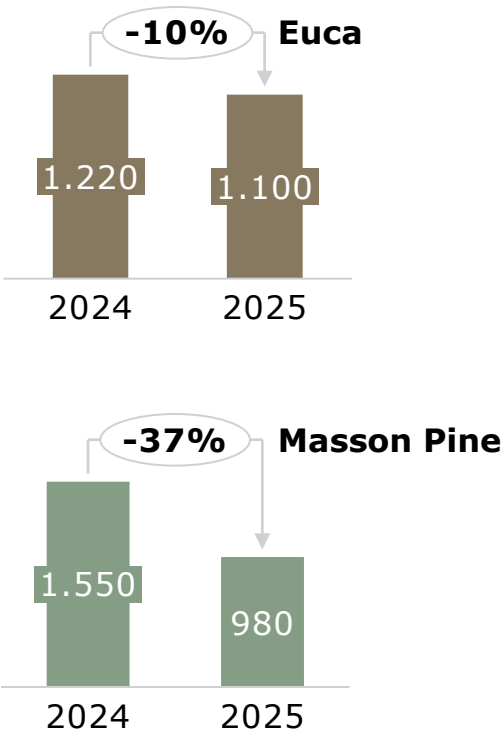


## DEMAND FOR HW LOGS AND CHIPS IN CHINA

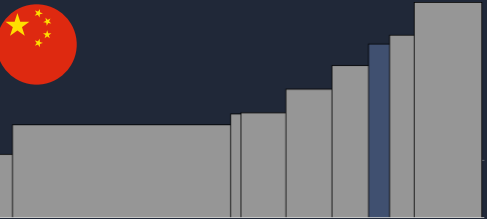


## DOMESTIC WOODCHIPS PRICES IN CHINA

BDMT in CNY



China



China further expanding integrated pulp production

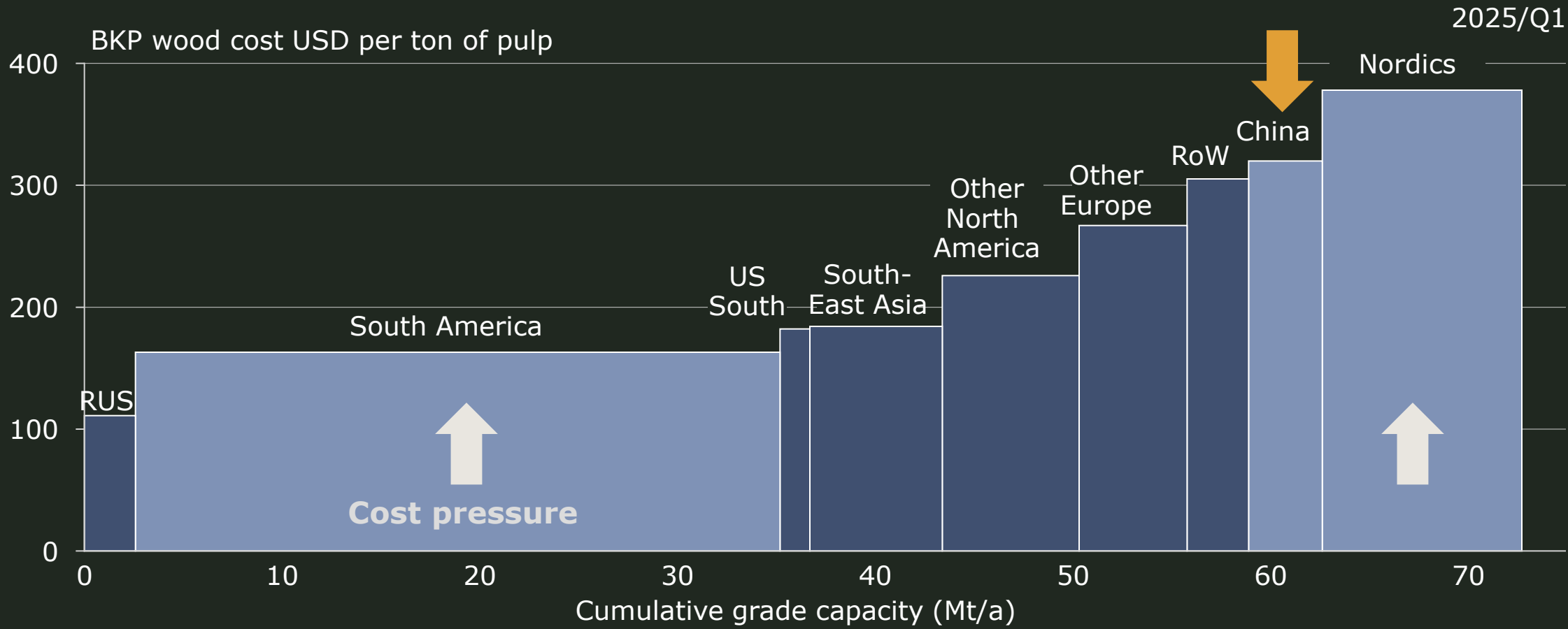
Domestic wood released from real estate and construction sectors at lower price...

...but for how long?

1) Includes all virgin woodpulp grades

COMPLICATION

Cost pressure up (wood), while price pressure down (China)



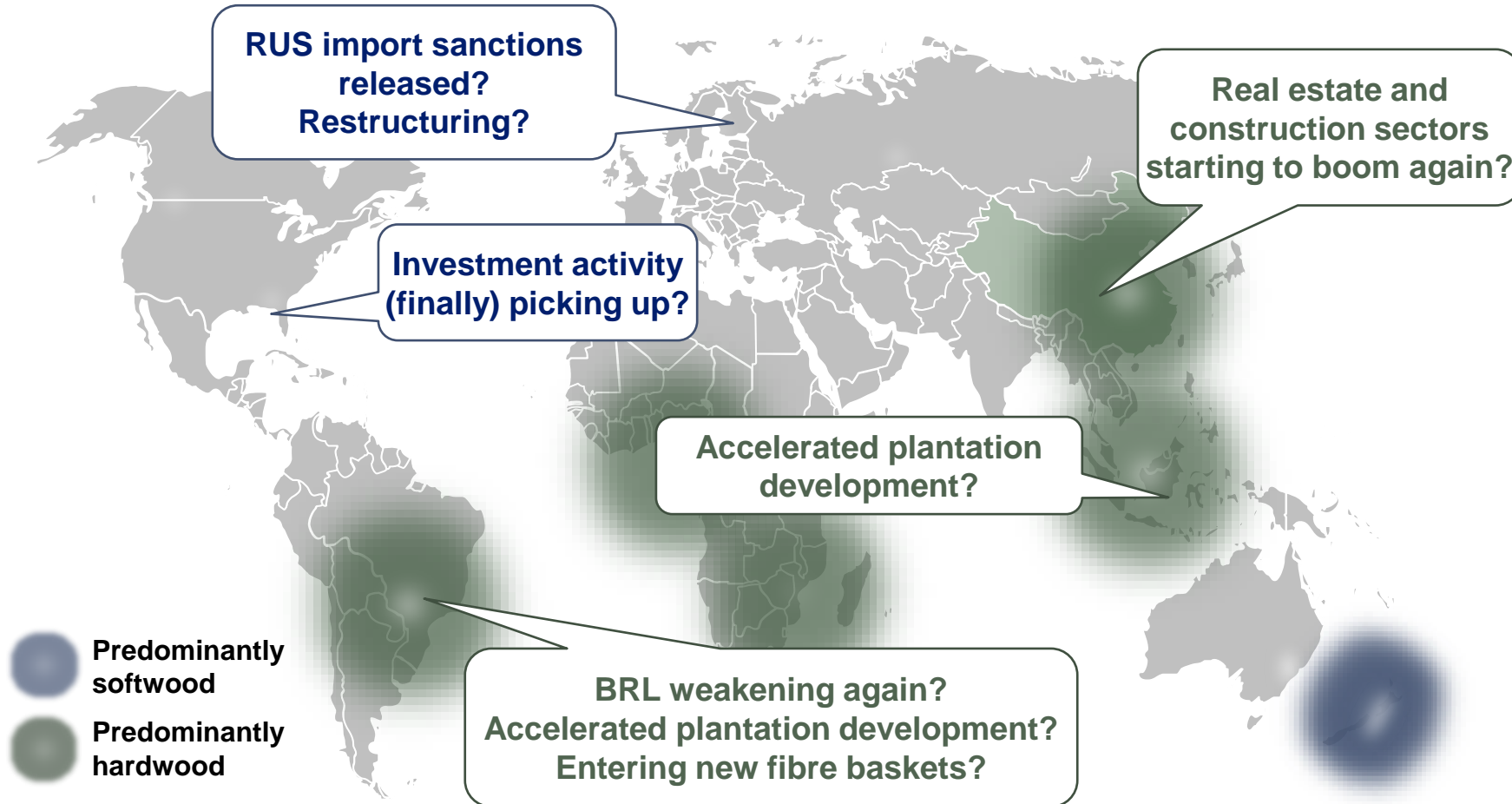


# What Next?



WHAT NEXT

## Things may turn around - again



Things can be subject to change...

...and more wood can be mobilized at lower cost than today

But we need to also be prepared for potential industry transformation...

## Potential transformation implications

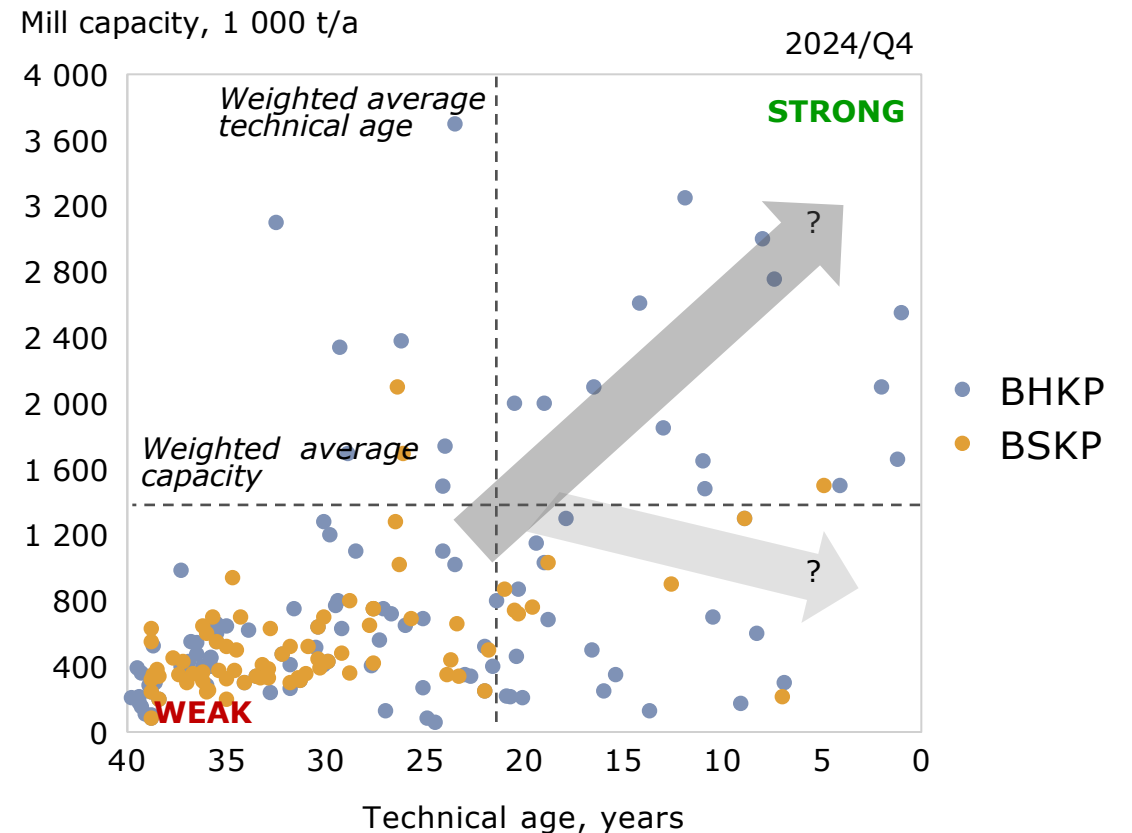
› Economies of scale reconsidered

› Integration to pulp production

› High-yield pulp 're-invented'

› Alternative virgin fibres explored

### BKP INDUSTRY STRUCTURE



## Final remarks

- Demand for pulp continues to grow
- Supply remains challenged by access to low-cost capital, land and wood
- **Expect** changing business landscape as the resources are getting scarce
- **Prepare for** continued industry transformation and increasing volatility
- **Implement** mitigation measures for resilience against the volatility

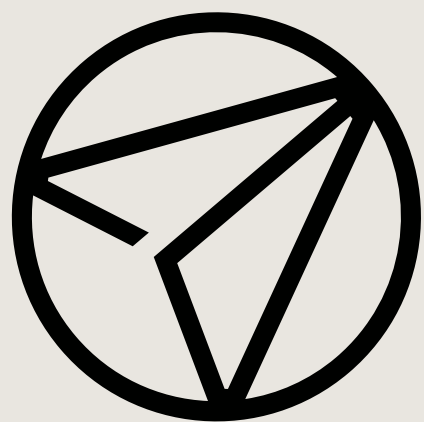






# Making Future

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