



THE SUNSET OF GRAPHIC PAPERS – POSITIVE AND NEGATIVE IMPACTS ON MARKET PULP SUPPLY AND DEMAND

AFVP – Divonne-les-Bains

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TALK OF TOMORROW AND THE DEVIL SMILES*

Future is full of uncertainty. Forecasts can be very good, if assumptions are exactly right, but they rarely are. Pöyry forecasts have proved to be better than most others. Even so, He keeps on smiling.



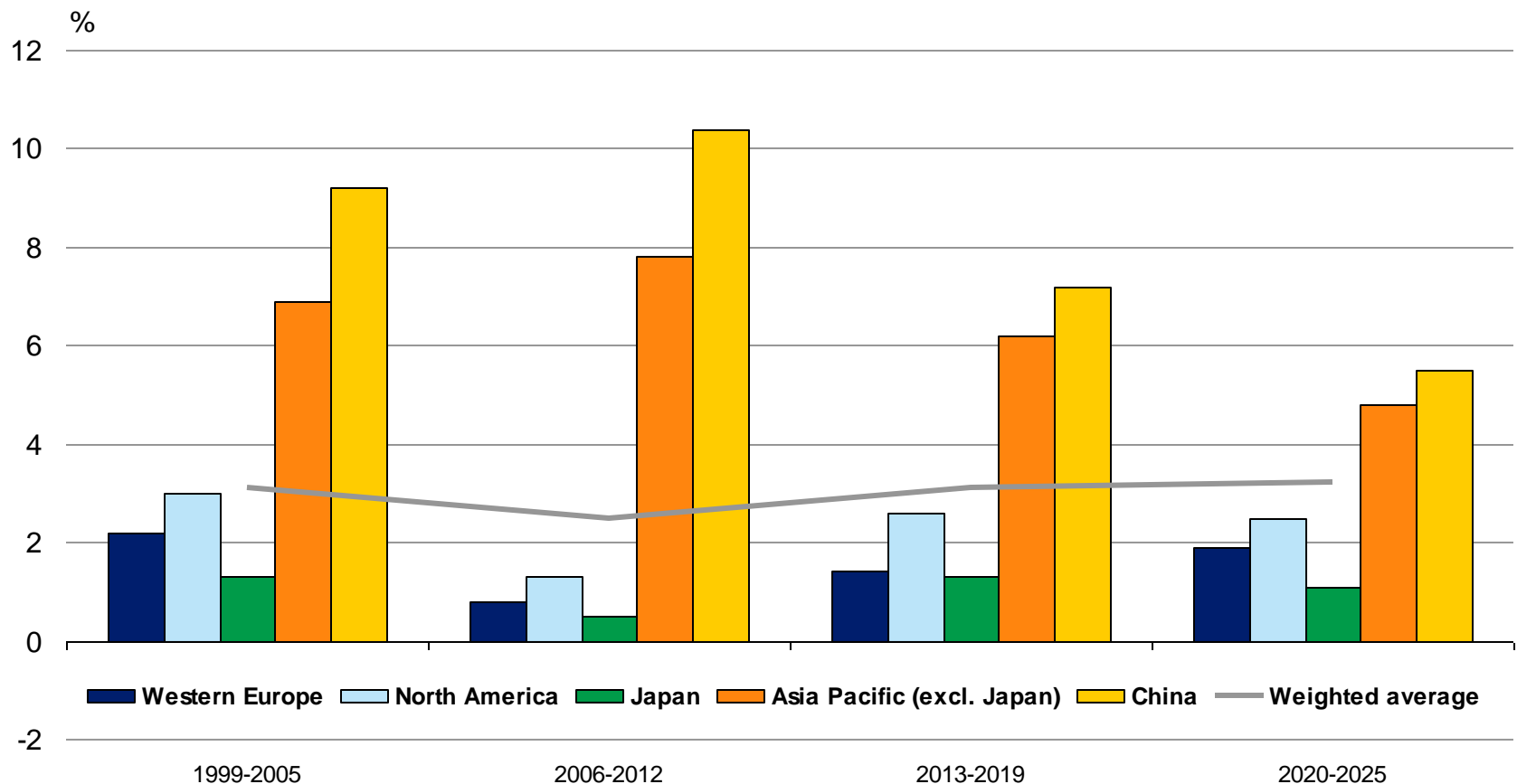
* Chinese proverb

CONTENTS

- Paper and paperboard market in transition
- Sunset scenario on graphic paper
- Impact on fibre balance
- Impact on market pulp
- Conclusions

ANNUAL GDP GROWTH BY REGION 1999 - 2025

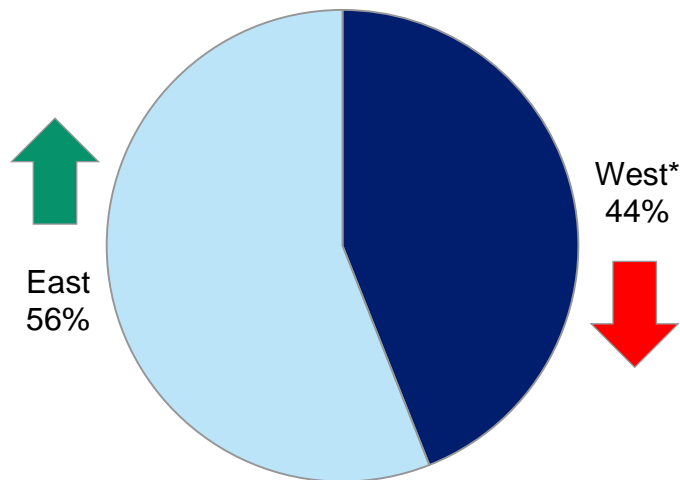
Recessions slowed global growth down in 2006-2012. The growing weight of the developing regions brings global growth slightly higher beyond 2020, even though country and region-specific growth slows down marginally.



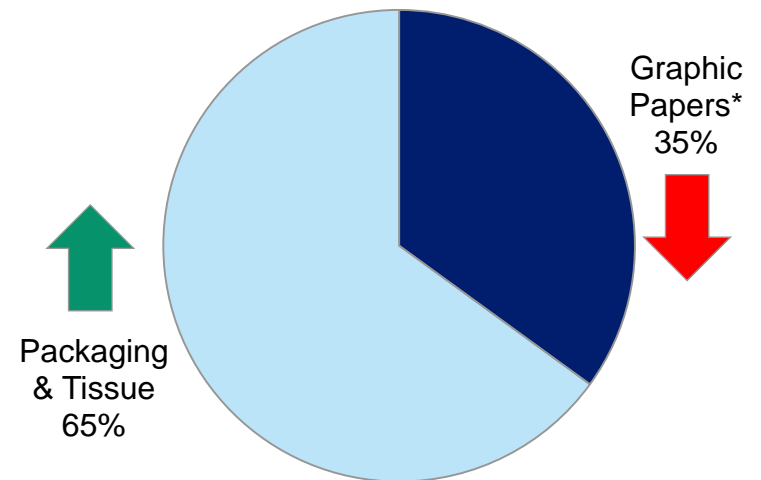
GLOBAL PAPER AND BOARD MARKET IN TRANSITION

Demand transition by geography and by product segment is significant.

Shift from West to East



Shift from Graphic Papers to Packaging & Tissue..



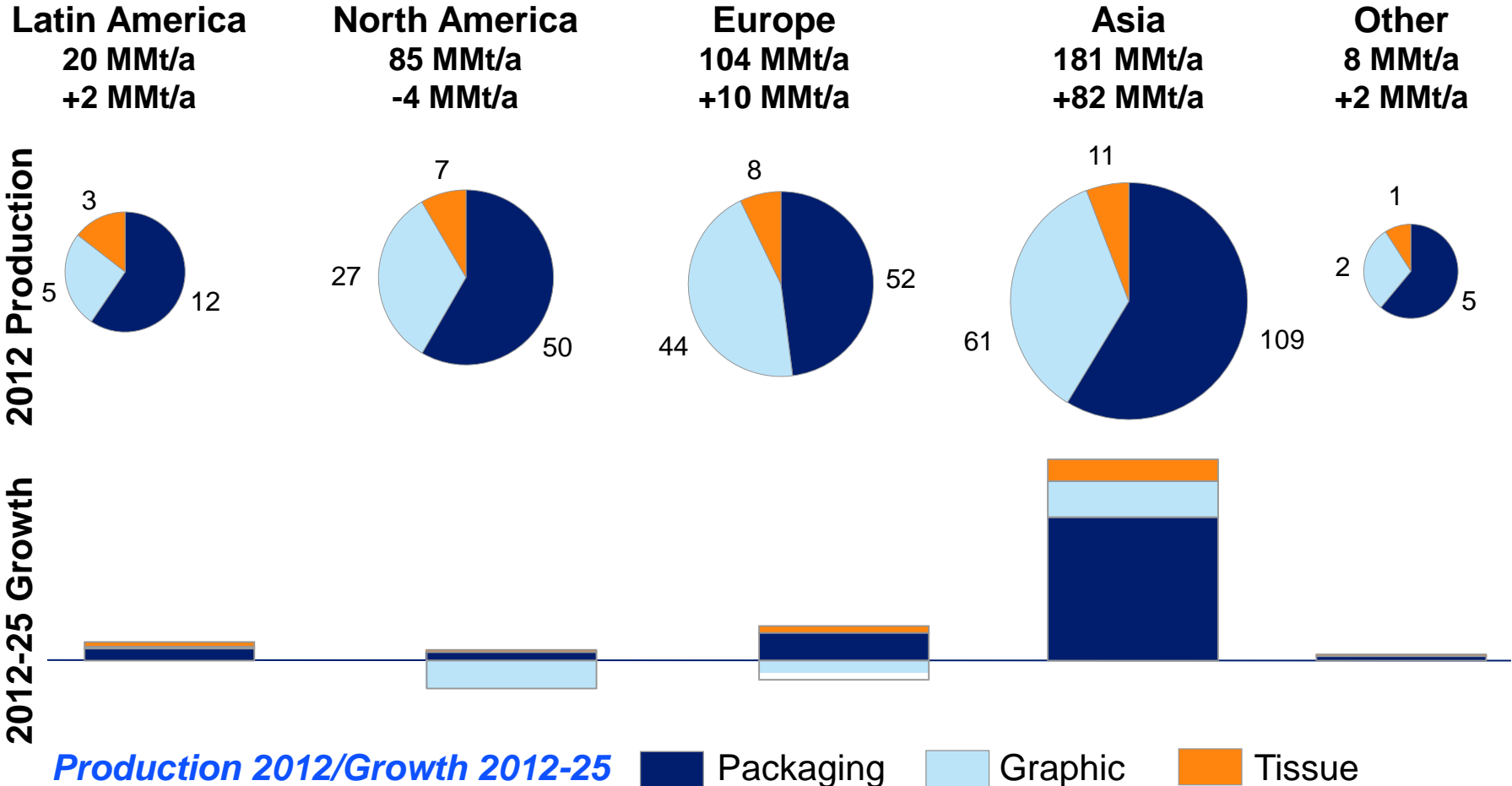
Total 2012: 396 million tons (2013: 397 Mt/est.)

*) Western Europe, North America & Japan

*) Graphic Papers: Newsprint, Printing & Writing Papers

GLOBAL PAPER AND PAPERBOARD PRODUCTION & GROWTH

Asia represented 45% of the global paper and paperboard production (upper numbers) in 2012, but the region is likely to account for 85-90% of the 2012-2025 net paper and paperboard production growth.



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KEY DRIVERS – GRAPHIC PAPERS

Substitution levers are changing graphic paper consumption patterns. Negative drivers are beginning to outweigh the positive ones

Macro- and socioeconomic drivers

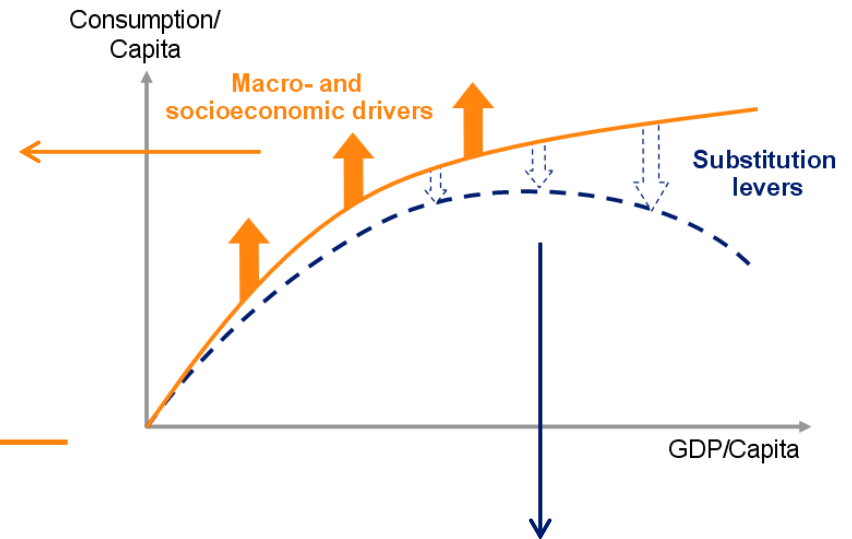
- General economic growth ; increased business activity
- Growing disposable incomes ; increasing literacy
- Population growth
- Urbanisation

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Substitution levers

- New devices and digital solutions
- New media / Media convergence
- Changes in consumer time spent
- Shift of advertising

- / - - / - - -



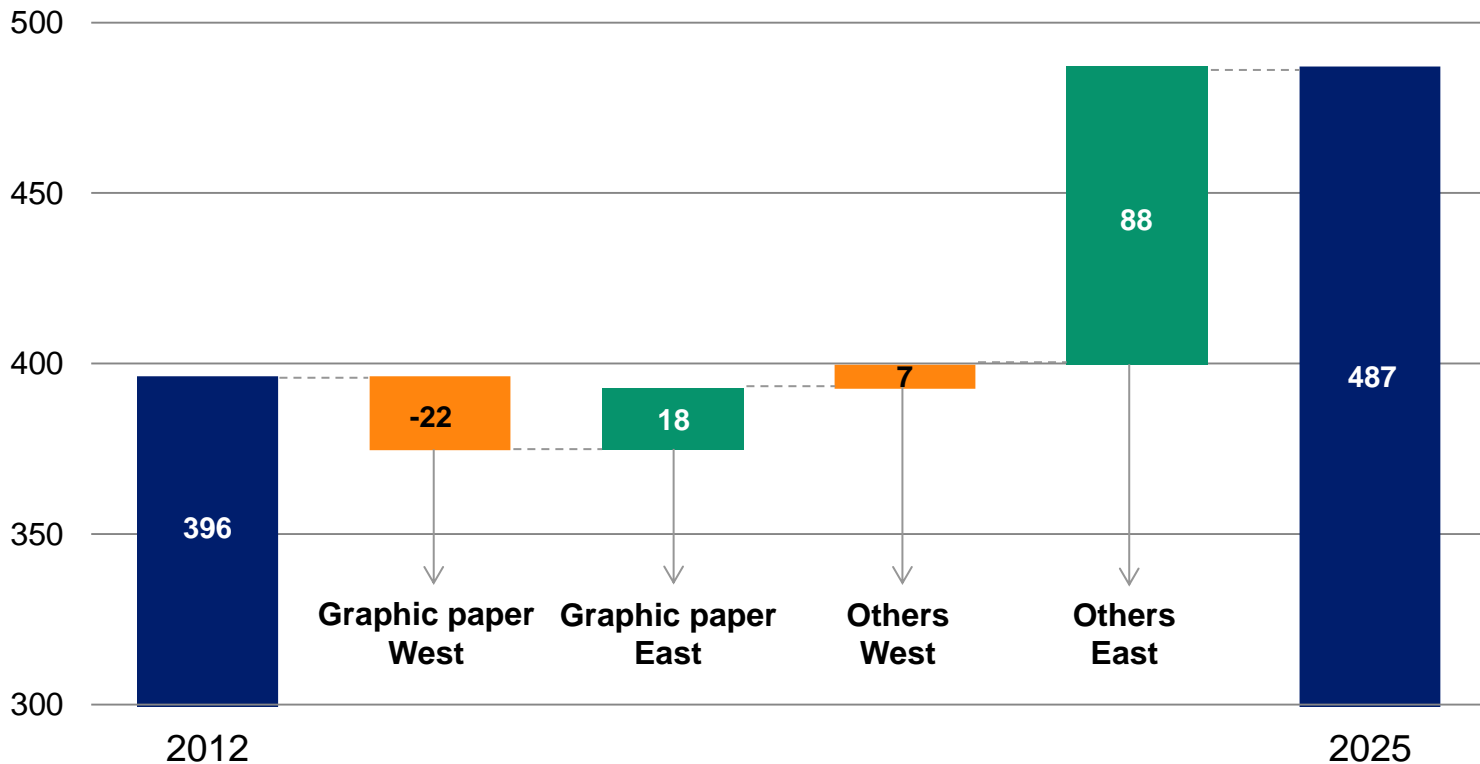
- Technological development traditionally acted as a catalyst for change in media environment
- New generations – New markets!

GROWTH IN PACKAGING AND TISSUE MORE THAN OFFSETS THE DECLINE OF GRAPHIC PAPER MARKET

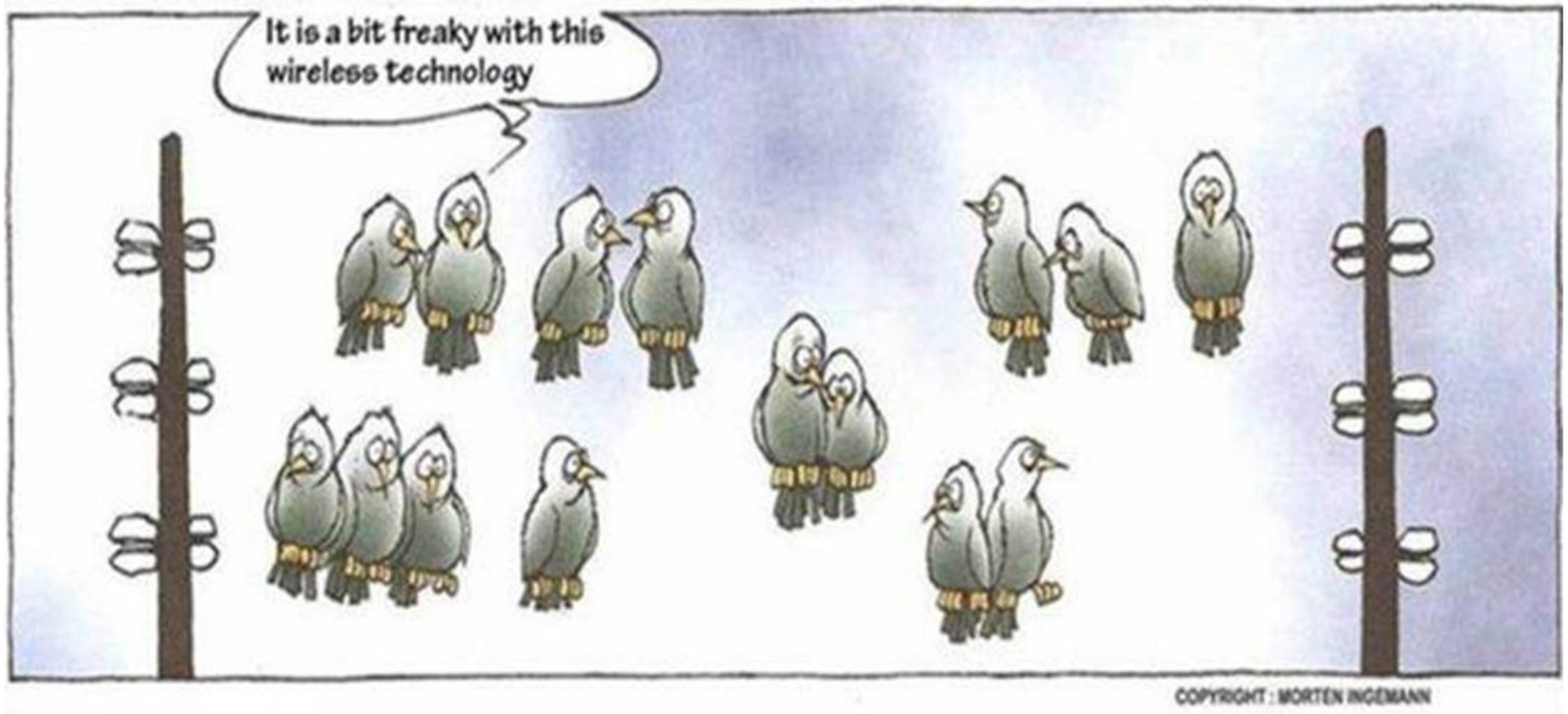
The growth will be driven by the emerging markets – especially East Asia.

World Paper & Paperboard demand change 2012-25

Million tons



I STARTED, ON JUNE 1, 2014, MY 45TH YEAR WITH PULP AND PAPER INDUSTRY. STILL, I AM NOT THE ONLY ONE WHO WOULD PREFER THAT THE WORLD OF INFORMATION DISTRIBUTION DID NOT CHANGE TOO MUCH/FAST.



Contents

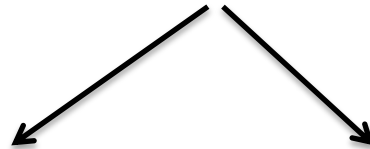
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PRINTING AND WRITING SECTOR CANNOT PROVIDE ENOUGH RP TO OTHER SECTORS

Total world paper and paperboard prod. In 2013: 397 Mt

Printing and writing :135 Mt (34%)

Fiber use in Pr. & Wr.: 125 Mt



RP back to Pr & Wr
85 Mt

RP to other grades
40 Mt

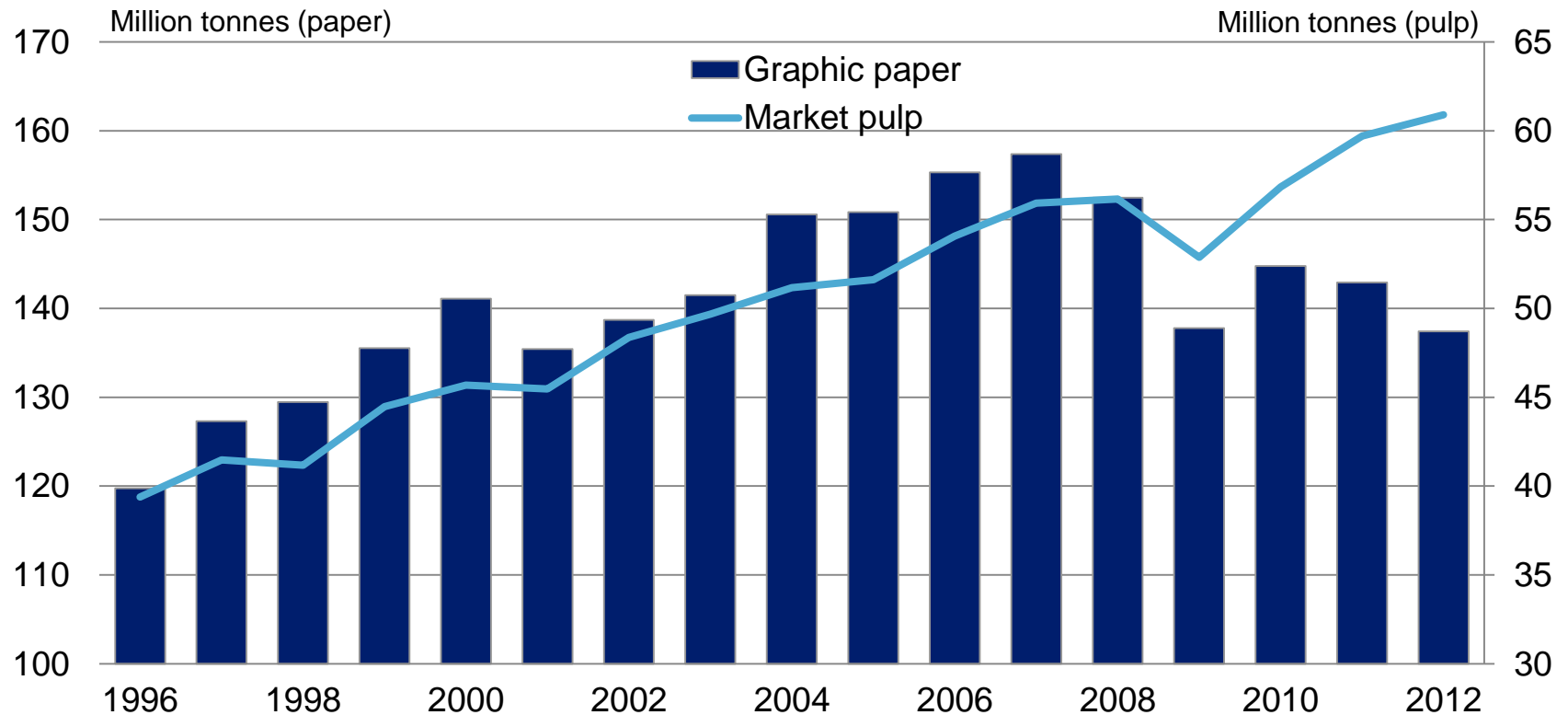
By 2025, other sectors need: 49-50 Mt of RP from Pr & Wr

What if only 30-35 Mt can be provided?!

More market pulp will be needed!

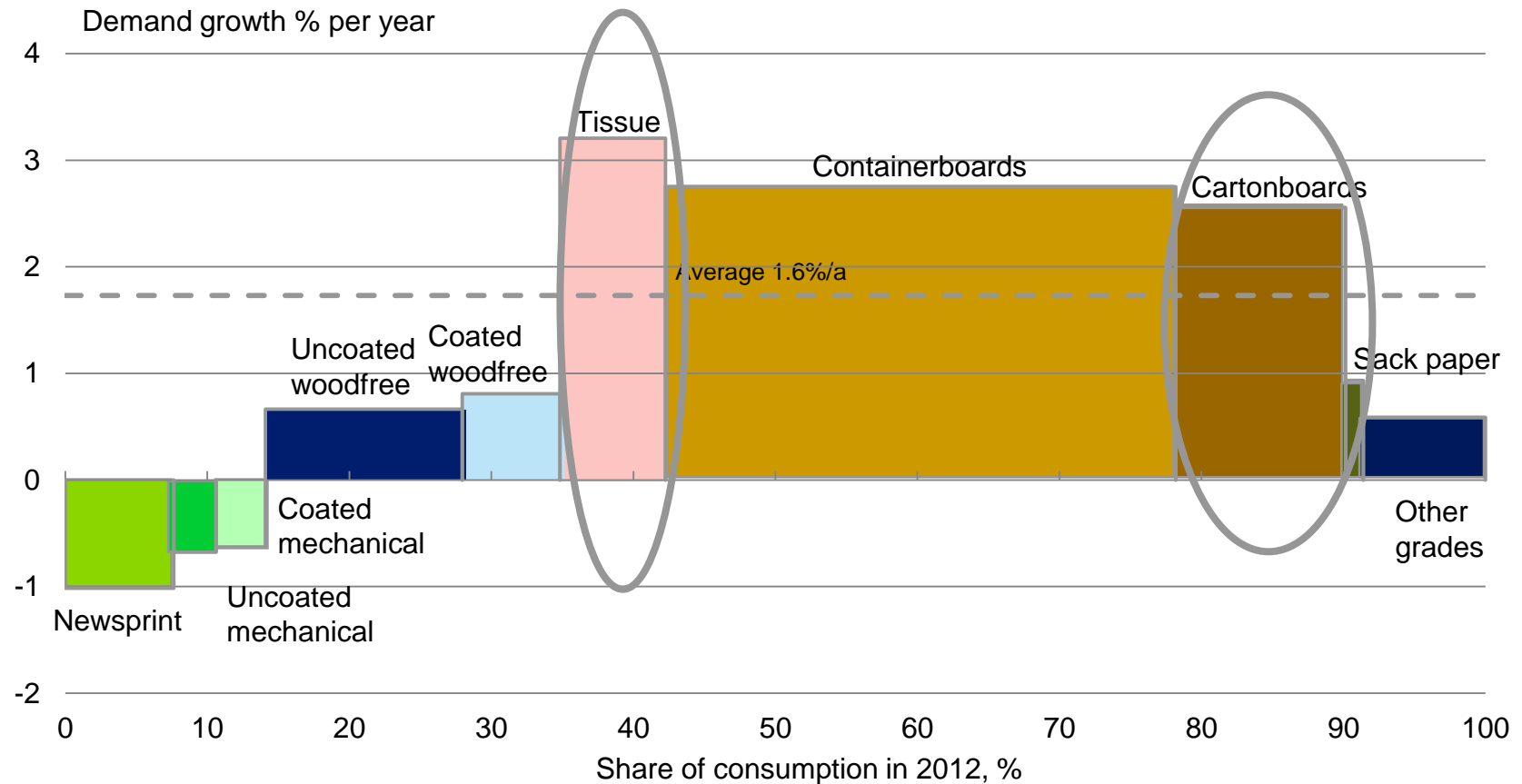
WORLD DEMAND FOR GRAPHIC PAPER AND MARKET PULP 2007-2012

Paradigm shift – close interlink between graphic paper and market pulp demand has changed. Market pulp demand continues to grow while graphic paper demand trends lower.



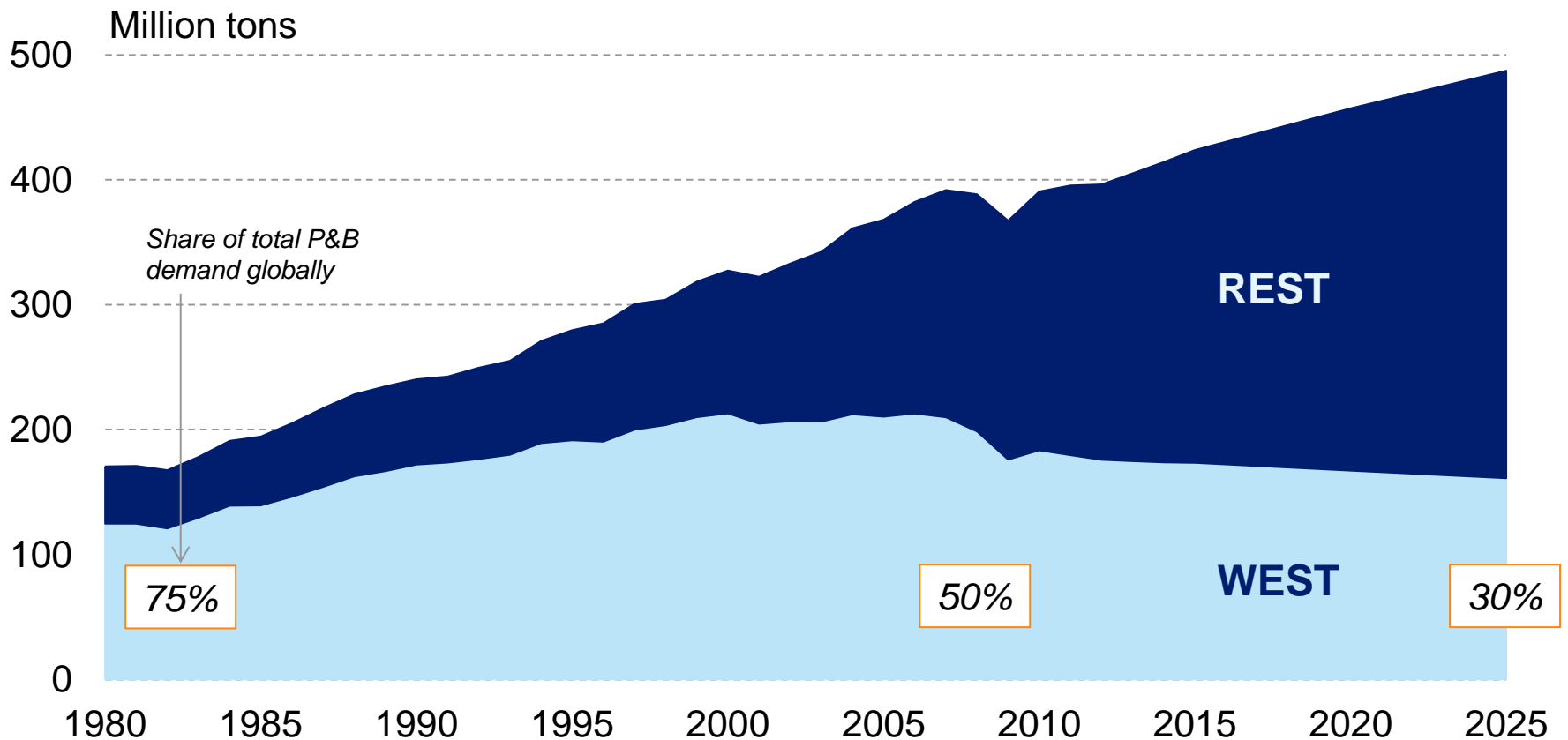
LONG-TERM GROWTH OF PAPER AND PAPERBOARD DEMAND BY PRODUCT AREA THROUGH 2025

Containerboards, carton boards and tissue account to nearly all of the net growth. Graphic papers carry further downside risk, depending on how fast the structural decline spreads from industrialized countries to emerging economies.



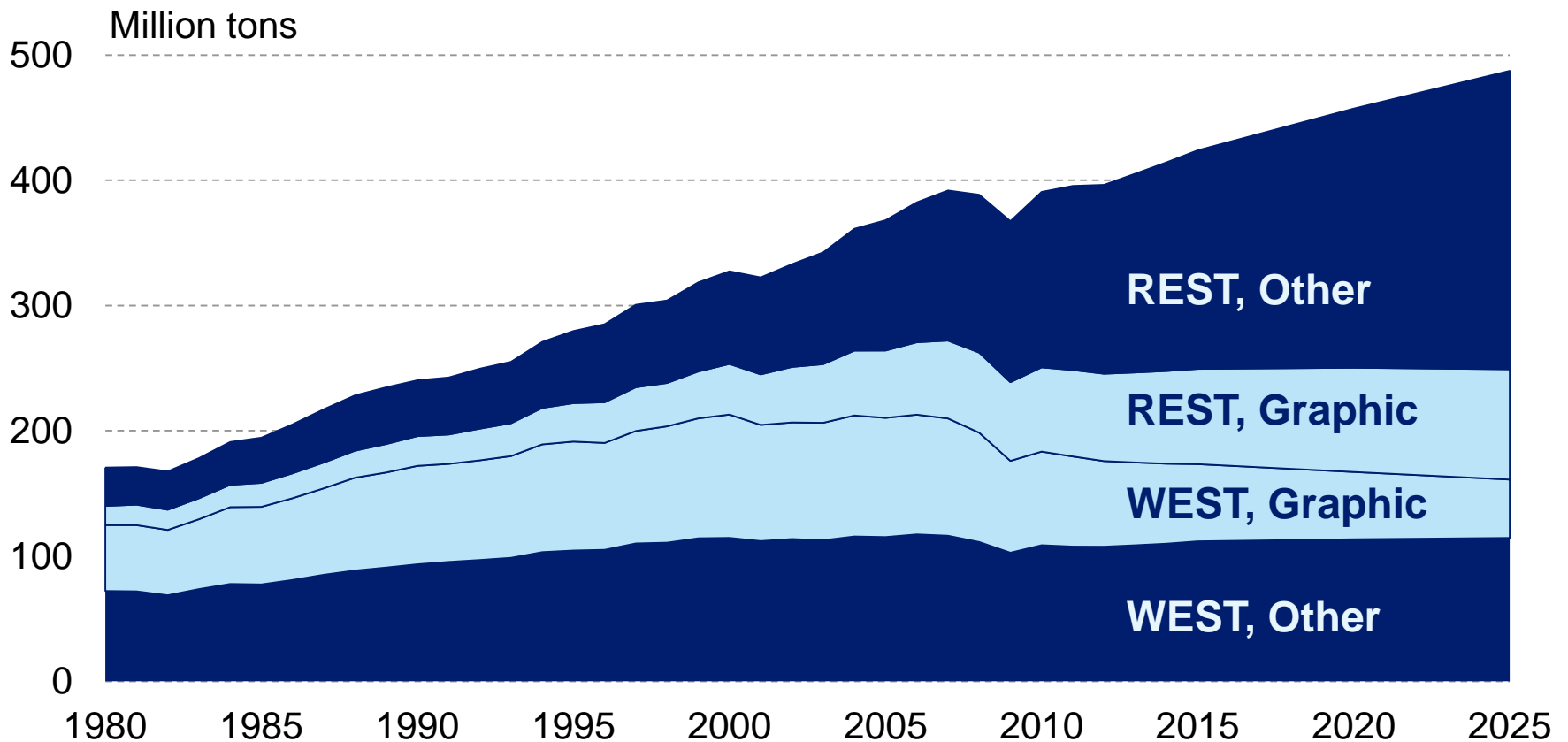
WORLD PAPER AND BOARD DEMAND 1980-2025

Importance of mature markets in production of recycled fibre is diminishing



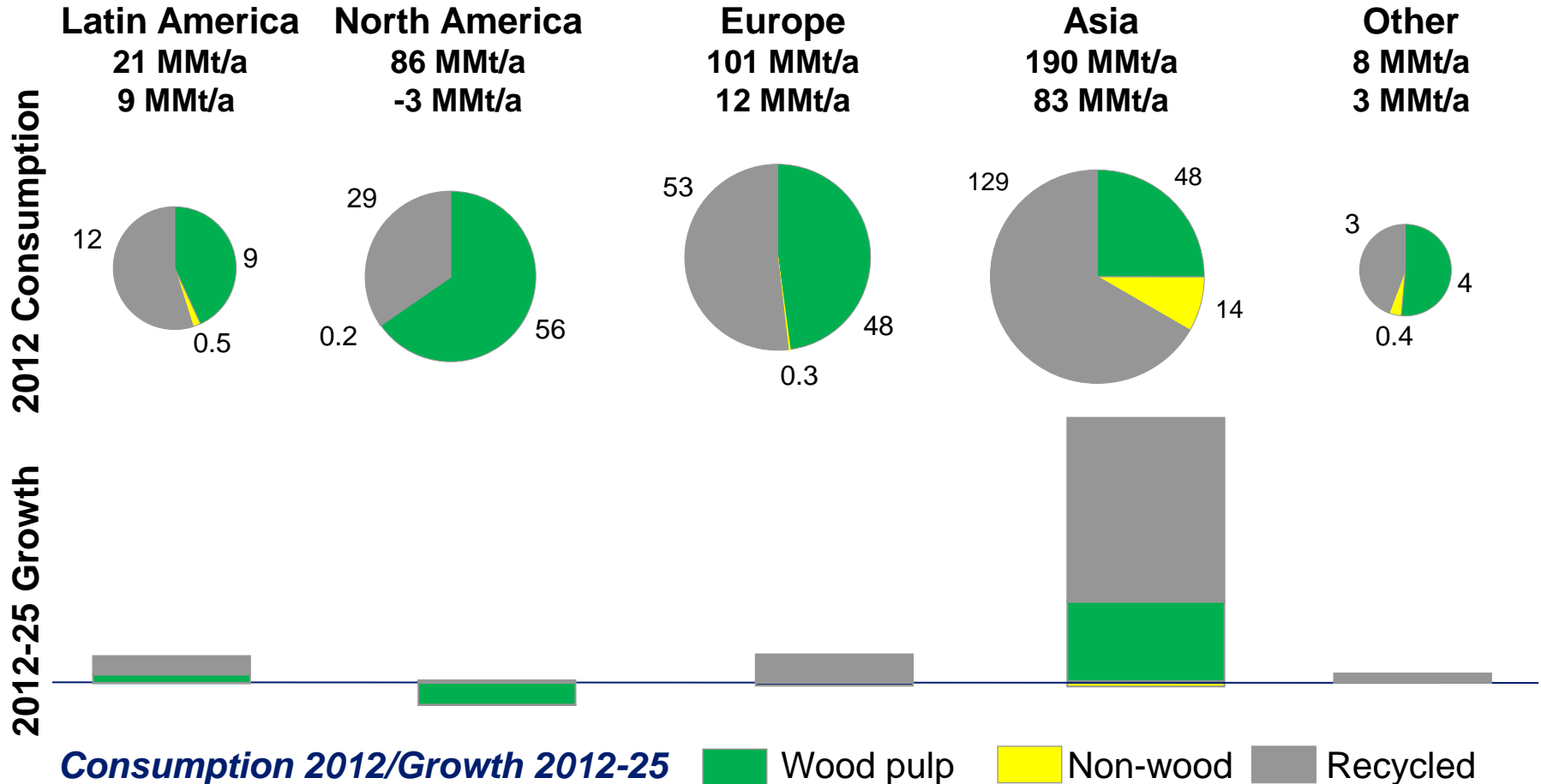
WORLD PAPER AND BOARD DEMAND 1980-2025

Historically supply of recycled white fibre has relied on old news and magazines collected from the mature markets. This source of supply is now drying up!
More market pulp will be needed!!



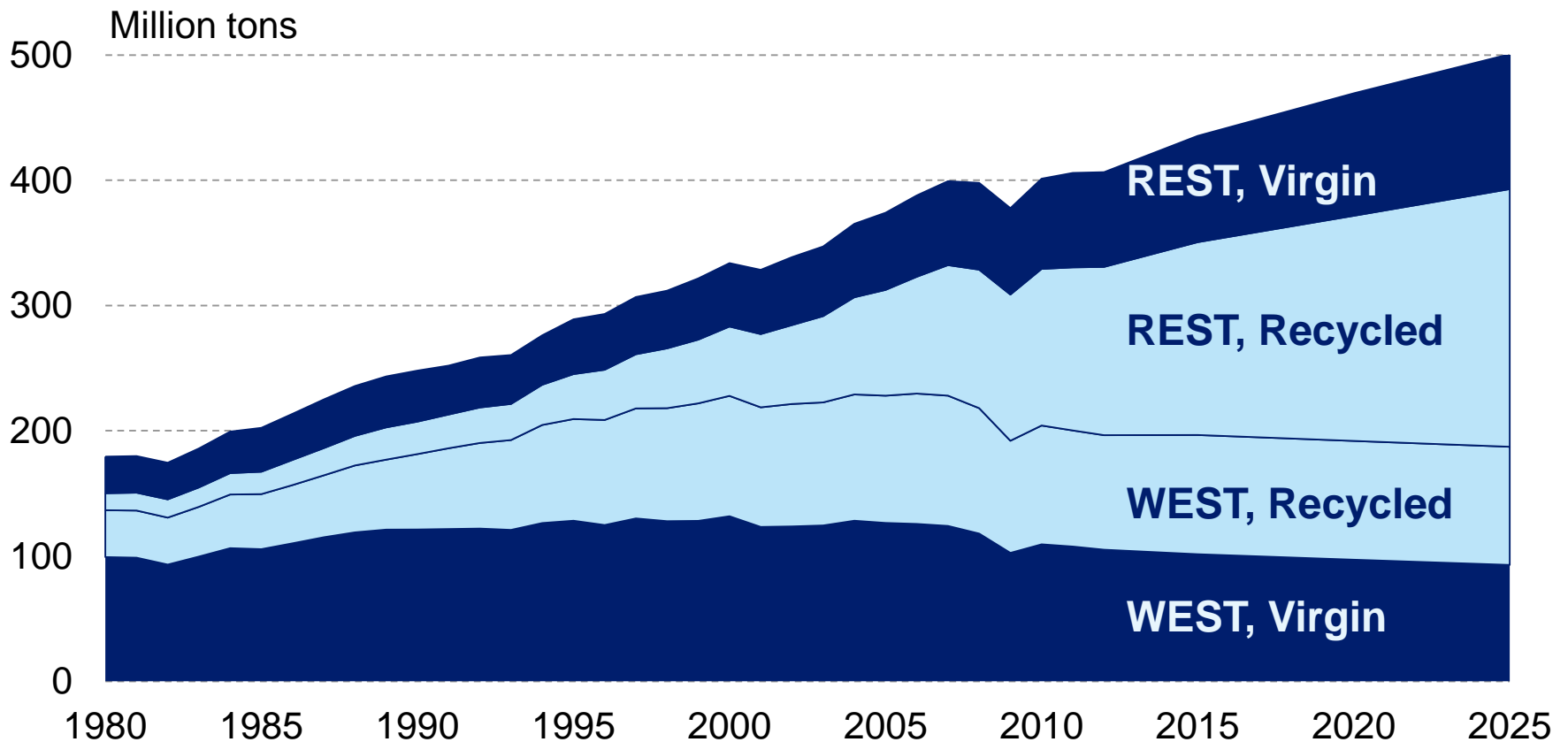
GLOBAL PAPERMAKING FIBRE CONSUMPTION

While Asia represented 46% of the global papermaking fibre consumption (upper numbers) in 2012, the region is likely to account for nearly 90% of the 2012-2025 net fibre consumption growth (lower numbers).



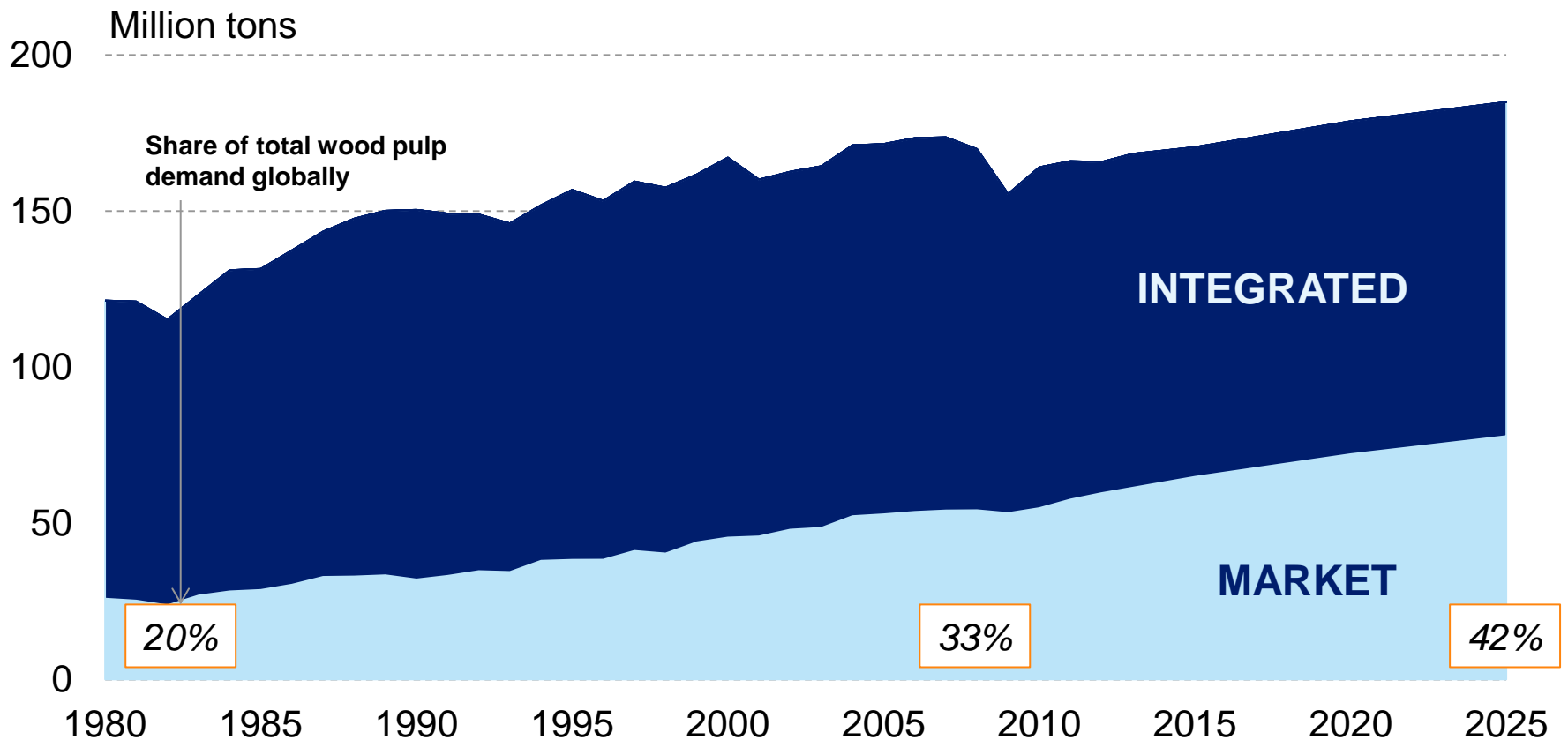
WORLD FIBRE DEMAND 1980-2025

The world still counts on growing supply of recycled fibre



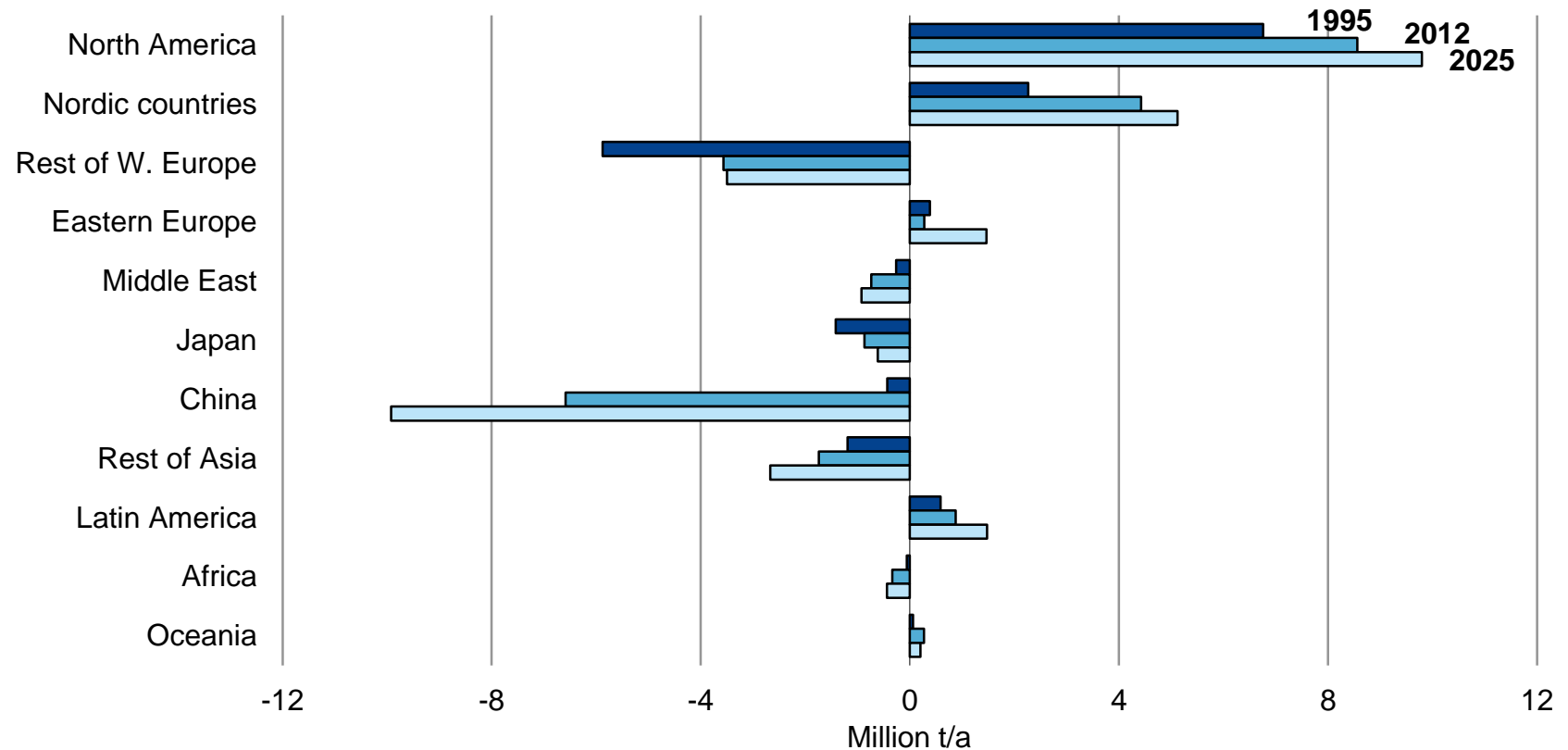
SHARE OF MARKET WOOD PULP INCREASING

Growth of wood pulp sector will continue to be largely driven by the market pulp consumption.



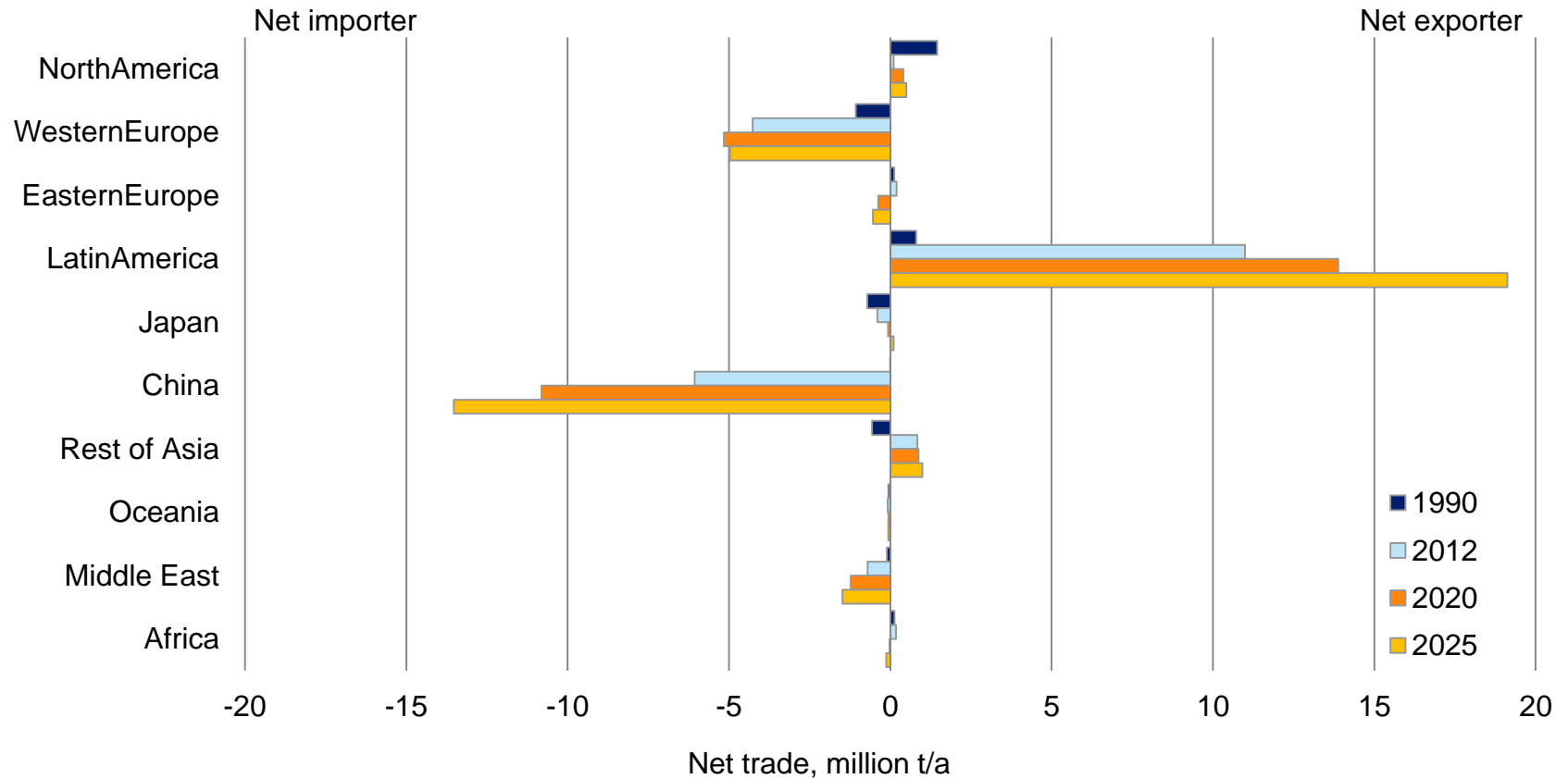
NET TRADE IN BSKP 1995, 2012 AND 2025

North America, Nordic countries, Eastern Europe and Latin America will be the primary sources of exports in the future. Figures include fluff pulp which accounts for about half of the annual market BSKP growth (or 160 000 out of 300 000).



NET TRADE IN BHKP 1995, 2012, 2020 AND 2025

Latin America is becoming a net export “monopoly” when intra-regional trade (e.g. in WE or “other Asia” is excluded”. China will dominate as net importer



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GRAPHIC PAPER SUNSET – IMPACT ON MARKET PULP

Negative* drivers

- Major decline in market pulp demand in in graphic paper end-use
- De-integration (release of market pulp from earlier integrated use)

Positive* drivers

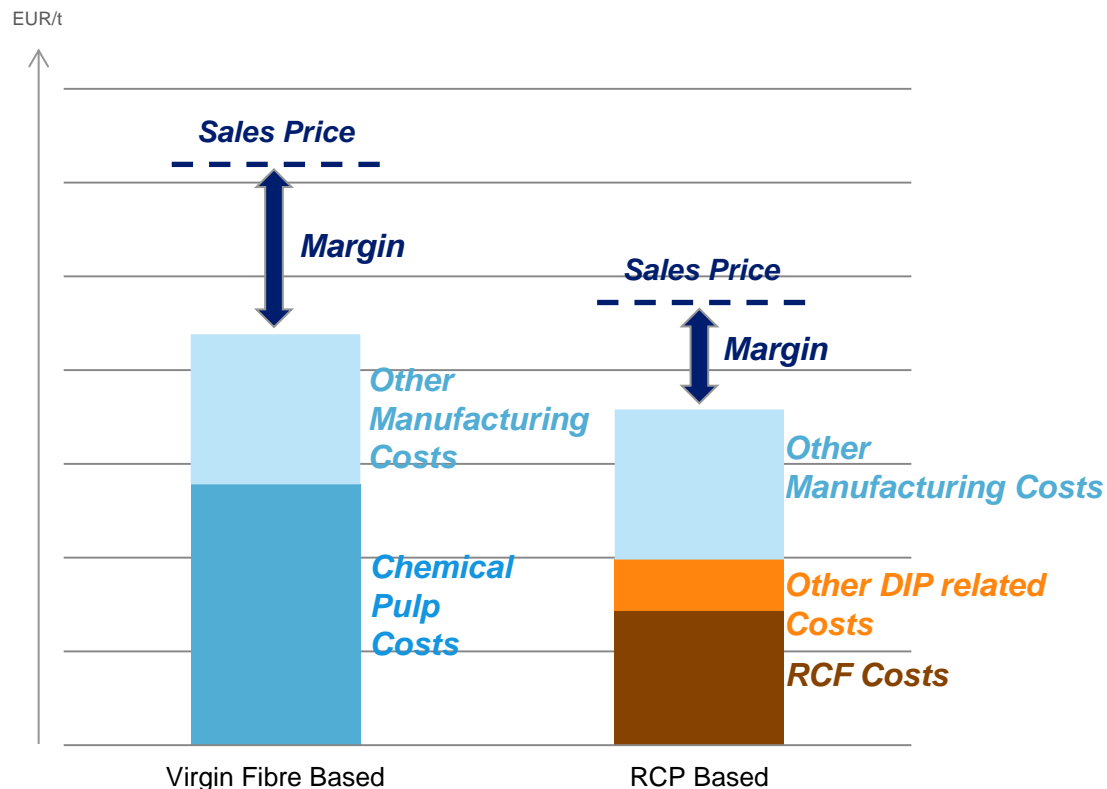
- Reduced supply of RP
- Lower quality of RP
- Higher price of RP (relative to market pulp)
- New, high-quality market DIP plants?
- More market pulp demand – some of the additional supply is already there
- Better paper quality & better paper price
- Environmentally healthier industry

* Mainly in terms of pricing and profitability

SWITCHING TO CHEMICAL PULP – A VALUE CREATION ROUTE

There is an incentive in many tissue products to upgrade to market pulp as the cost of recycled fibre rises above product's paying capability

RCF Share by Segment



- RCF is holding its position in lower quality, low-priced tissue products.
- The lower quality tissue products are typically directed to AfH markets and to consumer markets of developing economies.
- **Share of virgin fibre will increase in global tissue production**
- The development of RCP prices and rising DIP related costs encourage replacement of RCP by virgin pulp, especially in high quality tissue products.

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CONCLUSIONS

- **World paper demand shifting from the west to emerging markets, and from graphic papers to packaging and tissue**
- **Especially graphic papers in mature markets are in turbulence**
 - **Major implications to global white fibre balance**
 - **Shortage of RP, especially outside graphic paper sector**
 - **Lower quality of RP, at a higher cost**
 - **Imposing a positive shock to demand of white virgin fibre market pulps**
- **Pulp flows are polarising**
- **Market pulp positives outweigh the negatives**
- **Environmental end-result is positive**

SMILE ON THE SKY

For those involved in producing or selling graphic papers, the sunset can be a drastic moment. For those selling market pulp, it can be the source of a smile!

**THANK YOU
FOR YOUR
KIND
ATTENTION!**



THANK YOU!



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Engineering balanced sustainability™

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