



# **Polyester Intermediates**

## **Outlook**

**By Sanjay Sinha**

**PET Day 2003**

**24<sup>th</sup> October**

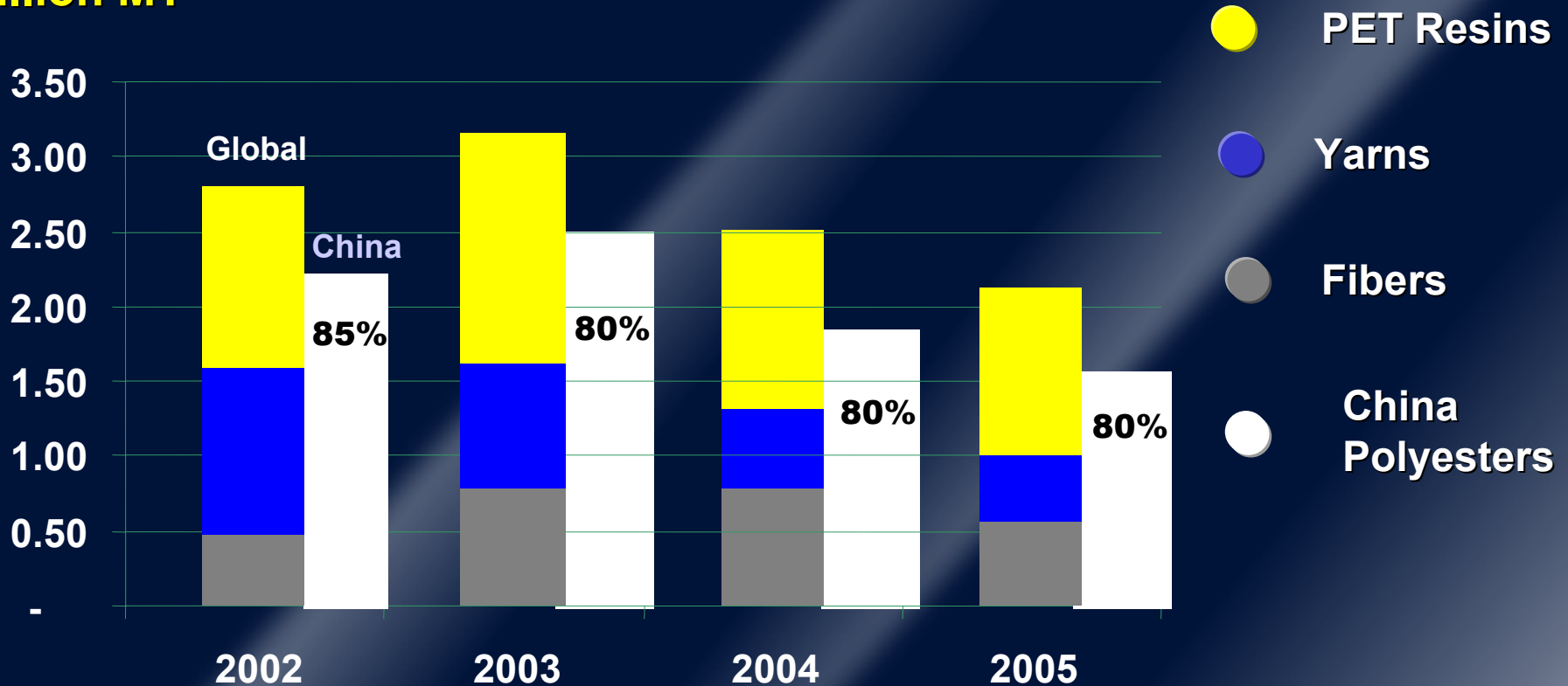


- **Polyester Outlook**
- **Para Xylene Outlook**
- **PTA Outlook**
- **MEG Outlook**
- **Summary**
- **Reliance Group Profile**



# Polyester Expansion : Global & China

Million MT



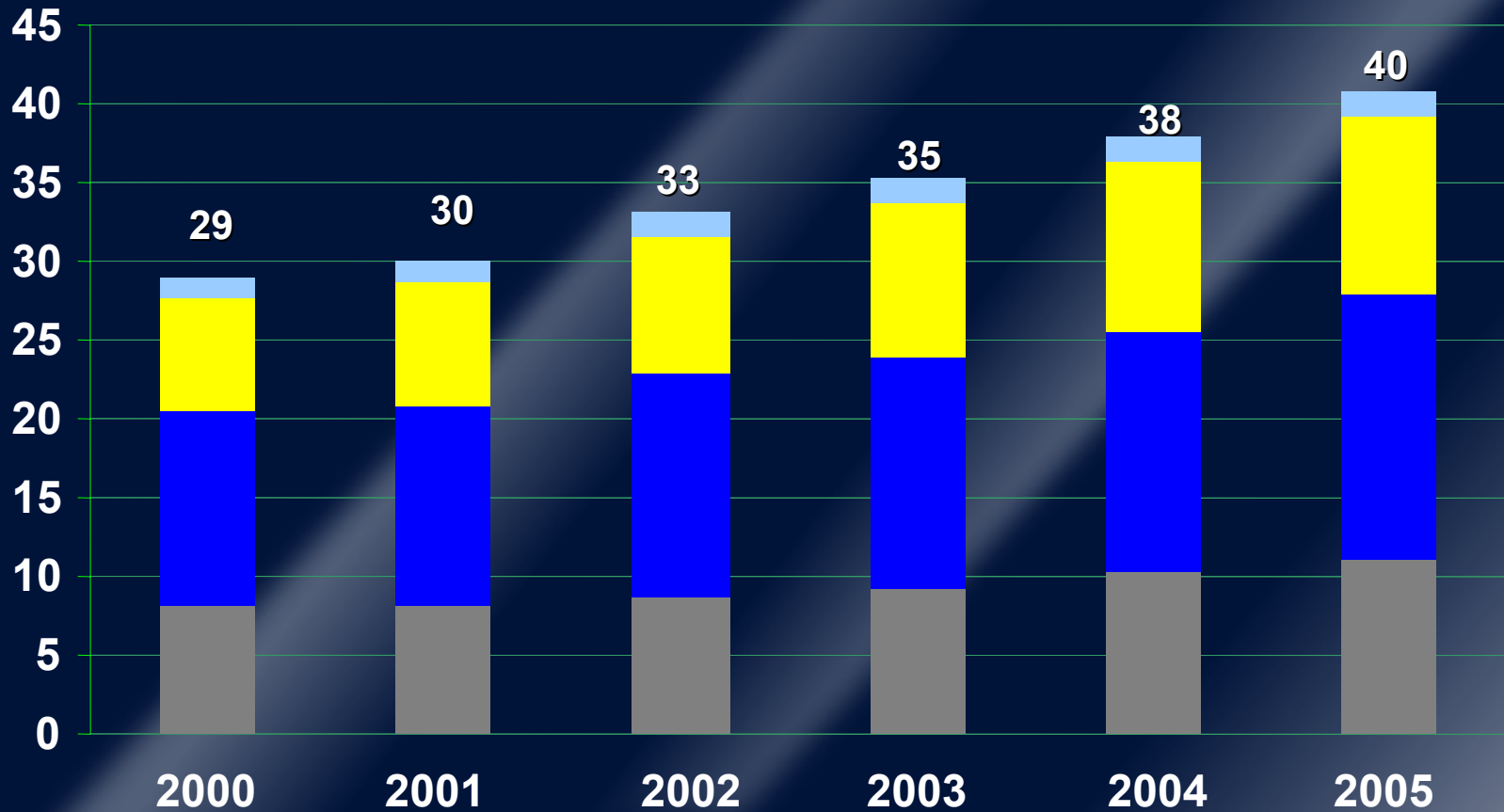
↳ Globally around 2 to 3 MMT polyester capacity is being added annually

# Polyester Production



● PSF ● PFY ● PET ● FILM

Million MT



↳ Filament Yarns & PET Resins are fast growing segments



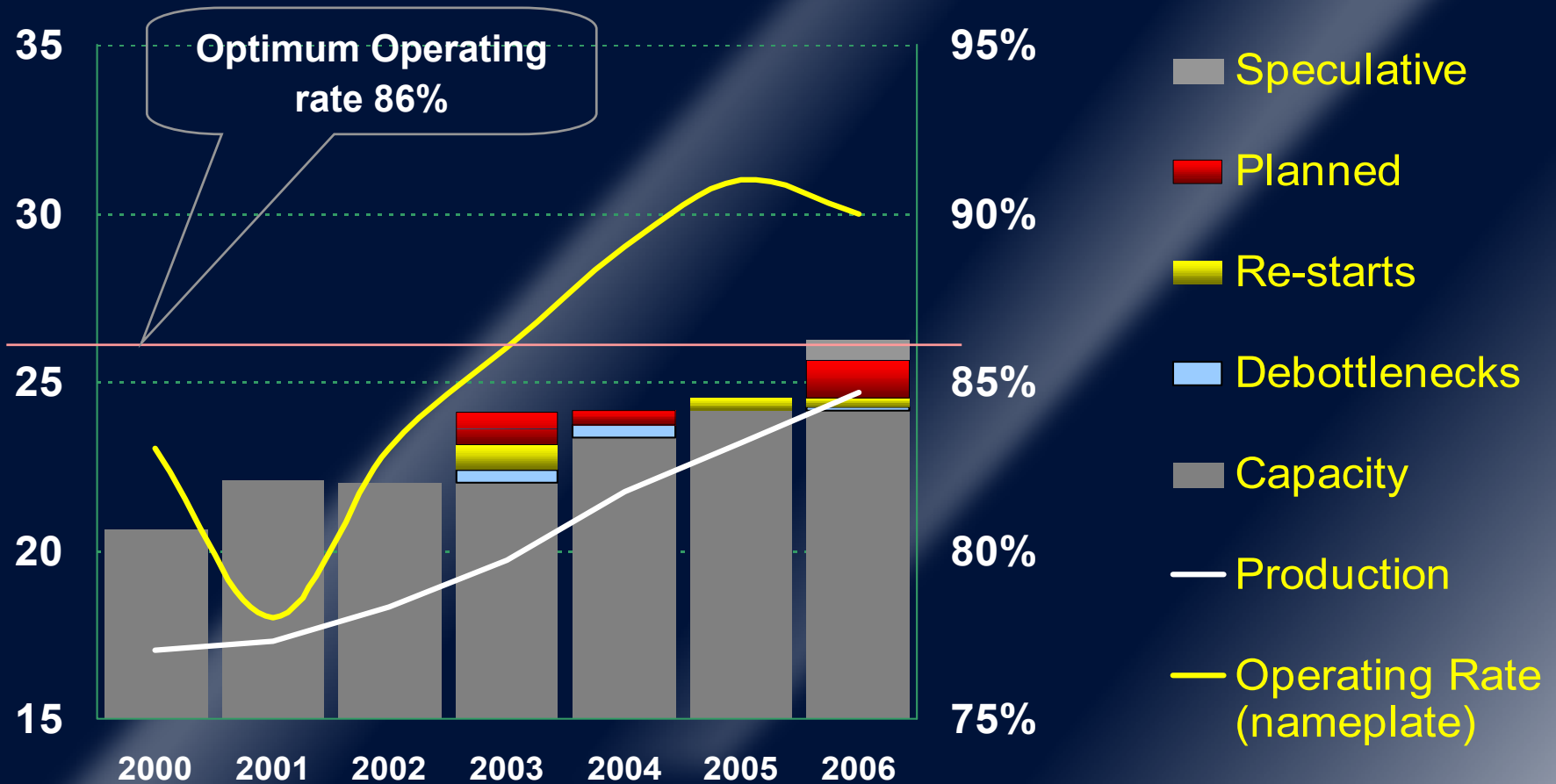
# Para - Xylene Outlook

# Global PX Capacity & Op. rate



Million MT

Operating rate in %



↘ PX getting into danger operating zone

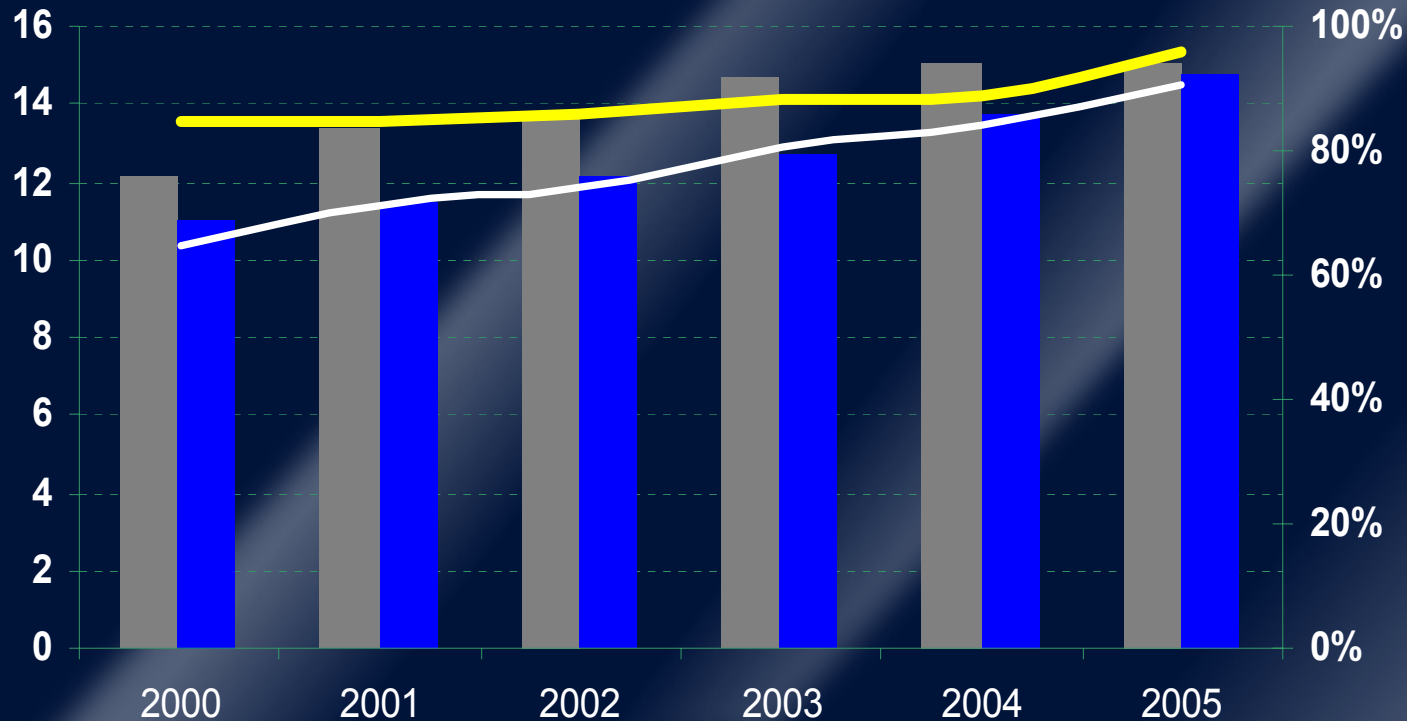
# PX Outlook : Asia



● Capacity ● Demand ● Operating rate ● Production

Million MT

Operating rate in %



↪ Inadequate capacity in 2005 firm up operating rate

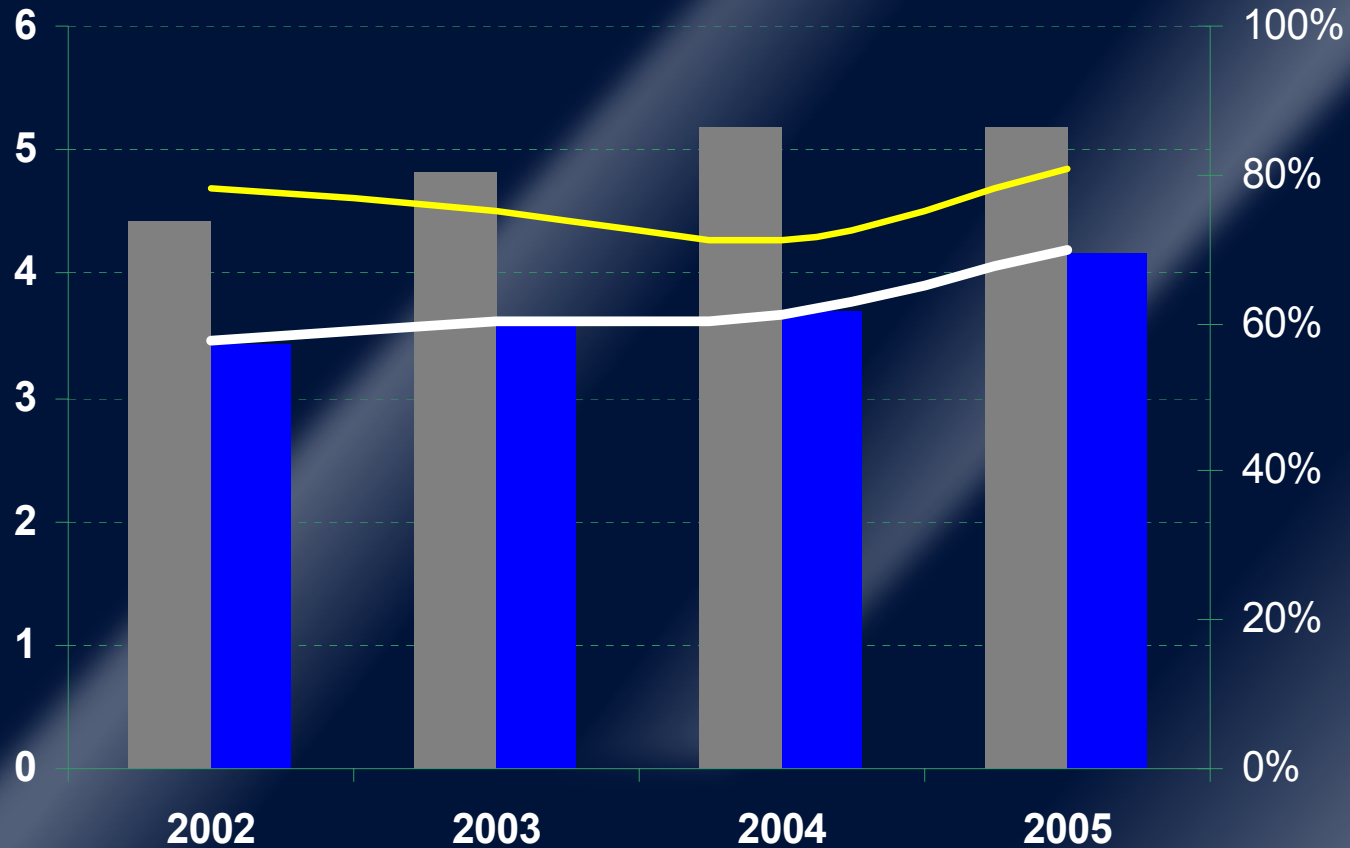
# PX Outlook : North America



● Capacity ● Demand ● Operating rate ● Production

Million MT

Operating rate in %



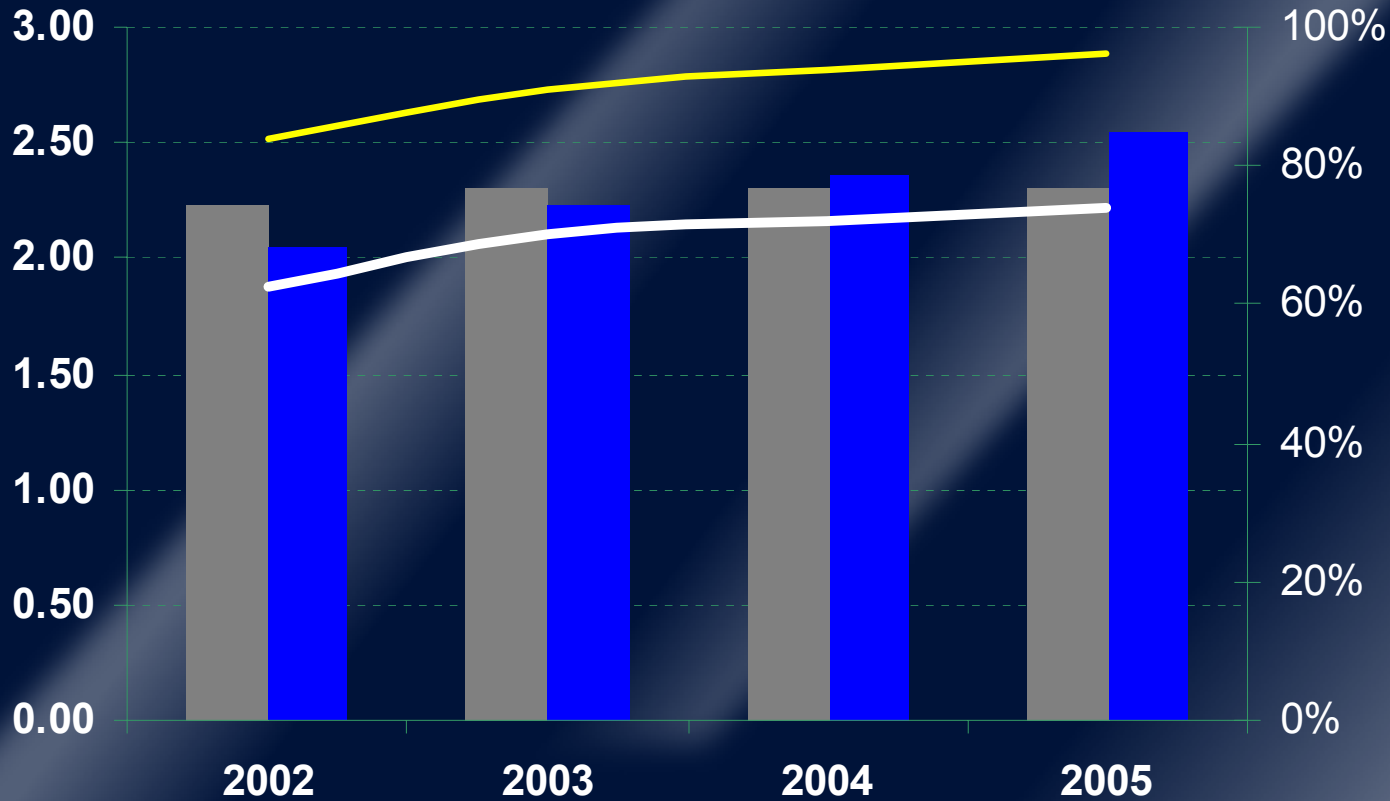
# PX Outlook : West Europe



● Capacity ● Demand ● Operating rate ● Production

Million MT

Operating rate in %



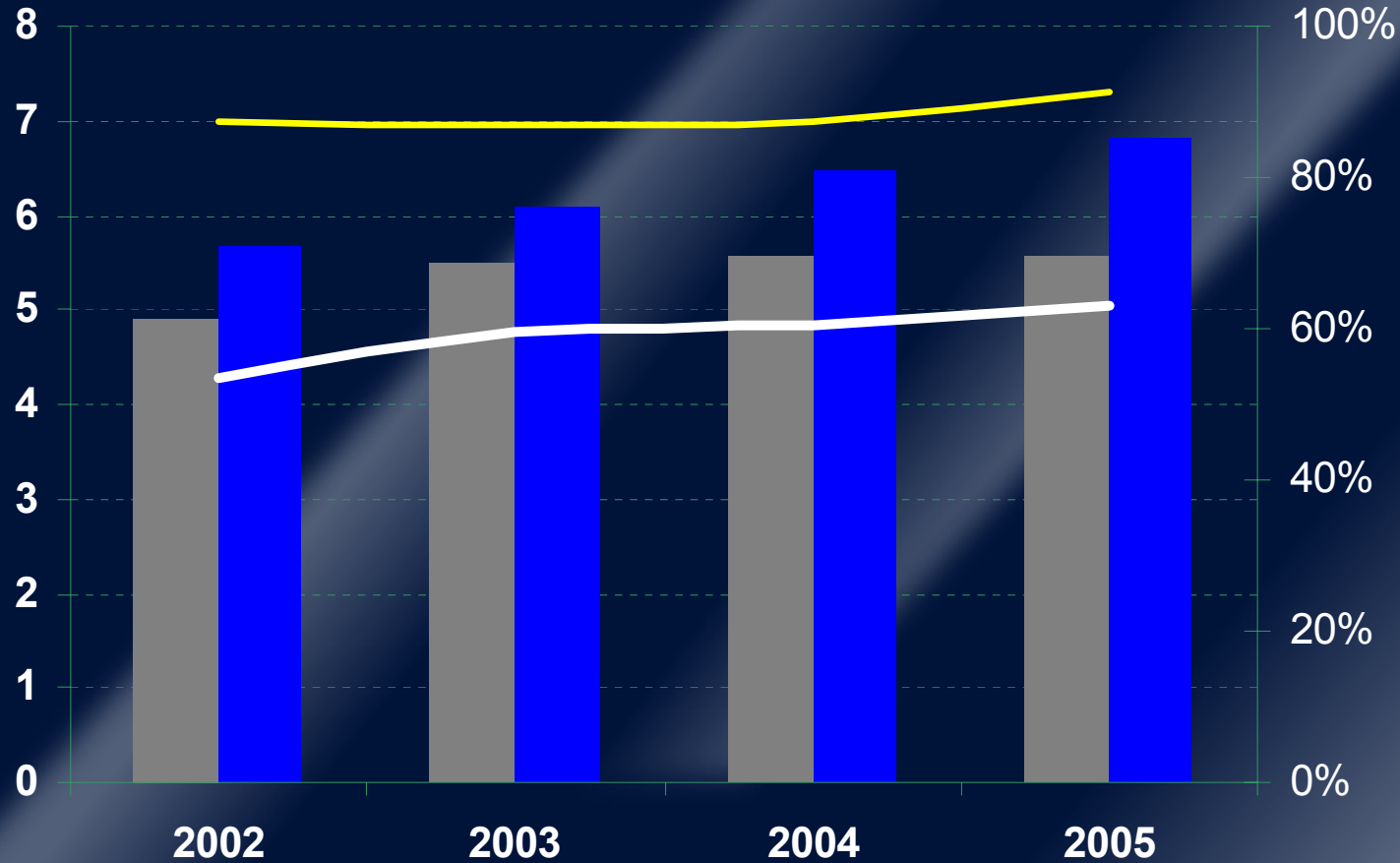
# PX Outlook : Korea/Taiwan



● Capacity ● Demand ● Operating rate ● Production

Million MT

Operating rate in %



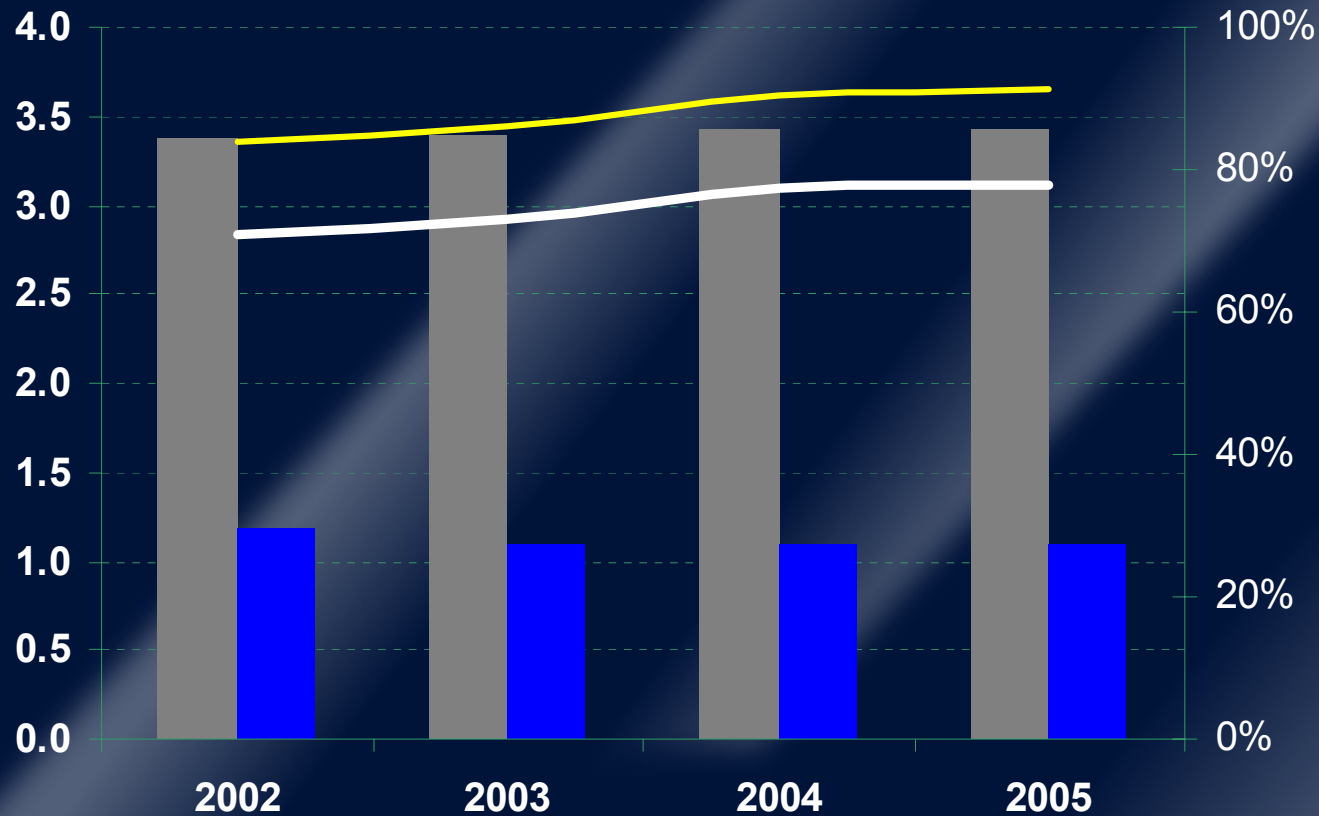
# PX Outlook : Japan



● Capacity   ● Demand   ● Operating rate   ● Production

Million MT

Operating rate in %

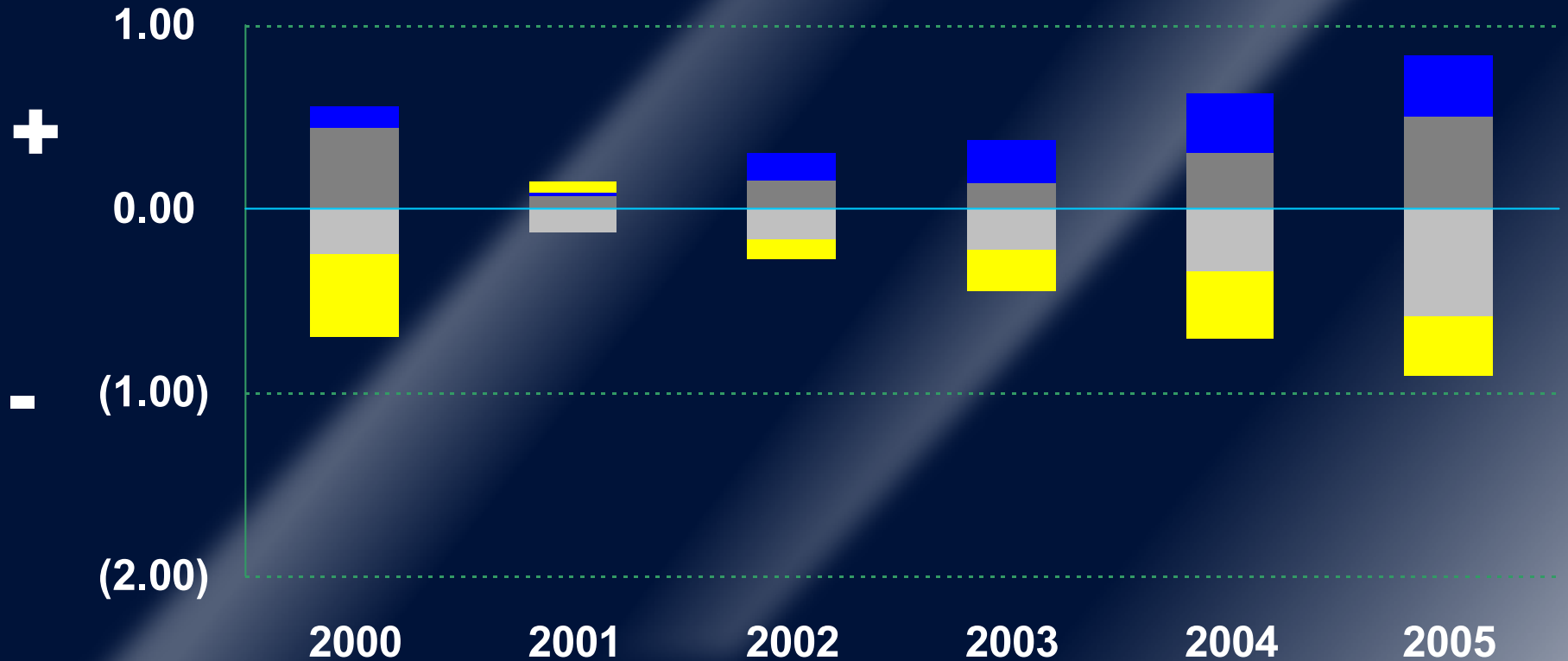


# PX Net Trade



● Africa/ME    ● North America    ● West Europe    ● Asia

Million MT





- **PX will become tight from Q1 2004 as supply will lag demand**
- **Operating rates will need to rise sharply in N.A in coming 3 yrs to feed Europe and Asia with MX and PX**
- **Asian PX deficit increases year by year**
- **Capacity additions insufficient to avoid tightening market by 2004/05**
- **Asia, particularly China is facing increasing shortfall in feedstock in the medium to long term, despite large increase in capacity in the near term**



# PTA Outlook

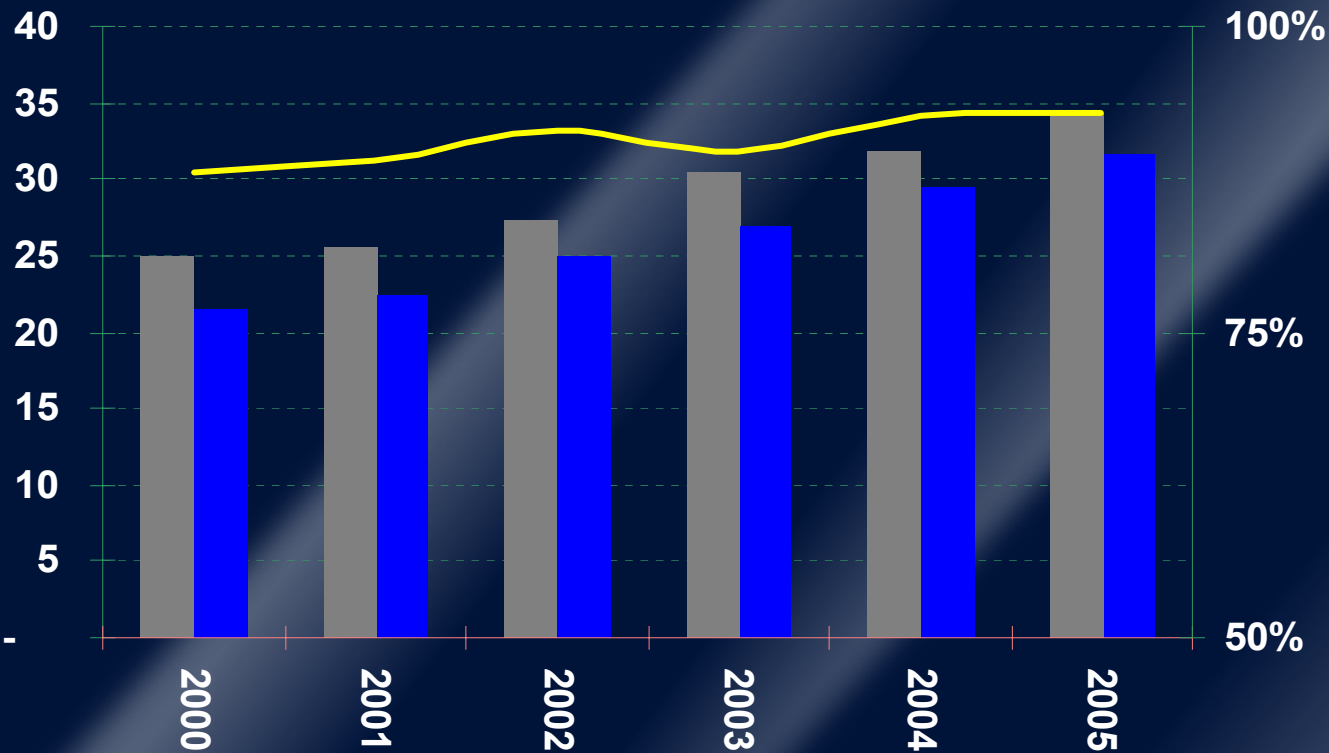
# Global PTA Outlook



● Capacity      ● Demand      ● Operating rate

Million MT

Operating rate in %

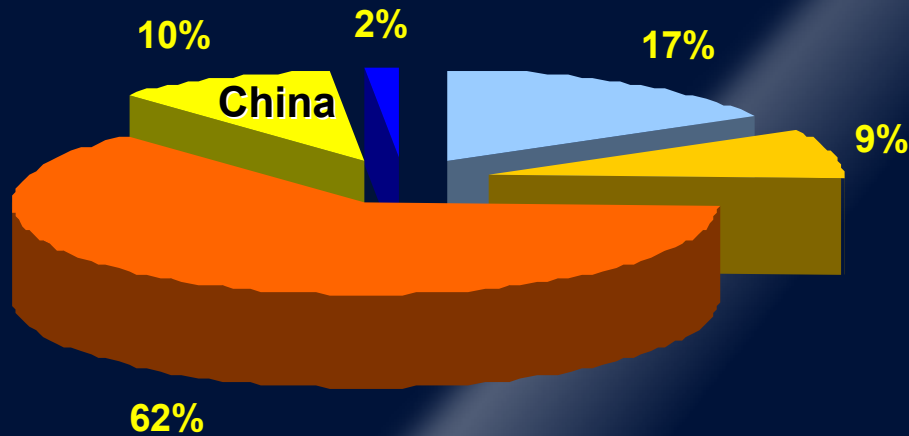


↳ Capacity of 3 MMT created in 2003 is absorbed fully in the market

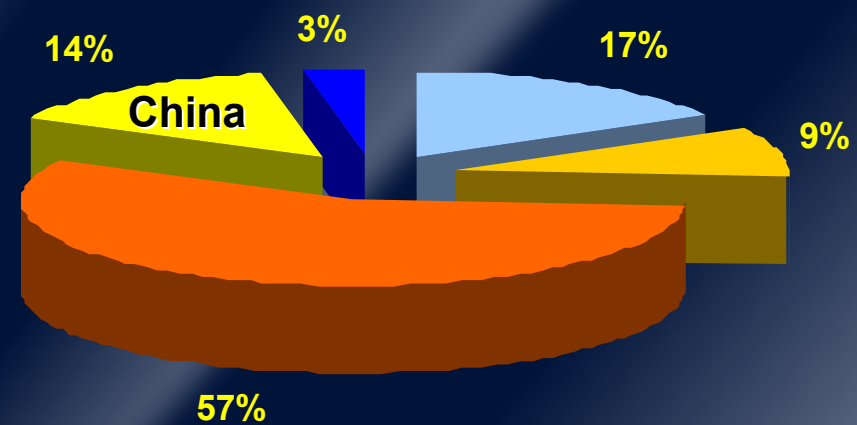
# World PTA Production Share 2002 Vs. 2005



2002



2005



China

ME/Africa

America

Asia (Excl. China)

Europe

# Asia PTA Outlook



Capacity



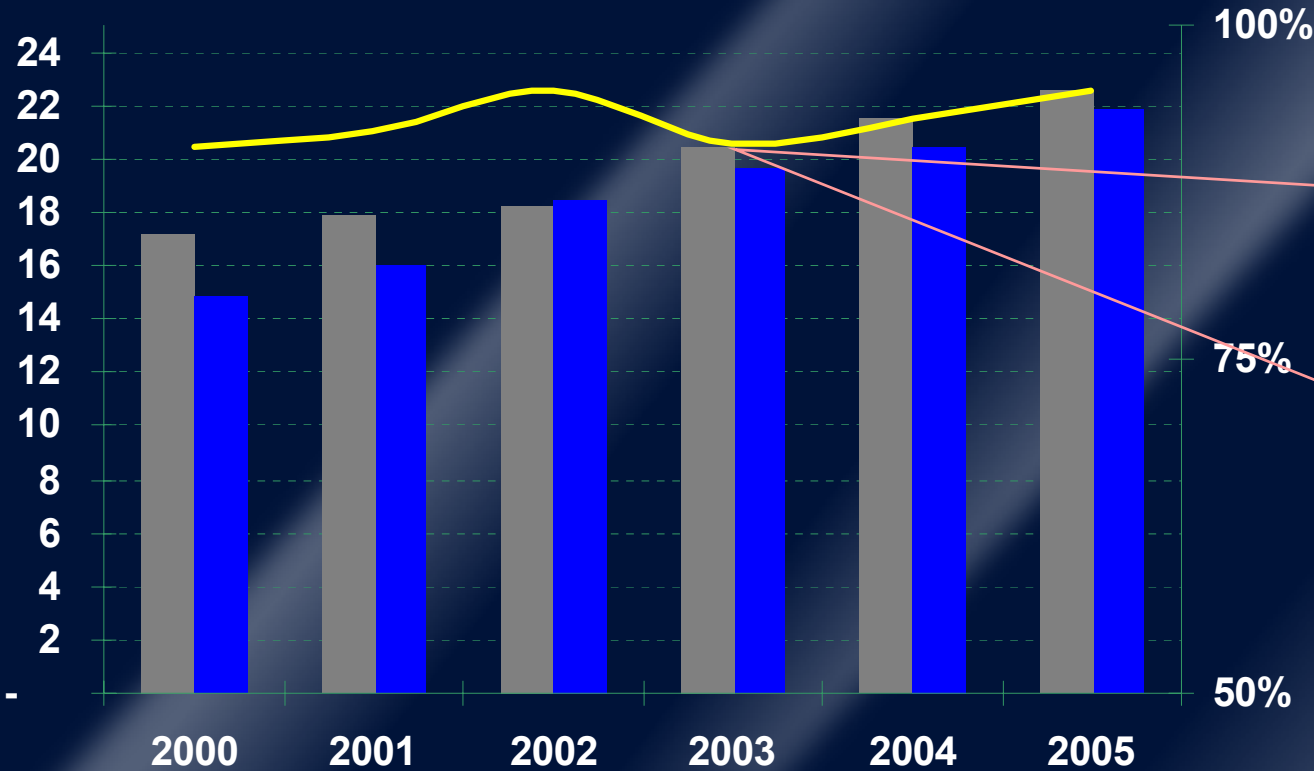
Demand



Operating rate

Million MT

Operating rate in %



PTA operating rate was low in Q2 2003 due to SARS related reduction in demand and substantial increase in PTA capacity in 1<sup>st</sup> half 2003

↘ PTA needs to operate at high rate to meet demand

# PTA Outlook : North America



Capacity



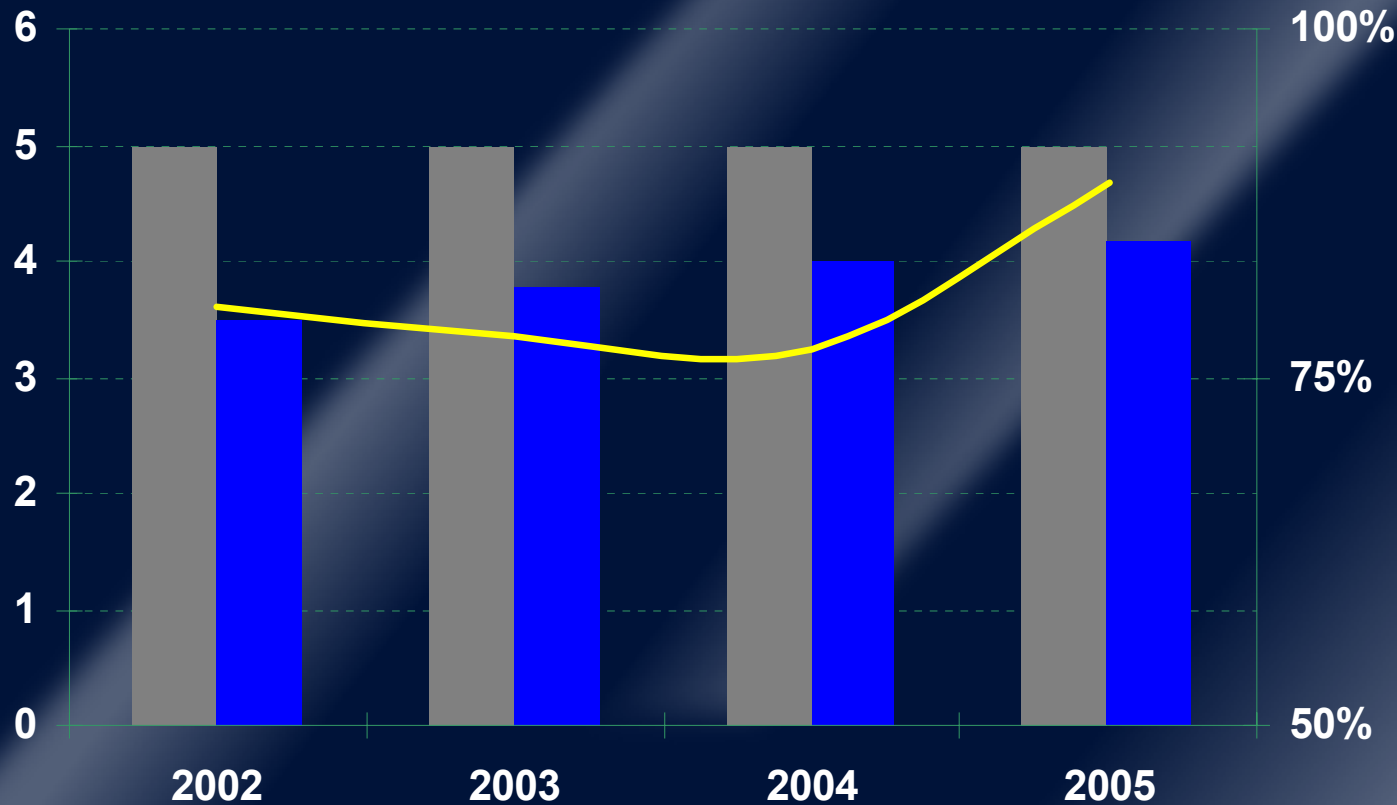
Demand



Operating rate

Million MT

Operating rate in %



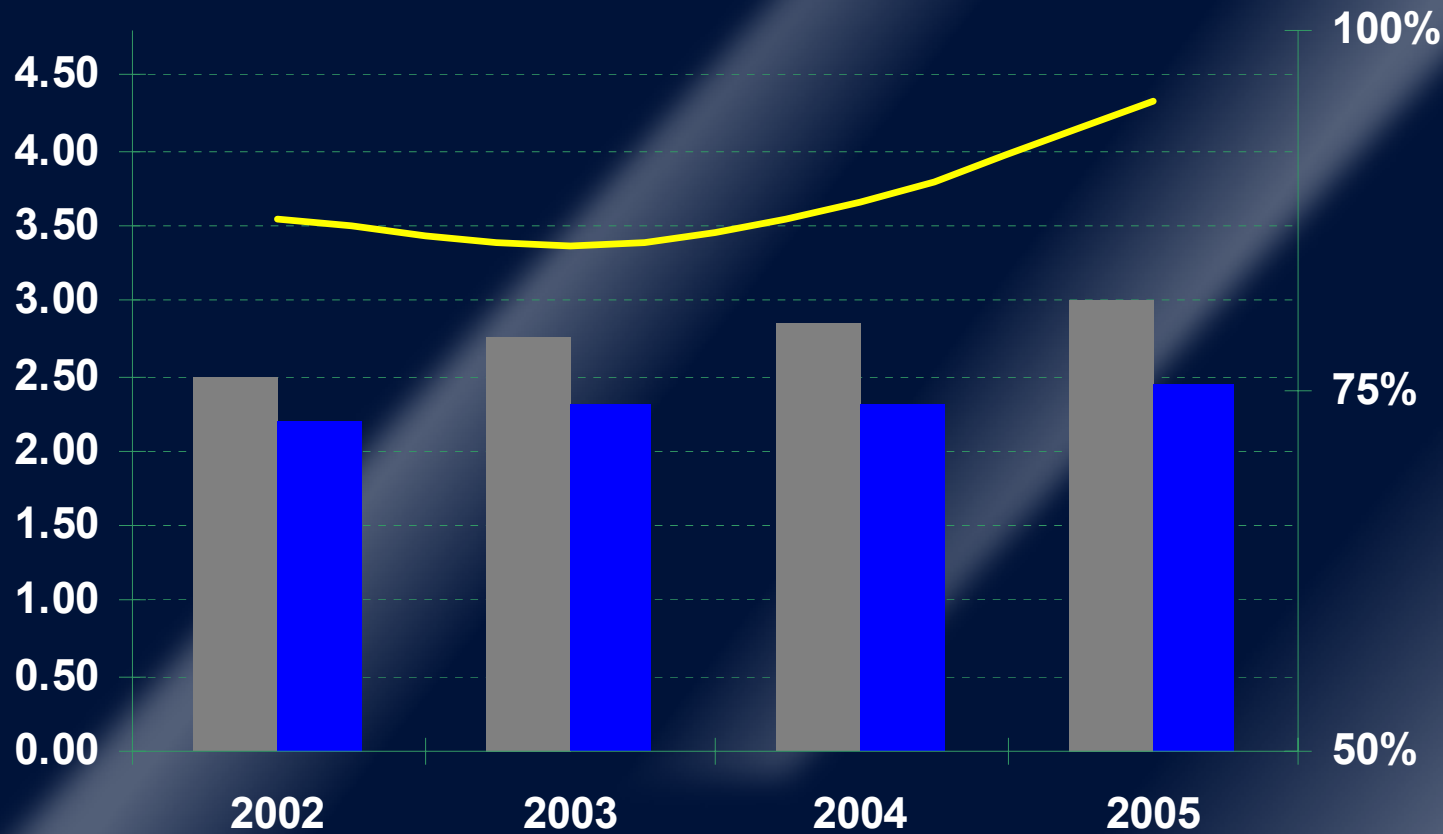
# PTA Outlook : West Europe



● Capacity      ● Demand      ● Operating rate

Million MT

Operating Rate in %



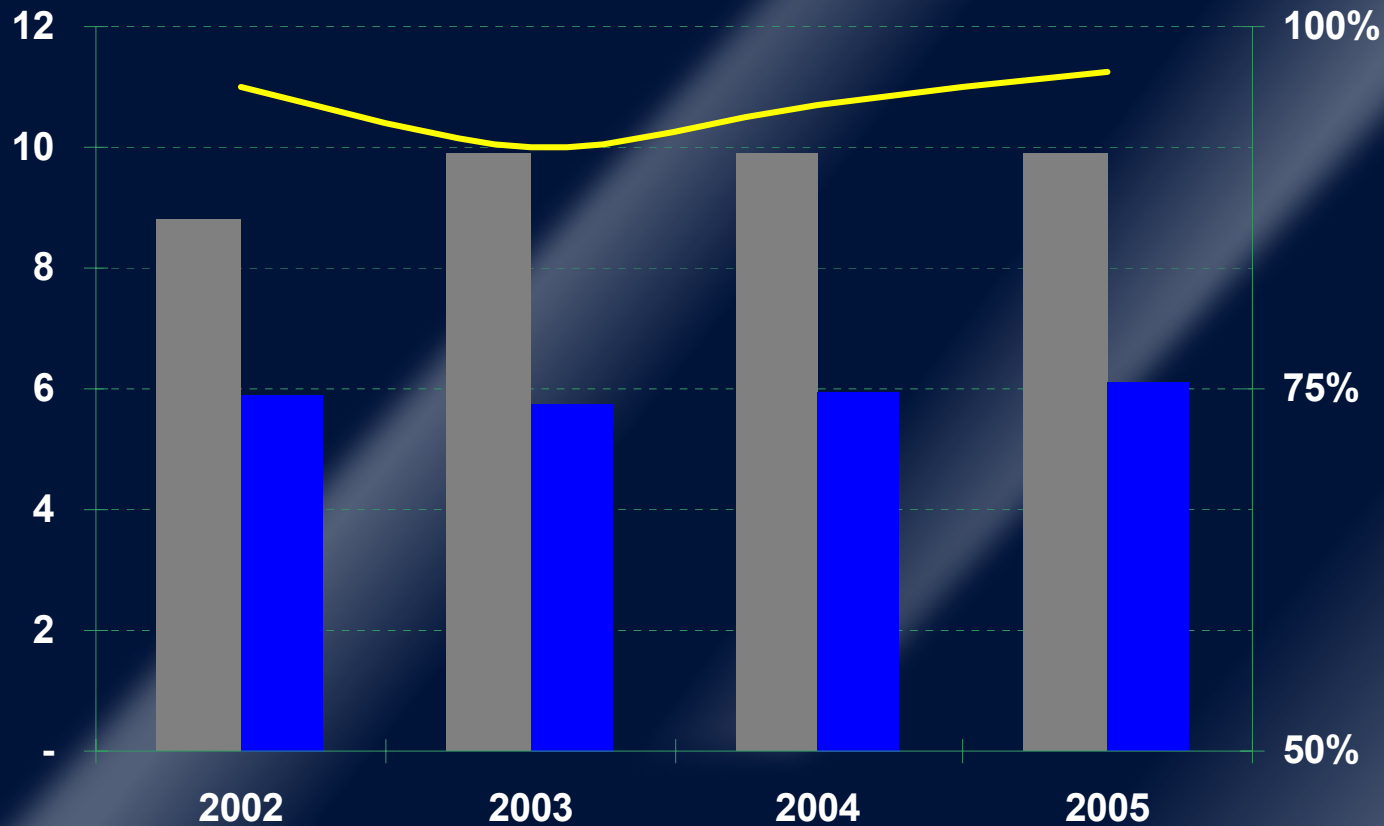
# PTA Outlook : Korea/Taiwan



● Capacity      ● Demand      ● Operating rate

Million MT

Operating Rate in %



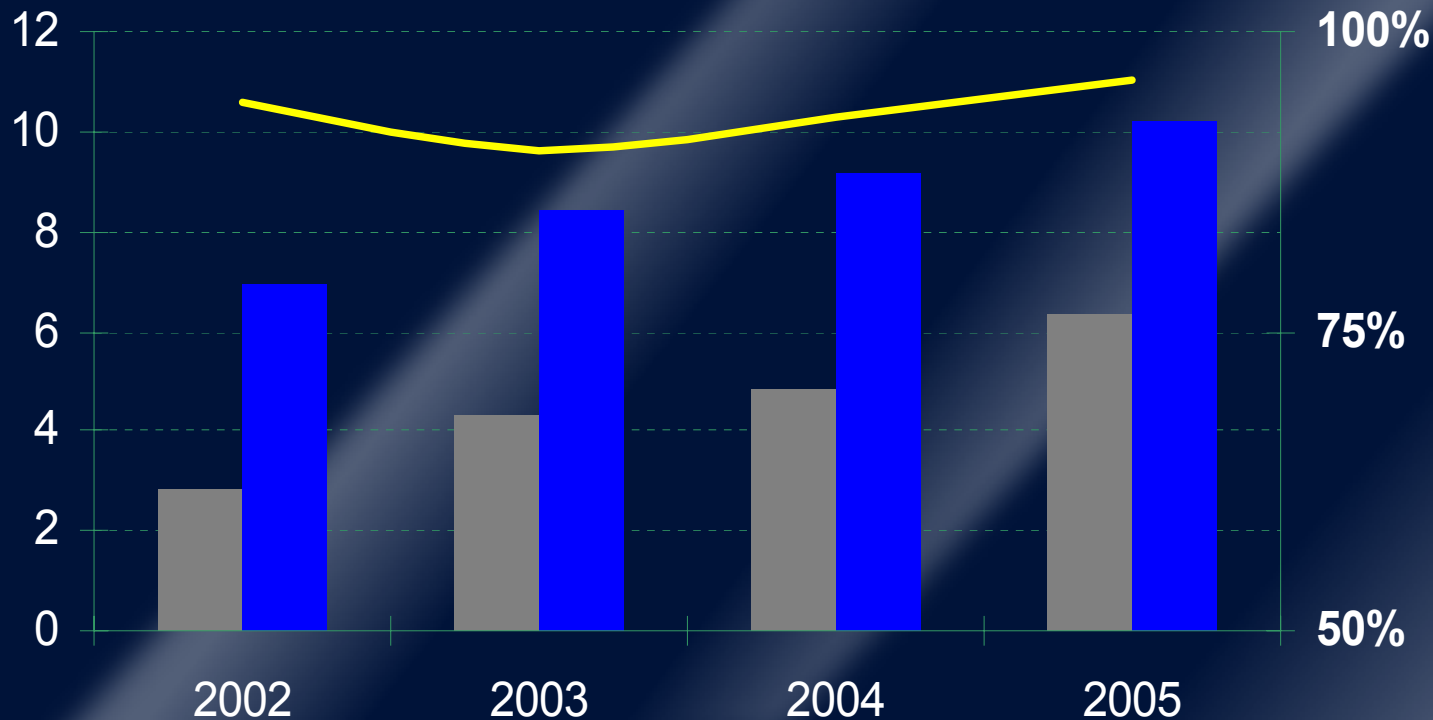
# PTA Outlook : China



● Capacity      ● Demand      ● Operating rate

Million MT

Operating Rate in %

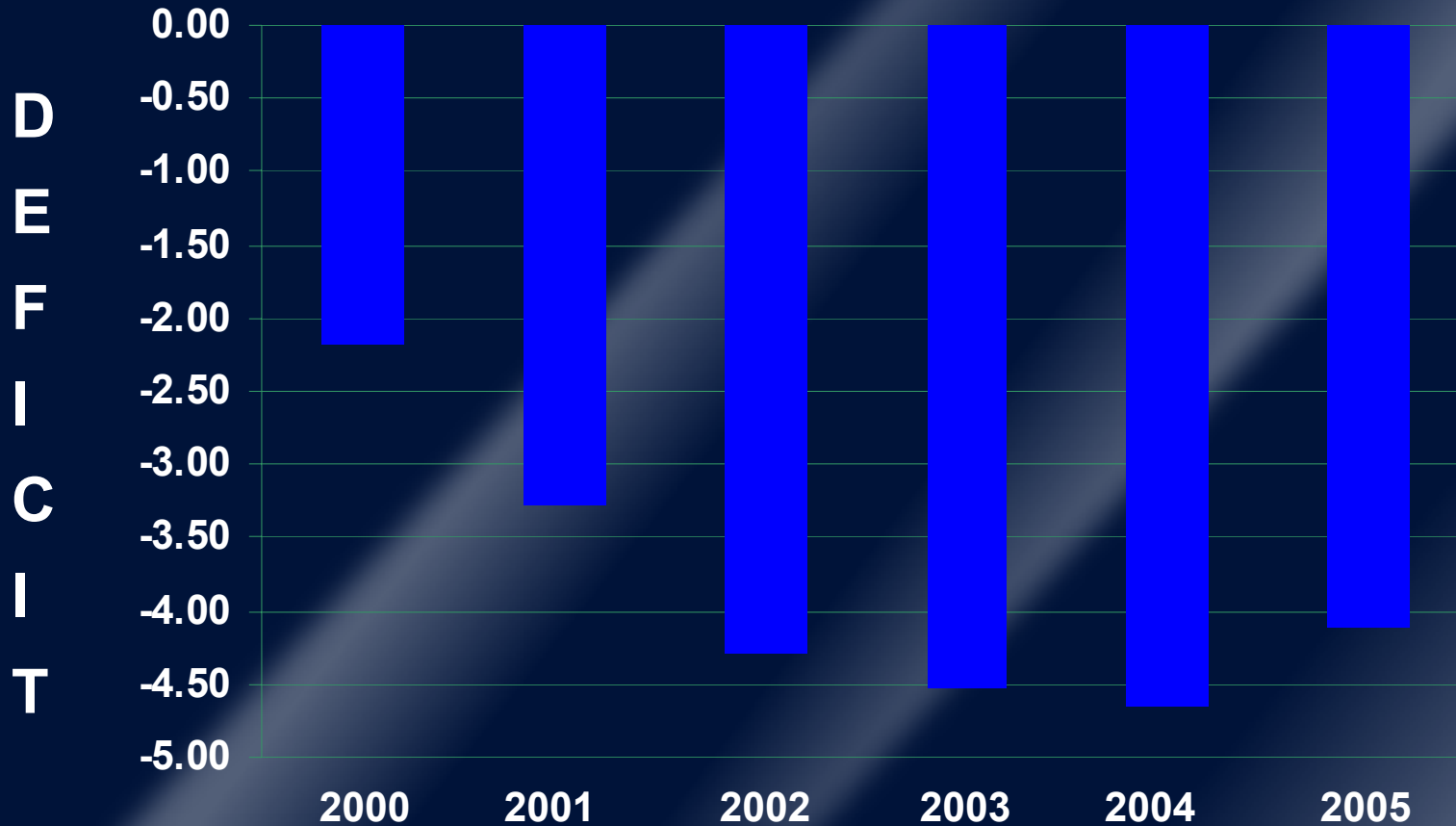


↪ Spate of polyester expansions trigger high demand

# PTA Import into China



Million MT



↪ Around 4 to 5 Mn Mt of imports into China per year

# PTA Balance : Middle East/Africa



Capacity



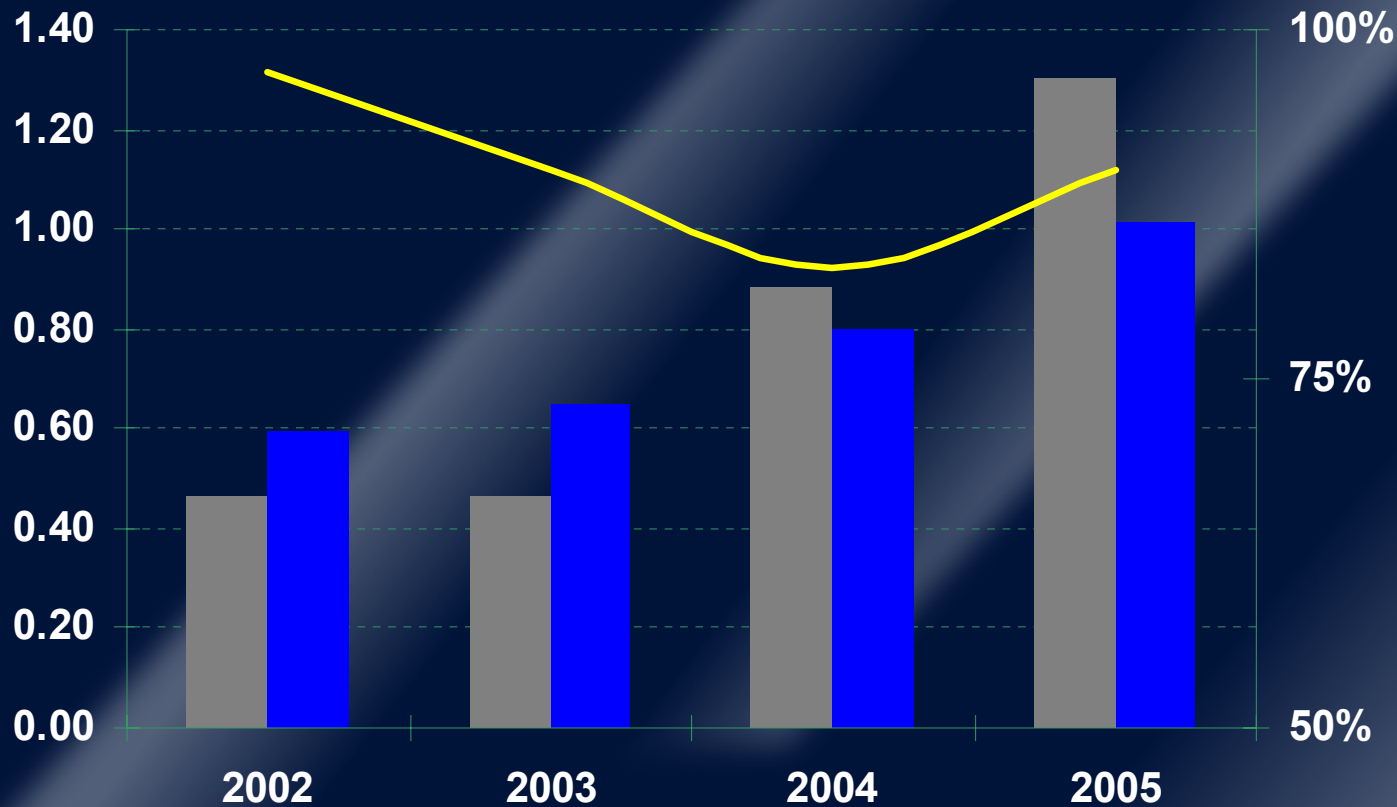
Demand



Operating rate

Million MT

Operating Rate in %



↘ ME/Africa moves from deficit to surplus



- Over 4 MMT capacity added in the last 12 months been absorbed in the market in line with Polyester growth
- PTA operating rates improve as capacity lags demand from polyester
- China will continue to import > 4 MMT PTA over next 3 ~ 5 year period
- Capacity shortfall in Asia will be the key driver for PTA prices in all regions



# MEG Outlook

# MEG – Global Demand Supply



Million MT

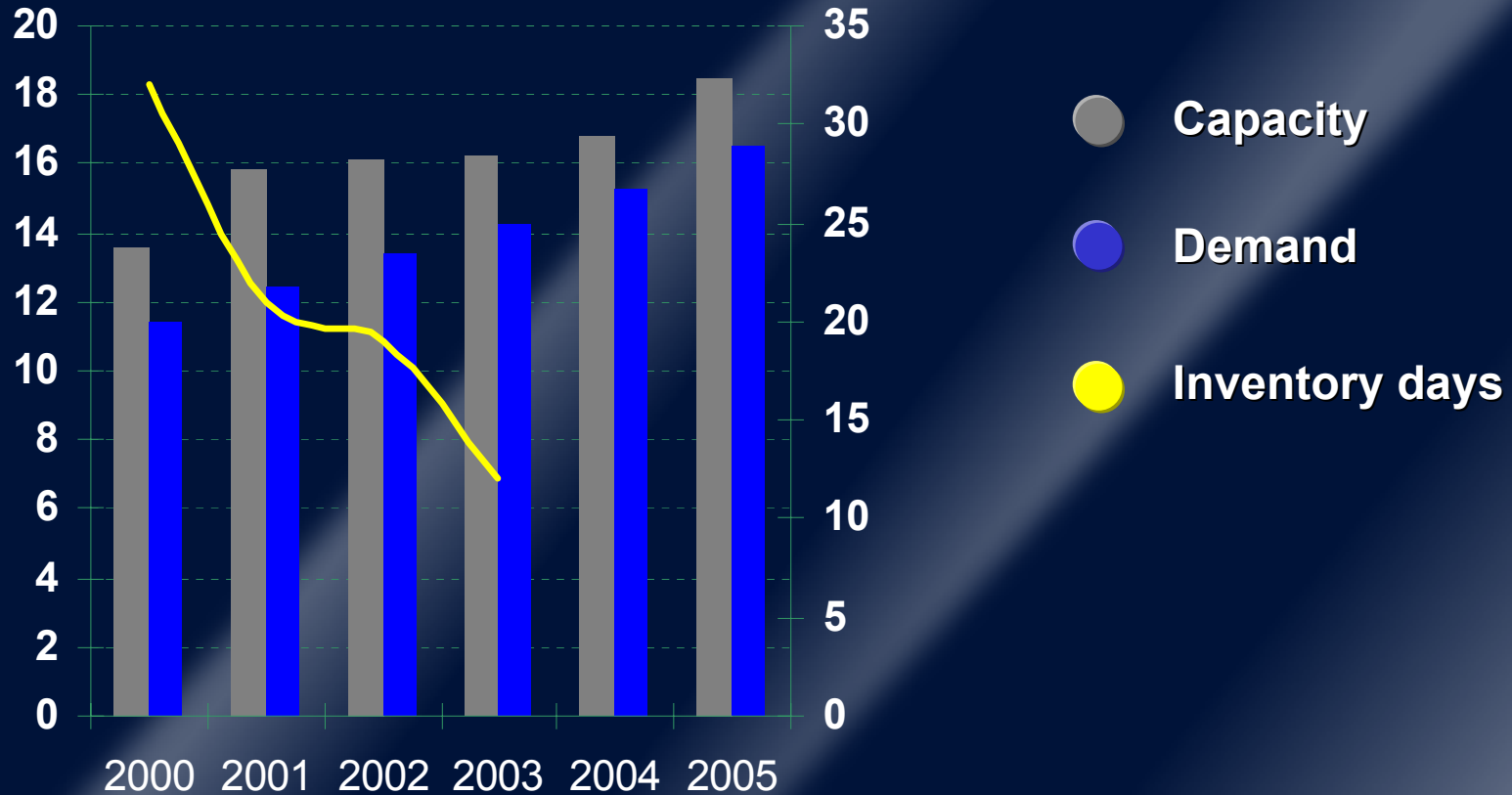
	2000	2001	2002	2003	2004	2005
MEG Demand	12.2	12.5	13.4	14.3	15.3	16.5
MEG Production	12.0	12.4	13.1	14.0	14.8	16.2
Inventory Changes	(0.17)	(0.06)	(0.34)	(0.33)	(0.55)	(0.25)
MEG Op. rate %	81%	78%	81%	86%	88%	88%

# MEG – Global Outlook



Million MT

Inventory Days'



↳ MEG Inventory comes to low level in 3Q 2003'

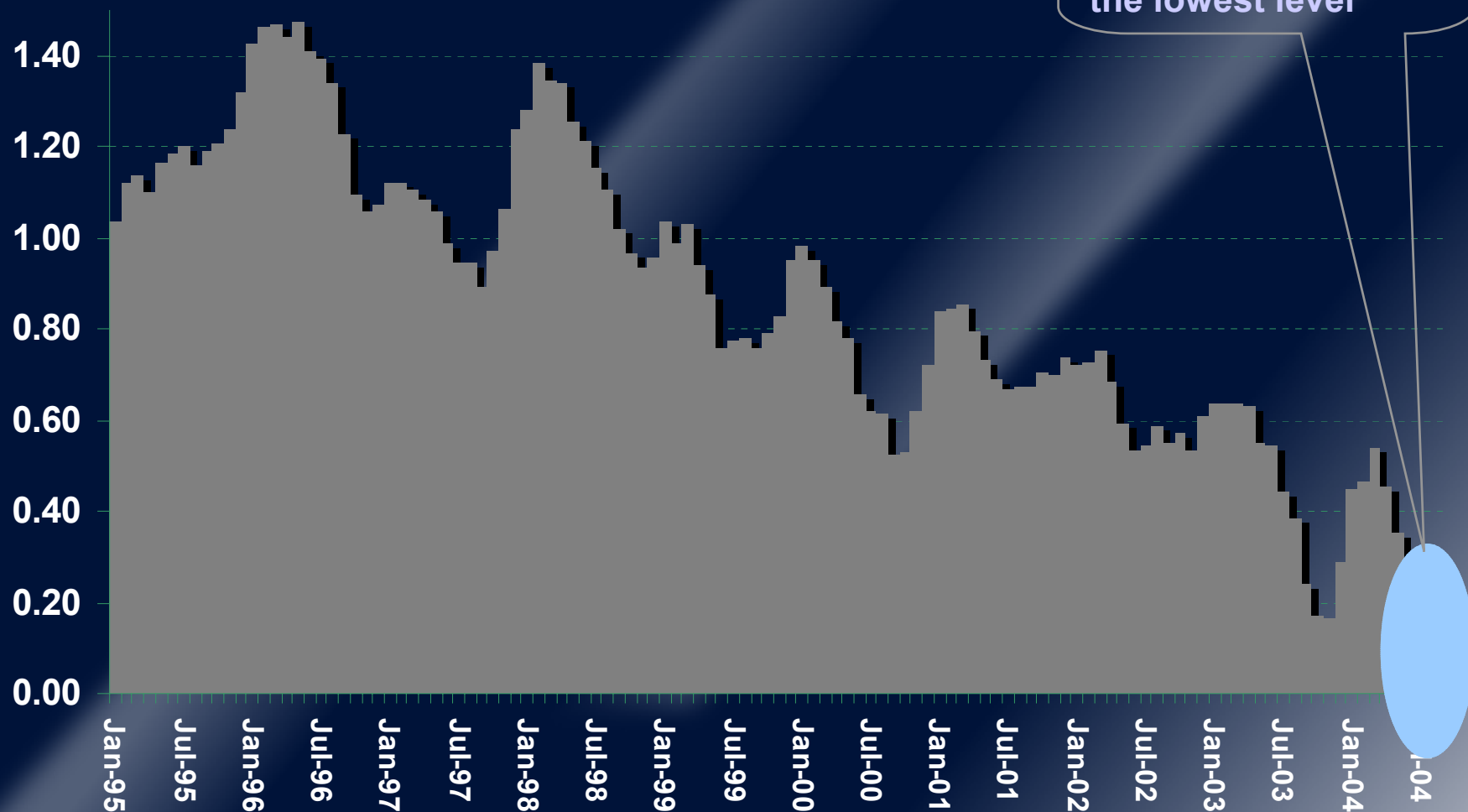
↳ Nanya Plastic has added 350 KT of new capacity in Sep 2003

↳ BASF took out 320 KT capacity in early 2003

# MEG – Global Inventory



Million MT



# MEG Outlook : North America



Capacity



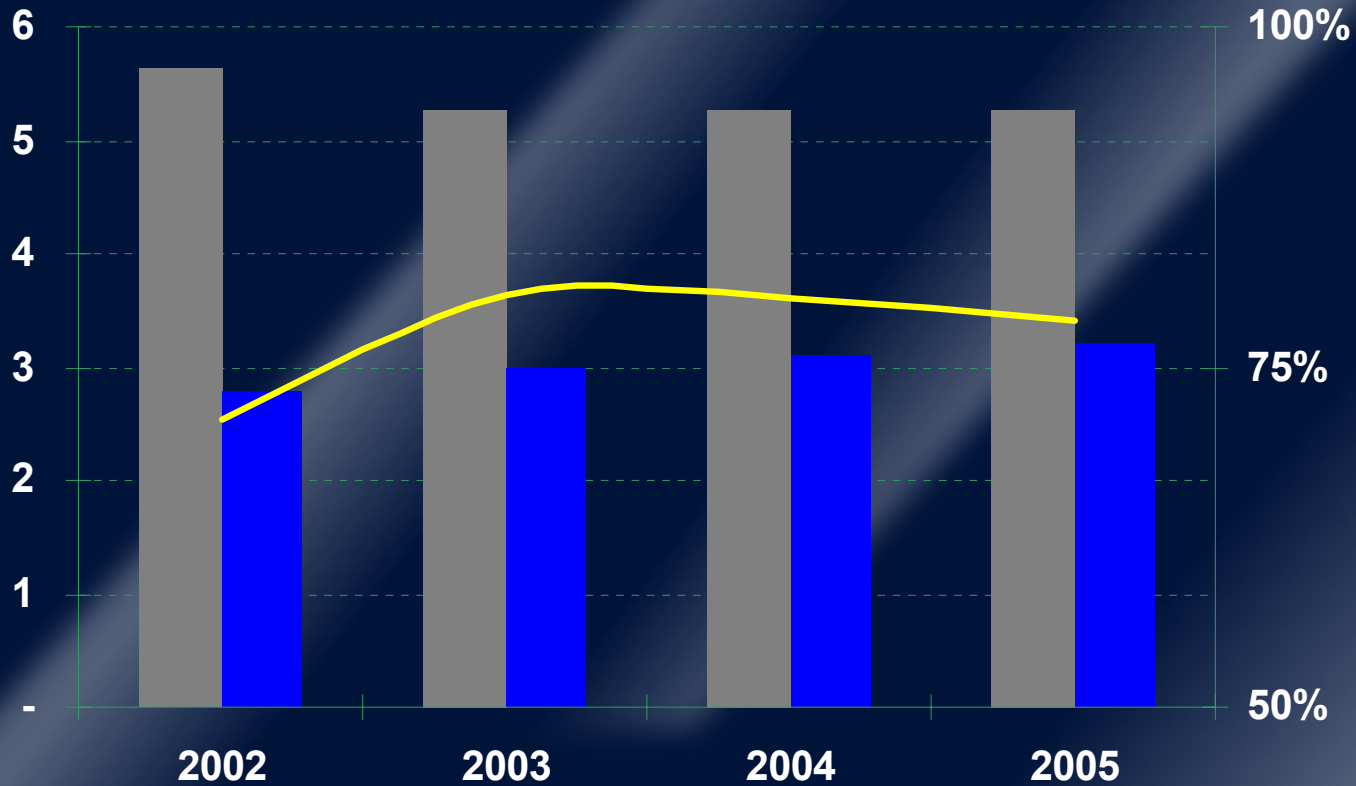
Demand



Operating rate

Million MT

Operating rate in %



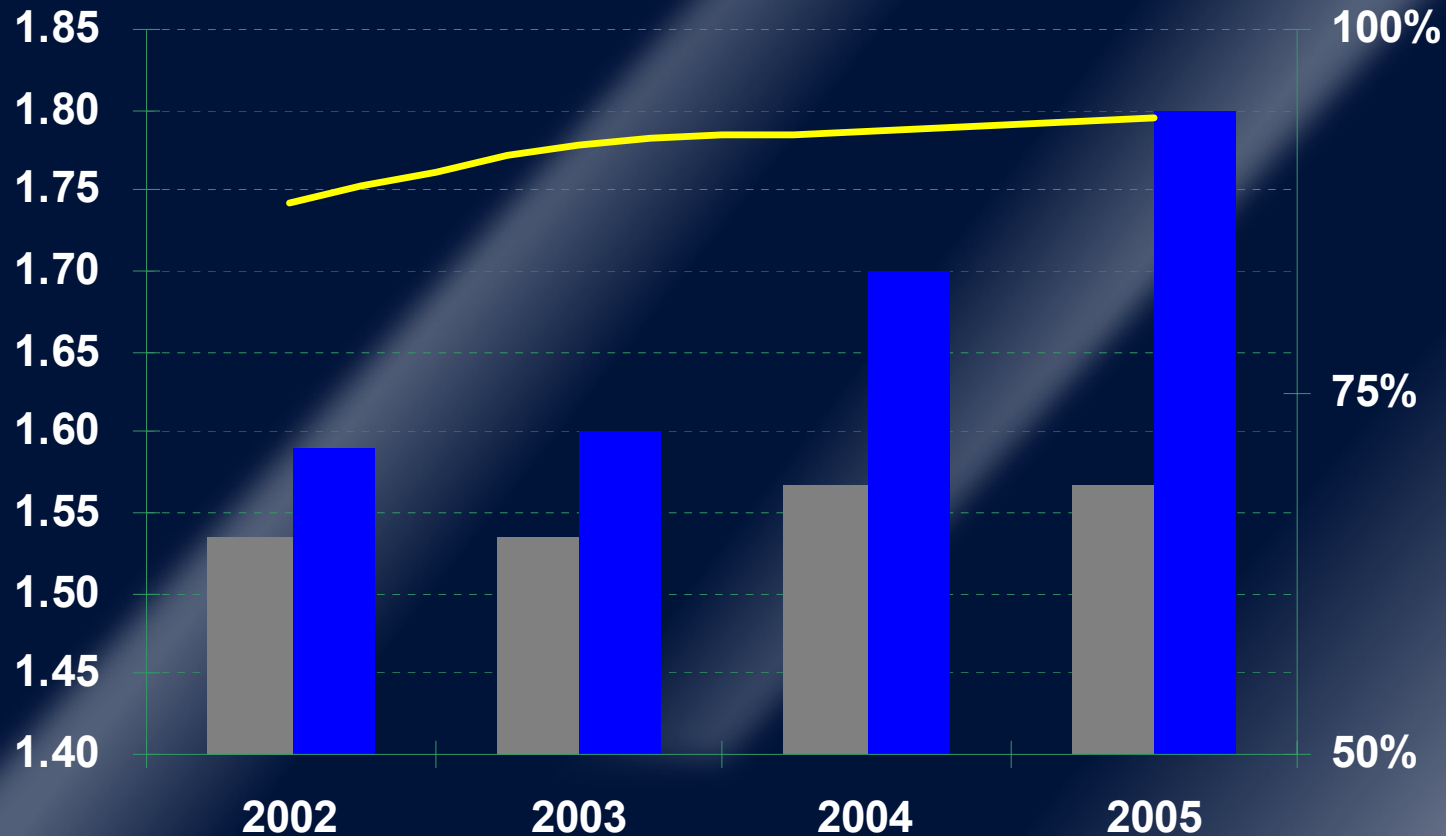
# MEG Outlook : West Europe



● Capacity      ● Demand      ● Operating rate

Million MT

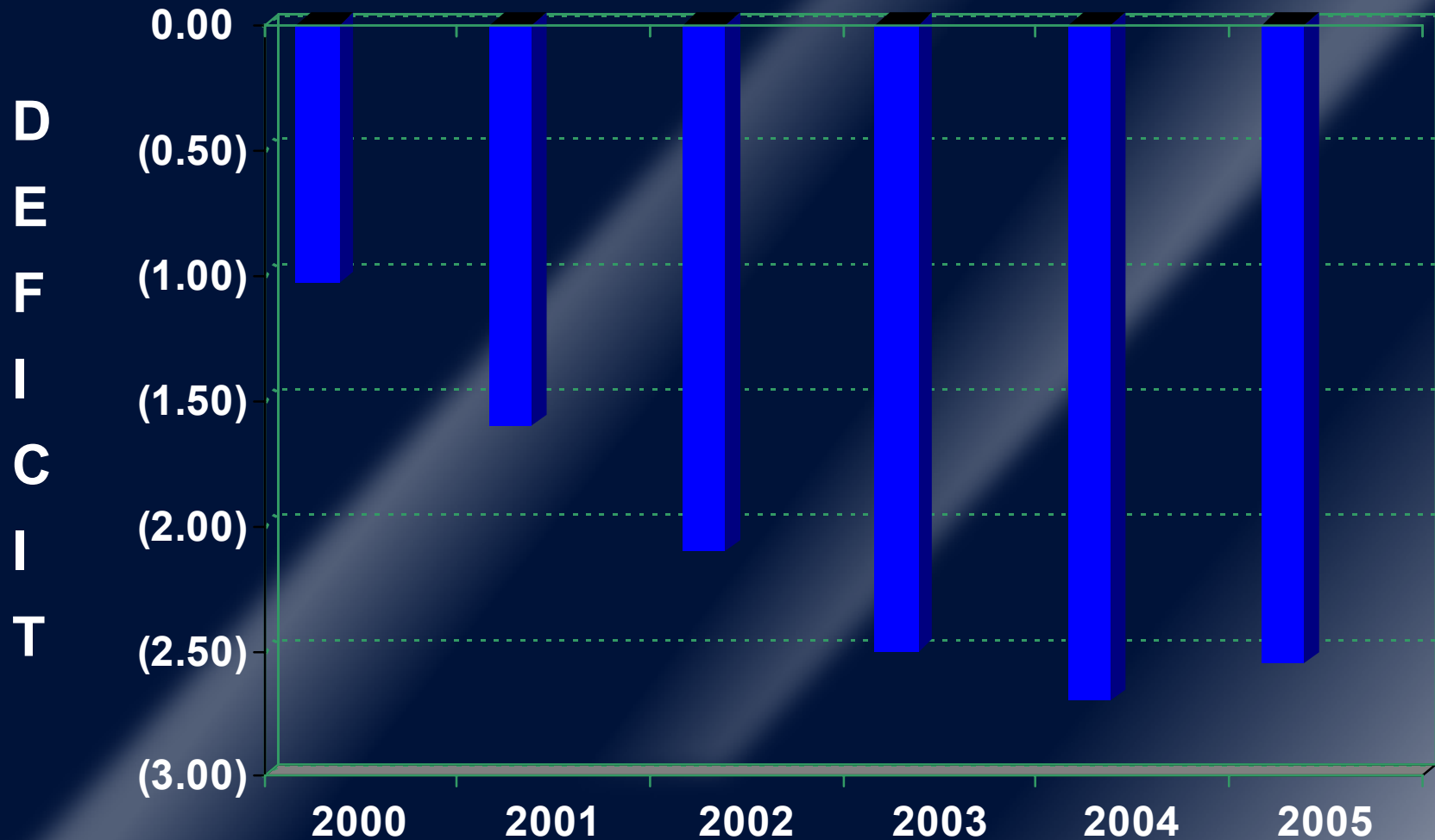
Operating rate in %



# MEG Import in to China



Million MT



↘ **Import into China will be 2 to 3 MMT per year**



# Global New demand Vs. New Capacity

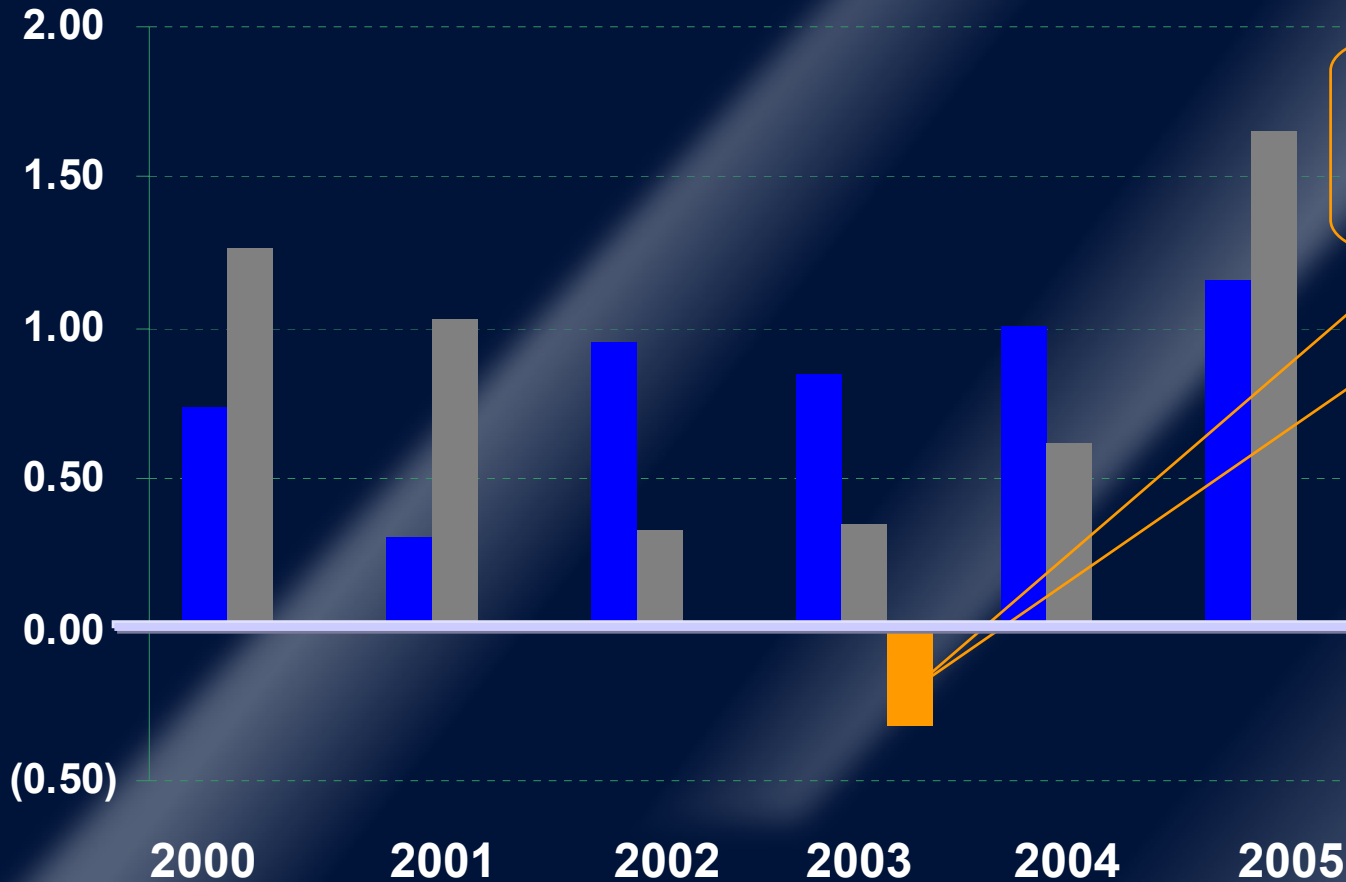


Incremental Demand



Incremental Capacity

Million MT



BASF has discarded  
320 KT plant

↪ Demand outstrips capacity growth

# MEG Outlook : Asia



Capacity



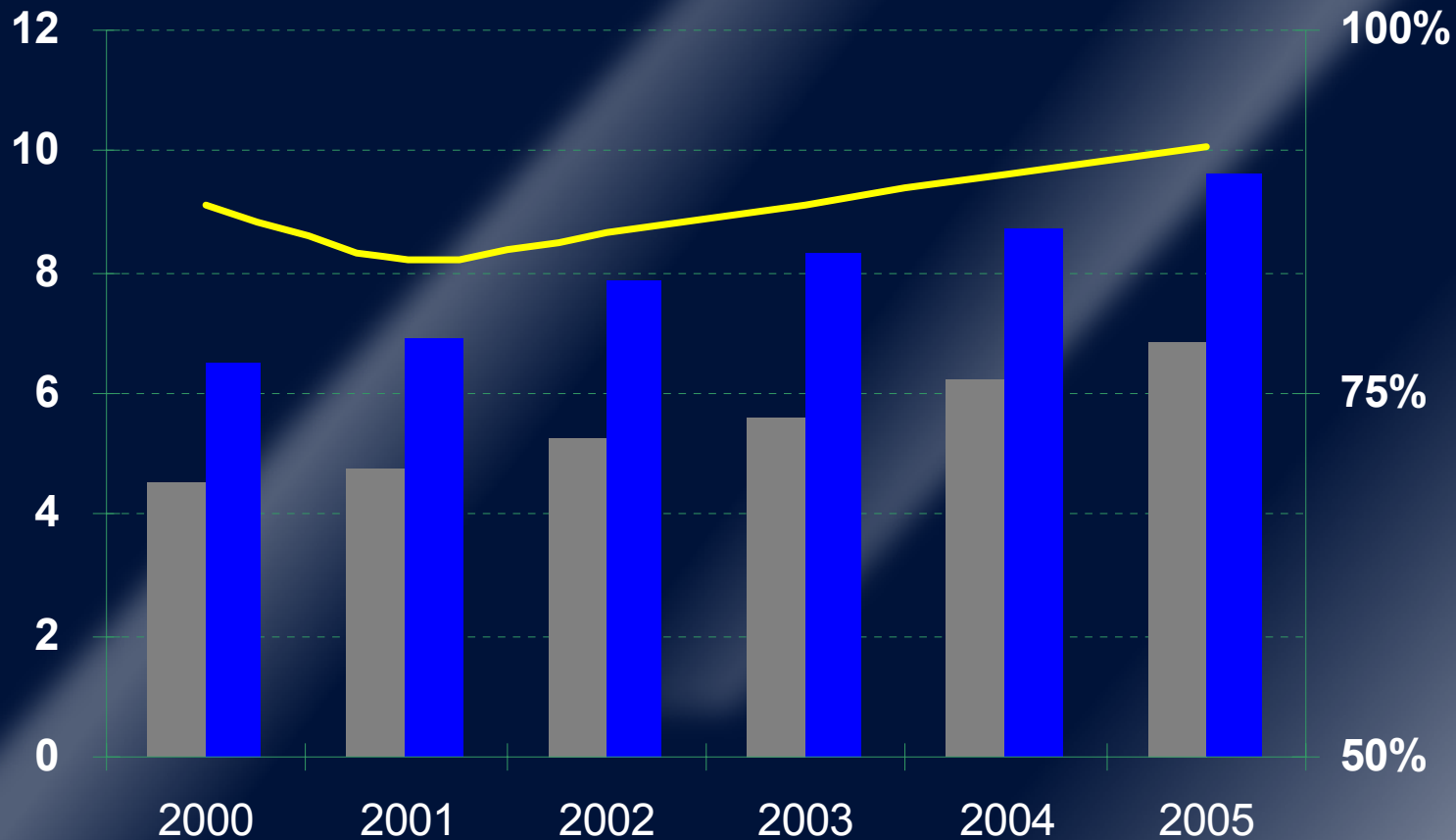
Demand



Operating rate

Million MT

Operating rate in %





- Inventory levels at historical low in 2003 / 04
- Current operating levels need to improve to match increasing demand
- **Will MEG limit Polyester growth?**
- Who will invest in new capacity?

# Summary



- With global economic upturn, Demand growth for PX / PTA / MEG will improve
- 2 ~ 3 MMT Polyester capacity being added every year globally.
  - China leads the pack
- Strong Asian polymer operating rates will persist
- PX is getting into danger operating zone
- PX Capacity addition lags Demand growth from PTA
- PTA operating rates improve as capacity lags demand from polyester
- Capacity shortfall in Asia will be the key driver for PTA prices in all regions
- Will MEG limit Polyester growth?

# Reliance Group Profile

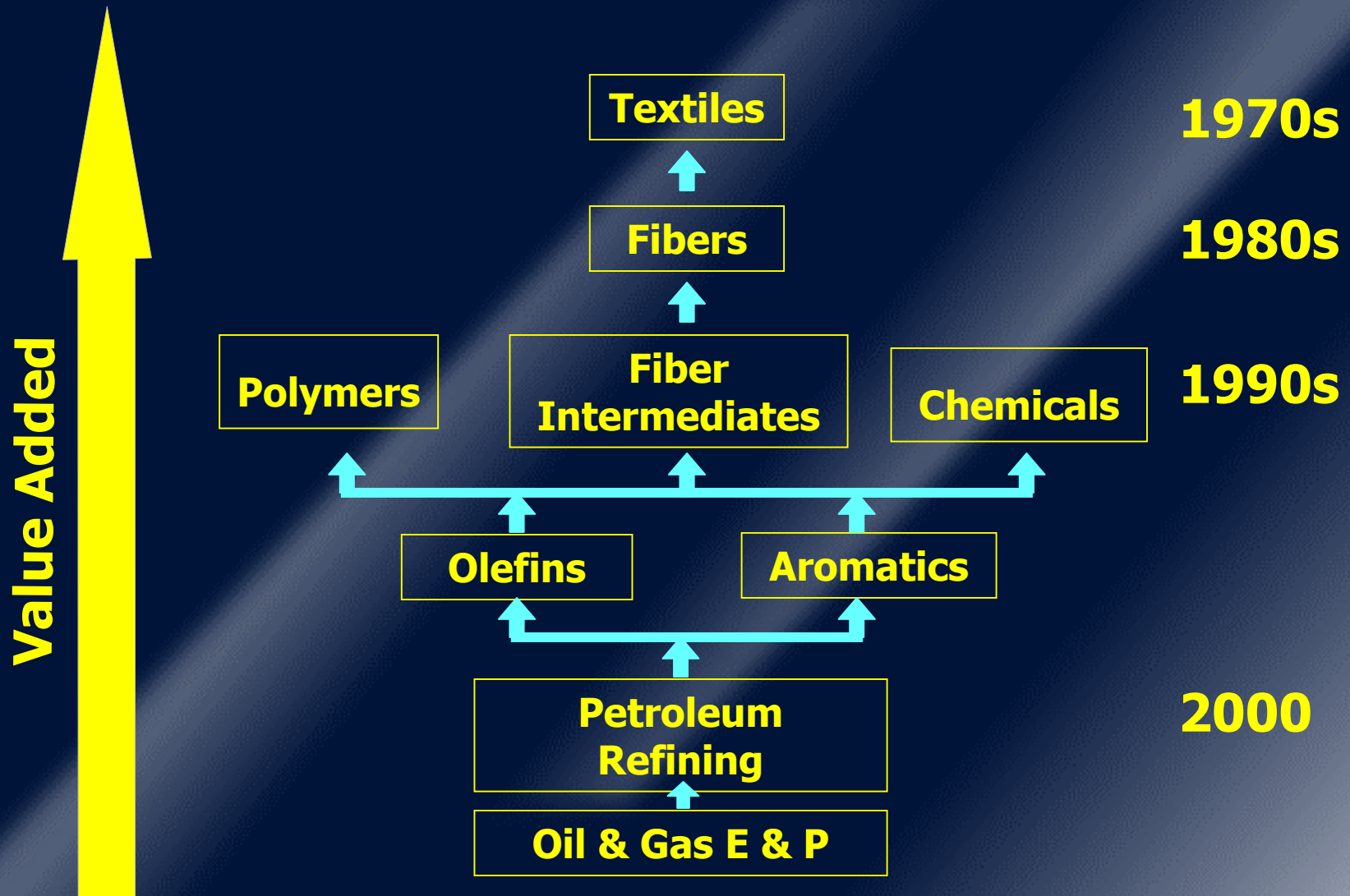


# Reliance Businesses At A Glance

- Oil and Gas
- Refining and Marketing
- Polymers and Crackers
- Fiber Intermediates
- Polyesters
- Chemicals
- Textiles
- Power
- Infocomm



# Vertical Integration



**Backward integration – A cornerstone of Reliance Strategy**



# Reliance – India's Globally Ranked player

	Global Rank
Polyester (fibre and yarn)	2
Paraxylene	3
PTA	6
PP	7
PVC	10

↳ Reliance – amongst top 10 global players in major petrochemicals

# Reliance Petrochemicals Capacity \*



- **Polyesters (PFY/PSF/PET)** **1.1 MMTA**
- **Fibre intermediates (PX/PTA/MEG)** **3.5 MMTA**
- **Polymers (PE/PP/PVC)** **4.5 MMTA**
- **Chemicals** **1.1 MMTA**

\* Including IPCL Capacity

# Reliance - India's No. 1 Group



	US\$ bn
Sales	16.8
Exports	2.5
Cash Flow	2.1
Net Profit	1.0
Net Worth	7.9
Assets	17.1
Market Cap	9.5

↳ Reliance Industries is India's largest private sector company

↳ India's only fully integrated energy company

**Thank You**