

# 中技社 物質流座談會

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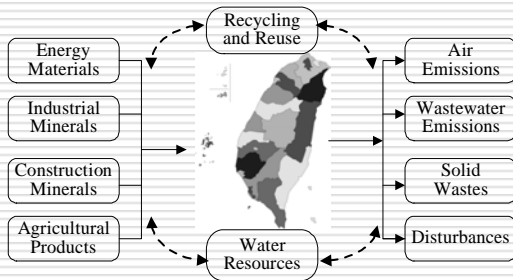
總物質需求分析經驗分享  
與產業尺度之應用提案

李育明

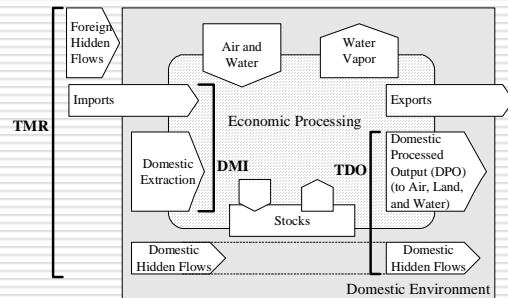
國立臺北大學自然資源與環境管理研究所 教授

January 18, 2007

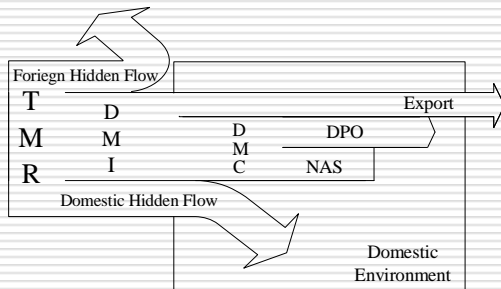
# 台灣地區物質流分析架構之演進



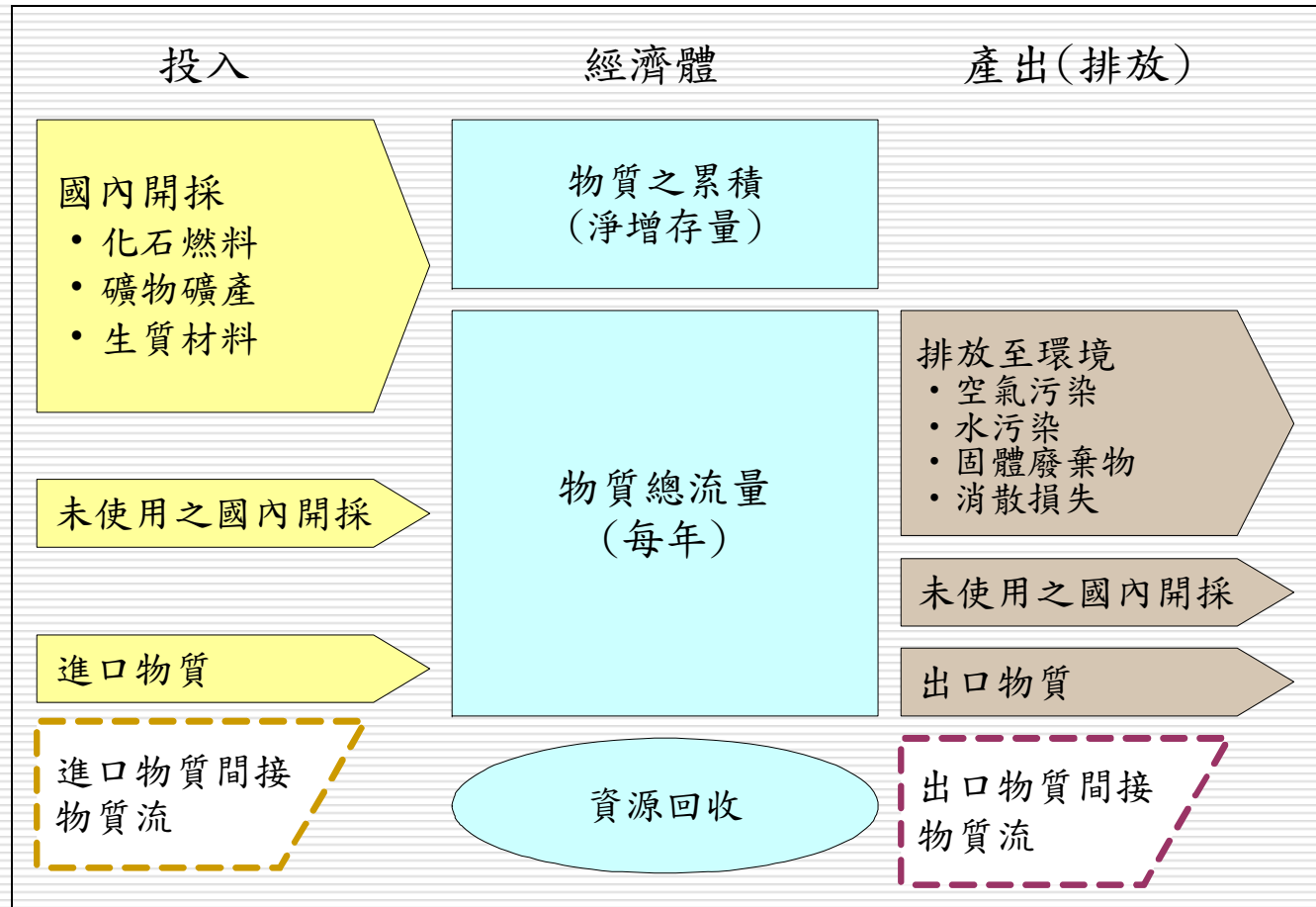
(a) EIOLCA MFA framework



(b) WRI MFA framework

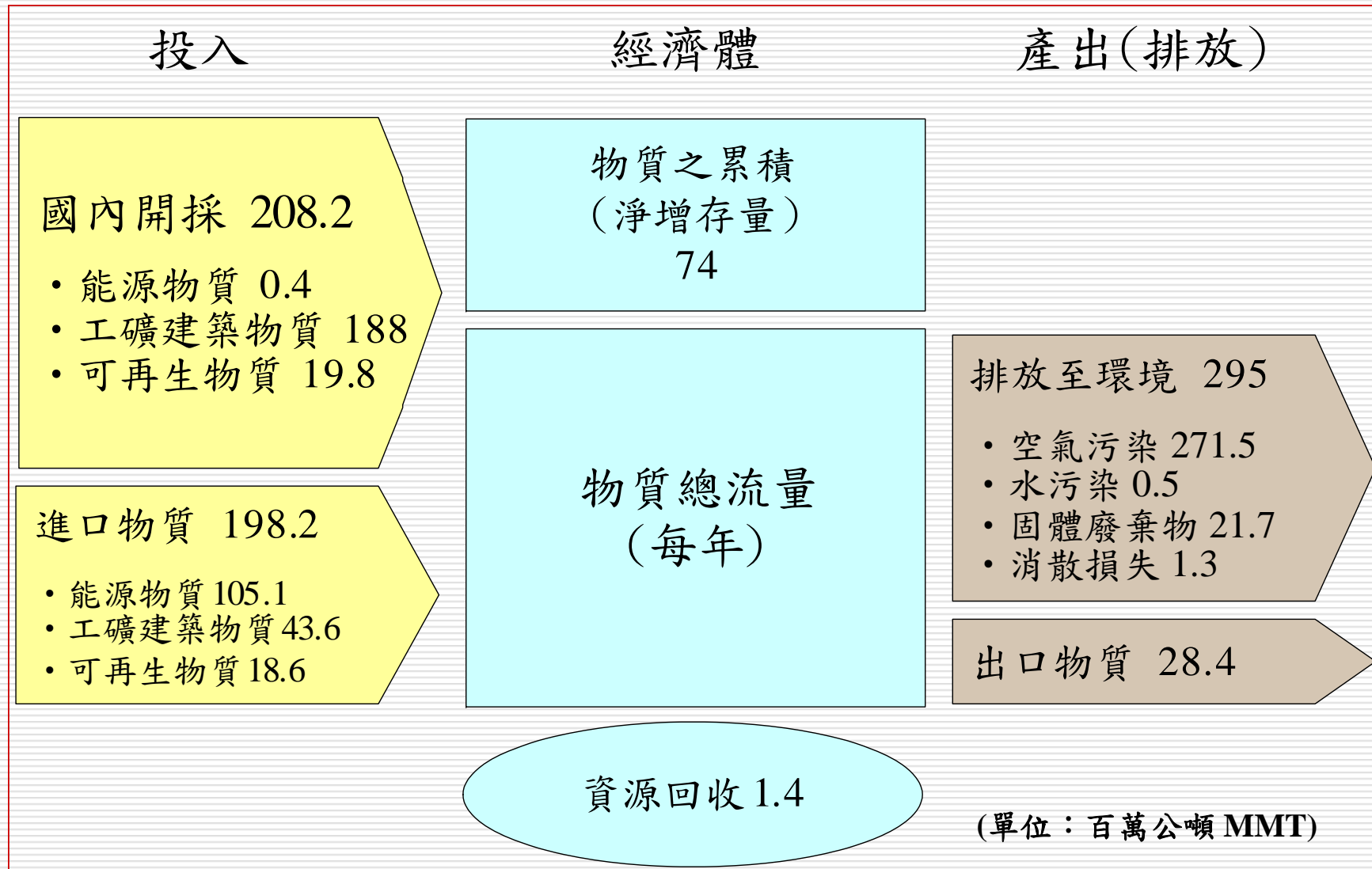


(c) EU-2000 framework

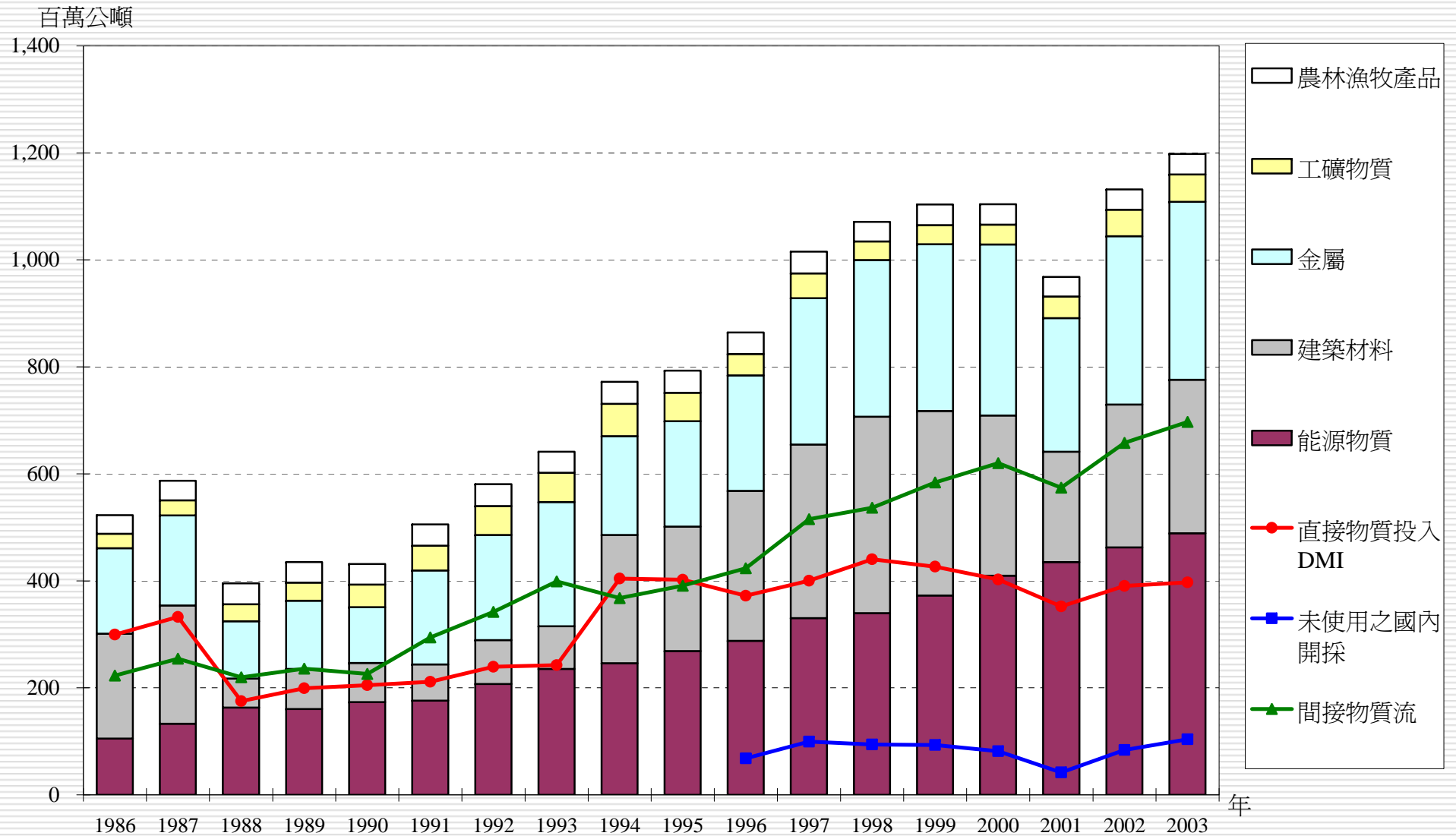


(d) SEEA 2003 Framework

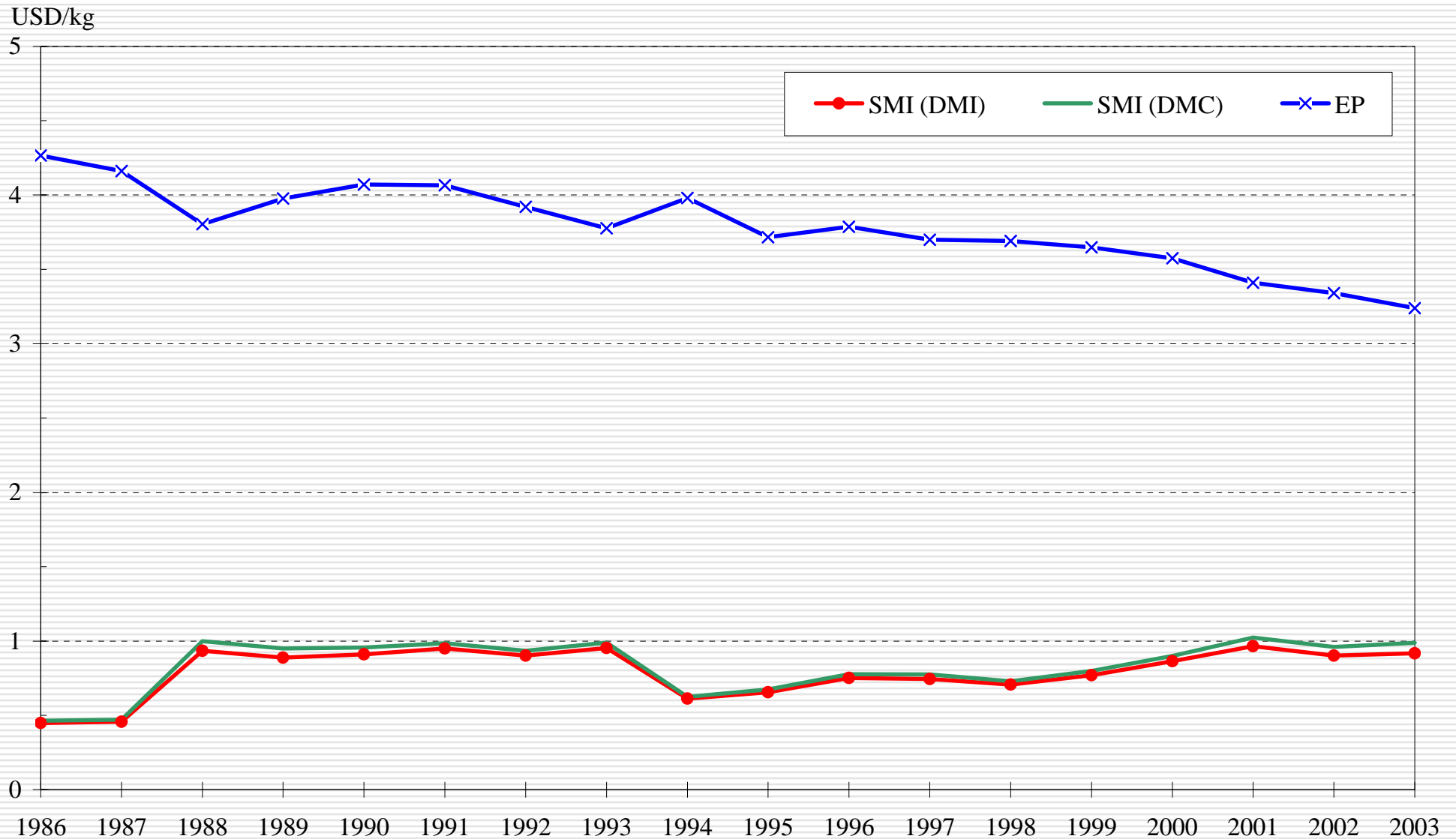
# 2003年台灣物質流分析結果 (TMR)



# 總物質需求分析 (TMR) 相關指標



# 資源生產力相關指標



# 物質流分析之產業應用提案

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## □ 工業代謝分析

- 產業尺度
- 物質流與能量流
- 可用能分析 (Exergy Analysis)

## □ 物質流成本會計分析 (MFCA)

- “正產品” vs. “負產品”
  - 環境管理會計
  - 「聯產品」之應用
  - 公共事業與服務業之應用
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## Comparison of P/L (Tentative but Original)

Period: from November 01 to 30, 2000

Material Flow P/L (Unit: Yen)		Conventional P/L (Unit: Yen)	
Sales*	15,000,000	Sales*	15,000,000
Cost of Positive Product	3,037,498	Cost of Sales	4,521,968
Cost of Negative Product	1,484,470	N/A	N/A
Gross Profit	10,478,032	Gross Profit	10,478,032
Selling, General and Administrative Expenses*	8,000,000	Selling, General and Administrative Expenses*	8,000,000
Operating Profit	2,478,032	Operating Profit	2,478,032

\*Provisional Figure

## Improvement and Target

Cost	2001	2003	2006 (Target)
<b>Positive Product</b>	<b>68%</b>	<b>78%</b>	<b>90%</b>
<b>Negative Product</b>	<b>32%</b>	<b>22%</b>	<b>10%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

