

Melamine Outlook

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- Who are DSM and DSM Melamine ?
- How is the (future) global supply – demand balance ?
- What is the costs position of all melamine plants in the world ?
- For whom is there a future in melamine?
- How to make a small fortune in melamine ?

DSM, a globally active 'multi-specialty' chemical company

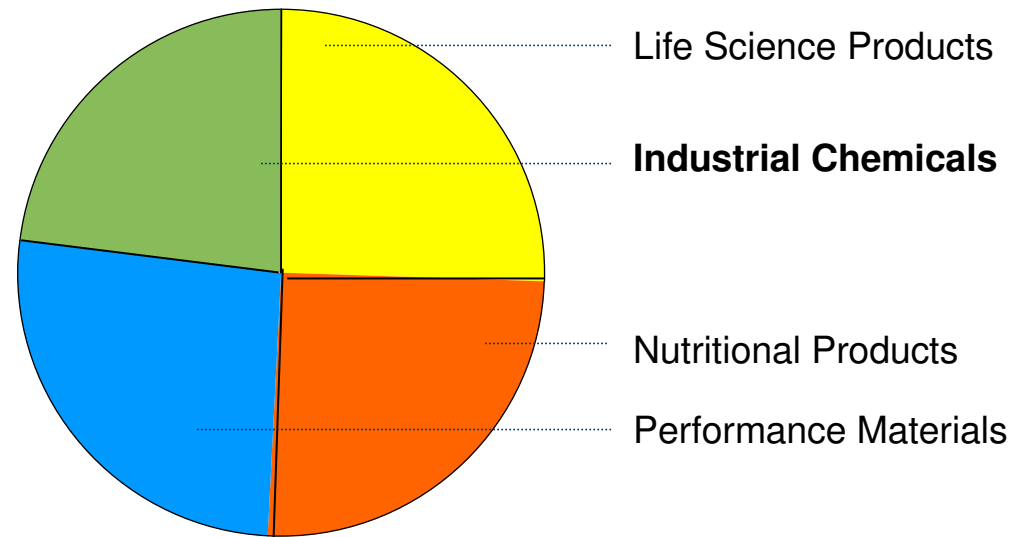
- Leadership positions in ~75% of product portfolio
- Innovation driven, R&D spend ~ € 300 million
- Financially sound, solid balance sheet
- Net debt ~ € 0.5 billion

Key data

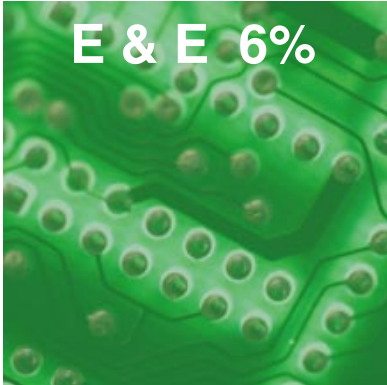
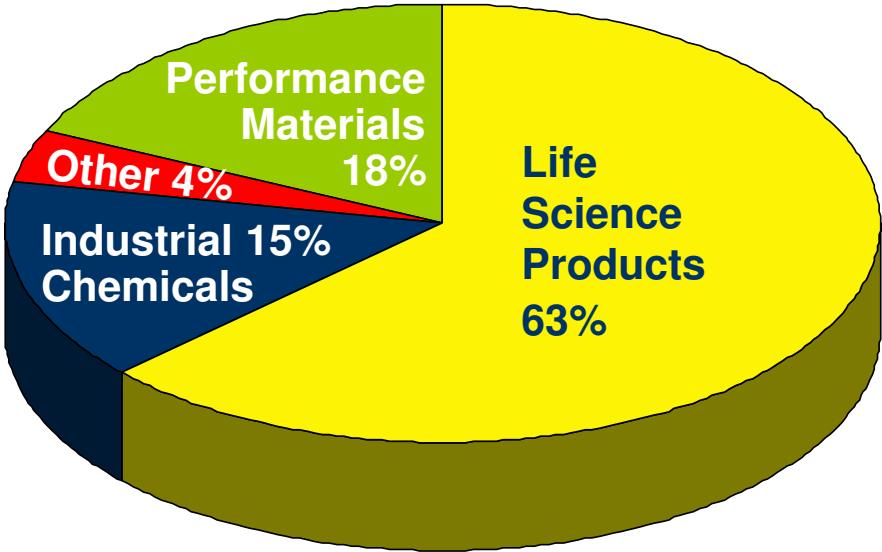
Sales : ~ € 8 billion

EBITDA: ~ € 1 billion

EBIT: ~ € 0.5 billion



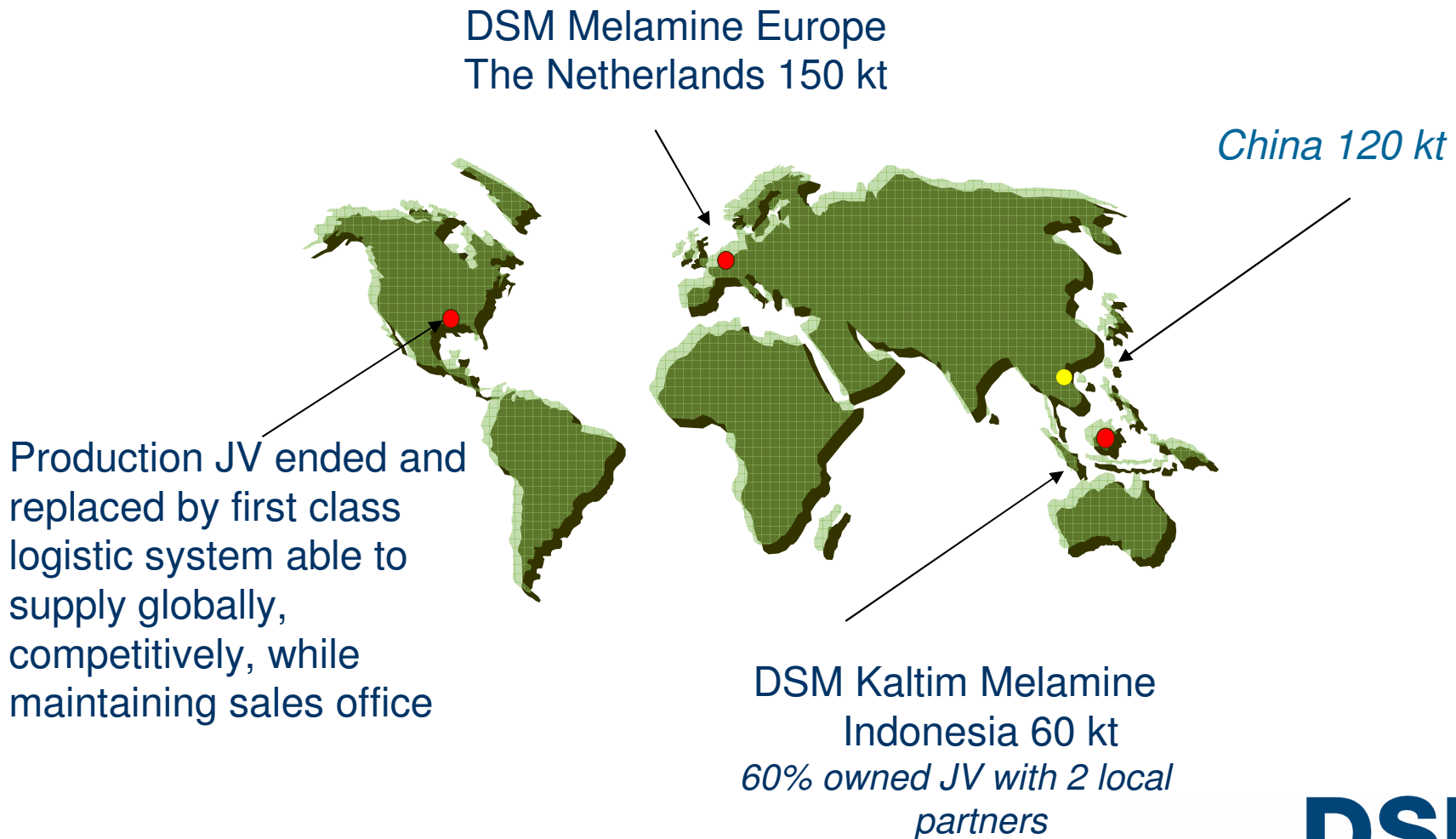
DSM's key end markets



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- **The world's no. 1 melamine producer**
- **Workforce 400 employees**
- **Global headquarters in Sittard, The Netherlands**
- **Sales office in the USA, DSM Melamine Americas (DMA)**
- **Two operating companies with production sites**
 - DSM Melamine Europe
 - DSM Kaltim Melamine
- **Proprietary low cost technologies**
- **Plans to build a new 120 kt plant in China**
- **The only producer with a global presence**
- **Innovative**
- **Excellence in services (logistics, technical service, new development)**
- **Total market share around 20%**
- **Preferred supplier at global customers**



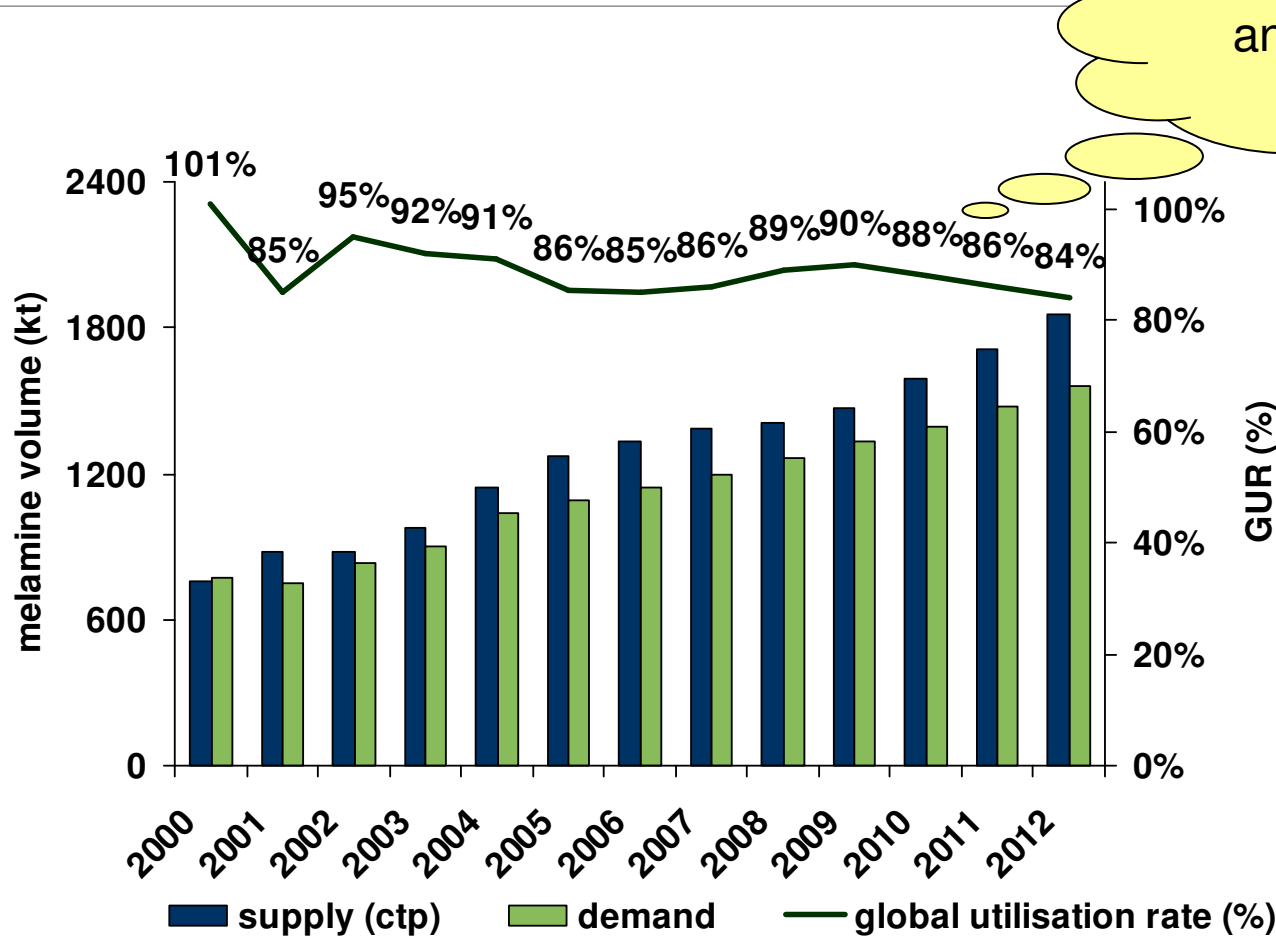
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What is the outlook for global supply and demand ?

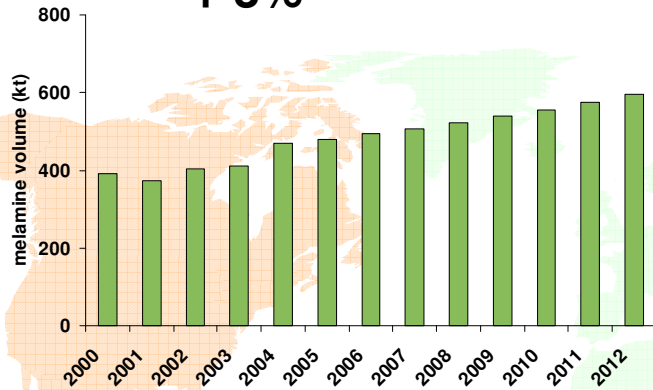
Trendline based on announced projects



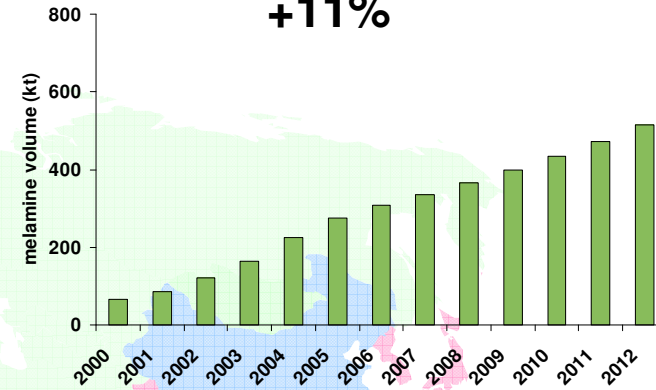
- Main projects:**
- creep
 - Adnoc 80 kt
 - Qafco 60 kt
 - Trinidad 60 kt
 - China 300kt

Demand forecast per geographic region

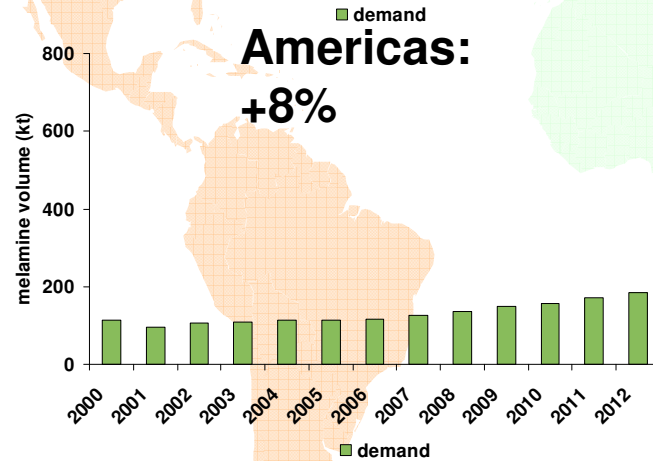
**Europe:
+ 3%**



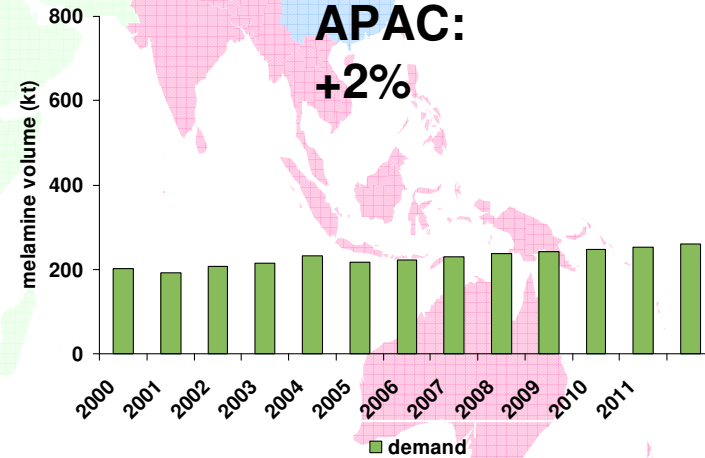
**China:
+11%**



**Americas:
+8%**

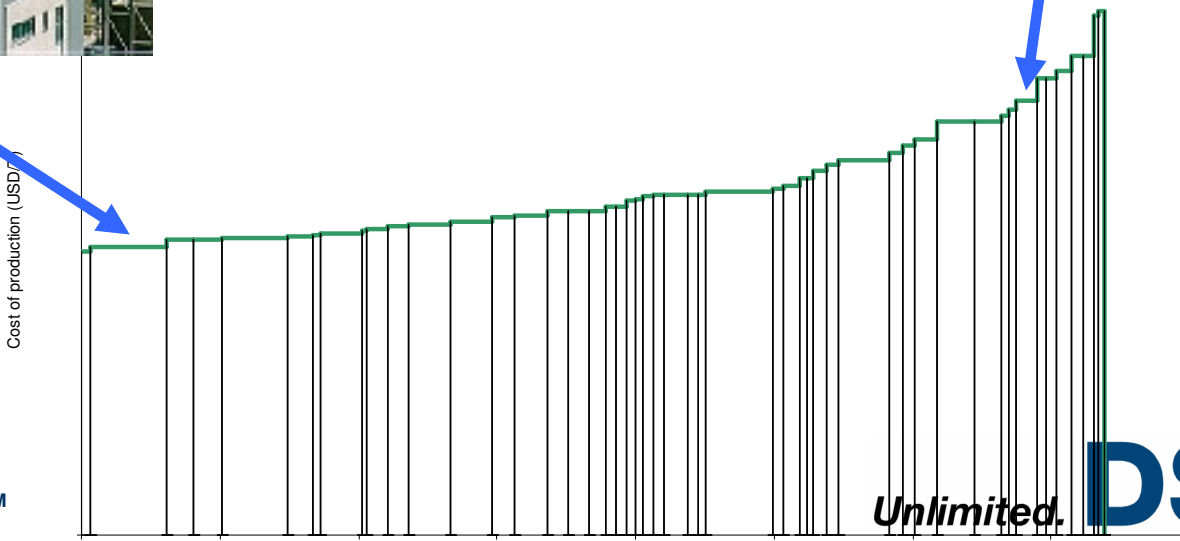


**APAC:
+2%**



What is the cost position of all melamine plants in the world ? 8

Cash cost delivered in Europe: determined by technology, energy costs, capacity, transportation costs, labour, material costs



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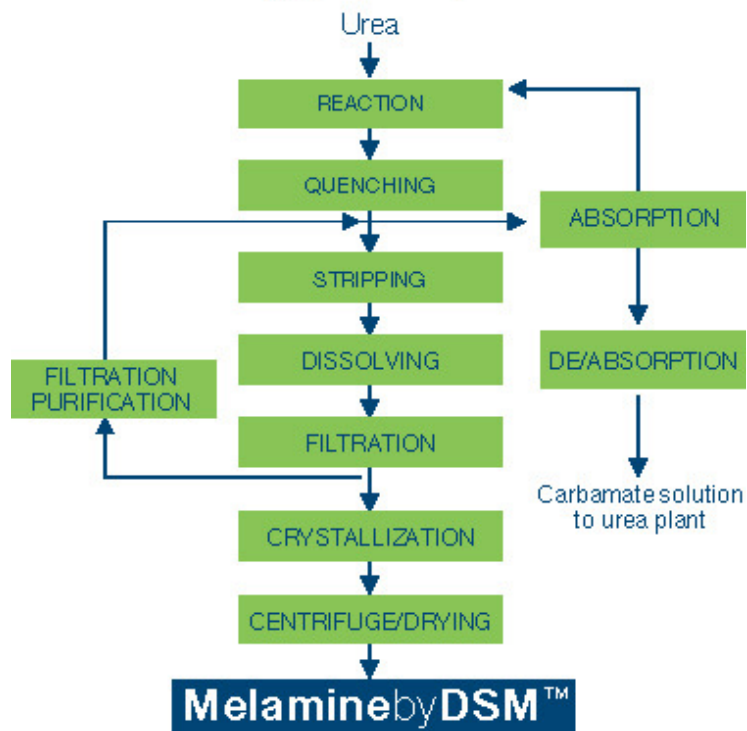
Two most competitive technologies of DSM Melamine

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Gas phase technology:

- Economy of scale (120 kt)

Existing gas phase process

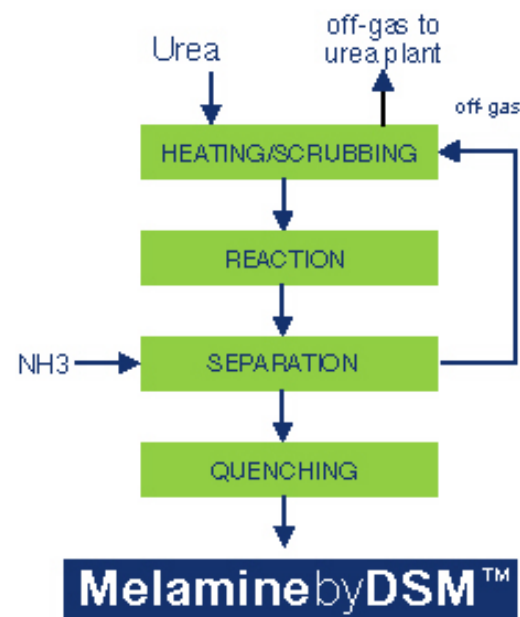


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SLP technology:

- Lower energy usage
- simple process

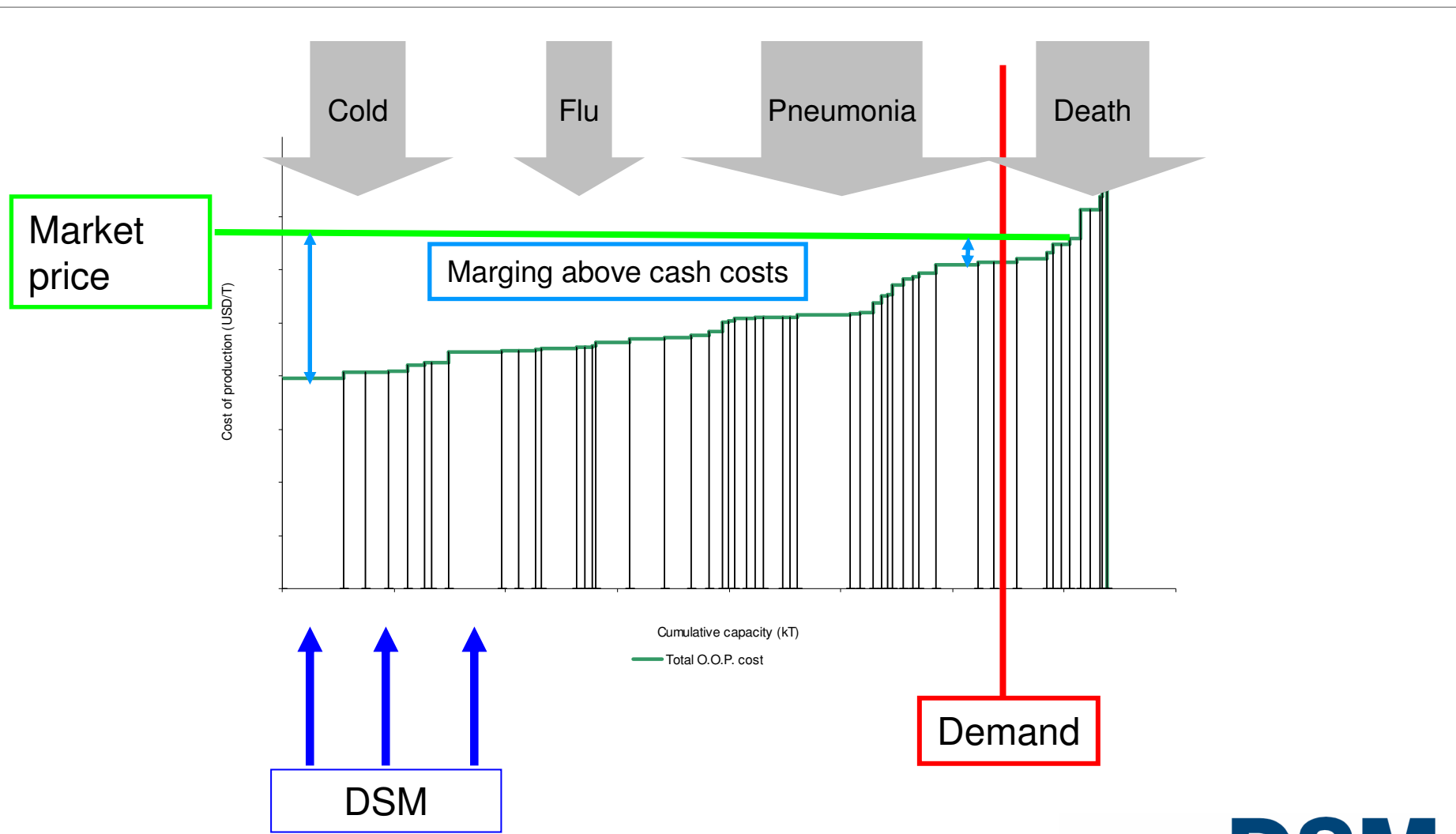
Process of our new plant



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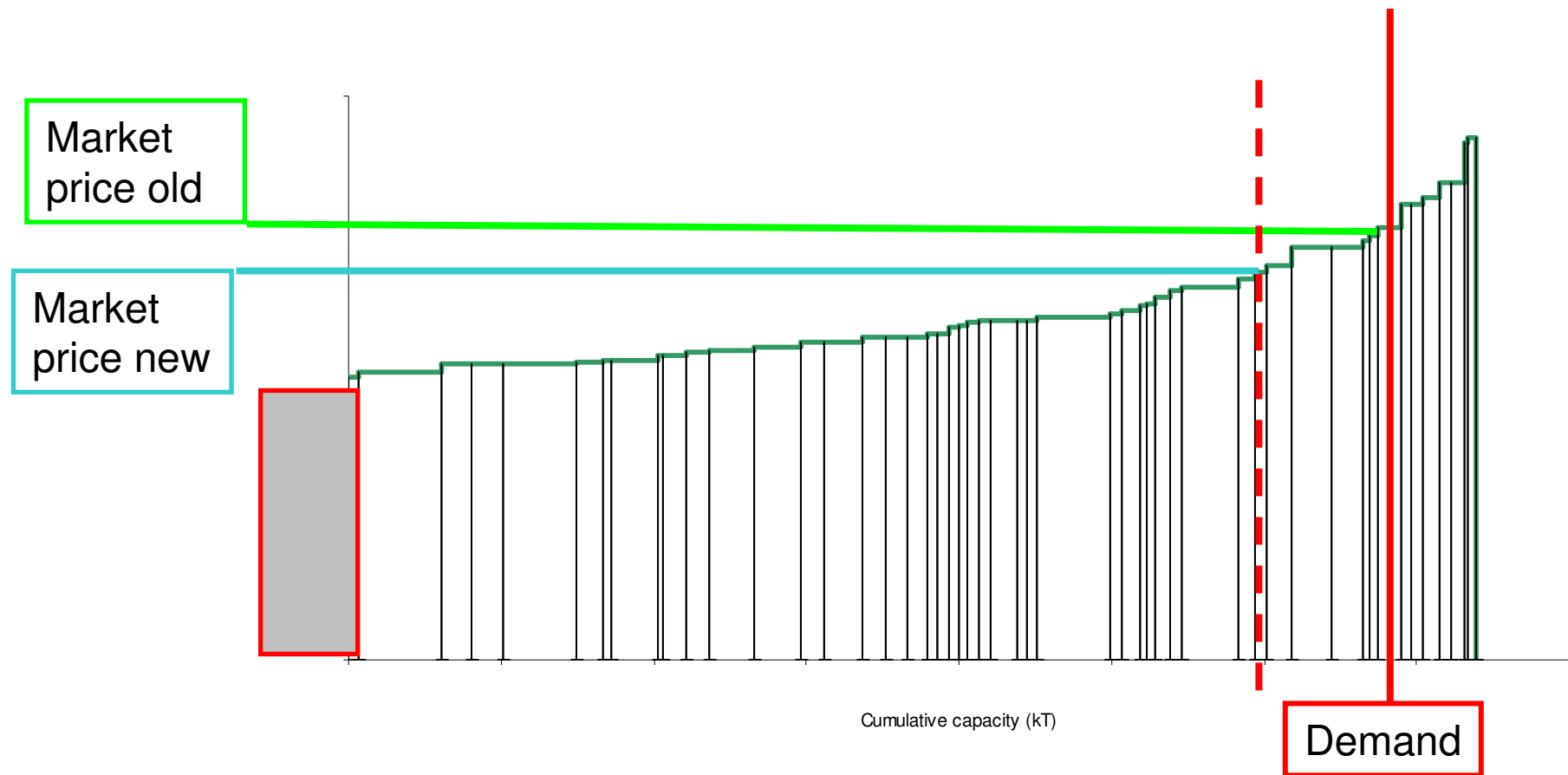
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Low cost producers are the winners



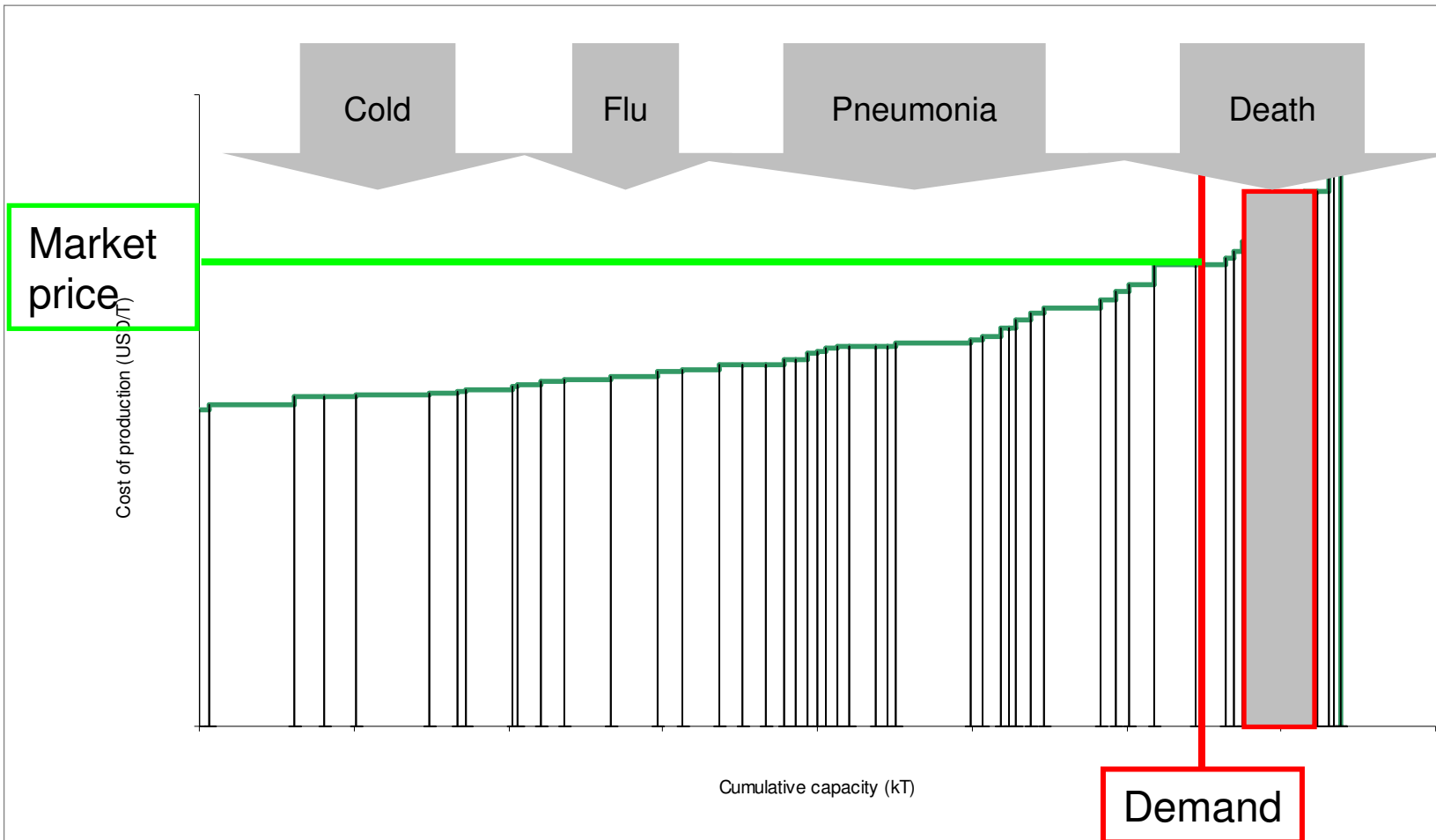
New competitive plants will lower the market price and will induce cash loss of the marginal player

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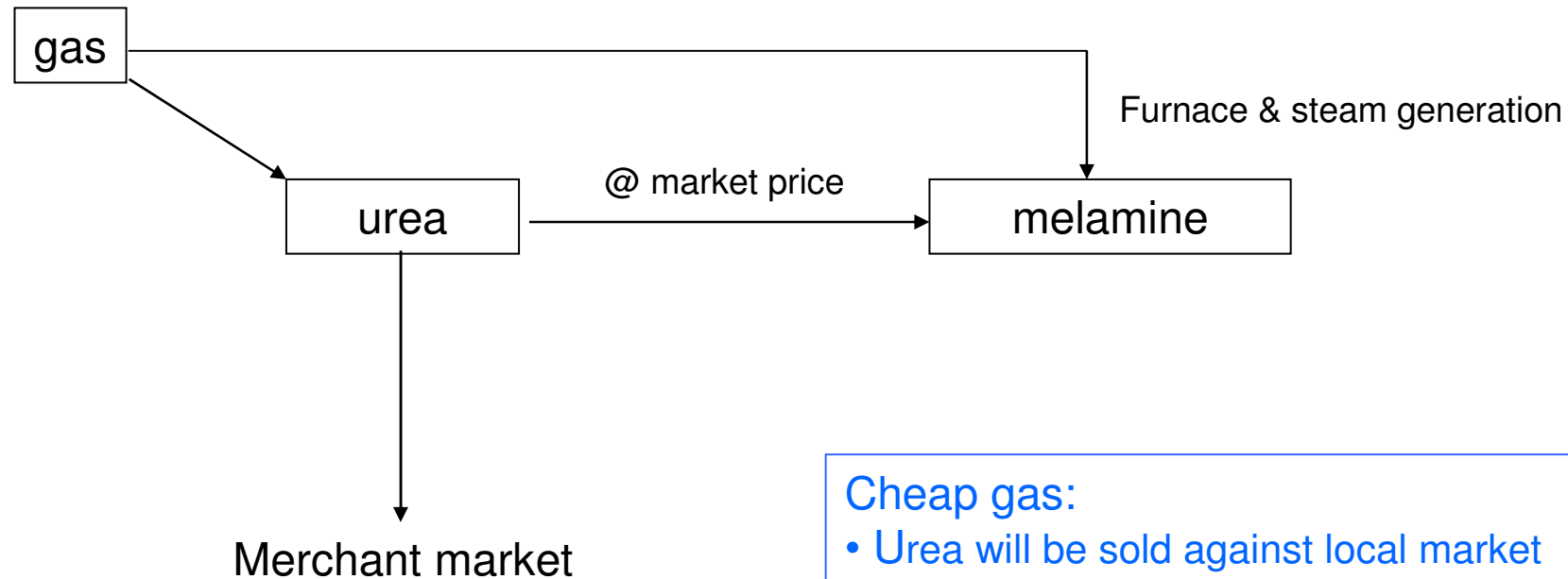
New plants with expensive technology will generate cash losses

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Will cheap gas change the profitability of melamine manufacturing ?

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Cheap gas:

- Urea will be sold against local market prices to the melamine plant.
- Reduction in the gas price for utilities and energy will result in a lower cash cost for production of melamine.
- Transport of melamine to the melamine markets will consume a great deal of the margin.

1. Start with a big fortune
2. Invest it in the wrong melamine technology, scale or at the wrong place
3. Sooner than you want you will have a small fortune !

Think, before acting:

- Do you have the right technology ?
- Do you have the right partner ?
- Do you have the right location ?
- Do you have the right scale?
- Do you have the right market knowledge?
- Do you have the right view on the prices?