

**Ministry of Transport, Public Works and
Watermanagement**

Road and Hydraulic Engineering Division

The Netherlands



Why is pavement recycling a preferred pavement rehabilitation approach

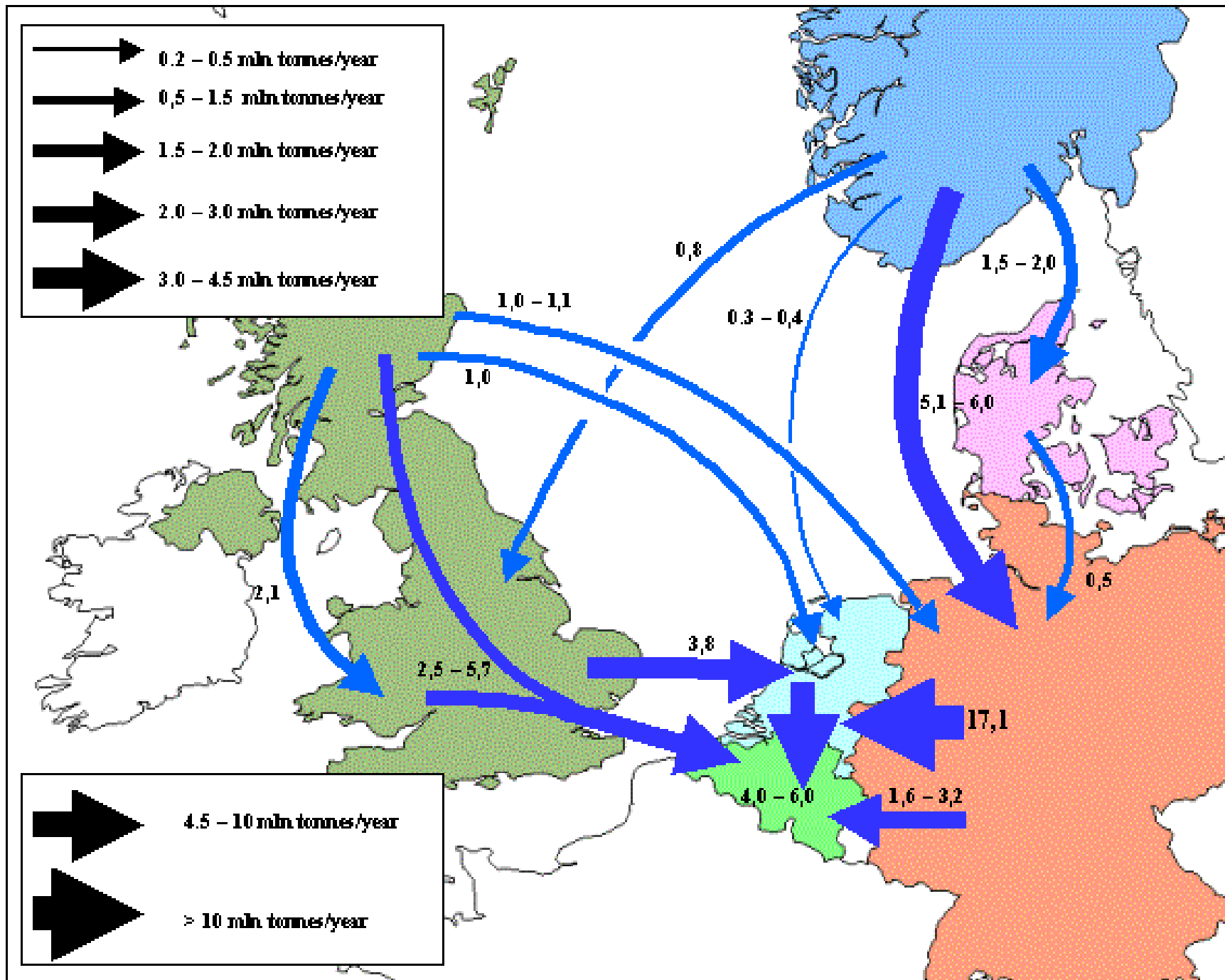
Jan van der Zwan, leader subgroup 5, Pavement recycling and rehabilitation-technical recommendations



Reasons to recycle

- Technical reasons
- Financial reasons
- Environmental reasons





Reasons to recycle

- In practice the reason to recycle is balanced by technical possibilities, financial aspects and environmental considerations



Reasons to recycle

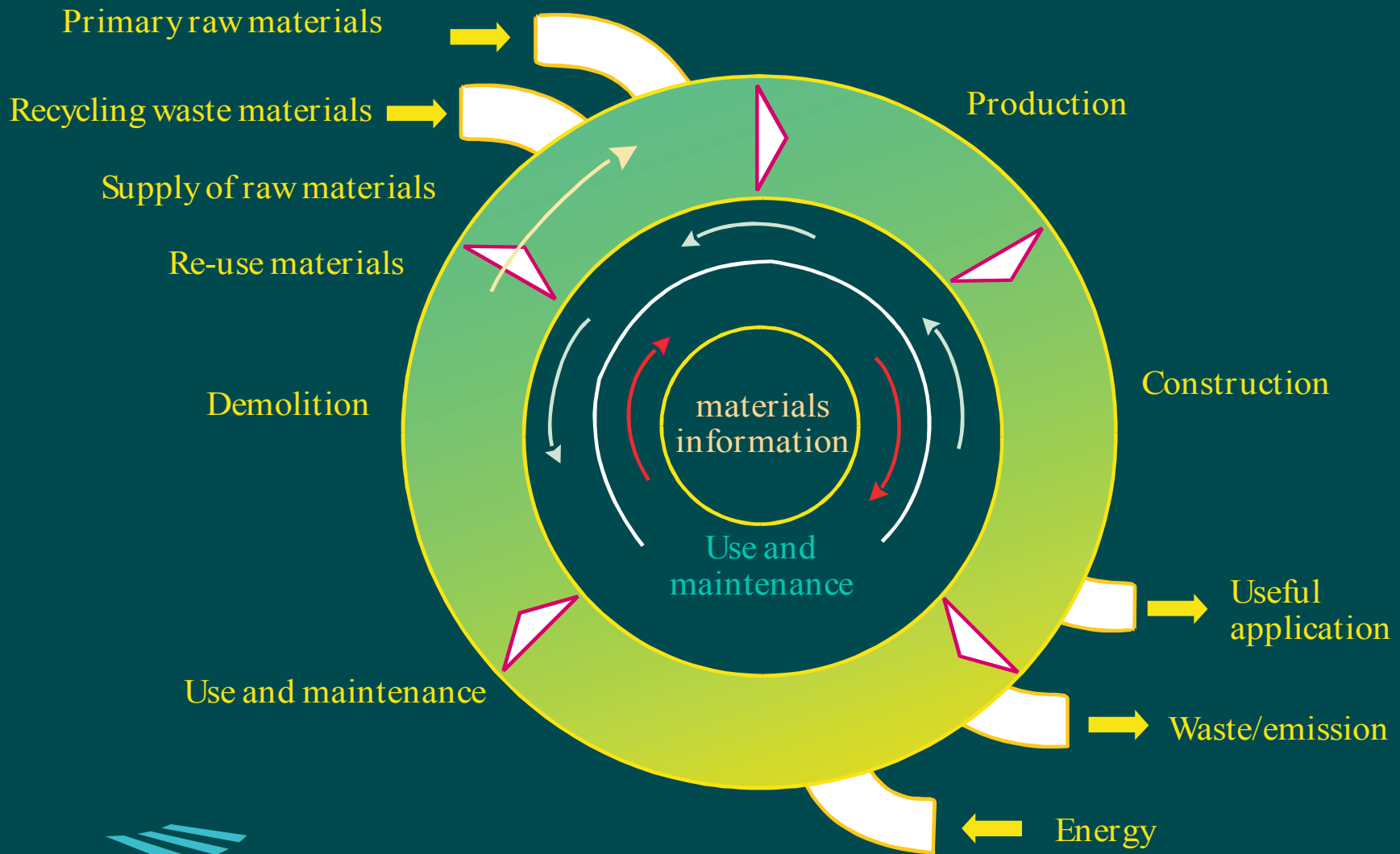
- Recycling is more than technology
- Recycling is economy, politics, market and market acceptance
- Technical issues are more easy to solve than the others



Is recycling simple?

- Socrates: the only thing I know is that I don't know anything at all
- Which methods are to be preferred?
- Tight relation between technical and political issues

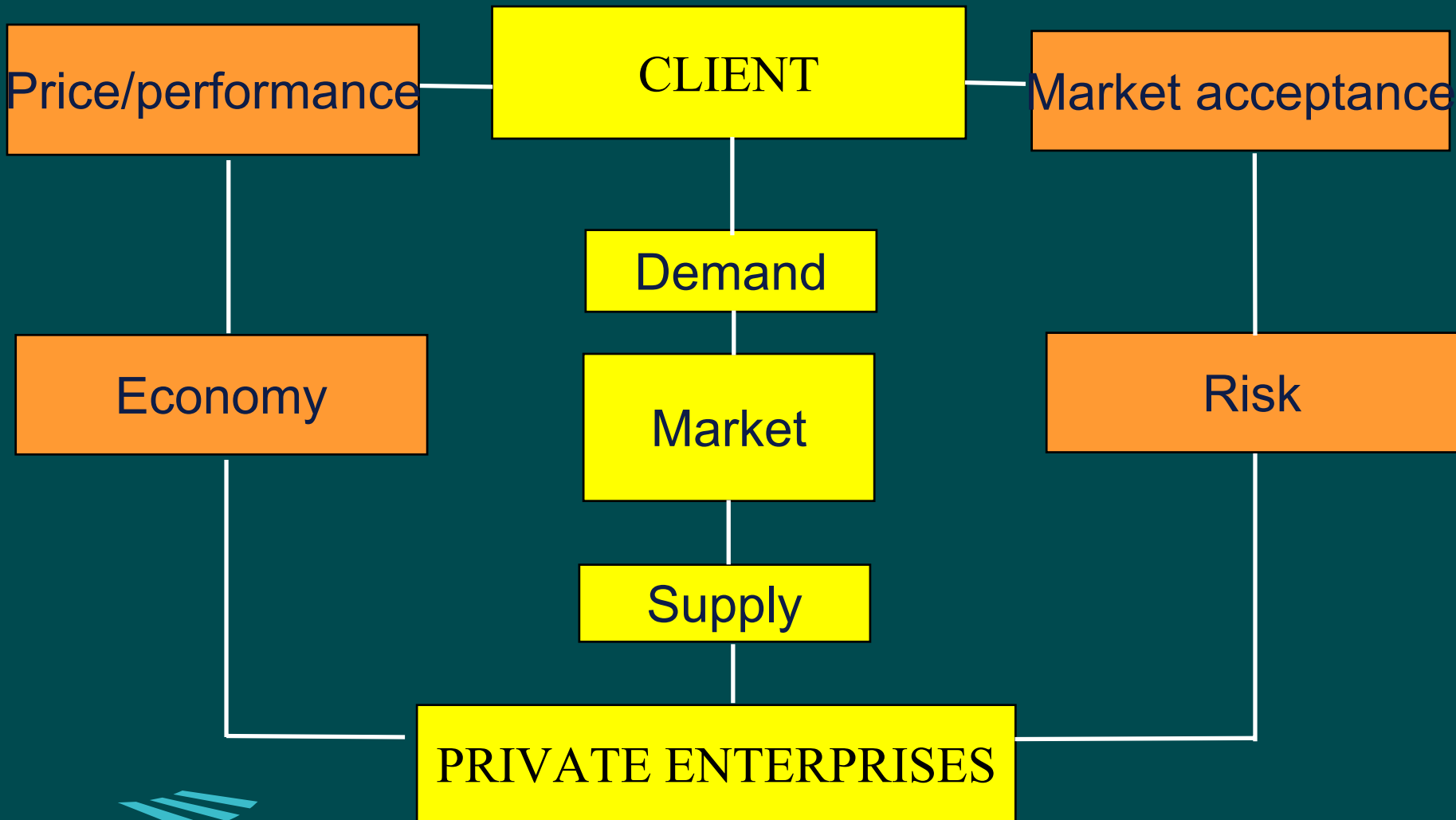




Why should you recycle?

- The answer depends on the criteria to be applied
- The driving criterion is money





Cost aspects of recycling

- The mechanical properties of the recycled product
- Recycling market is a substitution market
- Prices of traditional materials determine the price of the recycled product
- However, real costs are the variable and fixed costs of the recycling technique



Costs



Recycling
proces



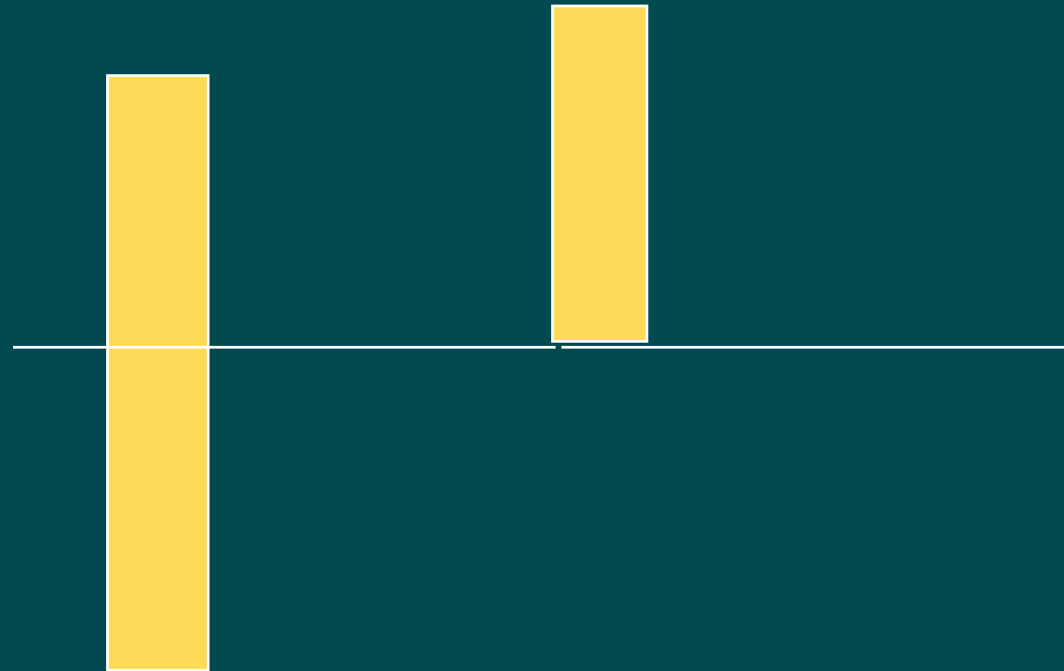
Traditionally
materials



Costs

Recycling
proces

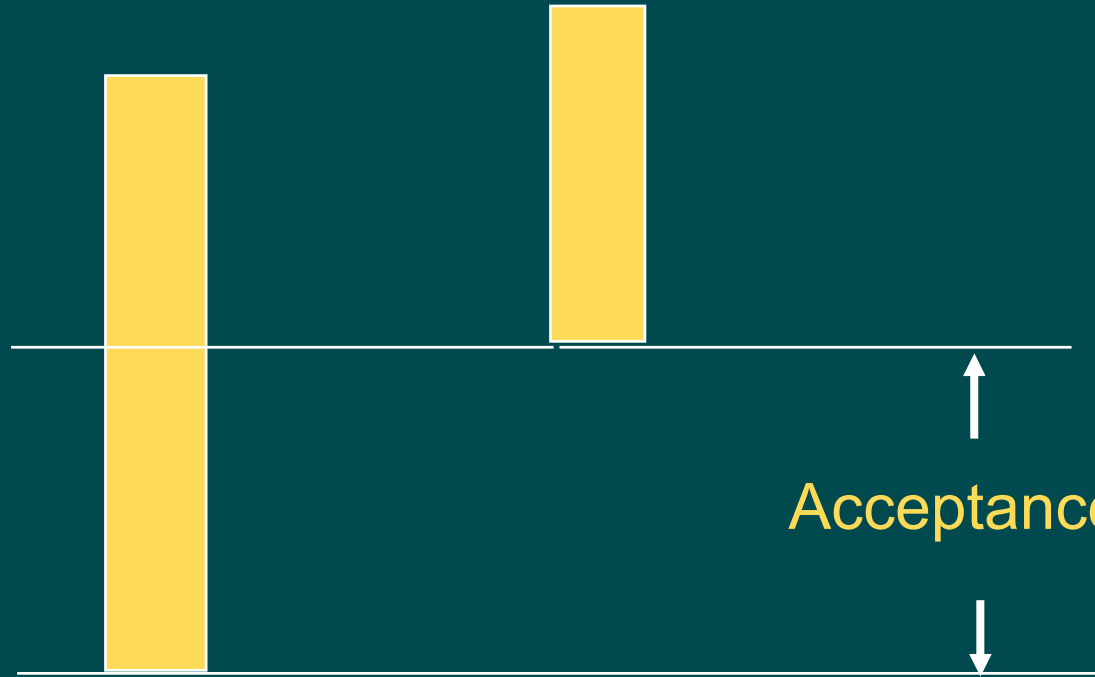
Traditional
materials



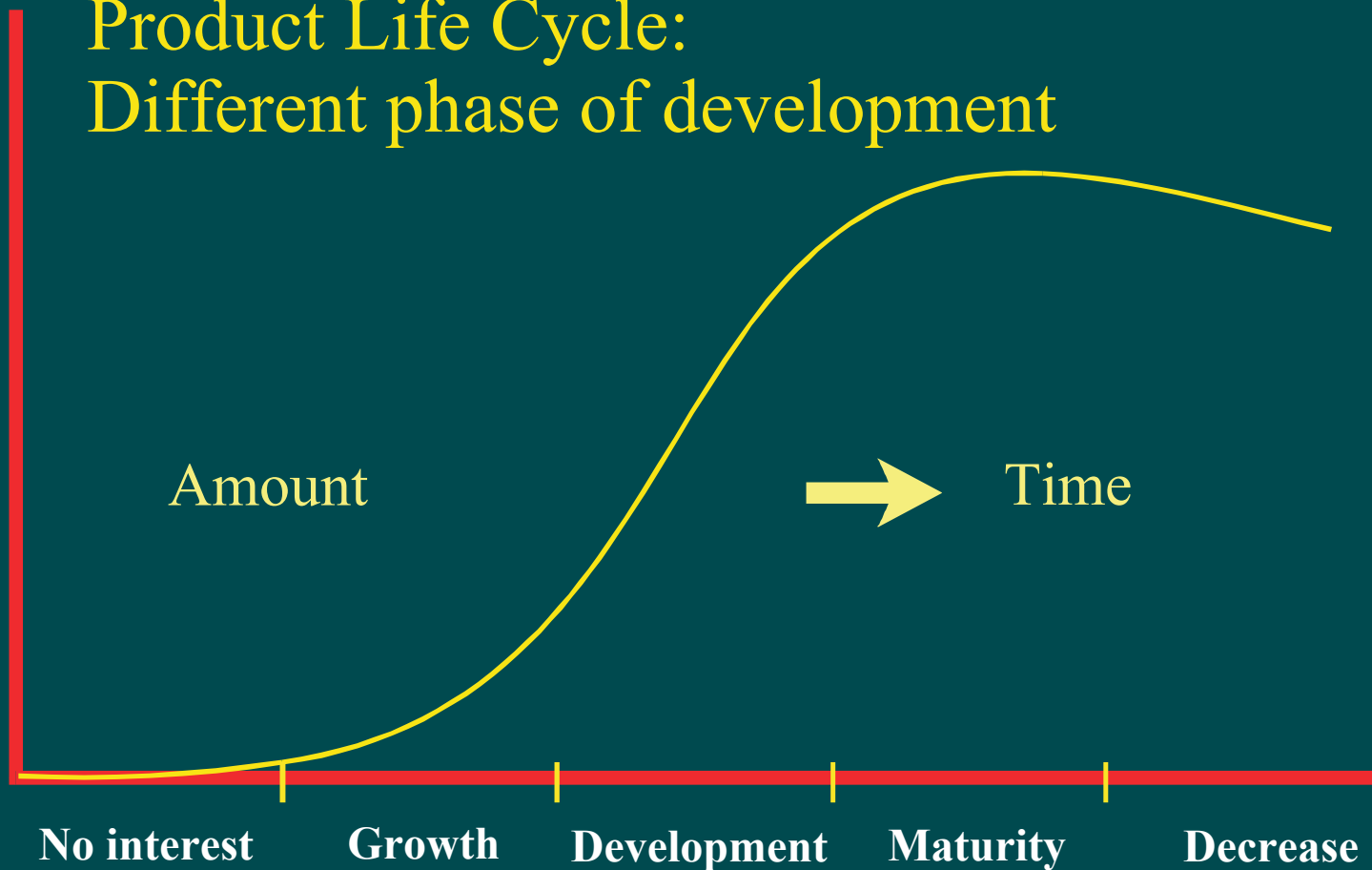
Costs

Recycling
proces

Traditional
materials



Product Life Cycle: Different phase of development



Success factors

- For the government:
 - *An unambiguous policy
 - *Straight and clear goals
 - *Invest in recycling
 - *Make clear in what is and what is not allowed



Success factors

- For private industry
 - *Active sales policy
 - *Work together with the government
 - *Invest in quality
 - *Find special markets



Conclusions

- Again, no simple answers
- Financial aspects determine the economic feasibility of recycling
- The government can influence the economy of the recycling process



Conclusions

- In my opinion, pavement recycling is to be preferred
- Whether it will be preferred depends on the overall costs



- Go home and investigate the possibilities, technical there are many proven solutions



It is now up to you

