

What is Materials UK?

WORKSHOP ON ENERGY MATERIALS

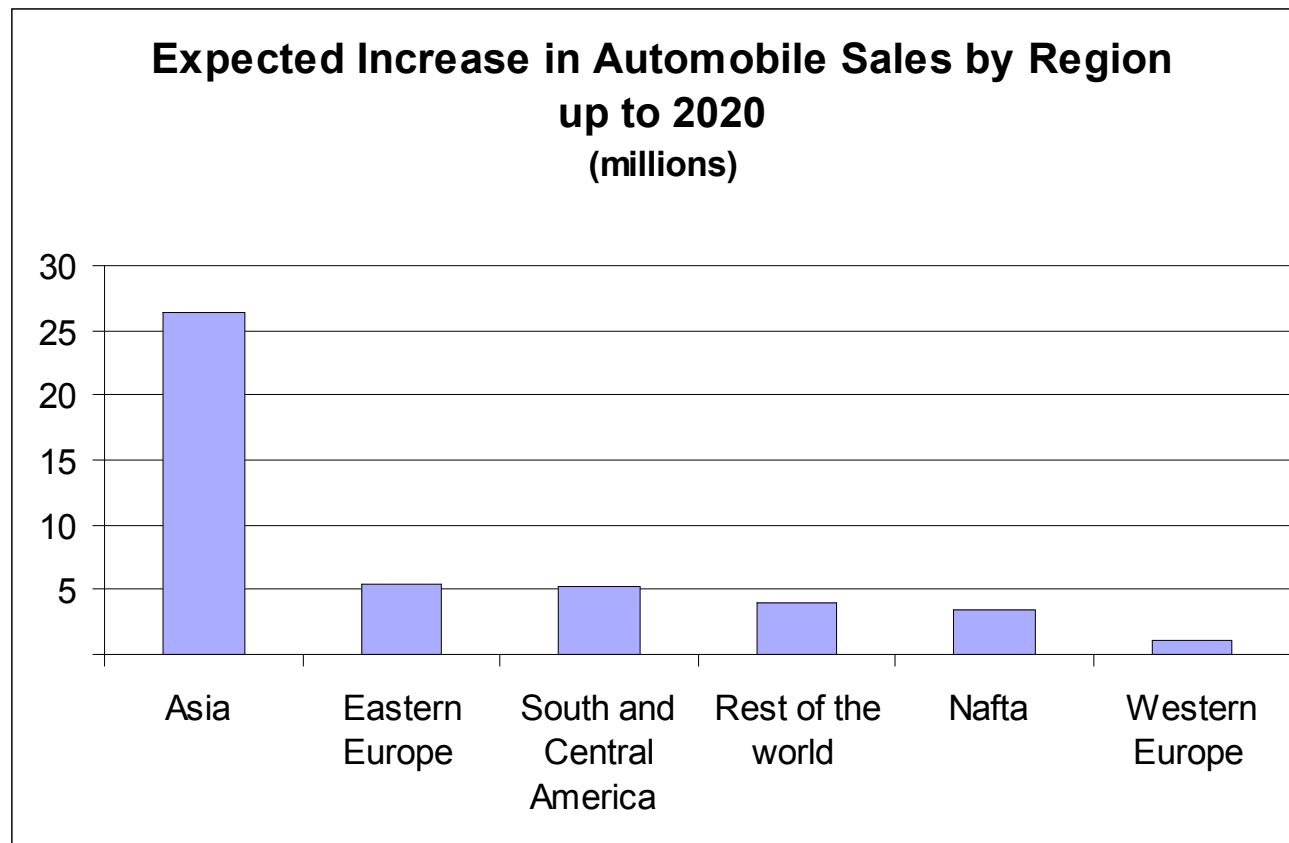
Why?

- With a turnover in excess of £200bn, the Materials industry represents well over 15% of GDP
- It employs 1,500,000 people directly and a further 4,000,000 in supporting and related industries
- Although diverse, it shares some “challenges”
 - Globalisation
 - Energy and Resource Constraints
 - Availability of Skills
 - Image

Globalisation

- If per capita income in China grows at 8% per year it will overtake the current per capita U.S. income in just over 25 years.
- China has grown at 9.5% per year since 1978
- China currently uses:
 - 37% world cement
 - 35% iron ore
 - >20% of a range of commodities from zinc to steel.
- If the Chinese use oil at the same rate as the U.S. does today, by 2031 it would need 99 million barrels of oil a day, or 20 million barrels per day more than the entire world currently produces.
- Chinese use of paper could be double current world production by 2031

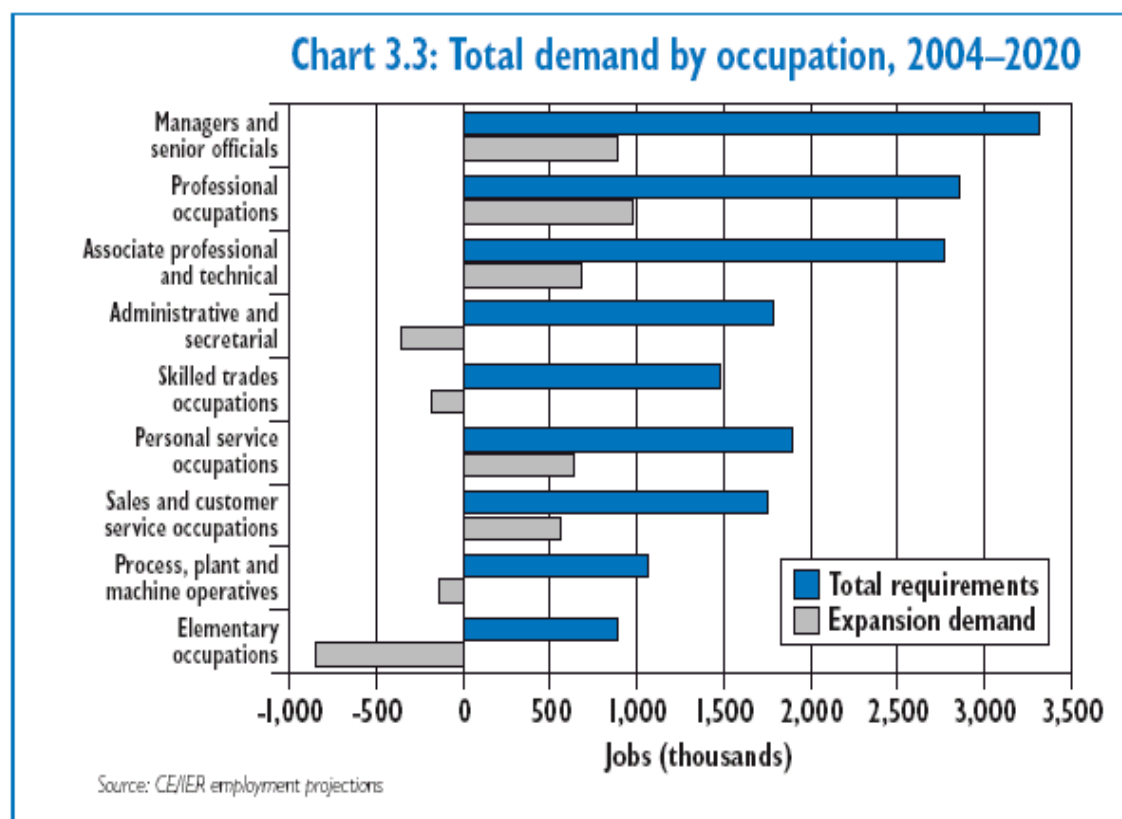
Globalisation



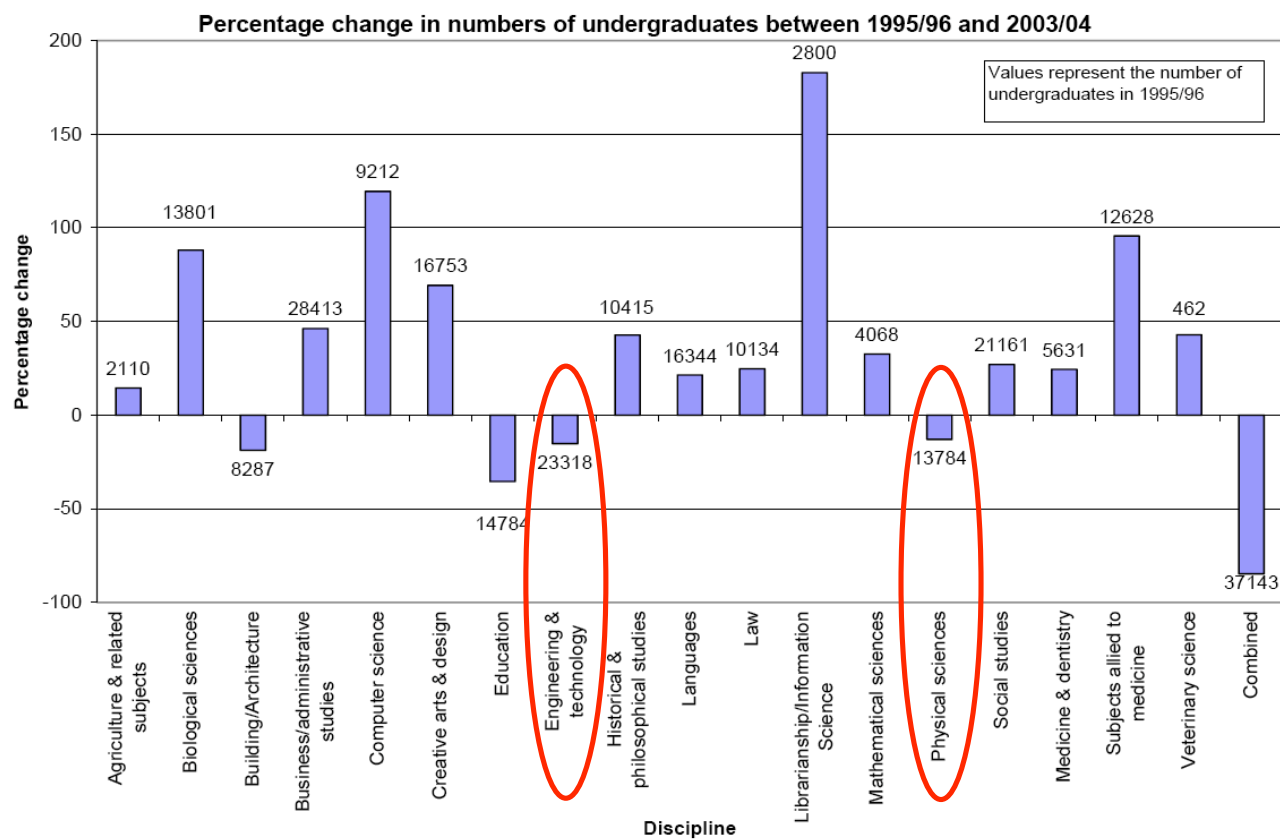
Energy and Resources

- The population has risen from 1 billion in 1900 to 6 billion in 2000!
- We have used more of the earth's resources since 1950 than we did before
- We are burning through the fossil record at a rate of 20 million years per year
- From coal to electric light is 3% efficient
- The earth is getting warmer – because of CO₂
- But 0.01% of the energy that lands on the earth from the sun would provide the energy budget for whole world economy

Skills



Skills



Image

Most people have outdated ideas of what a materials career is like

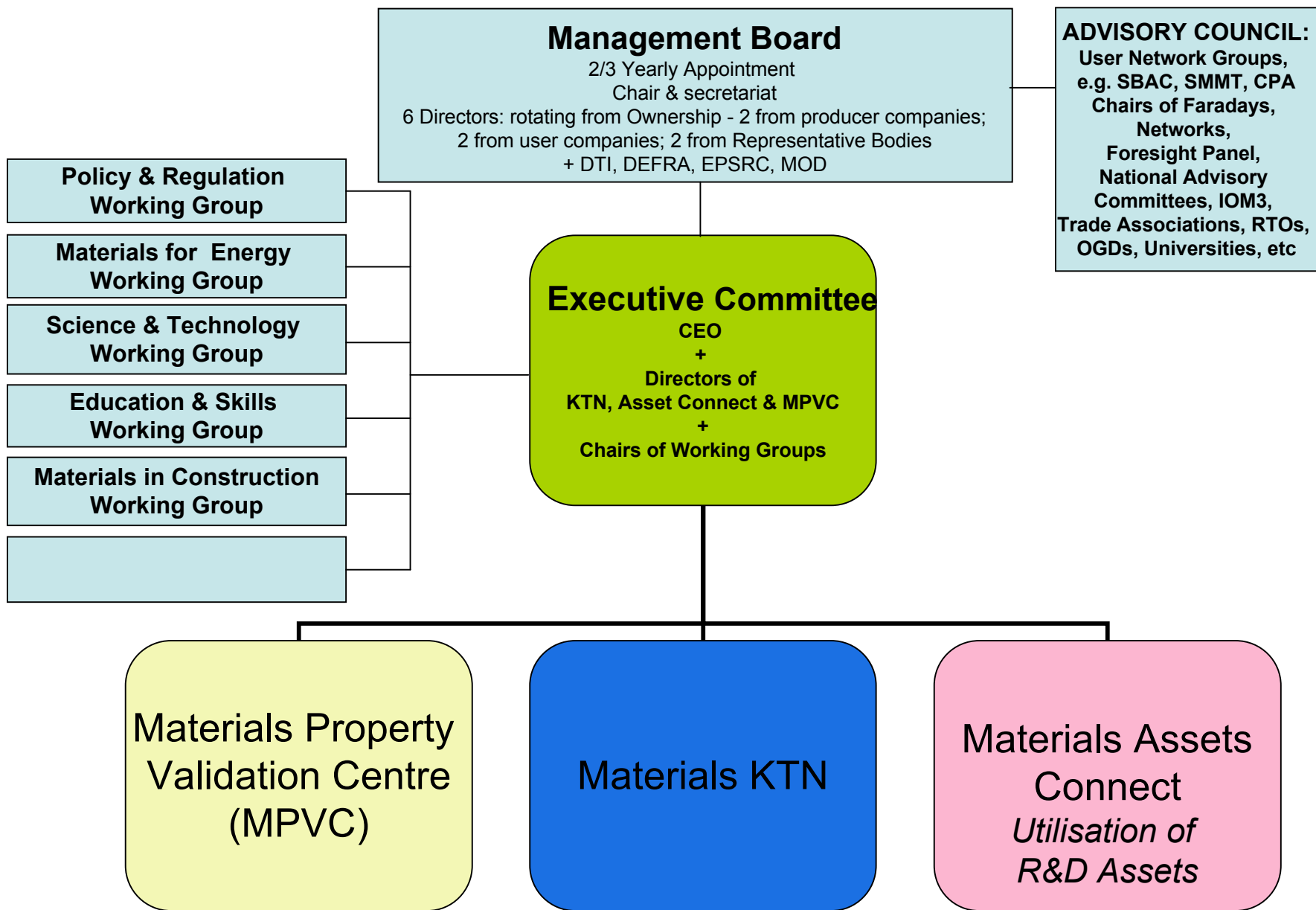


History

- The Materials Innovation and Growth Team was set up in January 2005 by the UK Government to review materials industries. It covered..
 - All materials
 - Production and downstream processing
 - Supply chain issues - by engaging end-users
 - Policy stakeholders
 - International/multi-national and global context
- It reported in March 2006 after 15 months work
- One action was to form MaterialsUK (MatUK) to implement its recommendations and to continue to develop a strategy for this important area of industrial activity

Where are we going?

- **Vision:** The UK will continue to be one of the foremost advanced technological societies in which world-class materials expertise underpins sustainable growth
- **Mission:** The mission of MaterialsUK is to enable the UK to pursue and benefit from opportunities for materials in the global economy, through:
 - Leadership
 - Strategic guidance and direction
 - Engagement of stakeholders
 - Working with Government to make UK the best place in which to do business
 - Gaining recognition of the importance of materials to society's needs






What is all that?

- The Materials Knowledge Transfer Network (KTN)
 - will deliver improved industrial performance through innovation and new collaborations by driving the flow of people, knowledge and experience between business and the science-base, between businesses and across sectors
 - will drive knowledge transfer between the supply and demand sides of technology-enabled markets through a high quality, easy to use service
- Materials Assets Connect
 - Is a register of all UK R&D assets that are available for use by the community
- Materials Property Validation
 - Will deliver certified/validated data on materials properties covering whole life cycle - enabling more efficient re-use and recycling

What is all that?

- Working Groups
 - time limited groups established to address a clear remit endorsed by the Advisory Council as of importance to the Materials community.
 - made up of experienced practitioners examining issues, making recommendations, publishing their findings and initiating programmes to address the issue
 - Policy and Regulation
 - Education and Skills
 - Science and Technology
 - Materials for Energy
 - Materials in Construction
 -and more if needed

What are we doing?

- Although there are many issues facing the Materials industry, the IGT recognised three as paramount.
- MaterialsUK will initially concentrate its resources on addressing these..
 - Materials for Energy 
 - Sustainability 
 - Design 
- They are, to an extent, inter-related





The end...or the beginning?

For more information, look at..

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