Foresight Summary for Titanium

Business Drivers versus Technology Needs
Business Drivers

- Market Competitiveness
- Superior Product Characteristics / Brand Differentiation.
- Ageing Population
- Environmental & Legislation Concerns
- Changing Lifestyles
- Defence
Market Competitiveness

• Reduce extraction costs
• Need for low cost downstream processing
• Need for expansion into steel, chemical and automotive industries
• End user need for more stringent design codes and standards
• Need for improved tribological properties
• Requirement for new alloys to compete with steel/aluminium
Superior Product Characteristics / Brand Differentiation.

• Publicity to potential customers of the advantages of Ti alloys
• Cost of ownership issues; Buildings, marine plant, etc.
• Increased knowledge base for cost effective component design
The Ageing Population

• Increased demand for use of prosthesis for older population.
Environmental and Legislation Concerns

• Lower exhaust emissions/ light weighting of engines
• Need for water desalination
• Flue gas desulphurisation
• Nuclear plant shutdowns
Changing Lifestyles

• Use of Ti in leisure industry
• Ti in safety clothing, body armour and sensors etc.
Defence

• Light weight tanks. Rapid deployment, armour and general use