

# Taking materials from the lab to industry

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### Modern material discoveries









### Materials case study: rubber

Energy in elastic band



0.5 J

### Materials case study: rubber

Energy in elastic band



0.5 J

Energy in bullet



225 J

### Materials case study: rubber

Energy in elastic band



0.5 J

Energy in bullet



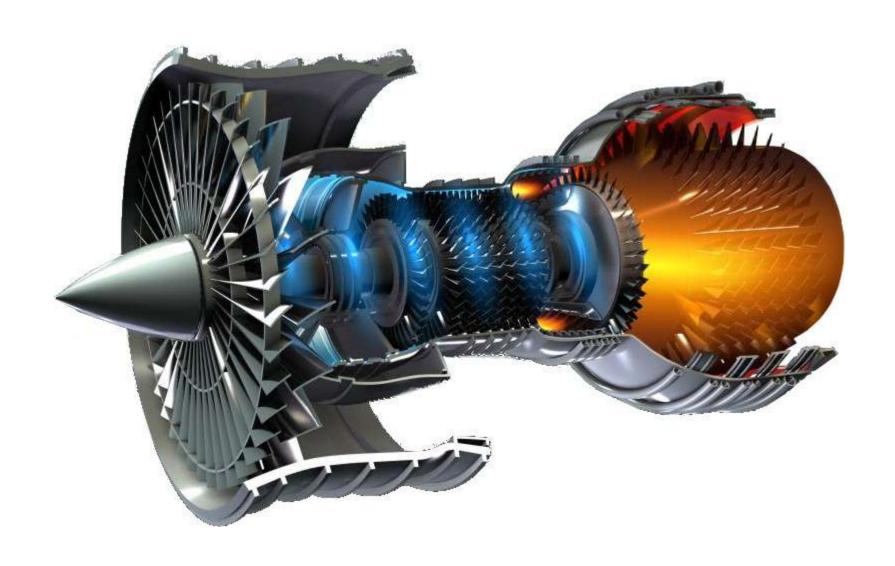
225 J

Energy in enormous band



250 J

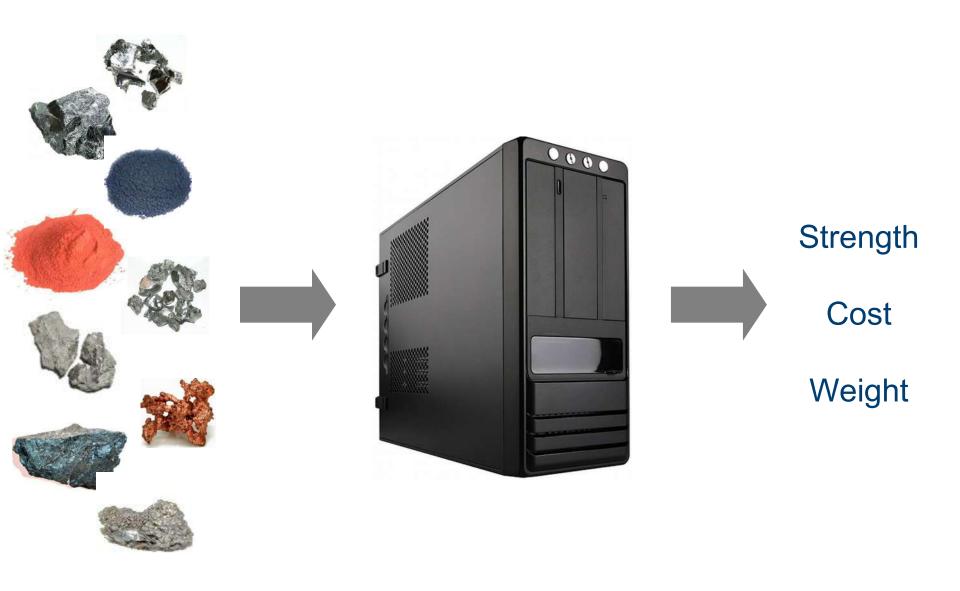
# Jet engine



## Materials alchemy



## Materials design



#### Alloys developed

Method and system for designing a material EP14153898.3, US 2014/177578, GB1302743.8

Molybdenum-hafnium alloys for high temperature applications EP14161255.6, US 2014/223465, GB1307533.8

Molybdenum-niobium alloys for high temperature applications EP14161529.4, US 2014/224885, GB1307535.3

A nickel alloy EP14157622.3, US 2013/0052077 A2, GB1408536.9

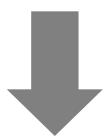
### Business plan

### Materials discovery with Rolls Royce



#### Business plan

Materials discovery with Rolls Royce



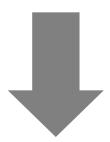
Generalization with Samsung and BP



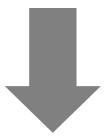


#### Business plan

#### Materials discovery with Rolls Royce



Generalization with Samsung and BP



Exit strategy





