Peak Oil

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Introduction to Oil

Oil is critical to the operation of our businesses

Oil presents challenges
• rising prices
• environmental impacts
• risk of disruption to supply
• resource sustainability

Security of Supply

Crude oil production (Mtoe) (2014)
Peak Oil

Maximum rate of global oil production, after which the rate of extraction is expected to decline.

Conventional oil → Unconventional oil

Image source: http://peakoil.com/geology/92343
Unconventional Oil

Energy Returned on Energy Invested

- 1930s: 50:1
- Deep sea oil: 12:1
- Tar sands: 4:1

Energy Use in NZ

Oil = 32% of NZ’s TPES
Over 75% of this oil is used in the transport sector
Providing 99% of transport energy

Graph source: MBIE Energy in New Zealand 2016
Sustainability & Innovation

http://www.wrightspeed.com/the-route-powertrain
https://thelogicalindian.com/story-feed/opinion/waste-plastics-for-road-laying-good-bad-or-ugly/
Take Home Points

• Being innovative, energy efficient and sustainable makes good environmental and business cost sense.

• NZ’s energy mix will need to change.

• How will your business adapt?

Questions?