

# Entrepreneurship and Innovation

Dr Peter C Farrell AM

Chairman & CEO ResMed

"It is the mark of the instructed mind to remain satisfied with the degree of precision which the nature of the subject permits and not seek an exactness where only an approximation of the truth is possible."

Aristotle (384-322 BC)

## The Entrepreneur

Shifts economic resources out of an area of lower, into an area of higher productivity and greater yield

Jean-Baptiste Say 1776-1832

- Entrepreneurs create value
- Entrepreneurs are not risk takers, they are opportunity seekers

#### Innovation .l.

#### Almost right

Creativity is <u>thinking up</u> new things. INNOVATION is <u>doing</u> new things

Theodore Levitt/HBS

#### Right\*

 INNOVATION is the process of turning ideas into manufacturable and marketable form

Watts Humphrey/Author

\* The ultimate test for an innovation is that somebody writes a cheque

#### Innovation .II.

TECHNOLOGY has been and always will be the turbocharger of economic growth

And if INNOVATION is the key to wealth creation, then TECHNOLOGY is the enabler or the means

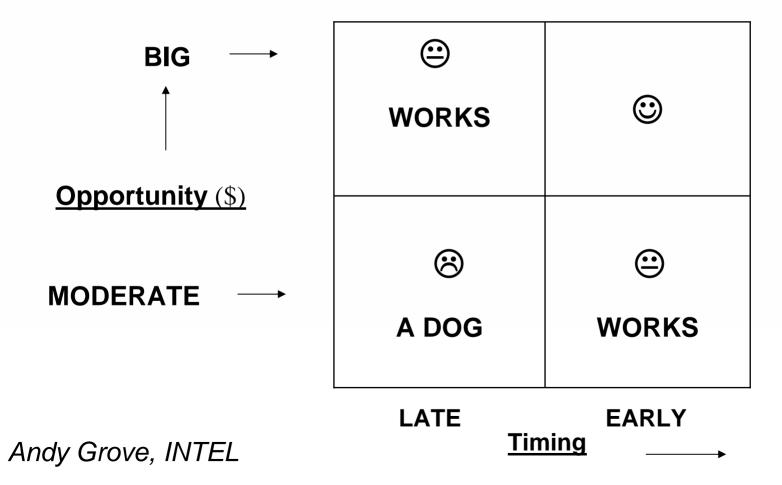
Robert Solow (1924-) of MIT, won the Nobel Prize (1987) showing that technology was the key driver of US economic growth over and above traditional economic inputs

#### **Innovation**.III.

If we apply TECHNOLOGY to what we already do, it is called PRODUCTIVITY

If we apply TECHNOLOGY to something completely new, and it is successfully marketed, it is called INNOVATION

## **Opportunity Selection**



#### Where Do We Put Our Scarce Resources? .l.

#### A selection template

- MARKET ASSESSMENT: Is it sufficiently big and accessible?
- PEOPLE: Do we have access to world-class people?
- <u>FINANCE</u>: Can we really see a path to the financial resources needed for project completion?

## Where Do We Put Scarce Resources? .II.

- <u>TIMING</u>: Will it happen in our lifetime? (The 4/2 rule)
- <u>TECHNOLOGY ASSESSMENT</u>: What does the competition know now and how could the competitive terrain change?
- ALPHA FACTOR: Do we really love it?
- Then do the <u>FINANCIAL ANALYSIS</u>
  (Break-even, ROI, NPV, EVA, Monte Carlo, etc) to make a final selection
- The INNOVATION needs to be exciting and intriguing but it also has to pay the rent

#### **Base Fundamentals**

If I were to have only 3 things to measure in a business they would be:

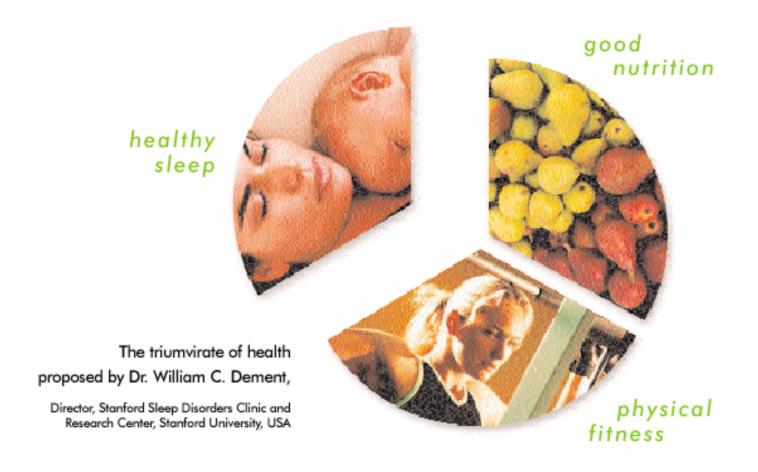
- Customer satisfaction
- Employee satisfaction and
- Cash flow

Dr Jack Welch Former CEO, General Electric

#### ResMed's Mission

To become the global leader in development, manufacture, and marketing of innovative products for the diagnosis, treatment, and management of sleep-disordered breathing

## A Case Study: ResMed (NYSE: RMD)



### **Company Overview .I.**

- MBO from Baxter Healthcare in 1989
- The leading technological innovator in ~\$2B global SDB market
- Presence in over 100 countries; HQ in San Diego with direct offices in Sydney, Oxford, Munich, Basel, Lyon, Helsinki, Tokyo, Delhi, Gothenburg, Singapore, & Auckland
- Robust financial performance: 47 consecutive record quarters
- ResMed is listed on both the NYSE (RMD) and the ASX (RMD) and market cap is about USD 4 billion (February 2007)
- Ten year CAGR: ~ 35% for revenues / ~40% for net income
- Strong, experienced management team (~ 3000)

## Company Overview .II.

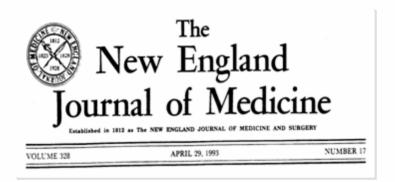
- 54% of revenues are generated in the Americas; Germany is 16%; France is 10%, Japan is ~ 3% (>80% of business in 4 countries)
- ResMed has either the #1 or the #2 market position in all major markets
- ResMed has made the Forbes 200 Best Small Companies in America for 10 consecutive years (1997-2006) #86 in 2006

## Strong Financial Performance Quarterly



<sup>\*</sup> Excluding stock-based compensation, restructuring, AJCA repatriation tax, acquisition-related costs and acquired intangible assets

## Over a Decade Ago!



#### SLEEP APNEA – A MAJOR PUBLIC HEALTH PROBLEM EDITORIAL

- "Among specific sleep disorders, the most serious in terms of morbidity and mortality is obstructive sleep apnea."
- "... it is time for the nation to wake up to the staggering impact of sleep disturbances on the health and welfare of our society, an impact that rivals that of smoking."

## Signs/Symptoms of SDB/OSA

- Hypertension (JNC7)
- Heart arrhythmias (AF)
- Morning headaches
- Depression
- Nocturia
- Reflux (GERD)
- Impotence
- Accelerated ageing/growth depression (Children)
- Impaired glucose metabolism pre diabetes
- Cognitive dysfunction
- Excessive daytime sleepiness

## Consequences of Untreated SDB/OSA

I want to die like my grandfather did - peacefully in his sleep,

not screaming like the other passengers in his car...

## Sleep Disordered Breathing (SDB)

- Prevalent in 20 to 30% of adults
  - ~7% have SDB at highly significant clinical levels, primarily OSA
- Hypertension (40-50% with SDB)
- Diabetes (~ 70% with SDB)
- Anesthesiology (PCA)
- Congestive Heart Failure (~ 70% with SDB)
- Other: Stroke/TIA (~70% with SDB); COPD (~ 30%; hypercapnic hypoventilation)
- Missed diagnosis is sadly quite common by PCPs and all medical specialists



### Summary .I.

- SDB/OSA is a major public health problem on a level equivalent to that of tobacco smoking (NEJM April 1993)
- SDB/OSA is the major cause of hypertension which, in turn, is the major cause of heart disease and stroke, the #1 and #3 killers in most western countries
- SDB/OSA is easy to diagnose and easy to treat; it has been shockingly neglected by the medical establishment

### Summary .II.

- ResMed's biggest competitor is ignorance.
- ResMed is the leading global technology company in the SDB/OSA space; we have the track record to prove it.
- The SDB/OSA opportunity is a marathon and we are only lacing our shoes; it is time for the nation and the world to wake up to sleep



## RESIDED

It's Time to Wake Up

AUSTRALIA AUSTRIA BELGIUM BRAZIL BULGARIA CANADA CHILE CYPRUS ZIMARK EGYPT F RE GERMANY GREECE HONG KONG ICELAND INDIA BELGIUM BRAZIL TIALY JAPAN KOREA LEBANON MALAYSIA MALTA NETHERLANDS NEW ZEALAND NORWAY PORTUGAL TO SIA SII SIA SI SI SIA SI SI SIA SI SI SIA SI SI SI

"The fault dear Brutus lies not in our stars but in ourselves."

Julius Caesar

#### Strengths .I.

- Australia has had solid economic performance over the past decade
- There is minimal corruption
- There is a well-educated workforce
- There is an established research base and infrastructure, particularly in medicine

### Strengths .II.

- An understanding of globalization
- Some born-global companies e.g. ResMed and Cochlear
- A "knowledge-economy" awareness
- Capital accumulation through super funds
- A democratic and open society

#### Weaknesses .l.

- Too few engineers/technologists being produced
- Too much regulation
- A socialized approach to the world we need to focus more on equal opportunities then equal outcomes.
- Heavy trade union influence but still reducing in clout
- Geographic isolation
- High transportation costs

#### Weaknesses .II.

- Woefully bureaucratic secondary and tertiary education systems
- Insufficient management depth
- Poor developer of technology; we are more users than developers
- A serious economic imbalance exists between imports (ETMs) and exports (resources)
- Under-investment in infrastructure
- Lack of clarity in State/Federal responsibilities; very muddied waters
- An excessively complex and unintelligible tax regime

#### Opportunities .l.

- Our near-term opportunities involve tax reform, workplace relations, and revamping the bureaucracy
- Reducing red tape
- Reforming State taxes (Payroll tax?)
- Providing greater R&D incentives, up to 200% deduction for bona fide R&D expenditures
- Freeing up super funds to invest on a voluntary basis, in high risk/high return activities; up to 5% should be freed up.

### Opportunities .II.

- Better academic, government and industry co-operation
- Some infrastructure exists: expertise in manufacturing, legal and accounting exists at needed levels
- Relatively low cost environment
- Australia is taken seriously Nobel prizes; economic performance; reliable ally, etc.
- Need to privatize more Government businesses
- Reform of our tertiary system is a sine qua non; let's remove the shackles from our Universities

#### Threats .I.

- Change-resistant
- Failure to execute
- Poor choice of opportunities for investment
- Lack of commitment to examining the future

Global leaders in sleep and respiratory medicine

The need to punch above our weight

#### Threats .II.

- Stubbornness in the face of reality
- Lack of a sense of urgency
- Complacency on reform at all levels

"Civilizations die from suicide not murder."

**Arnold Toynbee** 

- The best universities in the world are in the US. They are either private (Stanford, MIT, Harvard, etc.) or research-based with relative autonomy (Berkeley, UCSD, UCLA, Washington, etc.)
- We need to be picking the low-hanging fruit for technology transfer
- The time to reform the tertiary sector is now.

"Unless our "world-class" universities regain freedom to manage their own finances, decide their own pay scales and charge their own fees, there is no chance that they will maintain their international standing. Universities have to differentiate themselves or, in the long run, perish. If businesses were run like UK universities (or Australian ones) they would be bankrupt. Any business analyst would start by looking at demand, at the balance between future demand and supply in both vocational and non-vocational studies. And why pay for degrees with no cachet?"

Lord Rees-Mogg, Times of London (18/12/2002)

- Australia is way down the totem pole on GERD as % of GDP (1.6%) vs. Sweden (4.3%);
  Finland (3.5%); Japan (3.2%); Korea (2.9%);
  US (2.7%) etc.
- There is a gross imbalance between exports (resources) and imports (ETMs).
- We are not investing our windfall profits (exports to China and Japan) in our future.

"It is true that by blundering about we stumbled upon gold, but the fact remains that we were searching for gold."

Sir Francis Crick/Double Helix

What are the key elements of a tertiary education?

- 1. Expand the powers of the mind;
- 2. Advance learning;
- 3. Teach people that background of culture and social awareness upon which a healthy society depends; and finally
- 4. Teach people how to earn a living.

Lord Robbins (Quote in a letter to the London Times)

"The best qualification for innovation is a basic training in engineering. Engineers are taught that design matters; that most things are part of a system in which everything interacts: that their job is to worry about trade-offs and that they must continually be measuring the robustness of the systems they set up. Such a frame of mind fosters innovation. Many of the greatest corporate leaders in America, Europe and Japan, past and present, trained first as engineers."

Dr. Michael Hammer, Author/Former MIT Professor

#### Conclusions .l.

- The Australian economy in good shape but future far from sanguine.
- Work choice is fundamental to productivity and workplace flexibility
- Tax reform is a sine qua non: personal taxes need to reflect corporate tax; and increased R&D incentives are needed.
- The current welfare system, with the churning which takes place, is ludicrous. It is expensive and inefficient (Dr. Peter Saunders, CIS).

#### Conclusions .II.

- Universities need to be unshackled; they should compete for students and endowments, charge what they like and pay above market rates for talent.
- Universities should be allowed to govern themselves without interference from bureaucrats or politicians, in the same view as Stanford and MIT.
- Up to 5% of super funds should be voluntarily invested in high risk, high return entities. The current modus operandi of the Super Funds is woefully inadequate, leaves money on the table and prevents the economy growing and becoming less dependent upon resources.