

Energy: A starting point for boosting business productivity



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Australia's Global Competitiveness

GC 2013-2014

Country/Economy	Rank (out of 148)	Score (1-7)	Rank among 2012-2013 economies*	GC 2012-2013
Switzerland	1	5.67	1	1
Singapore	2	5.61	2	2
Finland	3	5.54	3	3
Germany	4	5.51	4	6
United States	5	5.48	5	7
Sweden	6	5.48	6	4
Hong Kong SAR	7	5.47	7	8
Netherlands	8	5.42	8	5
Japan	9	5.40	9	10
United Kingdom	10	5.37	10	8
Norway	11	5.33	11	16
Taiwan, China	12	5.29	12	19
Qatar	13	5.24	13	11
Canada	14	5.20	14	14
Denmark	15	5.18	15	12
Austria	16	5.15	16	18
Belgium	17	5.13	17	17
New Zealand	18	5.11	18	20
United Arab Emirates	19	5.11	19	24
Saudi Arabia	20	5.10	20	10
Australia	21	5.09	21	20
Luxembourg	22	5.09	22	22
France	23	5.05	23	21



What's making us less competitive?

Increasing cost of doing business

- Labour
- Materials
- Energy
- Water
- Waste
- Regulations



(Source: www.ibisworld.com.au)

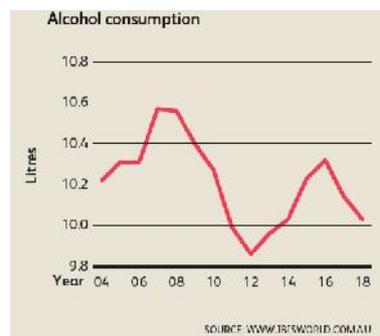
The Aussie Dollar

- Slowing exports
- Increasing competition from lower-cost imports
- Affecting key customers and end-markets



Wine glut

- Structural oversupply of wine in Australia
- Australian wine industry currently producing 20-40 million cases a year more than it is selling



These pressures aren't going away....

Option 1



Option 2



What does 'productivity' mean?

Improving **business performance** through a continuous process of increasing the ratio of **outputs** to **inputs** in production.

business performance:

- Profitability
- Market position
- Flexibility
- Certainty
- Risk profile
- Safety
- Brand

outputs:

- Wine volumes
- Wine quality
- Revenue

inputs:

- Grapes
- Materials/additions
- Labour
- Energy
- Water
- Waste costs
- Regulatory costs

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How to think about energy



The same can be said for all resource inputs...

Consider energy efficiency as part of the bigger productivity picture

- Energy efficiency for 'energy efficiency's sake' can only take you so far
- Energy consumption provides an indicator of how efficient (or inefficient) the business is operating
- The best energy efficiency improvements are the ones that improve the overall productivity of the business
- Helps to challenge assumptions about what's possible in the business

Consider energy together with all physical inputs and outputs (materials, labour, water, waste) to identify productivity 'sweet spots'

Tip #1: Spend the time upfront to define the problem

Determine if the business has:

1. A cost-control problem



Start with the key cost pools of the business

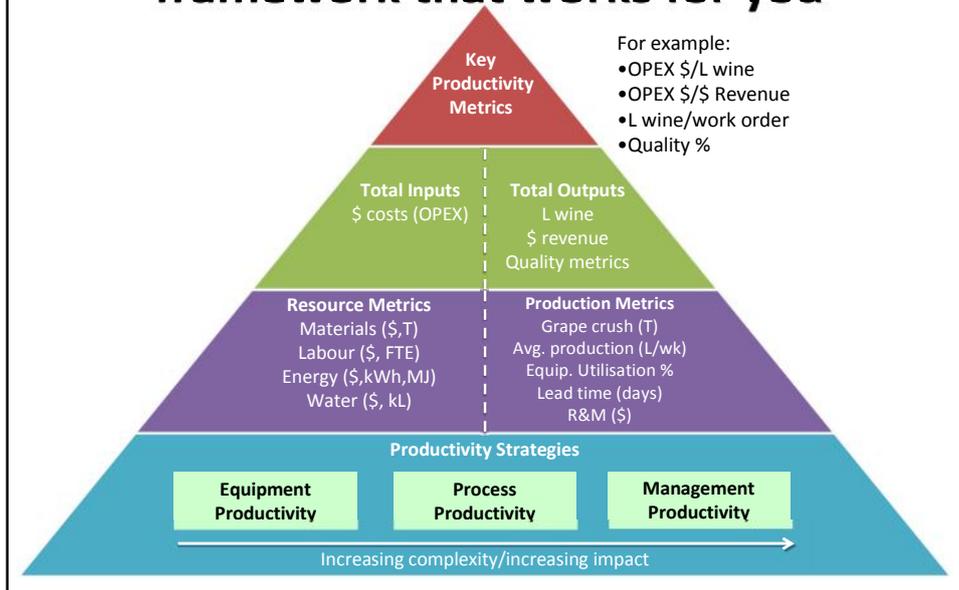
OR

2. A growth-control problem

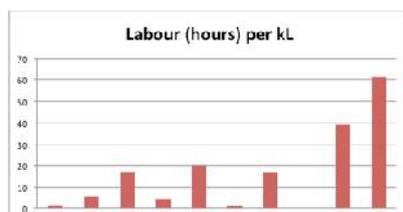
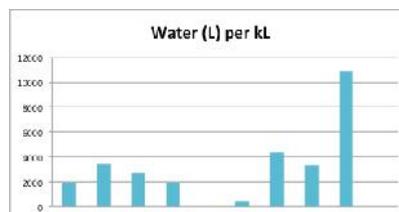
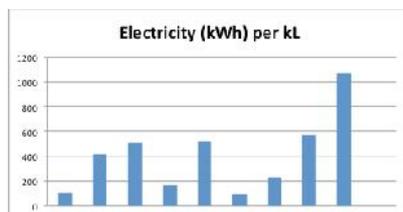


Start with the capacity-constrained parts of the business

Tip #2: Define a productivity framework that works for you



Tip #3. Knowledge is power – get to know how your business consumes resources



Knowing what to do with the data is just as important as collecting it in the first place....

Tip #4. Find solutions that deliver multiple benefits

- Cost savings associated with energy consumption
- Reducing maintenance costs and downtime
- Reduced costs associated with water, materials and waste consumption
- Improved process flow
- Improved quality control
- Delayed need for capital expenditure

These additional benefits are often much bigger than the \$\$ saved in energy... (high energy consumption can be considered a symptom of a system not working properly!)

Tip #5. Put in place lead-indicators that pre-empt productivity improvements

- OEE% (Performance % x Availability % x Quality %)
- Capacity% (current capacity vs maximum capacity vs growth rate)
- Resource cost – risk profile (risk factor)
- Resource consumption per unit of production (e.g. kWh/9Le, L water/L wine)

Running a business according to Maslow's Hierarchy of Needs....



THANK YOU -- ANY QUESTIONS?

