Winery Benchmarker

How do your winery operations measure up?

www.benchmarker.com.au

A service of provisor

Benchmarker

The Benchmarker project history

About www.benchmarker.com.au

Business outcomes

Benchmarker History

- Concept discussed informally 2007 Tech conf
- Methodology developed in-house during 2008
- Investment by 25 foundation participants in 2008
- Metrics developed with these participants
- Website production commenced end of 2008
- Website to go live early July, 2009

How companies use Benchmarking

- Comparing efficiency with similar operations
- Views averages by winery size groups
- Creates a benchmark of the 10th percentile
- Identifies opportunities for improvement
- “If they can do it, so can I” attitude
- Identifies “low hanging fruit”

Winery Categories

- Five winery size categories:
  - Very large: annual crush >80,000 tonnes
  - Large: 20,000 to 79,999 tonne crush
  - Medium: 5,000 to 19,999 tonne crush
  - Small: 500 to 4,999 tonne crush
  - Boutique: < 500 tonne crush (condensed version)
- Red and white wine treated separately
- Premium and commercial price-points built in
- Overall site and process specific measures

Overall Metrics

High order measurements such as:

- Energy consumption per tonne crushed
- Water consumption per litre wine
- Wastewater COD & BOD per tonne crushed
- Winery person-hours per tonne crushed
- Average number of touches per product parcel

Unit Operations

- Unit operation metrics take into account various operations in wineries
- Compare metrics for individual unit operations in isolation, eg:
  - Refrigeration energy per tonne crushed
  - Months of stock held
  - Press yield
  - Water used per tonne crushed (at crusher)

Publication and digitalisation

provisor
winery production benchmarker

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benchmarker home

winery production benchmarker

Provisor has embarked on the challenging task of developing a web-based winery production benchmarking system. The service will focus on operations from receipt of grapes at the winery through to the dispatch of finished product. The benchmarking philosophy successfully adopted in many industries, provides an efficiency comparison in metrics relevant to the wine-industry. The keys to success in benchmarking are metrics chosen and the quality and number of participants. This project is strong in both these areas.

Detailed metrics have been formulated and the first phase of the project has begun involving over 30 wineries in key producing regions within Australia. The metrics developed will allow participants to compare themselves with similar size operations across a range of more than 70 metrics. A reduced selection of metrics allows boutique wineries to participate also.

A full list of metrics is available for downloading.

A fully functional web-based system including registration, input of data, review and downloading of reports, help pages and updates is planned to be complete by mid-May 2009. The service will be expanded to cover the whole of Australia and rapidly expanded into international wine producing areas.

The wine size categories for the service are:

Very large	– greater than 80,000 tonne crush capacity;
Large	– between 20,000 and 79,999 tonne crush capacity;
Medium	– between 5,000 and 19,999 tonne crush capacity;
Small	– between 500 and 4,999 tonne crush capacity; and
Boutique	– less than 500 tonne crush capacity (condensed version of metrics).

current participating australian wine regions [426 kb]

benchmarker full metrics listing available for download [32 kb]

comprehensive list developed in conjunction with wine industry experts

benchmarker service brochure [201 kb]

Project overview and costs

provisor website

Provisor is a leading, Australian-based technical and engineering consultancy supporting the international wine, food and beverage industries.

Why web-based?

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large winery 3

- Print Unit Operations
- Contact Provisor
- Configuration

Overall Metrics ✓
Crushing Metrics ✗
Fermentation Metrics ✓
Pressing Metrics ✗
Clarification Metrics - Juice Clarification ✓
Clarification Metrics - Wine clarification ✗
Stabilisation Metrics ✗
De-alcoholising Metrics
Inputs ✓
Maturation & Barrel management ✗
Bo[illegible] Metrics
Wa[illegible]sing Metric[illegible]
Utilities ✓
Miscella[illegible]s consuma[illegible]d additives metric ✓

Back to Admin Area
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unit operation: maturation & barrel management | large winery 3

maturation volumes

Red wine - premium	1595000	Litre (L)	Red wine commercial	143550[illegible]	Litre (L)
White wine premium	1305000	Litre (L)	White wine co[illegible]mercial	117[illegible]000	(L)

person-hours

Red Wine Premium	10857	Person-Hours	[illegible] Wine [illegible]mercial	4653	Person-Hours
White Wine Premium	8883	Person-Hours	W[illegible]ine Commercial	3807	Person-Hours

water

Water [illegible] in cle[illegible] [illegible]ks	4386737	Litre (L)	Water used in cleaning barrels	160847	Litre (L)

[illegible]cking

Average no. rackings - Red wine premium	2	No.	Average No.of Rackings – White wine premium	0	No.

evaporation losses

Red wine premium	111650	Litre (L)	Red wine commercial	28710	Litre (L)
White wine premium	65250	Litre (L)	White wine commercial	23490	Litre (L)

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Data Entry

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unit operation: maturation & barrel management | large winery 3

maturation volumes

Red wine - premium	1595000	Litre (L)	Red wine commercial	14355000	Litre (L)
White wine premium	1305000	Litre (L)	White wine commercial	11745000	Litre (L)

person-hours

Red Wine Premium	10857	Person-Hours	Red Wine Commercial	4653	Person-Hours
White Wine Premium	8883	Person-Hours	White Wine Commercial	3807	Person-Hours

water

Water used in cleaning tanks	4386737	Litre (L)	Water used in cleaning barrels	160847	Litre (L)

racking

Average no. rackings - Red wine premium	2	No.	Average No.of Rackings – White wine premium	0	No.

Benchmarking results (sample only)

			My winery	Very Large Wineries			Medium Wineries		
Metric		Units	My result	Benchmark	Average	Std Deviation	Benchmark	Average	Std Deviation
Litres of finished wine per tonne crushed	Red wine	L/Tonne	732.0	740.0	734.8	6.0	740.0	731.3	5.0
	White wine	L/Tonne	730.0	740.0	735.0	5.8	740.0	756.3	4.8
Energy Consumption per tonne crushed	Vintage	MJ/Tonne	180.1	200.5	239.0	58.8	273.0	417.3	45.3
	Non-vintage	MJ/Tonne	433.5	437.4	522.7	103.9	600.5	869.3	100.3
	Total	MJ/Tonne	613.7	637.9	761.6	162.4	873.5	1286.6	144.4
Water used per litre of wine	Vintage	L/L	0.9	0.5	0.7	0.2	0.7	1.4	0.1
	Non-vintage	L/L	1.6	1.1	1.3	0.3	1.3	2.7	0.3
	Total	L/L	2.5	1.6	2.0	0.6	2.0	4.1	0.4

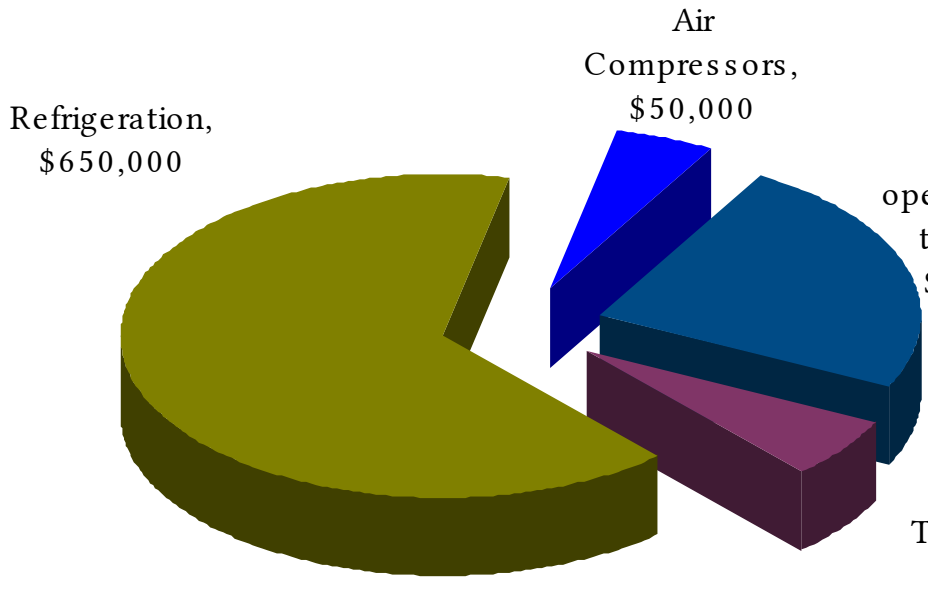
Performance Summary example

(20,000 to 40,000 tonne crush winery)

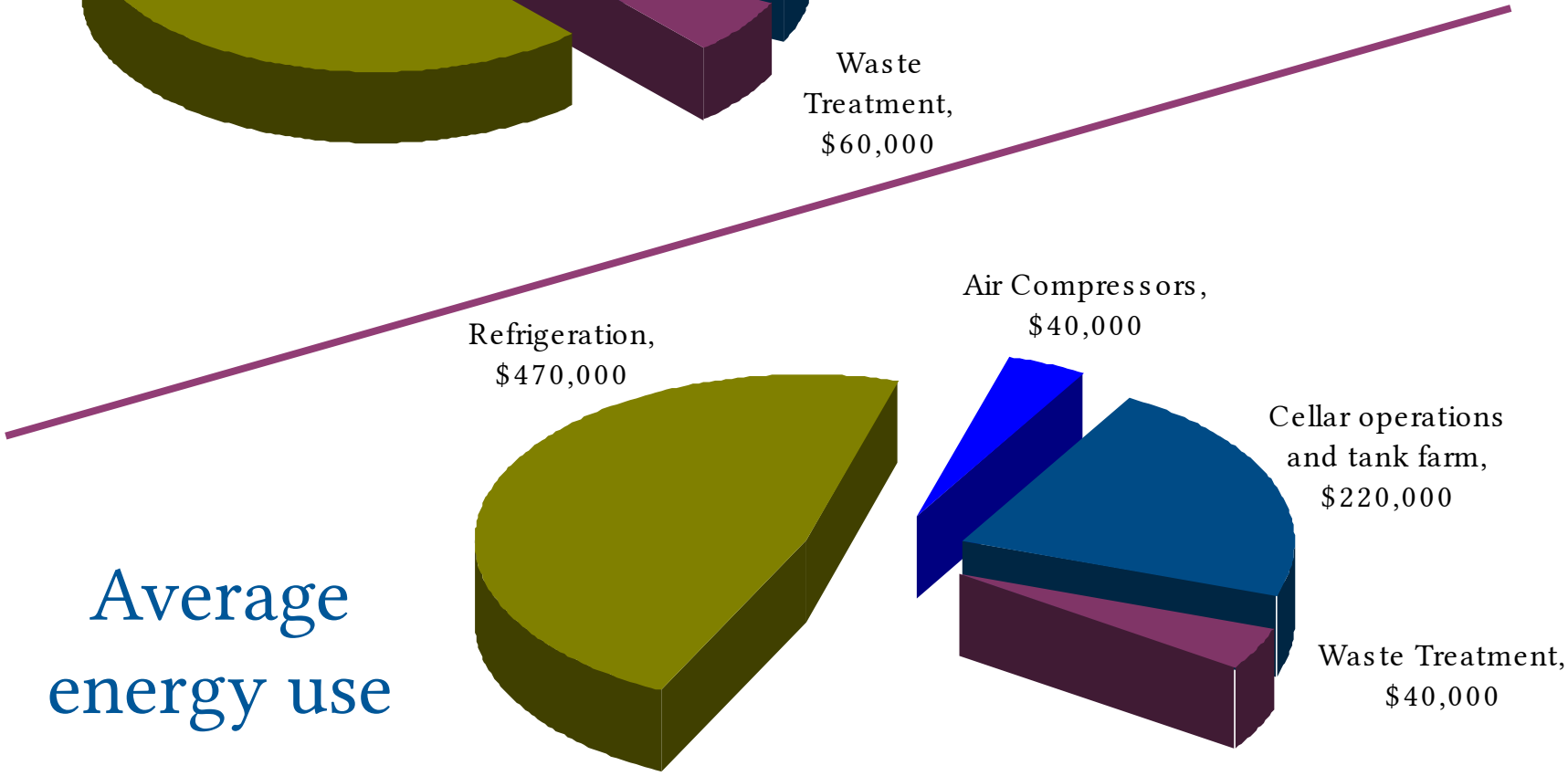
Four worst areas	***Performance***	***Savings if at industry average***
Energy per tonne crushed	1.3 x average	approx. $200,000 p.a.
Water per litre of wine	2 x average	16,000,000 L p.a.
Cleaning chemical per tonne crushed	1.4 x average	$30,000 p.a.
Lees disposed per tonne crushed	1.3 x average	240,000 L of wine

Best 4 areas	
CO_2 usage per tonne crushed	at benchmark
Person-hours per tonne crushed	5% above benchmark
Bottling losses per kL filled	10% above benchmark
Crushing percent downtime	20% above benchmark

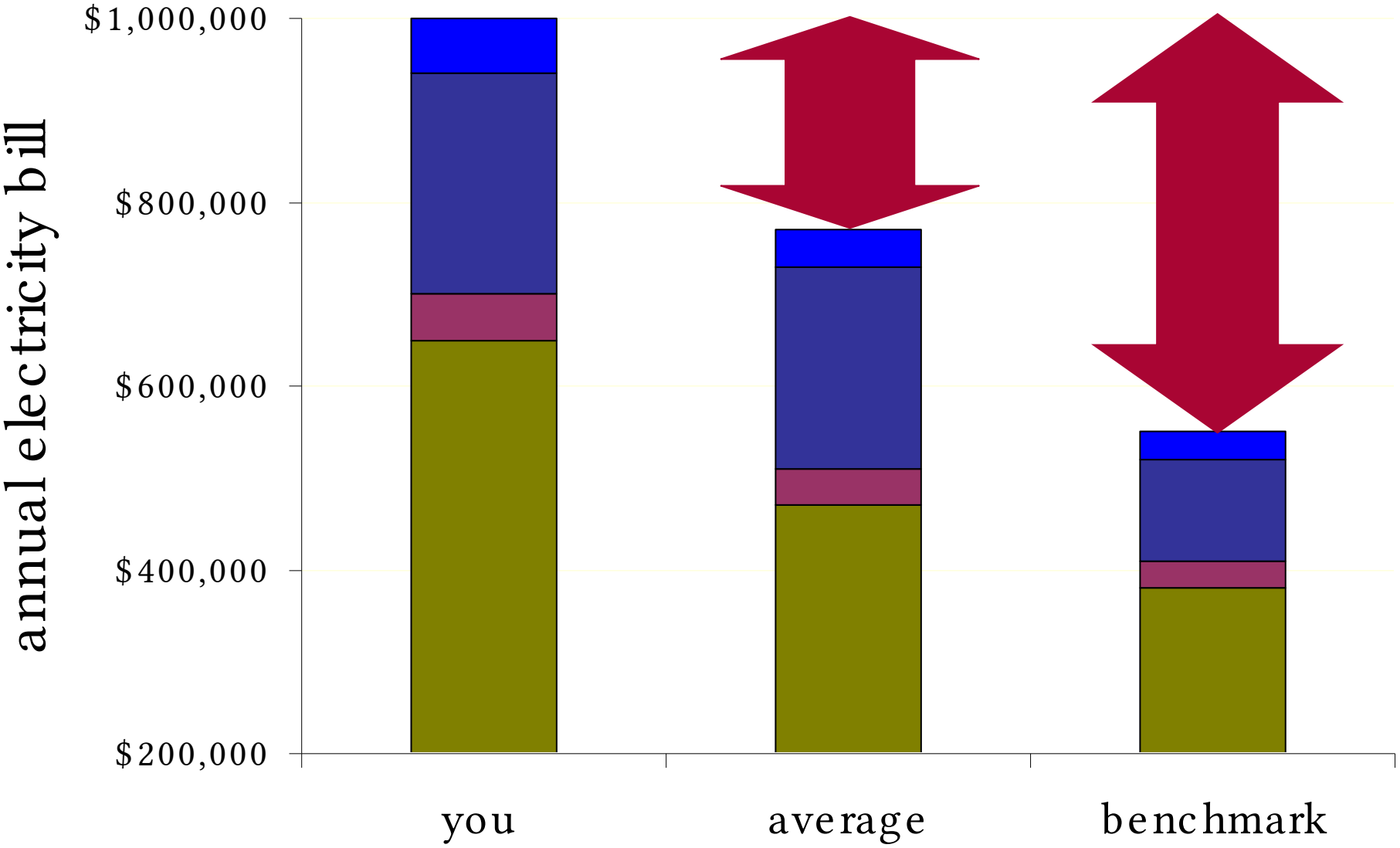
provisor Your technical, engineering & processing specialists.



Energy use 30% above average

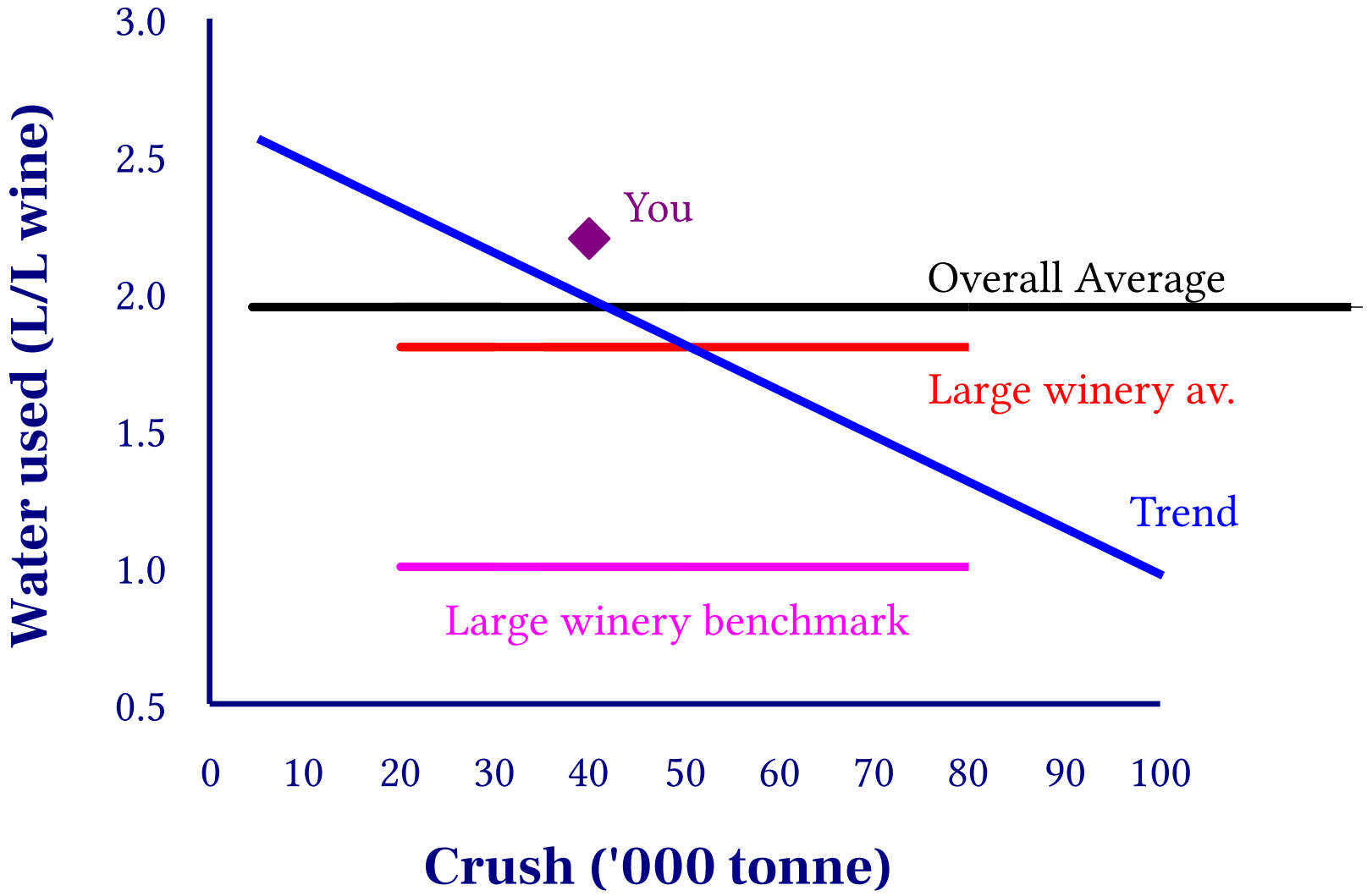


Average energy use


annual electricity bill
$1,000,000
$800,000
$600,000
$400,000
$200,000
you
average
benchmark

Water usage benchmarks

(example 40,000 tonne crush winery)



Winery Benchmarker

How do your winery operations measure up?

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Winery benchmarker is a web based tool for wineries to compare their operational performance against industry benchmarks and averages.

Winery benchmarker shows wineries where to find low hanging fruit in production so they can take action to cut costs, improve efficiency and compete effectively.

www.benchmarker.com.au

T +61 8 8338 3668 F +61 8 8338 3733
enquiries@provisor.com.au www.provisor.com.au

Presented by:

Philip Michael

provisor