

Some Thoughts on Research

Roger Boulton

Innovation + Quality 2020

CIA St. Helena, CA

Thursday February 27th 2020

Outline

- Enthusiasm and Imagination
- Limitations of Equipment
- Project Outcomes
- Research Funding
- Parting Thoughts
- Acknowledgements

Enthusiasm and Imagination

“Nothing great was ever achieved without *enthusiasm*”

Ralph Waldo Emerson

“I would rather have questions that can't be answered *than answers that can't be questioned.*”

Richard Feynman

“*Imagination* is everything. It is the preview of life's coming attractions”

Albert Einstein

“*Destiny* is not a matter of chance, it is *a matter of choice*.
It is not to be waited for, it is *a thing to be achieved*.”

Williams Jennings Bryan

“A long habit of not thinking a thing wrong *gives it the superficial appearance of being right*.”

Thomas Paine

“Even if you’re on the right track, you’ll be run over *if you just sit there*.”

Will Rogers

Limitations of Equipment

“Nothing tends so much to the advancement of knowledge as the application of a new instrument.

The native intellectual powers of men in different times are not so much the causes of different success of their labours, as the peculiar nature of the means andresources in their possession.”

Sir Humphrey Davy

Project Outcomes

- Experimental Results, Data, Findings
- Publications
- Intellectual Property
- Intellectual Capital, the student
- Systems and facilities for other Projects

- Should be evaluated as insurance premiums not return on investment

Research Outcomes

“It is folly to use as one’s guide in the selection of fundamental science,
the criterion of utility.

Not because (scientists)...despise utility, but because....

...useful outcomes are best identified after the making of discoveries,
rather than before.”

John C. Polanyi

Research Funding

“I believe in *innovation* and that the way you get *innovation* is you *fund research* and you learn the basic facts.”

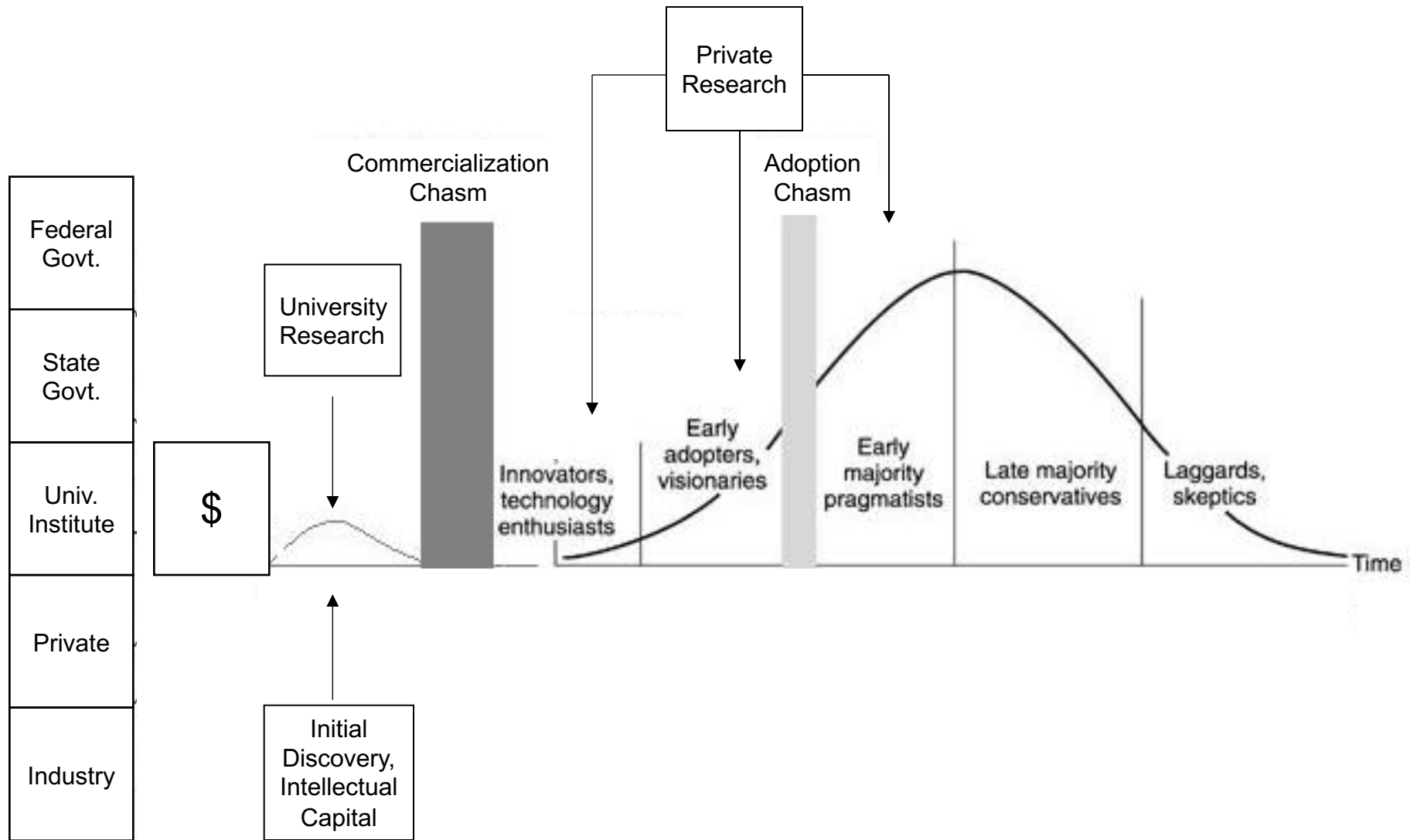
Bill Gates

“*Starving research and development* is like eating the seed corn.”

Mitt Romney

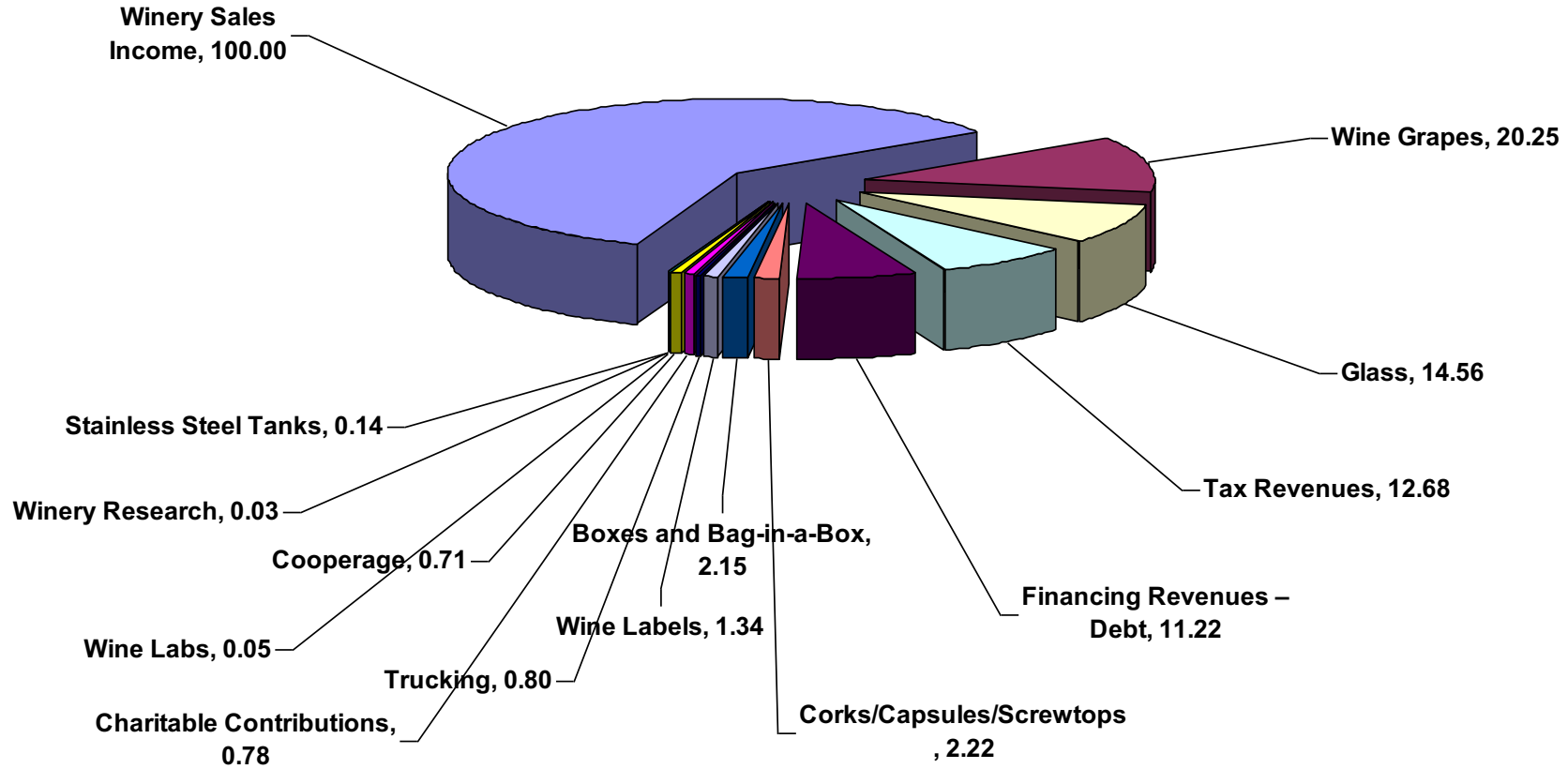
“If you always do what you always did, *you will get what you always got.*”

Albert Einstein



The Funding of Research Discoveries and Outcomes

**Californian Winery Expenditures as Per Cent of Sales
[1999 Data, Wine Institute Web Site]**



Parting Thoughts:

“Much learning does not teach understanding.”

Heraclitus

“Whatever you do will be insignificant, but it is very important that you do it.

Mahatma Gandhi

Acknowledgements

Innovation + Quality 2020 - Board and Awards Committee

Teachers and Coaches in Australia and the US

Emeriti, Colleagues, Staff and Students at UC Davis

Colleagues and Winemakers throughout the global Wine Community

The Stephen Sinclair Scott Endowment

My Family and Friends