



UQ
BUSINESS
SCHOOL

EXECUTIVE
EDUCATION

Innovation in a University

Presenter

Tim Kastelle

Day 28 July 2015

Session UQPN Conference

IDEA 

REAL



VALUE



Ten Types of Innovation

INSIDE OUT

OUTSIDE IN



Proprietary processes that can add value

How you service your customers

How you create an integrated experience for customers

Enterprise structure and value chain

Enterprises structure / value chain & partnering

Extended system that surrounds an offering

How you express your offering's benefits and values to customers

How the enterprise makes money

Basic features performance and functionality

How you connect your offerings to your customer



1993



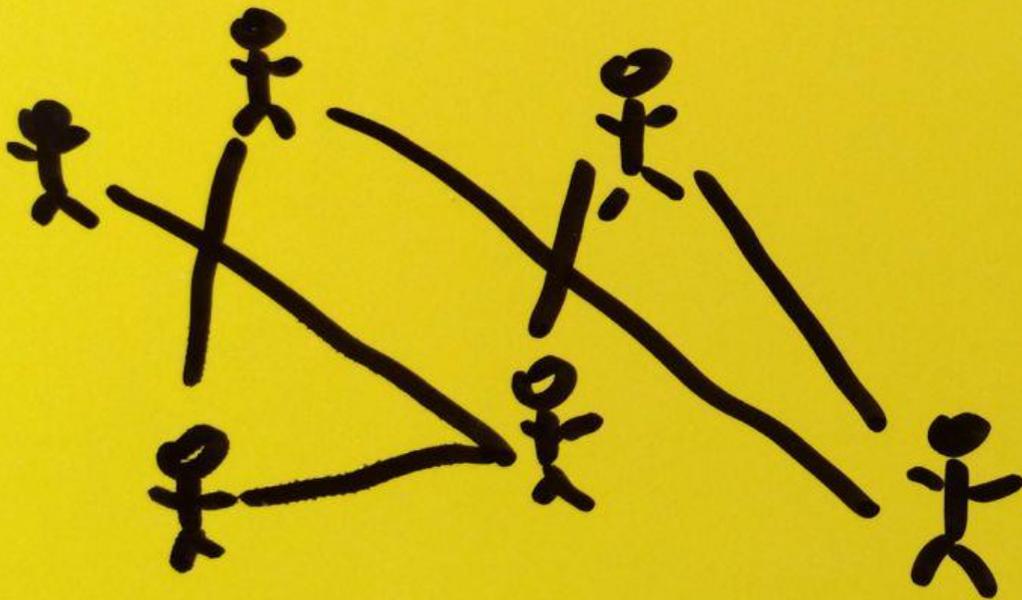
2013

Mobile
Devices

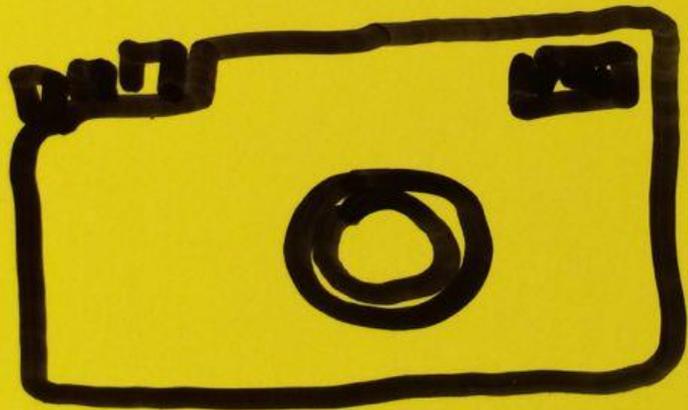




Social
Media



Cameras



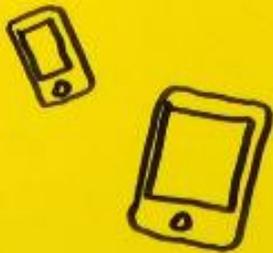


Sensors

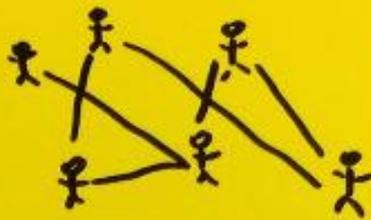
Cloud
Computing



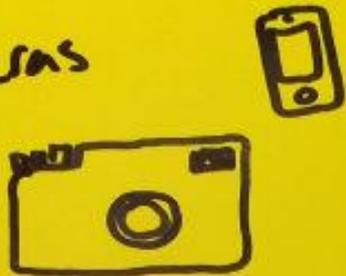
Mobile
Devices



Social
Media



Cameras



Sensors



Cloud
Computing



What
interest like me

Emergent
Knowledge



Google driving to be driverless

Google's modified Toyota Prius uses an array of sensors to navigate public roads without a human driver. Other components, not shown, include a GPS receiver and an inertial motion sensor.

Laser-guided mapping

A rotating sensor with lasers called a LIDAR on the roof scans more than 200 feet in all directions to generate a precise three-dimensional map of the car's surroundings.

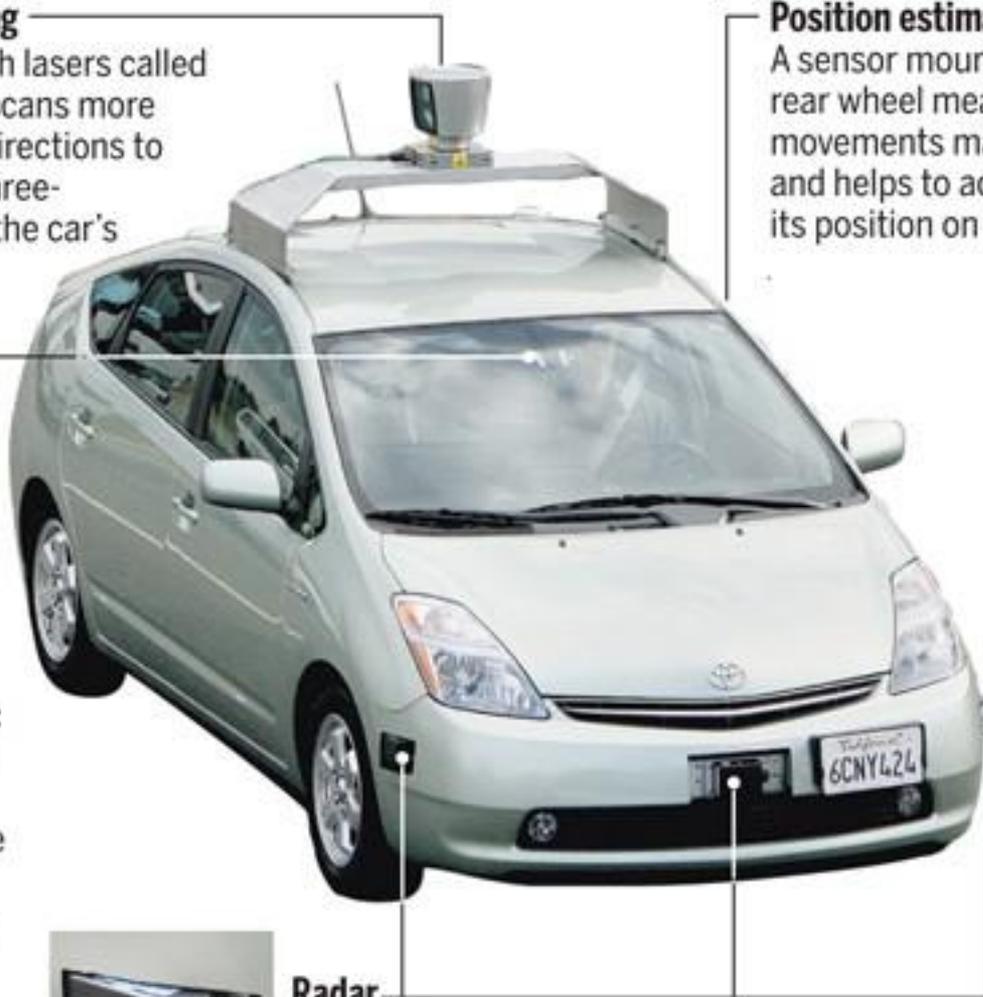
Position estimator

A sensor mounted on the left rear wheel measures small movements made by the car and helps to accurately locate its position on the map.

Video camera



A camera mounted near the rear-view mirror detects traffic lights and helps the car's onboard computers recognize moving obstacles—such as pedestrians and bicyclists.



Radar

Four standard automotive radar sensors, three in front and one in the rear, help determine the positions of distant objects.

However, based on numerous conversations, it's clear that insurance-industry executives mostly just roll their eyes if asked to contemplate the implications of driverless cars. ...Thus, the prevailing attitude is probably much like that of Glenn Renwick, CEO of Progressive Insurance, as expressed during Progressive's February 2013 earnings call: "The technology to do an autonomous car has been around for a while. We're now seeing them; we'll see a lot of talk about them. The real issue is exactly how they are able to be part of the fleet of vehicles on the road in America, and that is probably not something that need keep anyone awake for quite some time."

Questions

- Is this smart?
- What should insurance companies be doing right now?

Rolls-Royce Drone Ships Challenge \$375 Billion Industry: Freight

By Isaac Arnsdorf | Feb 26, 2014 6:18 AM ET | [187 Comments](#) [Email](#) [Print](#)

In an age of aerial drones and driver-less cars, **Rolls-Royce (RR/)** Holdings Plc is designing unmanned cargo ships.

Rolls-Royce's Blue Ocean development team has set up a virtual-reality prototype at its office in Alesund, **Norway**, that simulates 360-degree views from a vessel's bridge. Eventually, the London-based manufacturer of engines and turbines says, captains on dry land will use similar control centers to command



Sound familiar?

The potential savings don't justify the investments that would be needed to make unmanned ships safe, said Tor Svensen, chief executive officer of maritime for DNV GL, the largest company certifying vessels for safety standards.

"I don't think personally that there's a huge cost-benefit in unmanned ships today, but technologically it's possible," Svensen said Feb. 4 at a conference in New York. "My prediction is that it's not coming in the foreseeable future."



Source: <http://fieldlens.com/blog/building-better/bird-plane-drone-construction-jobsite/>

“Two weeks ago, I was working with the lead asset management consultant from XXX, who is currently designing the asset management system for the Department of XXX. I broached the subject of BIM with him, and he had a surprisingly negative view. His view was that it was just an IT fad that held no value, and that asset management practitioners would just go back to using excel spread sheets to manage their processes.”

Mkt Penetration

Invention

Diffusion

t_0

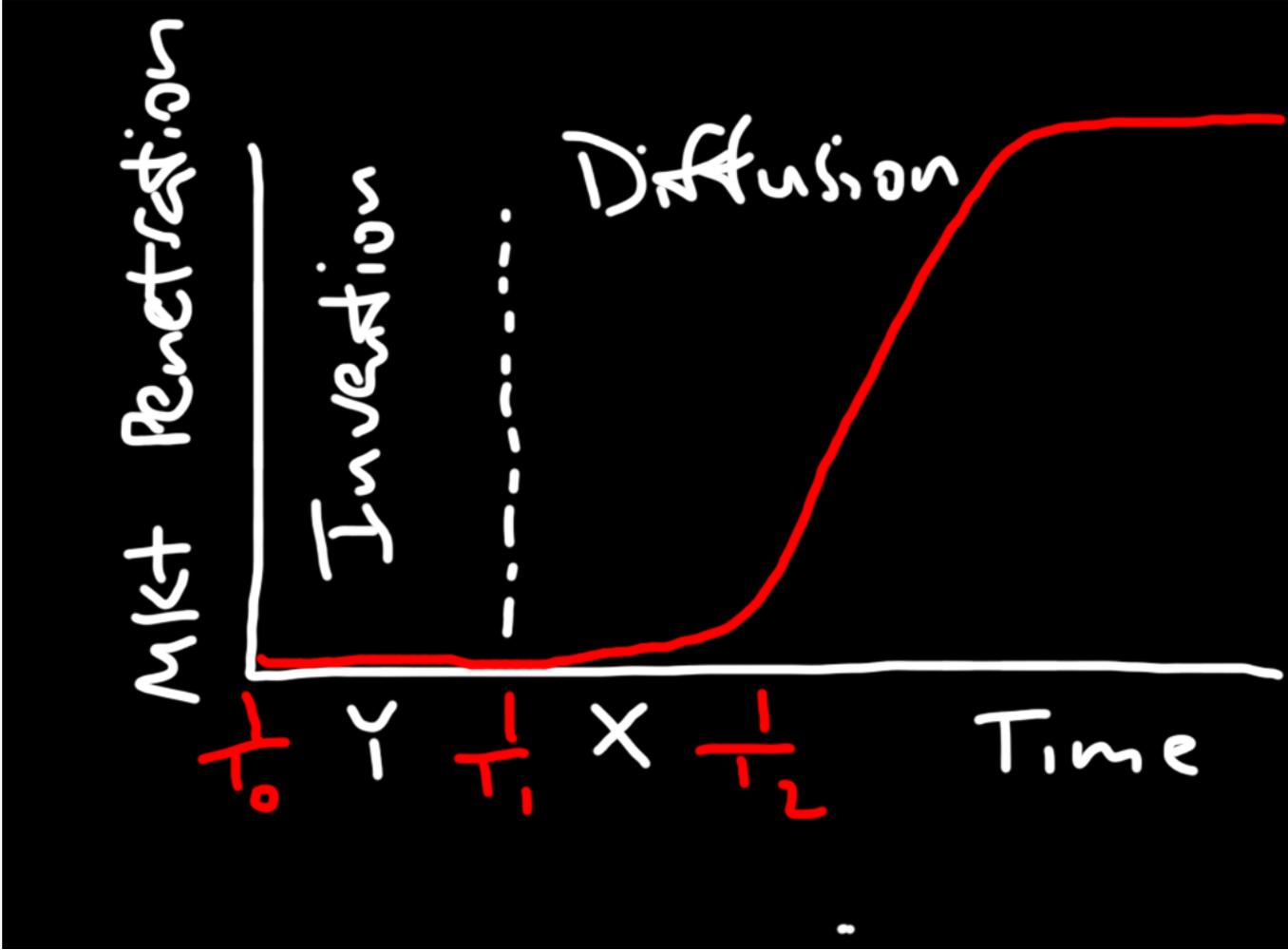
t_c

t_1

X

$t_{1/2}$

Time





UQ
BUSINESS
SCHOOL

EXECUTIVE
EDUCATION

Concepts for Innovative Organisations

CRITICAL RECOGNITION

Mkt Penetration

Investment

Diffusion

t_0

t_1

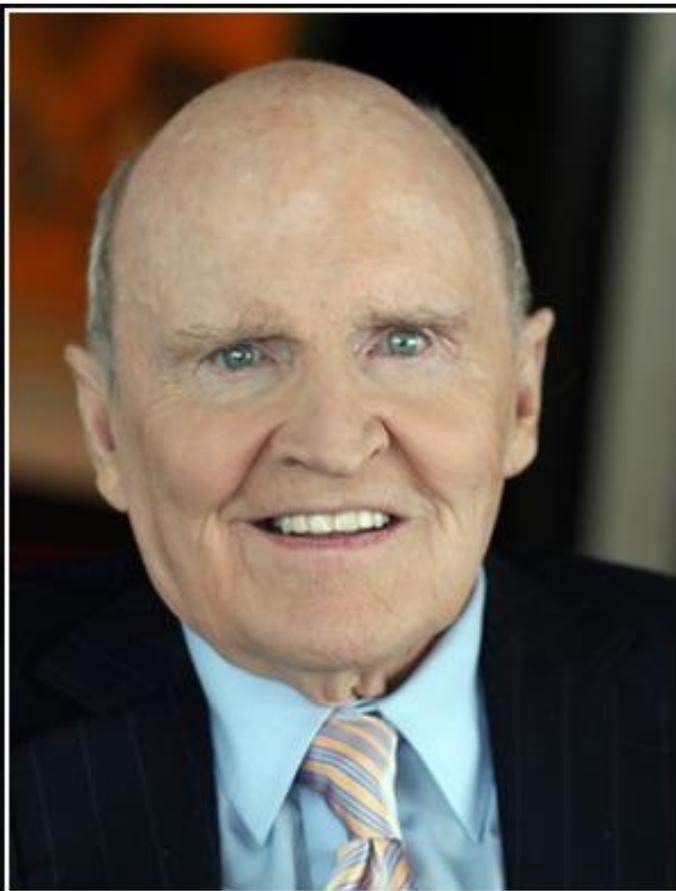
t_2

X

t_3

Time





If the rate of change on the outside
exceeds the rate of change on the
inside, the end is near.

— *Jack Welch* —

AZ QUOTES

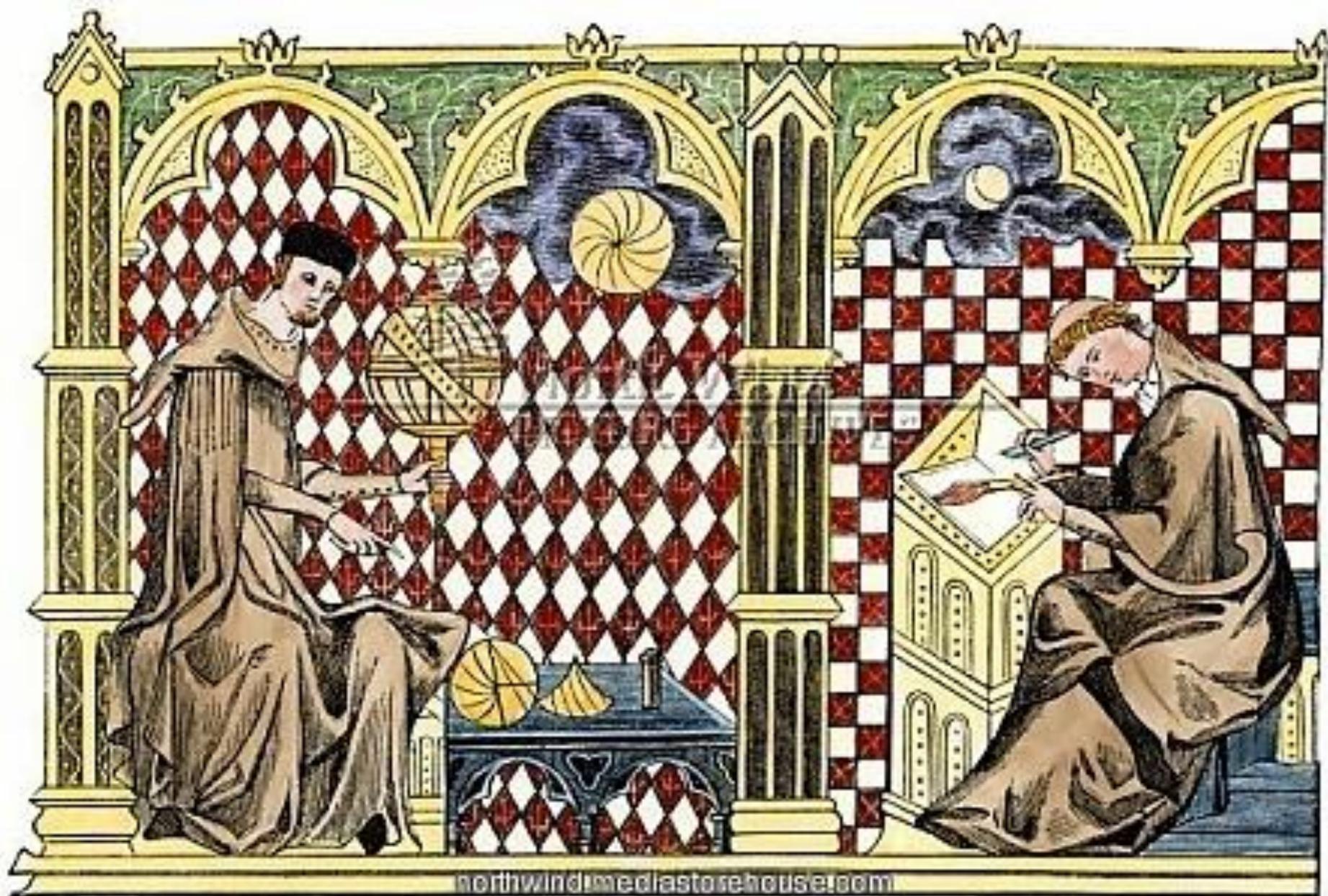
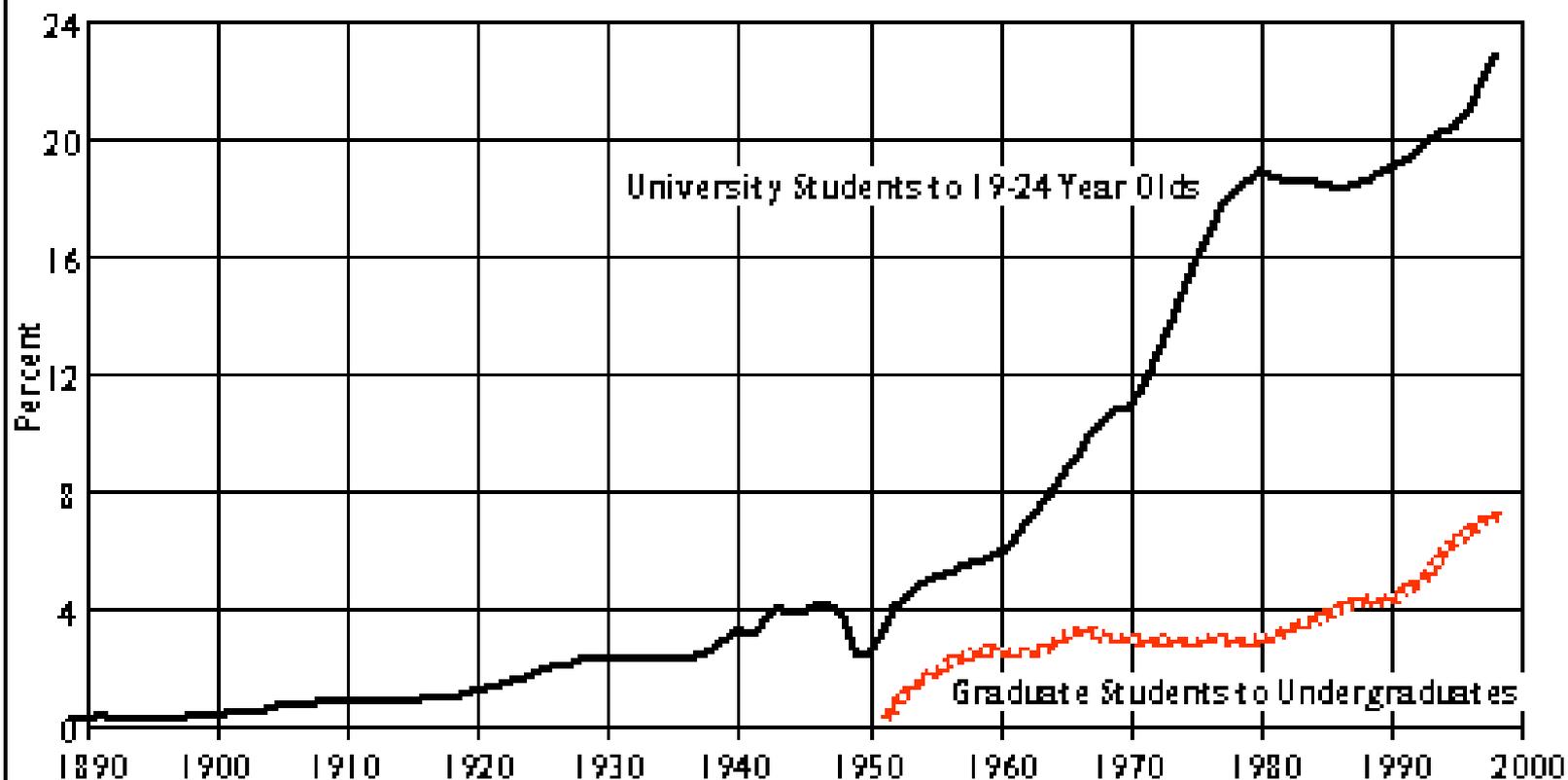




Figure 6: Ratio of Four-Year University Students to Number of 19-24 Year Olds (1890-1998) and Ratio of Graduate Students to Undergraduates (1951-98)



Source: Management and Coordination Agency, Statistics Bureau, Historical Statistics of Japan on CD-ROM (Tokyo: Japan Statistical Association, 1999), Tables 22-04A and 22-04B, and Management and Coordination Agency, Statistics Bureau, Japan Statistical Yearbook, various years.

Manage innovation

as

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process



Idea

Generation



Idea Selection



Idea Execution



Sustaining



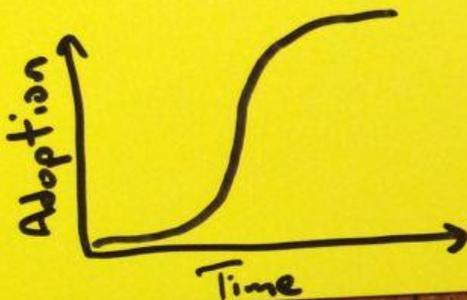
Diffusion



Idea
Generation



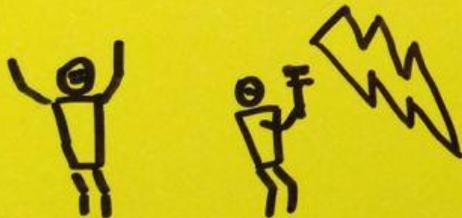
Diffusion



Idea Selection



Sustaining



Idea Execution





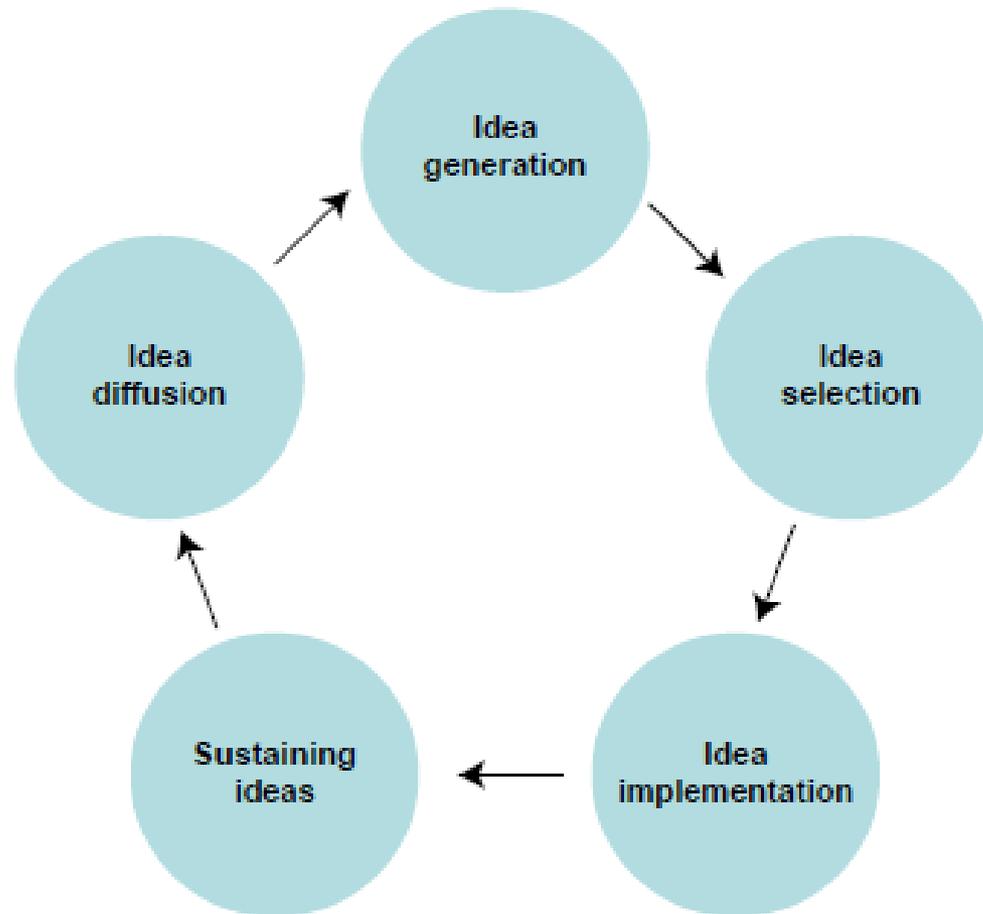
Australian Government

**EMPOWERING CHANGE:
FOSTERING INNOVATION
IN THE AUSTRALIAN PUBLIC SERVICE**

MANAGEMENT
ADVISORY
COMMITTEE

9

Figure 1.1 **A five-phased innovation cycle**



Source: Adapted from Eggers and Singh (2009, p. 7).

Idea Execution



Idea Selection



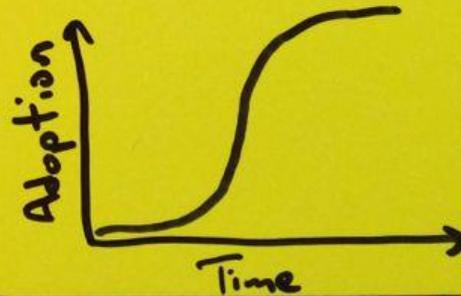
Sustaining



Idea Generation

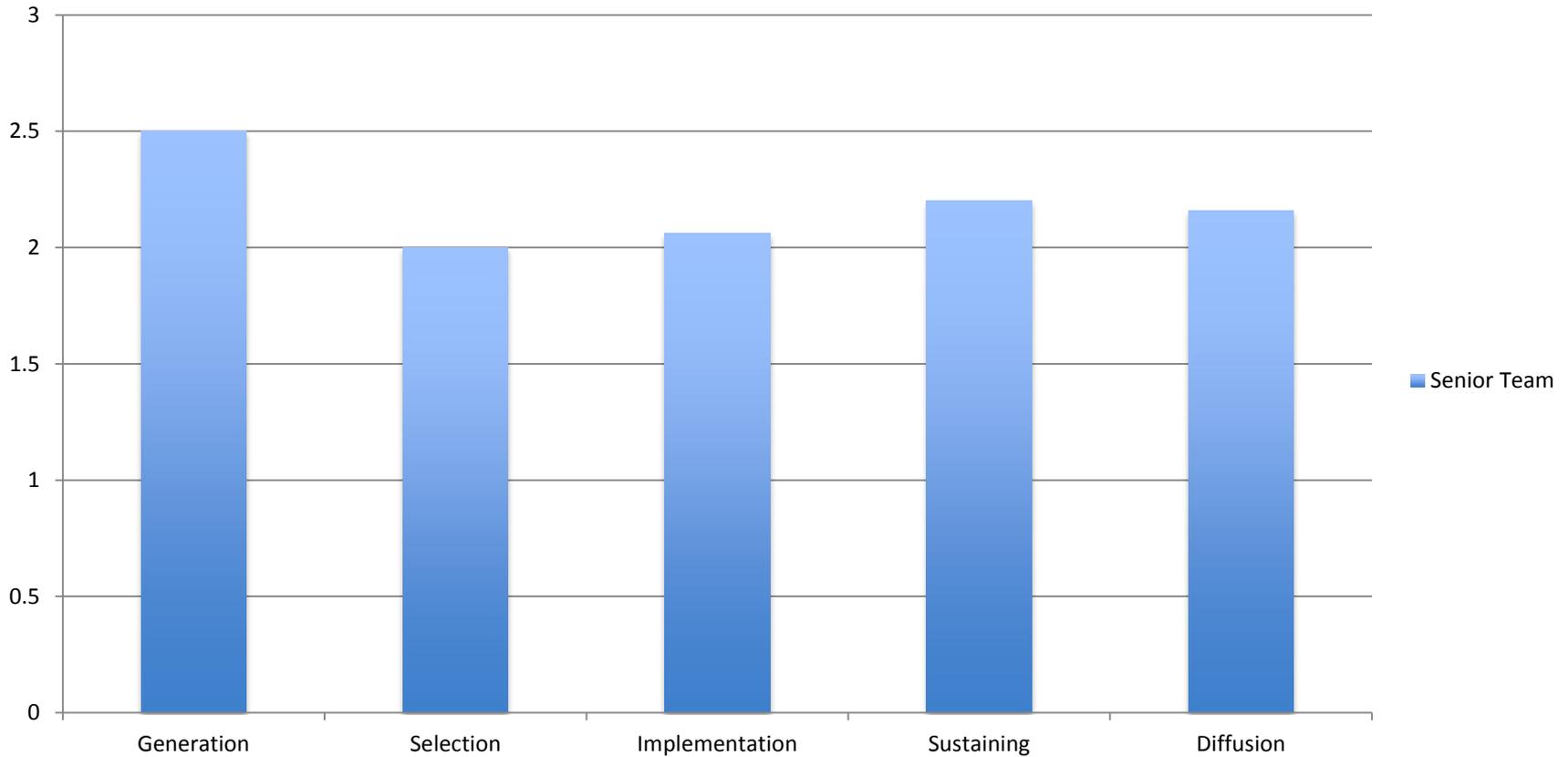


Diffusion

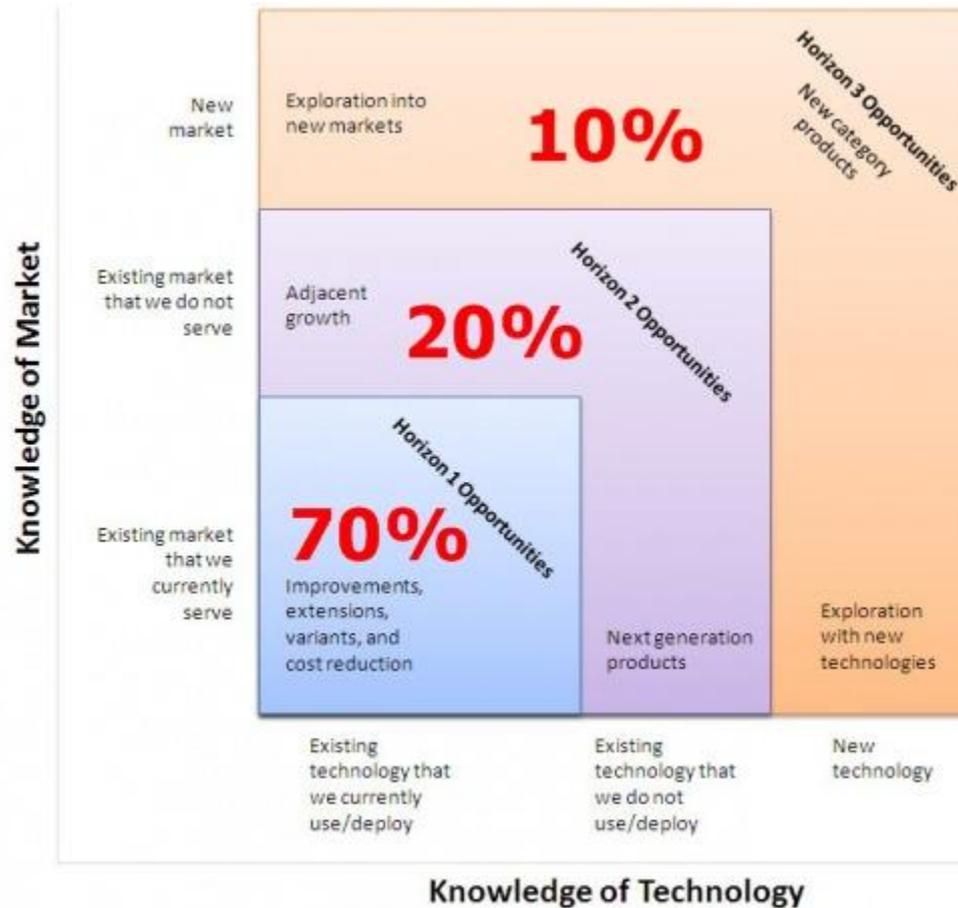


Commercial Firm – Senior Managers

Senior Team



Innovation Portfolio



Experiment!

Rapid Prototyping

A/B testing

20%
time

Small scale trials

Event on 10/12/14 – 58 non-CSIRO



Paper version of ASPIRE

Participants described wastes and found matches

62 potential matches found from ~32 SMEs

Tried 44, including this one

A handwritten table in a spiral notebook. The table has five columns representing days of the week: Monday, Tuesday, Wednesday, Thursday, and Friday. Each day column is further divided into two sub-columns: 'with in' and 'Phone'. The rows represent time intervals: 8-10, 10-12, 12-2, and 2-5. The data is recorded as checkmarks and numbers.

	Monday	Tuesday	Wednesday	Thursday	Friday
	with in	with in	with in	with in	with in
	Phone	Phone	Phone	Phone	Phone
8-10	# 11				
10-12	# 11				
12-2					
2-5					

Outcomes

- +\$2 million
- Data
- Learning
- Trust

Do the most
important thing
that you can.



What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?

What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?
2. List 10 things you can do to make things better within this scope.

What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?
2. List 10 things you can do to make things better within this scope.
3. **Do those things.**

What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?
2. List 10 things you can do to make things better within this scope.
3. **Do those things.**
4. Figure out which ones worked, do those more.

What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?
2. List 10 things you can do to make things better within this scope.
3. **Do those things.**
4. Figure out which ones worked, do those more.
5. Figure out which ones didn't work, learn from them, then forget them.

What Can You do Today?

1. Think about how much you can get away with – how much of your job do you control?
2. List 10 things you can do to make things better within this scope.
3. **Do those things.**
4. Figure out which ones worked, do those more.
5. Figure out which ones didn't work, learn from them, then forget them.
6. Repeat, applying what you've learned to the next set of ideas.

Leadership

- Get your teams to do the same thing.
- Respond to their ideas in the same way you'd like your manager to respond to yours.

Idea 

Learn 

Hypothesis ?

Scale 

Experiment !

Measure 

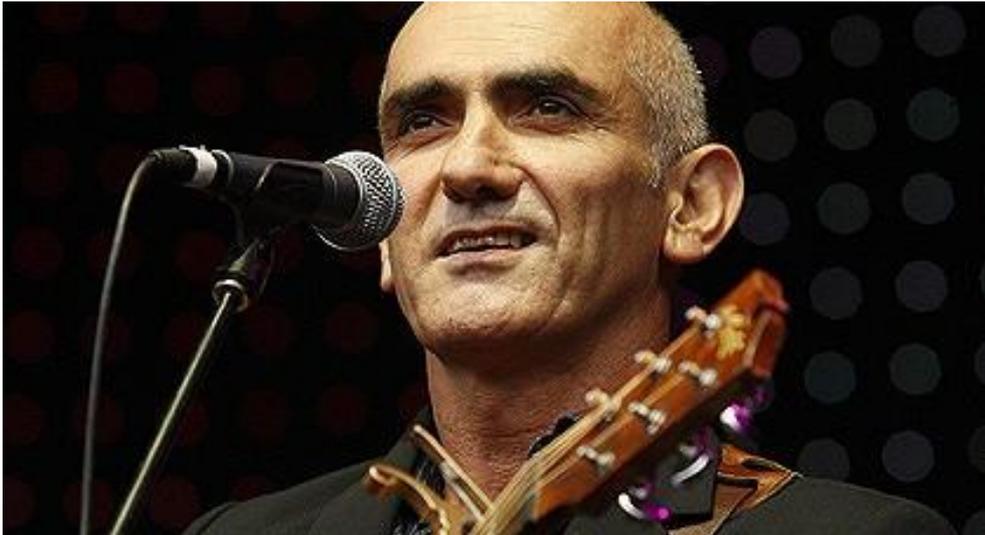
Evolve to perfect
rather than
requiring perfection
from the start.



The First Apple PC



From little things,
big things grow.



Thank you!



timkastelle.org/

