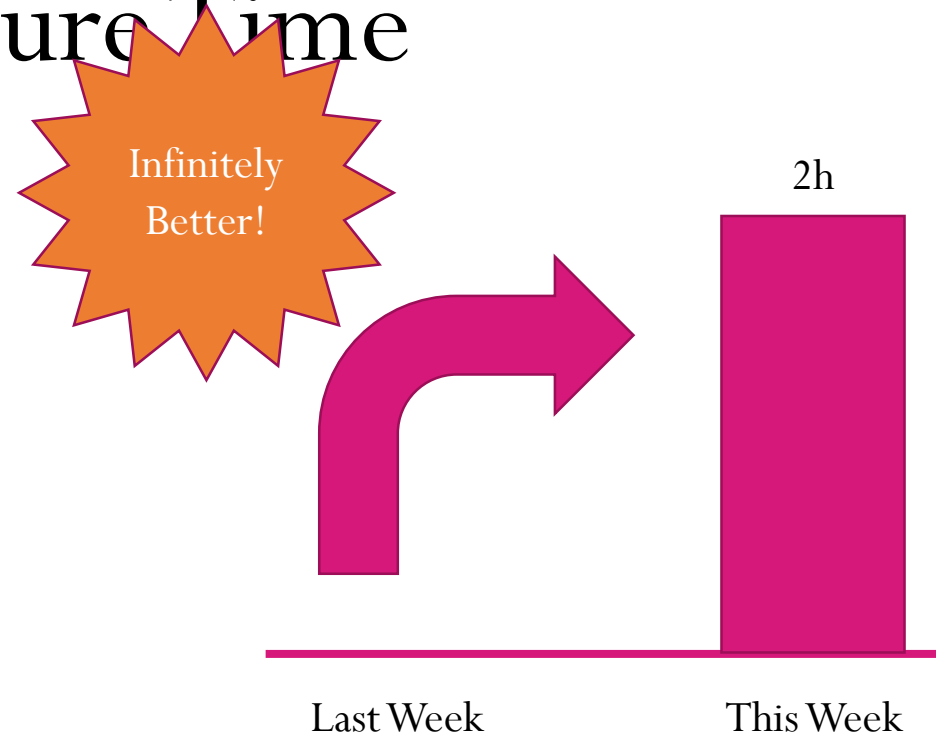


Last Week

Lecture Time



Markets

ENGN3230

2017

Briefly

Collection of people (or businesses)
who will buy your stuff.

Briefly

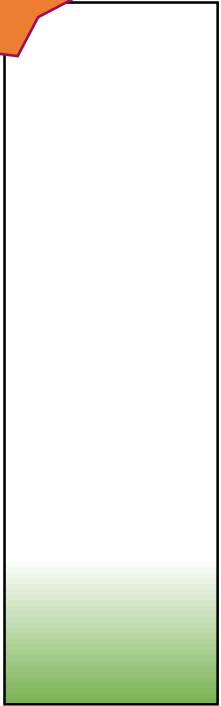
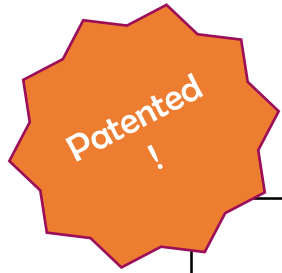
There is a Market for:

- Technology
 - Computers
 - Laptops

There is a Market **Segment** for:

- Premium Laptops
 - Macintosh Laptops
 - Macbook Pros

History



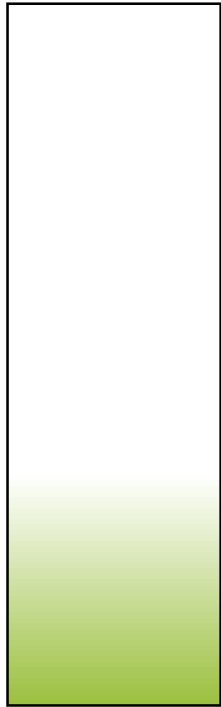
Segmentometer

Mass Production



History

Styles in Mass Production

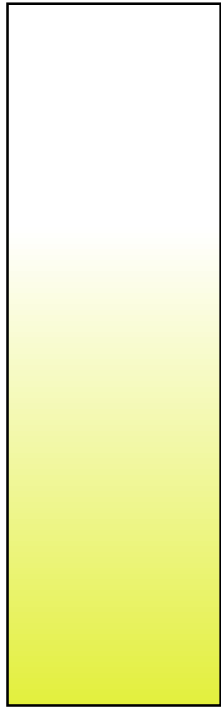


Segmentometer



History

Mass Marketing

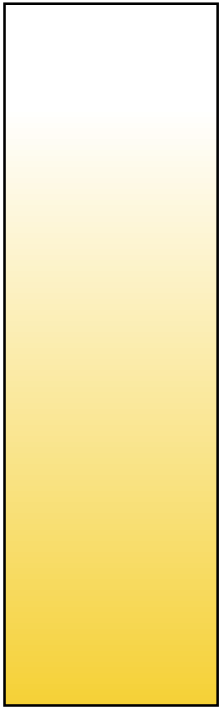


Segmentometer



History

Consumer Awareness

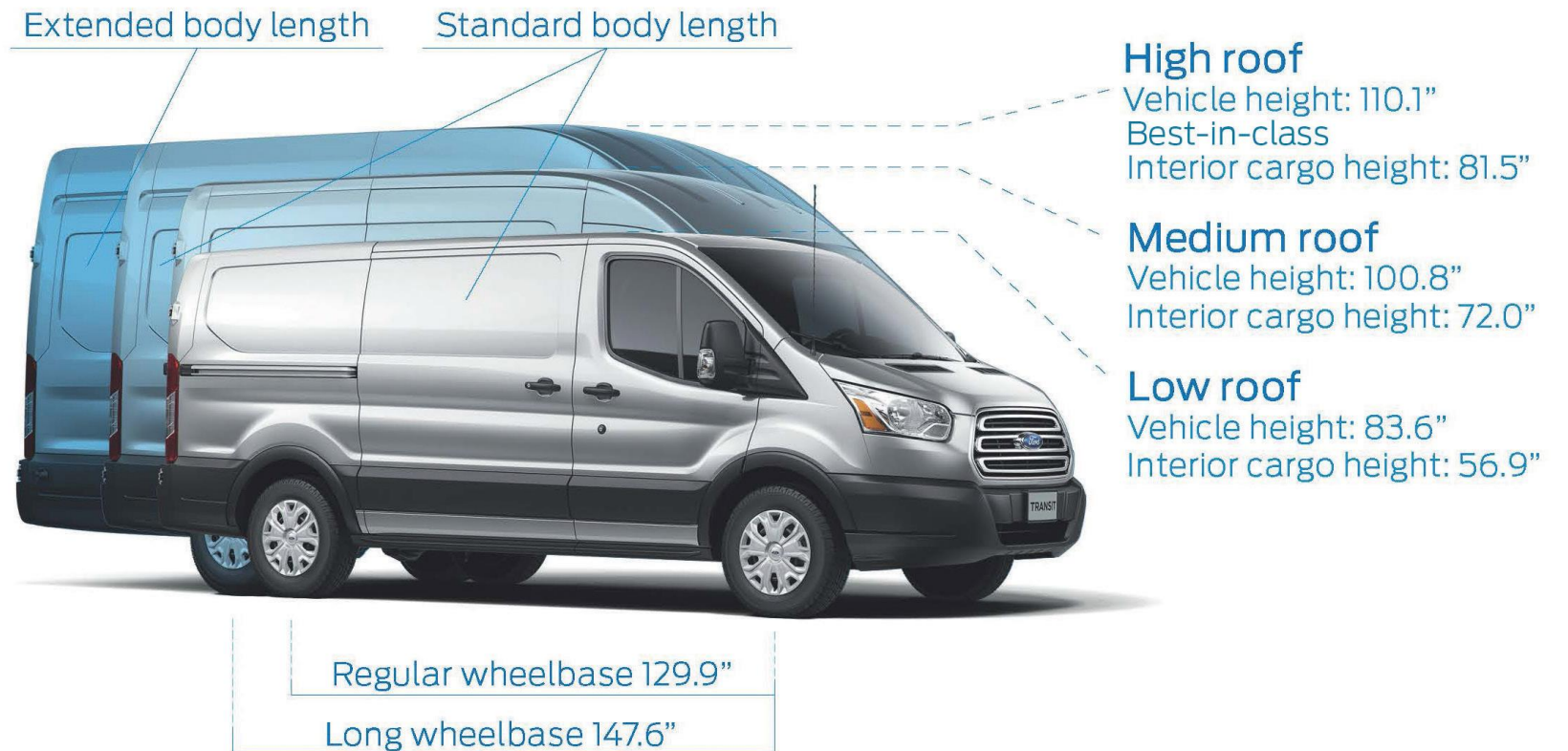
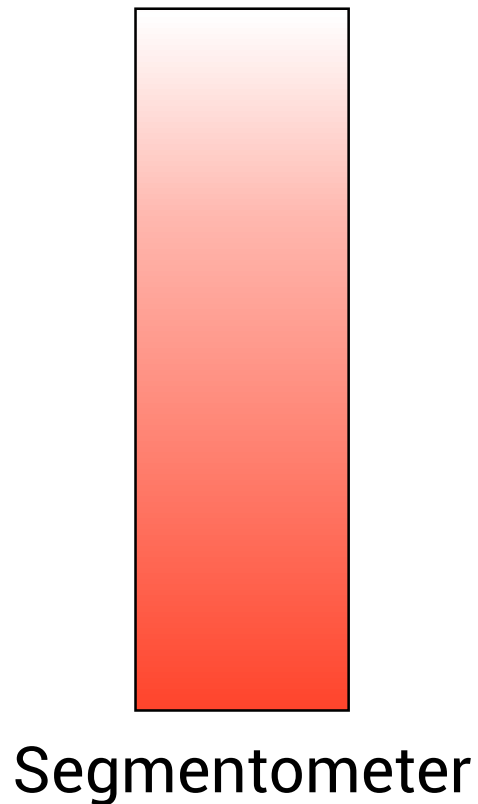


Segmentometer



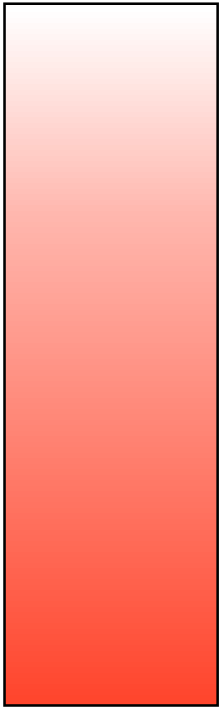
History

Mass Customisation



History

Backwards?



Segmentometer



Business Model

Start-up

- Links the idea to the market
- One Product
- Business Plan

Established Business

- Links the idea to the business
- New Product
- Business Case



else would a business model link to in an established organisation?



Top



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Aside: Etiquette

Meeting

- Meet every week
 - Preferably several times
- Take and circulate minutes
 - Discuss and clarify the minutes
- Make sure everyone has a say

Communication

- Messaging is not a substitute for meeting
- The best messenger platform is the one everyone has (and uses)
- You have an Office365 subscription, use it (or at least give it a try!).

R-W-W

Is it **Real**?

- Is the Market Real?
 - Size
 - Desire
 - Willingness
- Is the Product Real?
 - Competitiveness
 - Realism
 - Time to Market

Can we **Win**?

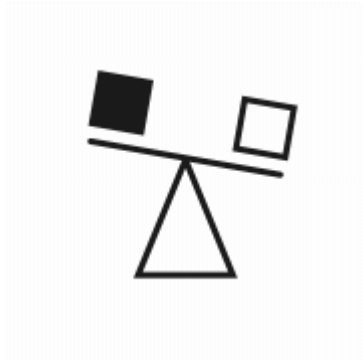
- Product
 - Competitive Advantage
 - Sustainability
 - Competitor's response
- Company
 - Superior Resources/Talent?
 - Market insight

Is it **Worth** it?

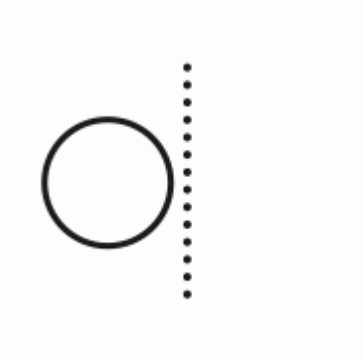
- Profitable?
 - Forecasts
 - Risks
- Strategy
 - Fit
 - Support

Aside: Another Lens

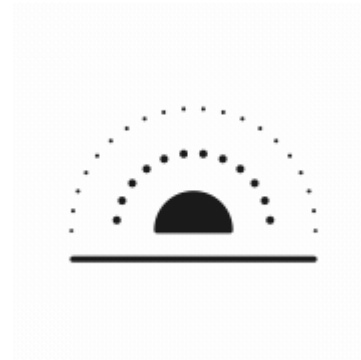
- R-W-W is largely **Subjective**
- Understand the influence of your biases



Balance your Bias



Consider the Opposite



Embrace a Growth Mindset

[Airbnb.design/anotherlens](https://airbnb.design/anotherlens)

Market Analysis

Unlikely to find the numbers you want:

1. Take trustworthy data
 1. Population
 2. Demographics
 3. Etc.
2. Make assumptions
 1. Precision not essential
 2. Clearly state them so they can change
3. Calculate

Example: Balls

How many golf balls are
sold in Australia each year?



What input data would you need?



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Example: Balls

Data

1. Population figures
2. Demographics

Assumptions

1. Balls wear out or are lost
2. Obsolescence is negligible

Example: Balls

$$\text{Total} = \text{Lost} + \text{Worn} + \cancel{\text{Obsolete}}$$

Example: Balls

Worn Out

$$\text{balls/yr} = (\text{rounds/year}) / (\text{rounds/ball})$$

Assumption 1: A ball lasts **five** rounds

Example: Balls

Rounds/Yr

Known data

- Demographics
- Population

Assumptions

- Fraction playing golf
- Rounds per player per year

Total Rounds = 47 million

Population (millions)	22		
	0-14 years	15-64 years	65+ years
Fraction	18.9%	67.5%	13.6%
Number of People (millions)	4.16	14.85	3.00
Fraction playing golf	0%	10%	20%
People playing golf (millions)		1.5	.6
Rounds per player per year	0	12	48
Rounds per year (millions)		18	29

Example: Balls

Worn Out

$$\begin{aligned}\text{balls/yr} &= (\text{rounds/year}) / (\text{rounds/ball}) \\ &= 47\text{M} / 5 \\ &= 9.6 \text{ Megaballs}\end{aligned}$$

Example: Balls

Lost

Assumption 2: Fraction of given skill

Assumption 3: Lost per round, given skill

= 13.4 Million

Rounds played per year (millions)		47
Player skill level	Not so good	Good
Fraction	20%	80%
Rounds (millions)	9.4	37.6
Balls lost per round	1	0.1
Balls lost (millions)	9.4	3.8

Example: Balls

Lost + Worn = 23 Megaballs

Example: Balls

But:

- Population growth (1.5%, ABS)
 - Results in an increase of 1.5% in ball demand
- Aging population (0.2% shift to an older demographic, ABS)
 - Results in a 0.3% increase in ball demand
- Changing participation rate (-1.5%, Golf Australia)
 - Results in a -3.4% drop in ball demand

Example: Balls

Improvements:

- Sensitivity analysis on the
 - Focus on the most important
 - Most influential
- Gather data
 - Industry experts
 - Observation
 - Market research

Segments

Markets are never homogeneous (Multiple brands)

Assess size in segments (e.g. demographics)

Product needs a focus: **Can't be all things to all people**

Tutorial Exercise

Segments

Hypothesis: What are the preferences and groupings in the market?

Consider:

1. Age
2. Demographic
3. Experience, Education
4. ...

Segments

Focus: What is the specific value proposition?

- Cost
- Workflow
- Durability
- Functionality
- Colour
- ...

Consider:

- Trade-offs
- Alternatives
- Existing lines
- ...

Segments

Survey: Gather data and check assumptions

- What trade-offs will the market tolerate?
- Where is/are the sweet spot(s)?
- How big is each one?

Segments

Survey: Golf Balls

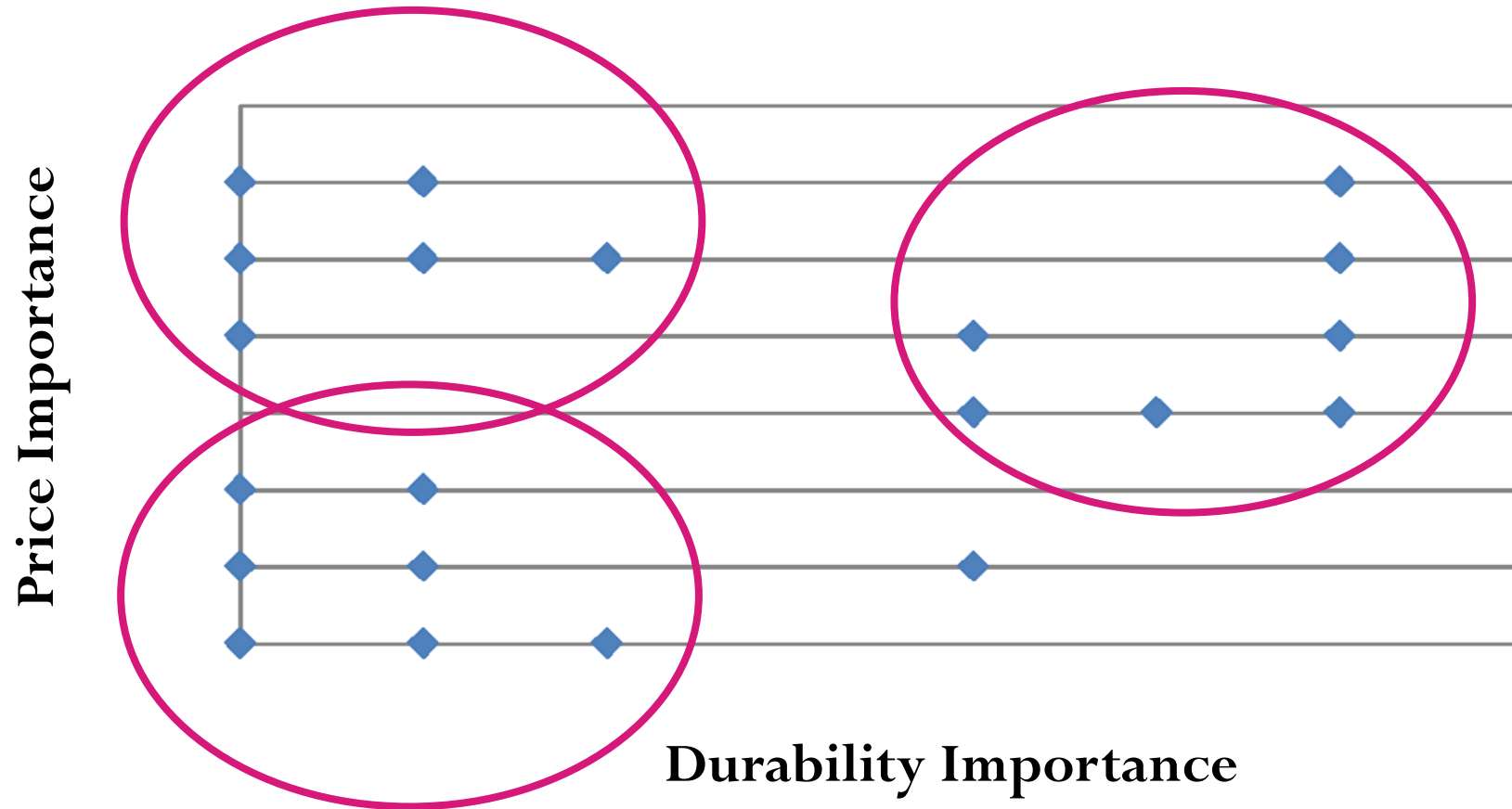
- Ensure open questions, avoid yes/no answers
- Link preferences with your hypothesis for demographics
 - Working age vs retiree
 - Percentage of good players
- Test your assumptions
 - Loss of balls
 - Number of rounds played

Segments

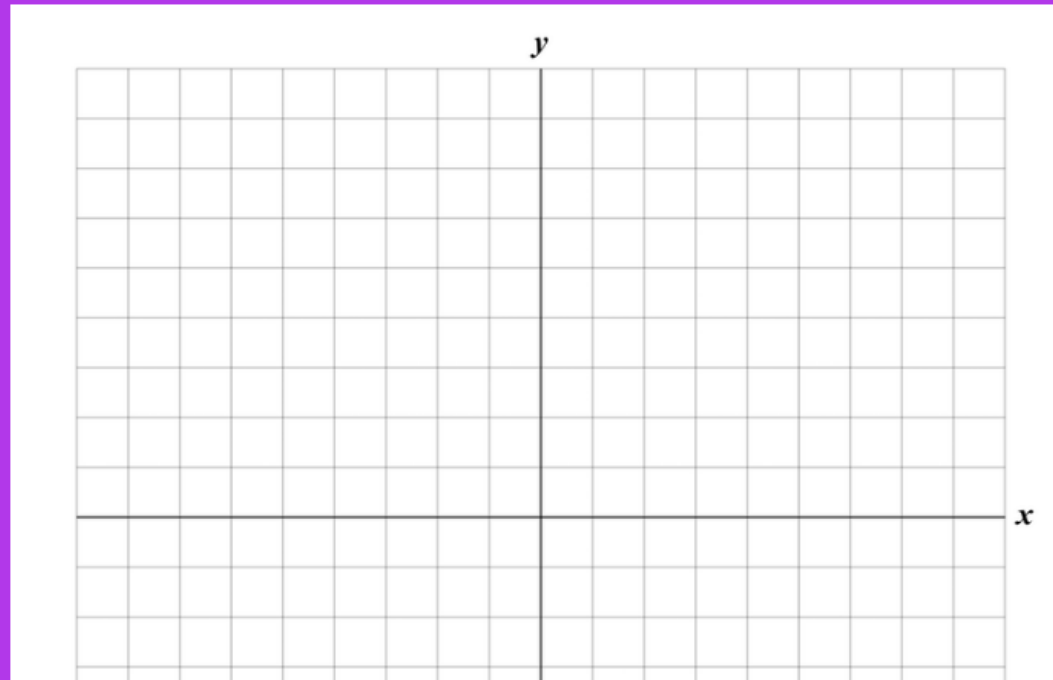
Survey: Golf Balls

1. When you buy a golf ball how important is the following:
 - Low Price (1 = low importance, 7 = high importance)
 - High Durability (1 = low importance, 7 = high importance)
2. How many rounds of golf do you play per month?
3. How many golf balls do you lose, on average, in a round of golf?
4. Approximately how many golf balls do you purchase a year?
5. How old are you?
6. How many years have you been playing golf?

Segments



Phone: Price Importance (x) vs Feature Importance (y)



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Segments

Survey: More dimensions

- K-Means clustering

e.g. Laptops:

- Cheap at all costs
- Big, powerful, expensive: Game-focussed
- Small, mid-power, mid-price: Work-focussed
- Small, cheap, low-power: Education-focussed
- ...

Segments

Segment defines:

- Trade-offs, values
- Market size
- Applicable trends
- ...

Guides development of business plan.

Marketing?



**2x the
Moisturising
Oats**

Action Items

- Modules
 - Feedback!
- Resource Request form: **TODAY**
- C&M Assignment
- Individual Research Assignment

Calendar

Date (Monday)	Week	Lecture	Tutorial	Assessment
24th July	1	Introductory Lecture	No tutorial	
31st July	2	Lecture 1	Tutorial 1 - In tutorial presentation and reflection	Guest lecture reflection 1 (Wed)
7th August	3		Office Hour, no tutorial	
14th August	4	Lecture 2	Tutorial 2 - In tutorial presentation and reflection	Guest lecture reflection 2 (Wed)
21st August	5		Office Hour, no tutorial	Concept and Market Analysis Report (Fri)
28th August	6	Lecture 3	Tutorial 3 - In tutorial presentation and reflection	Guest lecture reflection 3 (Wed) Individual Research Report (Fri)
4th September	Teaching break			
11th September				
18th September	7	Lecture 4	Office Hour, no tutorial	Guest lecture reflection 4 (Wed) Project Review (Individual) (Fri)
25th September	8	Family and Community Day	Tutorial 4 - Harvard startup game (Post tutorial reflection)	
2nd October	9	Labour Day	Office Hour, no tutorial	Post tutorial reflection (Mon)
9th October	10	Lecture 5	Tutorial 5 - In tutorial presentation and reflection	Guest lecture reflection 5 (Wed)
16th October	11		Office Hour, no tutorial	Business Plan (Fri)
23rd October	12	Lecture 6	Tutorial 6 - Pitch and prototype assessment	Guest lecture reflection 6 (Wed) Pitch and Prototype (in tutorial)

Guest Lecture Reflection

Fast-forward through time, you're in an upper management position in a medium-size enterprise of approximately 200 employees. The company makes high-end niche electronic surveillance equipment, primarily for the Defence sector. Your area of responsibility is technical product management (managing the development of new products aligned with the company's strategic goals). The company has decided to pursue a strategy that pushes their products more in to private security, but this will require several new innovative products in a short time frame.

Do you choose to restructure your existing teams or create a new, embedded group focussed just on this? What aspects of the existing company structure might influence your choices?

Good responses will refer explicitly to today's lecture and guest lecture, as well as original research. You will need to make a number of assumptions regarding the current organisation of the company; state these and state how they affect your argument.

Guest Lecture Reflection

- Due 5pm **Monday**
- 1 page
- Marking Criteria and resources in the assignment sheet on Wattle.

Guest Lecture Reflection

- References
- Argue your point (don't just state facts)
- Proof-read

Guest Lecture

Jeff Ng

- Done everything!
- Innovation isn't just for start-ups.