



The Business of Innovation

Decide what's over the
horizon

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facebook

What do these things have in common?

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They are all novel ideas that people believe in. They believe in them enough to cast that vote for Olympics in London, buy an iPad, give away their privacy on Facebook, dance in their bedroom to the music, or spend €300m on a satellite launch.



What else do these things have in common?

They are all **different from what came before.**

They are all **innovations, new ideas that people use.**

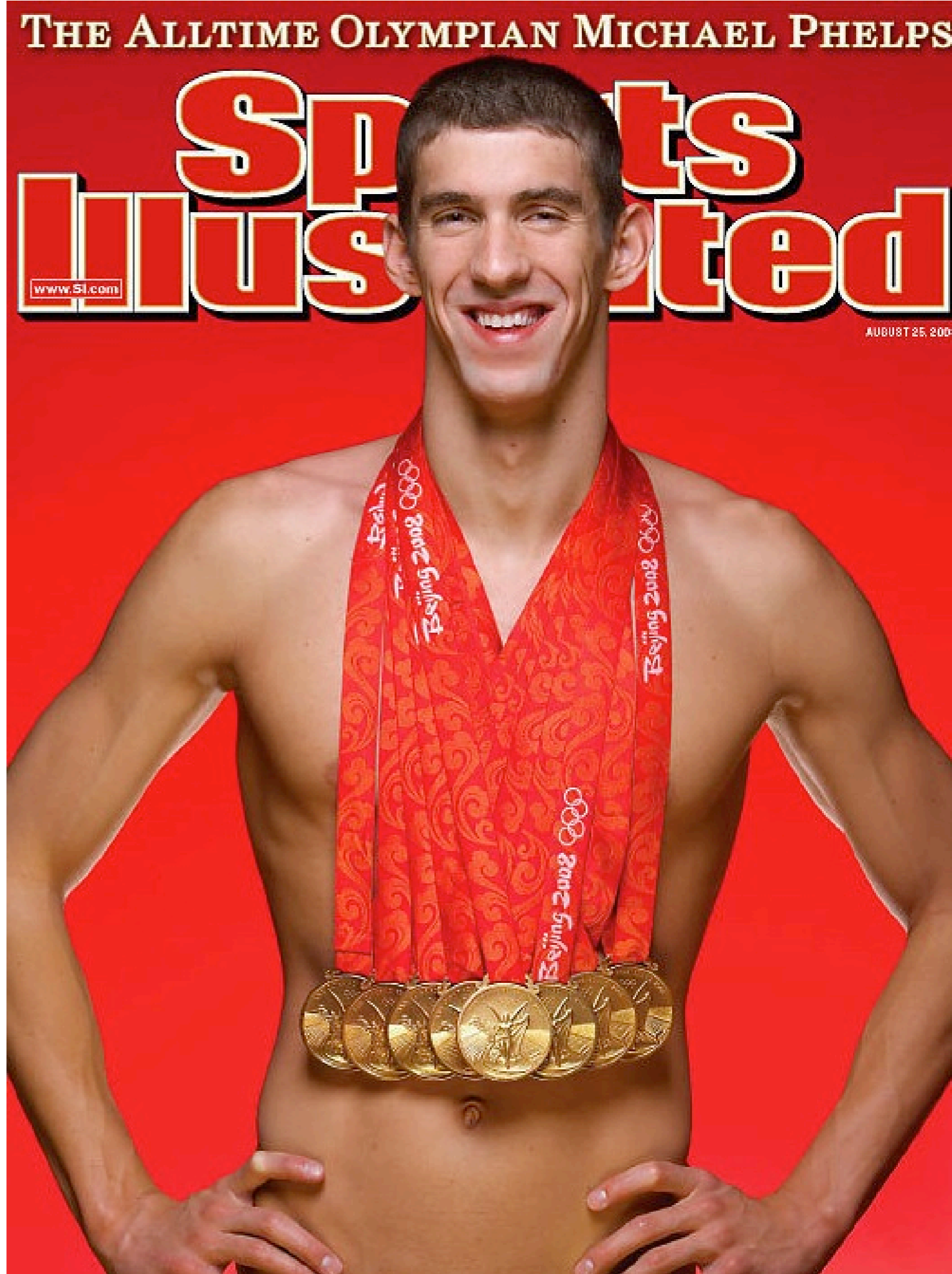
These three talks are about how to make successful innovations that people believe in enough to **buy them, support them or act on them.**



This is interactive!

In the next 3 days:

- You'll develop a new **product idea** in an **idea creation** session. Then you'll give it an **initial pitch**.
- Tomorrow, you'll **refine** that idea by testing it with a **focus group of potential customers**.
- On Wednesday, you'll give your **final pitch to the market**. The winning product idea gets a prize.
- Every day **you'll work as a team** to **refine and present** your ideas.



What else do all these things have in common?

They are the product of **teamwork**.

Even Michael Phelps has a team - his parents and family, his school that supported him, his coach, his swimming team mates who race against him, his PR agent ...



Exercise 1: Build your team

In the next 5 minutes:

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In the next 5 minutes:

Form a team with the 5-7 people nearest to you.

Agree a name for your team.

Agree the following team members.

The **Presenter**.

S/he should be the person most happy to present back to the group.

The **Recorder**.

Should be someone who is most happy to take notes.

Consider also who in your team is **creative, artistic** or can **write well**. Every good product needs a good brochure or logo ... consider who can do this in your team.

Report your **Team Name** back to the group.

Why innovate at all?

- Efficiency
- Obsolescence
- Competition
- Growth



One third of growth comes from innovation in new goods & services

Schumpeter 1934

5 types of innovation

- new products
- new methods of production,
- new sources of supply,
- opening of new markets,
- new ways of organizing businesses.

OECD 2005

An innovation is the implementation of a new or significantly improved

- product (good or service),
- process,
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ACTIVITY	2000												2001							
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PROTOTYPE	[Green bar from Jan to Dec]												[Blue diamond at Jan]							
TESTING	[Green bar from Jan to Dec]												[Blue diamond at Jan]							
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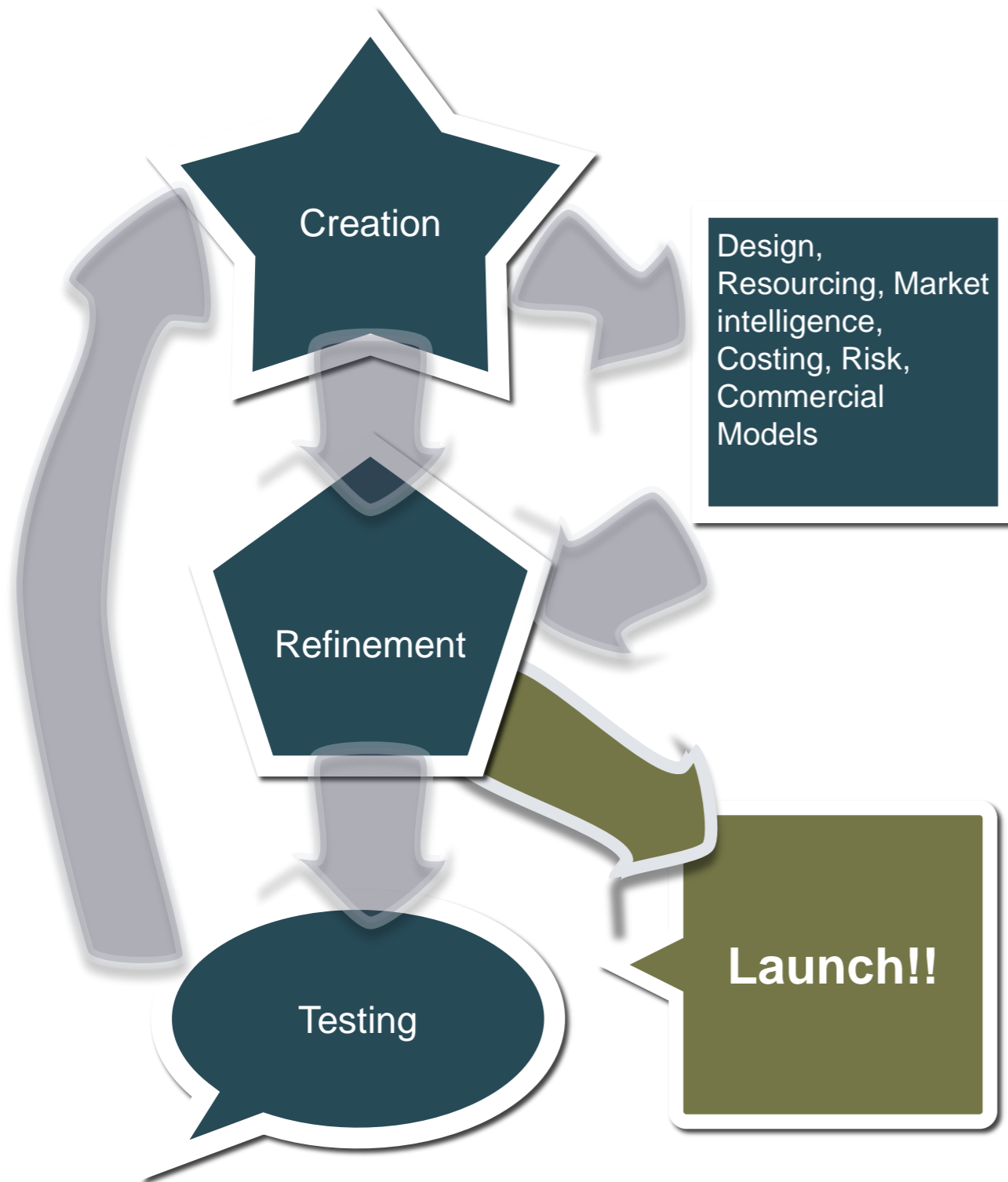
The key insight of successful innovation

A new idea \neq **A successful innovation**

A successful innovation = A new idea that
meets a need

[Successful innovations] \approx [New ideas] x 5%

Developing innovations comprises 3 main activities



Innovation is a cyclical process of **creation, refinement and testing.**

These are interspersed by work on **design, market intelligence, costing, risk, and commercial models,** and completed when the idea becomes a product that's finally **launched.**

Successful innovation comprises 3 main activities

Innovation is a cyclical process of **creation**, **refinement** and **testing**.

Idea Creation

Develop new ideas that are informed and constrained by your **knowledge resources** and by **market intelligence**. This can be conducted using rapid techniques like **client workshops** or **brainstorming sessions**, or through longer slower techniques like **scientific** or **market research**.

Refinement

Refining your ideas requires detailed research and development. Your refined idea should have a **precise definition** including a **plan of how to construct or deliver the final product** that has been **costed**, tested for **risks** to your organisation, and a plan for how to **bring the product to market**.

Testing

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Successful innovation requires 3 main supports

Innovation requires the **right resources, good design and market intelligence.**

Resources

Your resources are primarily the **skills and knowledge** of your people and their ability to **execute the technical or management tasks needed**. It also includes your **mechanical equipment and facilities, supply chain** and **components** it can provide, and the **financial support** your organisation can muster.

Design

With each cycle of the process, the design of your idea will be refined, but even the initial designs must address the essential question of **how the idea can be put into practice**. This must include a realistic assessment of how much it will **cost to execute and to sell** and how much people will **pay for it**.

Market Intell:

The more complete your understanding of the market you're working in, the more likely you are to succeed in creating an idea that will succeed in that market. Large companies spend €billions to develop market intel, from **consumer research** to **industrial espionage** to **political lobbying**.

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Exercise 2: Audit your resources (5 minutes)

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Ask each team member to explain their list of skills and interests. Don't be exclusive or limited - **you are more than a data assimilation student.**

Everything you know and are able to do is a resource, whether

- professional skills,
- your education,
- your hobbies,
- sports you do,
- musical, artistic, creative design, photographic or cinematic skills,
- manual skills.

Ask your **Presenter** to say when you're finished.

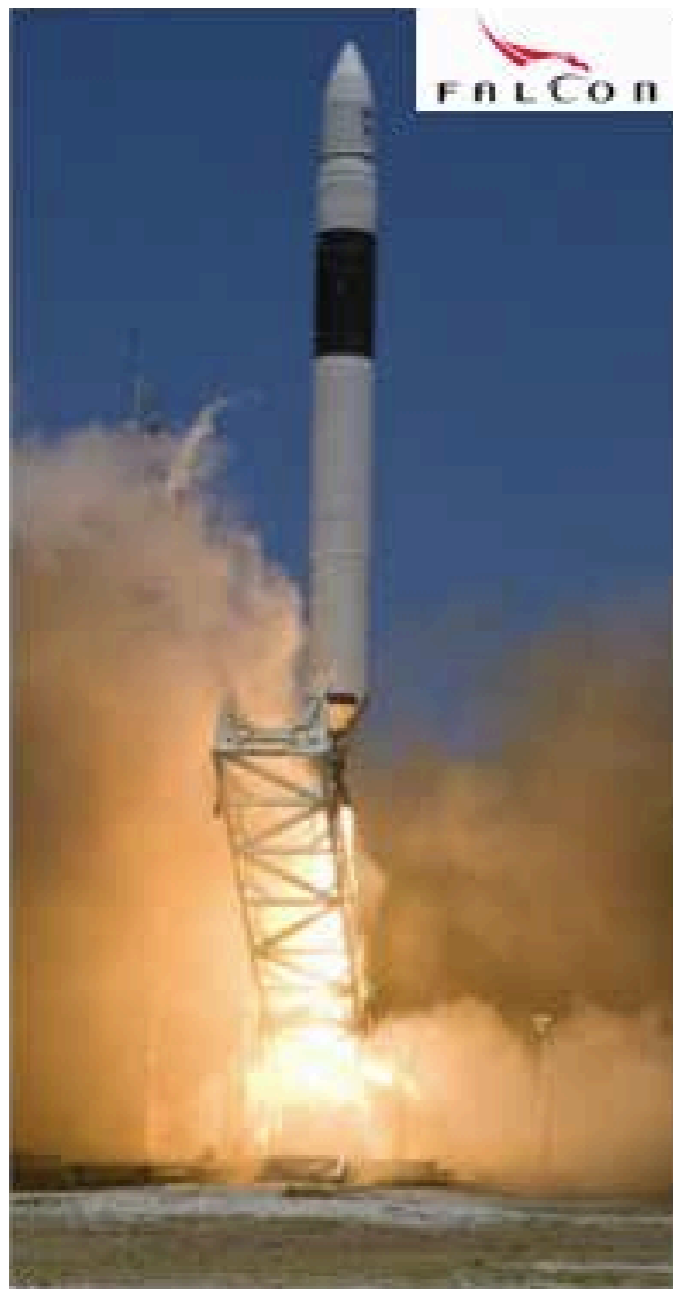
Market intelligence

This your knowledge of the market that you operate in.

It includes the legal and financial constraints of potential buyers, their needs, their desires and the competitive landscape within which you operate.

Consider an example: putting things into space

SpaceX Vehicles



Falcon 1



Falcon 9



Dragon Spacecraft

Dragon Evolution



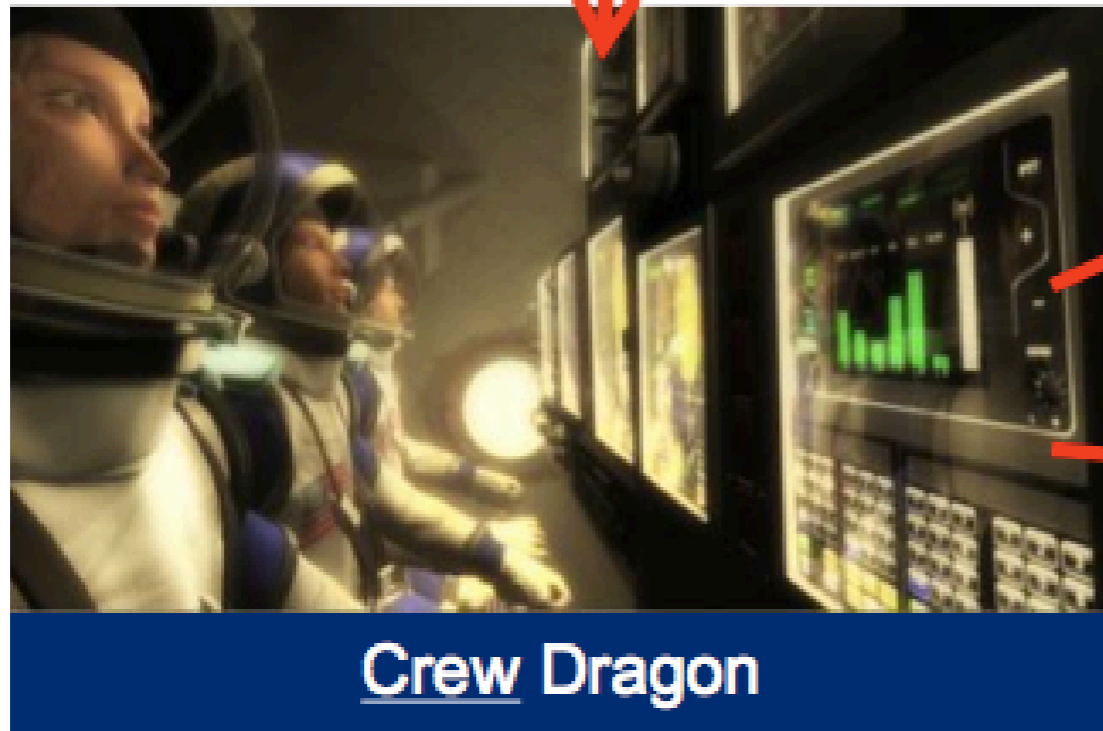
ISS Cargo Delivery

DragonLab Micro-gravity

Rendezvous & Inspection

Boost/ De-Orbit

Robotic Servicing



ISS Crew Service

Life-boat

Crewed Servicing

Orbital Tourism

Successful innovation - key attributes

	Booz Allen Hamilton	De Brentani	Cooper & Kleinschmidt	Duerr
Fits company's strongest resources	✓	✓	✓	✓
Match customer needs	✓	✓	✓	
Screening for growth potential		✓	✓	✓
Top management support	✓		✓	✓
Uses new product process	✓		✓	✓
High value to customer		✓	✓	
Innovative		✓	✓	
Technical superiority	✓		✓	
Communication amongst company functions		✓	✓	
Avoids unnecessary risk		✓	✓	
Favourable competitive environment	✓			

Levels of innovation

Innovations can be novel at four levels

1. New to the firm
2. New to the market
3. New to the World
4. Disruptive technologies

Exercise 3: Ideation (15 minutes)

Objective 1: (10 minutes) 5 new ideas

Suggest 5 possible ideas for new products or services. Anything is permitted but **people in your team must have the resources and knowledge to discuss the idea realistically.** Record the ideas below.

Some examples

- High resolution temperature monitoring to help manage gas supplies;
- Crop monitoring for crop future price forecasting;
- Beach UV monitoring and alert system;

Some examples



Exercise 3: Ideation (15 minutes)

Objective 1: (10 minutes) 5 new ideas

Suggest 5 possible ideas for new products or services. Anything is permitted but **people in your team must have the resources and knowledge to discuss the idea realistically**. Record the ideas below.

Objective 2: (5 minutes) Pick your best idea

Pick the best idea from the 5 you came up with. Give it a **name**. Now summarise it in 100 words or fewer. This is your **pitch**. Record the **name** and **pitch** below.

Presenters, give your pitches ...

Everyone else .. show of hands for who thinks this is a good idea.

Exercise 4: Cost & Value (lunchtime or overnight, no more than 30 mins)

Objective: Estimate the cost of your idea and its value to your client.

Be realistic. Do some googling if you have to, to estimate time required, cost of materials, cost of the labour.

Taking into consideration its cost of manufacture and its value to the client, **estimate what price you would sell it for.**