

The Business of Innovation What do they want?

Dr Iarla Kilbane-Dawe Innovations Director, AEA Our mission for today ...

Learn how to test ideas and understand what other people want. Use that understanding to refine our ideas.



What do you want?

Yesterdays product idea scores

Product idea	Day 1	Day 2	Final
Star alert	29		
Autotrans	23		
RIP Space	21		
Reduce, reuse, reed cycle	19		
Home 3d	15		
Sciencespeak	10		
Space garbage collection	9		
Audiograph	8		
Solar express	6		
Spacebook mashup	0		
Reality cubed	0		



Barack Obama

Time from Chicago Projects to Presidency: 18 years.



Lady Gaga

Time from first musical work to first #1: 5 years.



Apple's iPad

Time from first research to product launch: 23 years.



EADS Ariane V

Time from drawing board to product launch: 12 years.

It takes a long time to understand what people want and give it to them.

But life is short and competition is fierce. What can we do to understand people more quickly?



How would you find out what people want?

- Sales
 Yours or someone else's.
- Surveys
- Focus groups
- Prototype testing
- Product testing
 For all these you need to ask people good questions.



Surveys

Case study

The UK NHS is required by law to reduce it's CO2 emissions by 20% by 2015. The NHS wanted to know what it could do to motivate the 430 CEOs of hospitals and other UK health organisations to increase the number of carbon reduction projects they commissioned in their organisations.

CO₂ Reductions Communications Study for the UK Health Service (NHS)

Over a period of three months, I interviewed 40 NHS CEOs and finance directors. I asked them 24 questions, ranging from their views on whether climate change was real to whether they wanted stronger government targets.

The main outcomes were that they would increase the number of projects if:

- 1. They had done it before.
- 2. They could save money by cutting CO₂.
- 3. They knew that other CEOs were doing the same.

The Theory of Planned Behaviour, Ajzen (1990)

A model of factors people consider in planning and executing their actions. Can explain c. 40% of behaviour.

Attitude

Is this behaviour favourable or unfavourable?

Subjective norm

Is there **social pressure** to perform this behaviour or not perform it?

Moral norm

Is performing this behaviour **right or wrong**?

Past Experience

When I did this before, was the **outcome** satisfactory?

Perceived Control

How much difference do I think it will it make? Can I buy this / do this? How much will

Situational

How convenient is it? How well does it work? Can I afford it? Can I buy it easily?

Consequences

Can be **knowledge based** or **emotive**: does
it **do** you good or does it **make you feel good?**

Surveys

CO₂ Reductions Communications Study for the UK Health Service (NHS)

Case study

How does this fit within the Theory of Planned Behaviour model?

- 1. They had done it before
- = Past Experience
- 2. They could save money by cutting CO₂
- = Situational Norm
- 3. They knew that other CEOs were doing the same = **Subjective Norm**



Barack Obama

- ⊕ Subjective norm, Moral norm, Perceived Control, Consequences
- ⊗ Past Experience, Situational



Lady Gaga

- ⊕ Subjective norm, Consequences, Past Experience, Situational
- ⊗ Moral norm



Apple's iPad

- ⊕ Subjective norm, Consequences, Past Experience, Situational
- ⊗ Moral norm



EADS Ariane V

⊕ Consequences, Past Experience, Situational

Examine these offers through the lens of the Theory of Planned Behaviour

Prototype testing



Case study

The airTEXT was developed in two phases. And initial prototype system, based on Croydon, South London. This was trialed with 100 users.

In the second phase, the service was refined and modified to better suit user needs across London. This has 6,000 users.

Croydon Prototype

Health advice based on the air pollution forecast were sent by SMS. Signup using a paper form.

Final London system

Advice is sent by voicemail, email and SMS. Signup using a paper form, online or by SMS short code.

Focus Groups & Product Testing



Case study

Next generation information system for air pollution, sunburn, water quality, heat stress. Being developed now by AEA and O2/Telefonica, along with DLR, INERIS and ThalesAlenia. Again uses satellite and ground based data, assimilated into a CTM, to help predict environmental stressors and communicate this to individuals.

How we used focus groups

As part of development, we've used focus groups with potential service users to help define how the information should be delivered to users.

Potential clients were invited to spend 3 hours with us, telling us how they manage their health problems, what they thought about air pollution, and how that information could help them.

This culminated in a set of service storyboards.

MyAir Asthma Parent

Service Proposition

A service that helps parents of children with asthma, by alerting them to poor air quality in their local area.

Persona

Mary's sons, Frank, is 13 and Tom, 15 years old suffer from asthma attacks. She would like a service that could alert her at key points in the day to issues around local air quality. She would like to connect to other parents in the area who have children with asthma and document the date and time of the attacks to keep a record of her son's condition.



MyAir Asthma Parent

Stage	1	2	3	4	5
Touchpoint		TIME 7:00 AM	MYBIR MALERT ME GUMLITY W	DIARY WAR DIARY MANN WAR MANN WAR	MY AIR FORECAST MONDAY TUESDAY WEDNESDAY
Activity	Mary visits the myAir website and can see interesting information about how air pollution affects asthma	She can set her preferences to alert her about air quality at key times of the day.	Mary receives an alert the next morning before taking her son to school. This gives her time to prepare him for the day.	In response to her son experiencing an attack she visits the MyAir site	Mary benefits from more sophisticated alerts based on air quality data and user generated information
Interaction	Mary signs up to the local alert service	She can set the number of alerts at times that are convenient	She get's a notification via SMS	She can log any details of her son's attack in an online diary.	Deliver more accurate messages based on user data and air quality data
Deliverable	A website with detailed realtime and historic air quality data	Enable users to have a profile where they can set alerts and log data.	Deliver air quality alerts of SMS, email, or via mobile apps	Anonymise this data and compile it with air quality data and share with the community	The site pattern matches her son's attack with other logs and with the air quality data

MyAir Elderly Assistant

Service Proposition

A service that distributes information about air quality to carers, family and medical professionals who support an elderly person with COPD.

Persona

Arthur is 64 and suffers from emphysema. He lives alone and is mostly house bound. He likes and needs to go out occasionally to the park, visit the post office and family and friends. He has daily visits from a carer and regular evening and weekend visits from his children.



MyAir Elderly Assistant

Stage	1	2	3	4	6
Touchpoint		MY AIR CREATE ALERT SEND TO JOHN SMITH MY MAN	(Sir You	MY AIR CREATE NEW SEND TO HENRY SMITH	MVAUL 10X
Activity	Arthur's son (John) signs him up to the MyAir service	John sets up alerts for his father	Knowing his father is not great with technology and because John speaks to him on the phone a lot.	Arthur plans to visit his other son who lives 90 miles away	Get advanced warning
Interaction	Creates a profile of his father's condition on the site	Selects SMS notifications to alert his dad about air quality	Sets up alerts for himself as well. So he can notify his dad about any specific issues	Jon adds his brother as a recipient of MyAir alerts	The day before his father travels, John checks the MyAir site for advanced information on air quality for his brother's location
Deliverable	Provide a website enabling users to sign up and create a profile of conditions and location specific mapping	Enable the service to send SMS notifications to numbers provided	Allow for secondary accounts to be set up	Allow alerts to be sent to users for a time limited period	Detailed forecasting information and mapping

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Exercise 5: Focus group (20 minutes, 10 minutes each way)

Pair with the team to your left or right and break into sub-groups of 3 from each.

Take turns to be the product developers and the focus group.

Objective: Test your idea with people.

First, pitch the product to them. Explain what it's value to them might be.

Then ask them what they think. **Don't try to convince them it's good.** The point is to **learn what your clients want rather than what you want to sell them**.

Focus on questions like:

- How would you use this service / product?
- How much would you pay for it?
- How would you feel about using it?
- What would make it better than the alternatives?

Exercise 6: Refine & pitch again (5 minutes)

Objective: Use the feedback from your focus group to improve your product idea. Refine your pitch, but keep it to 100 words, under 1 minute.

Your **Presenter** will give your new pitch and we vote again.

Exercise 7: Develop collateral (overnight, not more than 1 hour)

Objectives: Refine your idea again if needed.

Develop one piece of **marketing collateral** that captures your idea.

It can be a slide, page of a leaflet, image, logo etc to help you sell your product.

Extend your pitch to 250 words (2 minutes).

Tomorrow

- Expressing yourself how to get your ideas across.
- Launch your product.