HORIZON-EIE-2022-SCALEUP-01-01 Expanding Entrepreneurial Ecosystems

MODULE 2: Solution Validation, Crafting Value Proposition and Solution Development

ENTREPRENEDU is a project funded by the European Union under GA 101100507.

ENTREPRENEDU

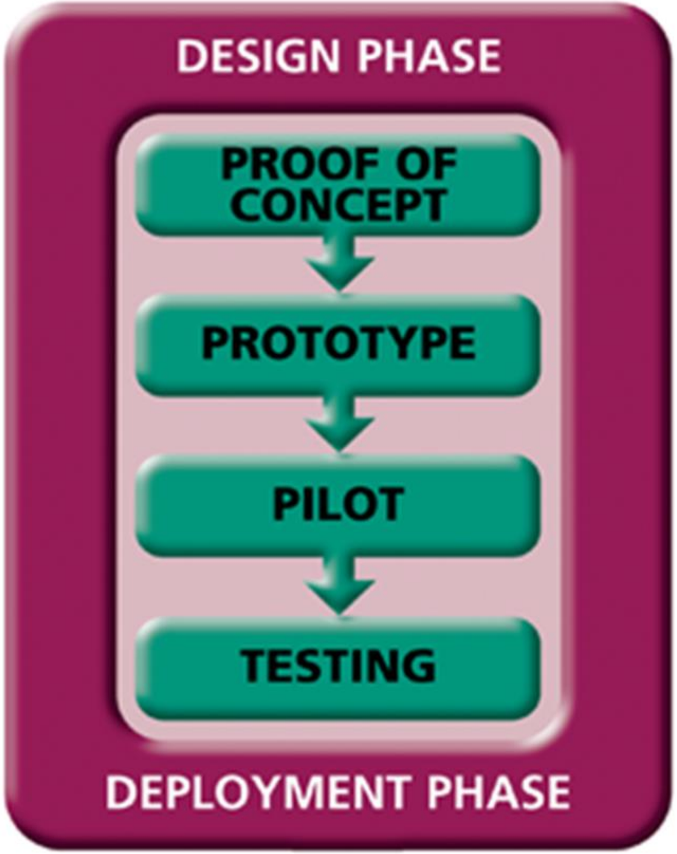
Enhancing entrepreneurial ecosystems for education

Funded by the European Union

UNIT 1: Solution Validation Methods

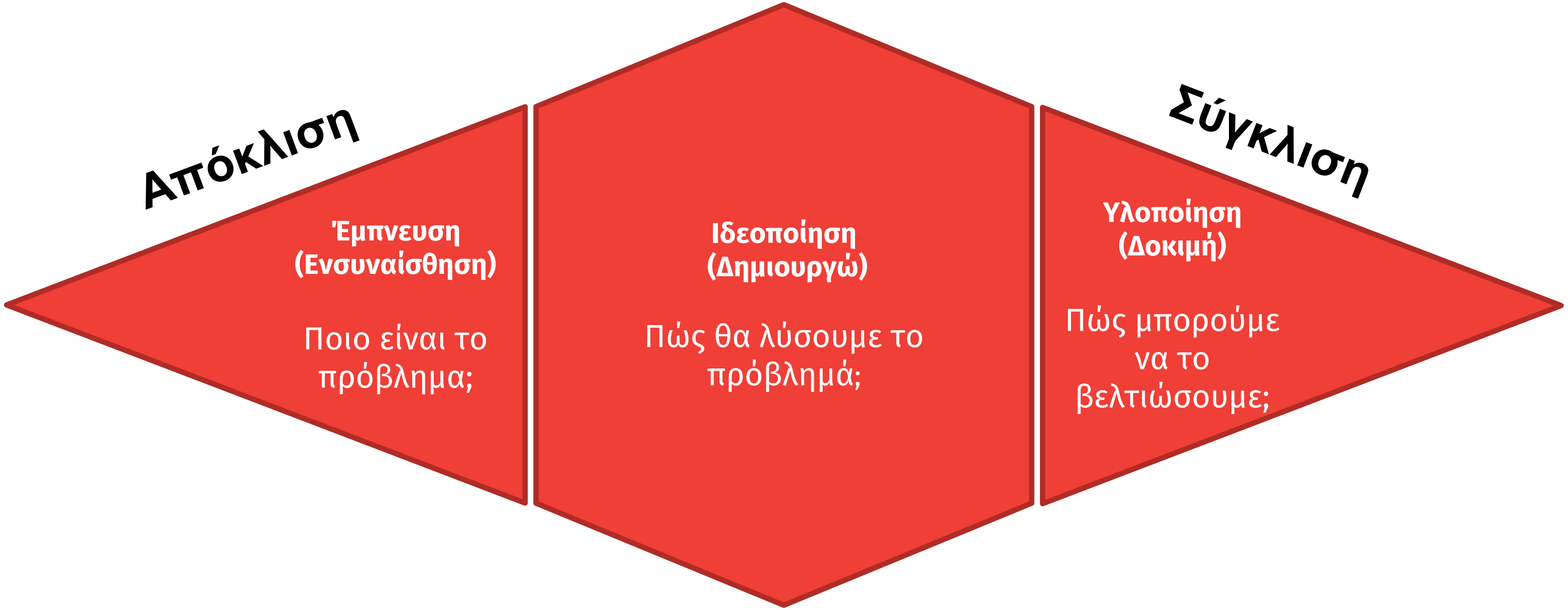
Αξίζει τον κόπο; (reality check) Κάντε τους υπολογισμούς σας

- Πόσοι άνθρωποι έχουν το πρόβλημα που λύνετε;
- Πόσο σημαντικό είναι το πρόβλημα (πόσο τους κοστίζει);
- Πόσο είναι διατεθειμένοι να πληρώσουν για να το λύσουν;
- Με τι κόστος μπορείτε να το διαθέσετε;
- Πόσοι άλλοι μπορούν να το διαθέσουν;
- Σε τι έχετε συντριπτικό πλεονέκτημα; (η πιο συντριπτικό πλεονέκτημα θα αναπτύξετε;)



Πηγή: https://cyclosys.com/Services/ProtoTypesPOCMVP

Design thinking



Επικύρωση της ιδέας (Proof-of-Concept / PoC)

- Οικοδόμηση πειραματικής εκδοχής της προτεινόμενης λύσης για την επικύρωση των τεχνικών εφαρμογών σε καίρια σημεία
- Πρωτότυπο
- Μακέτα
- Mock-up
- Προσομοίωση κλπ
- Δοκιμή
- Ανατροφοδότηση από εν δυνάμει χρήστες και ειδικούς
- Διεξάγεται νωρίς στον κύκλο ανάπτυξης

Οφέλη:

- επικύρωση της τεχνικής σκοπιμότητας
- εντοπισμός πιθανών παγίδων και λαθών
- προσδιορισμός των περιορισμών
- καθορισμός του εύρους και του επιπέδου των προσαρμογών που απαιτούνται
- εντοπισμός πιθανών ζητημάτων απόδοσης ή συμφόρησης.

PoC

- Έλεγχος υποθέσεων: Καταγράψτε όλες τις πιθανές υποθέσεις που έχετε κάνει και δείτε αν υπάρχει ένας τρόπος για να τις επικυρώσετε σε πιλοτικό στάδιο.

- Fast to Fail -> Fast to Market

- Κατανοήστε το ρίσκο λειτουργίας σε πραγματικές συνθήκες: Ο ενθουσιασμός πολλές φορές οδηγεί σε υπερεκτίμηση των δυνατοτήτων μας.

- Ελέγξτε τις διαδικασίες: Οι διαδικασίες αντιμετώπισης και χειρισμού καταστάσεων μας βοηθούν να περιορίσουμε τυχόν λάθη. Θα πρέπει να ελεγχθούν σε πειραματικό (πιλοτικό) στάδιο.

PoC

- Δεν δοκιμάζουμε μόνο το προϊόν (π.χ. ανατροφοδότηση από πελάτες που «δοκίμασαν» το MVP), αλλά και μερικές υποθέσεις σχετικά με το εγχείρημά μας:
- Το σχέδιο και η δύναμη της ιδέας: Αντιλαμβάνονται οι πελάτες την ιδία πρόταση αξίας (value proposition);;;;
- Το επιχειρηματικό μοντέλο:
- π.χ. «ποιος θα πληρώσει; πόσο; και σε ποιον».
- Κάθε στοιχείο θα πρέπει να δοκιμαστεί σε πιλοτική φάση.
- π.χ. είναι οι καταναλωτές / πελάτες έτοιμοι να αντιληφθούν την πρόταση αξίας;
- πόσο είναι πρόθυμοι να πληρώσουν;
- υπάρχει ευαισθησία στη τιμή; και αν ναι, πόσο;

Ένας τρόπος για να ελέγξουμε τις υποθέσεις μας είναι να…

Πειραματιστούμε!

Πειραματισμός

- Ο πειραματισμός είναι μια μέθοδος που χρησιμοποιείται για την απόδειξη ή την απόρριψη της εγκυρότητας μιας ιδέας ή μιας υπόθεσης.
- Μια υπόθεση ελέγχεται μέσω μελέτης και πειραματισμού.

Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

Ο πειραματισμός περιλαμβάνει

- Ερωτήσεις: ποια δεδομένα λείπουν που καθιστούν αβέβαιο το εγχείρημα;
- Ανάληψη δράσης: τι θα κάνουμε για να μειώσουμε την αβεβαιότητα;
- Δοκιμή σε κάτι νέο: πώς θα δοκιμάσουμε την ιδέα μας;
- Συλλογή πληροφοριών από τον πραγματικό κόσμο: ερωτηματολόγια, δοκιμές, στατιστικά δεδομένα, στοιχεία παρόμοιων εγχειρημάτων/προϊόντων/υπηρεσιών;
- Δοκιμή νέων εννοιών: Γίνονται αντιληπτές οι έννοιες από τους πελάτες; Τι πρέπει να αλλάξουμε για να μην υπάρχουν παρανοήσεις;

Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

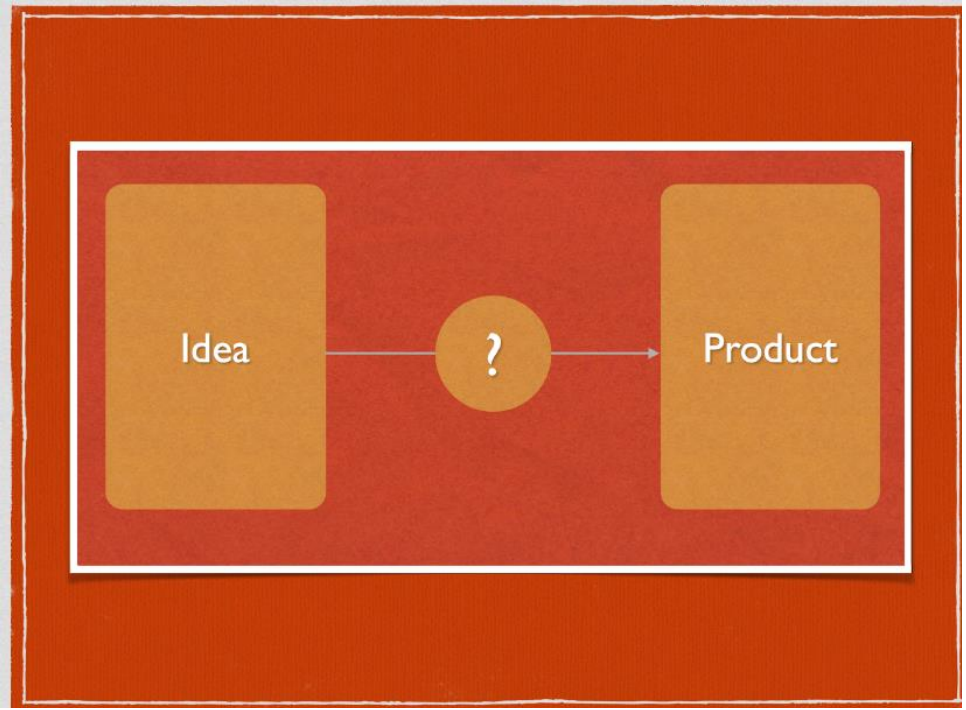
6 βήματα του πειραματισμού

- Ερωτήσεις
- Διεξαγωγή έρευνας υπόβαθρου
- Ανάπτυξη υποθέσεων
- Έλεγχος των υποθέσεων με την εκτέλεση πειραμάτων
- Ανάλυση των δεδομένων
- Αξιολόγηση αποτελεσμάτων

Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

Η επιστημονική μέθοδος του πειραματισμού

Μετάφραση από: http://generalchemistryfordson2013.weebly.com/scientific-method-flow-chart.html


Idea
?
Product

Get out of the building!

Ερωτήματα

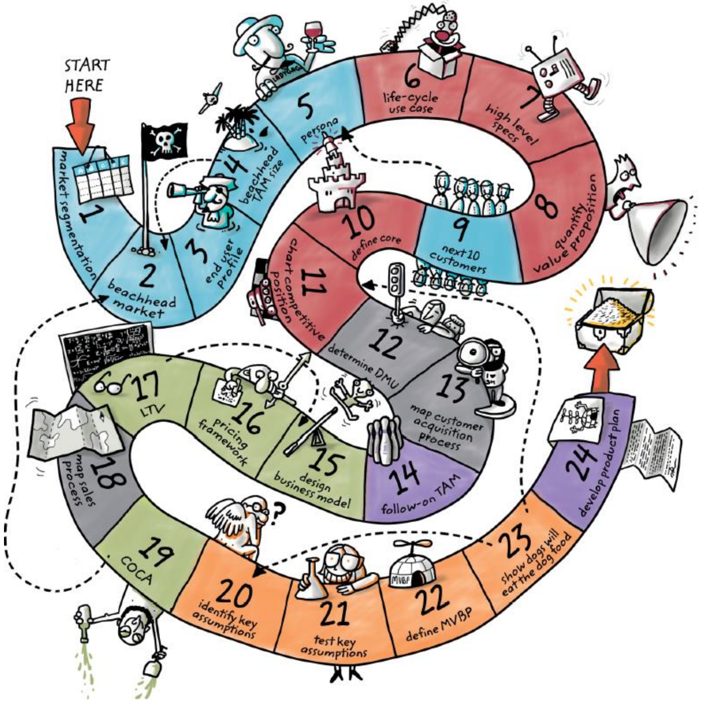
Είναι κάτι που θέλουν οι πελάτες??
Θα πλήρωναν για αυτό??

PIVOT

Leg 5: How do you design and build your product?

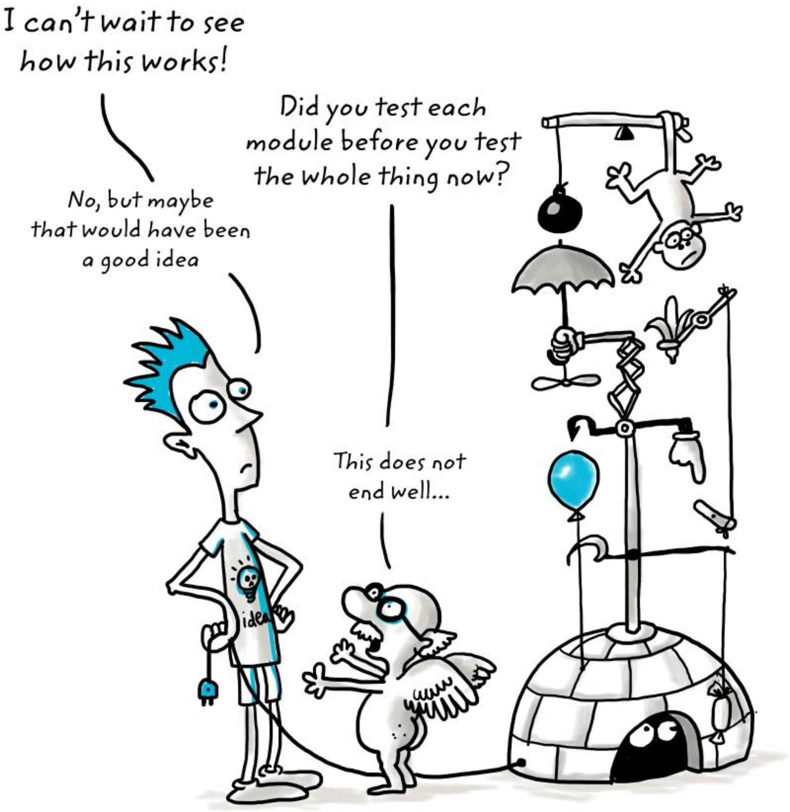
HOW DO YOU DESIGN & BUILD YOUR PRODUCT?

- **20** Identify key assumptions
- **21** Test key assumptions
- **22** Define the minimum viable business product (MVBP)
- **23** Show that "the dogs will eat the dog food"



Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

ΒΗΜΑ #20: Προσδιοριστε τις βασικές παραδοχές (Identify Key Assumptions)



Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

Προσδιορισμός Βασικών Συνολικών Υποθέσεων

#	Υπόθεση (σε σειρά προτεραιότητας)	Συναφή βήματα από τα 24 Βήματα	Επίπεδο κινδύνου	Πιθανός αντίκτυπος εάν η υπόθεση είναι λανθασμένη
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

Source: Aulet, B. (2017). *Disciplined entrepreneurship workbook*. John Wiley & Sons.(pp.213)

ΒΗΜΑ #21: Έλεγχος βασικών παραδοχών / Test Key Assumptions

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

Έλεγχος κύριων συνολικών υποθέσεων

#	Εμπειρικός έλεγχος (σε σειρά προτεραιότητας από τον σημαντικότερο στον λιγότερο σημαντικό, βάσει των επιπέδων κίνδυνου των συναφών υποθέσεων)	Συναφείς υποθέσεις	Απαιτούμενοι πόροι για τον έλεγχο	Ποια αποτελέσματα θα επικύρωναν την υπόθεσή σας;
1				
2				
3				
4				
5				
6				
7				
8				

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

Αποτελέσματα ελέγχου βασικών υποθέσεων

#	Τι μάθατε από τον έλεγχο;	Επικύρωσε ο έλεγχος τις υποθέσεις σας; (Ναι, Όχι΄ή Άγνωστο Ακόμη)	Πως θα ενεργήσετε ως αποτέλεσμα του ελέγχου αυτού (π.χ. αναθεώρηση του έργου που ολοκληρώθηκε στα προηγούμενα βήματα επιπλέον έλεγχος των υποθέσεων΄);
1			
2			
3			
4			
5			
6			
7			
8			

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.12-13)

«Εννέα στις δέκα επιχειρήσεις αποτυγχάνουν, οπότε κατέστρωσα ένα σχέδιο που αποκλείεται να αποτύχει – δημιούργησα δέκα επιχειρήσεις.»

Robert Kiyosaki, αμερικανός συγγραφέας και επιχειρηματίας

Τι είναι Αποτυχία;

- Μια επιχειρηματική αποτυχία θεωρείται γενικά ως ο τερματισμός ενός εμπορικού οργανισμού που δεν κατάφερε να επιτύχει τους στόχους του ή/και να ανταποκριθεί στις προσδοκίες των επενδυτών.

Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

Επιπτώσεις αποτυχίας

ΩΦΕΛΗ

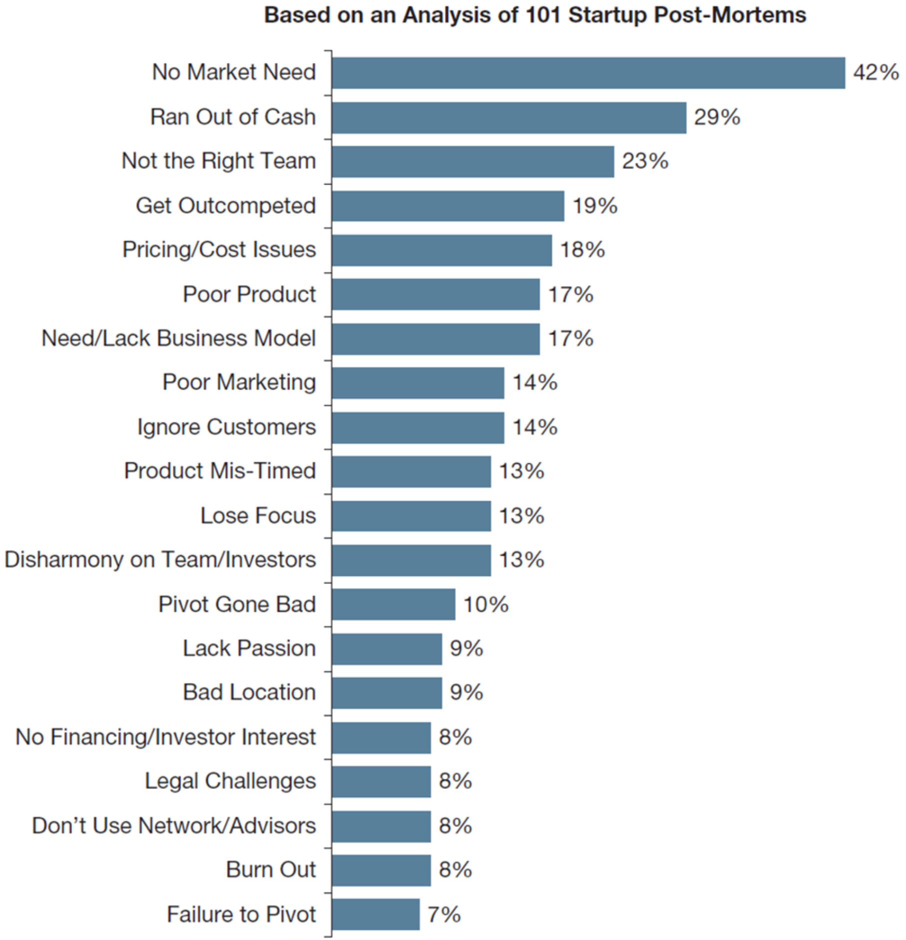
- Εντείνει τη γνωστική διαδικασία
- Η μάθηση συμβάλλει στη βελτίωση
- Κίνητρο για να ξεκινήσετε ένα άλλο εγχείρημα

ΚΟΣΤΗ

- Οικονομικά δαπανηρή
- Συναισθηματικά επώδυνη διαδικασία
- Μπορεί να μειώσει την τάση για ανάληψη κινδύνου

Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

Οι 20 βασικότεροι λόγοι για τους οποίους αποτυγχάνουν οι νεοφυείς επιχειρήσεις



Source: Neck, H. M., Greene, P. G., & Brush, C. (2014). Teaching entrepreneurship: A practice-based approach. Northampton, MA: Edward Elgar.

Μαθαίνοντας από την αποτυχία

Και οι «μεγάλοι» αποτυγχάνουν Αιτία; Η αδράνεια

- “In the breast of one who wishes to do something new, the forces of habit raise up and bear witness against the embryonic project” (Schumpeter, 1934: 86)
- Η αδράνεια είναι ενδογενής: αντανακλά τον ενσωματωμένο χαρακτήρα της γνώσης και της συνήθειας

Απαράμιλλο ιστορικό επιτυχίας

Αποδοτικότητα και προσδοκίες χωρίς απόκλιση

Ικανοποίηση με την τρέχουσα απόδοση

Συσσώρευση πόρων σε αφθονία

Εκτίμηση ότι οι πόροι θα κερδίσουν

υποκαθιστούν τη δημιουργικότη

Αδυναμία απεγκλωβισμού από το παρελθόν

Βελτιστοποιημένο επιχειρηματικό σύστημα

Βαθιά χαραγμένες συνταγές

Ευπάθεια σε νέους κανόνες

Η επιτυχία επιβεβαιώνει τη στρατηγική

Η ορμή συγχέεται με την ηγεσία

Αποτυχία επανεφεύρεσης της ηγεσίας

Αδυναμία δημιουργίας του μέλλοντος

Source: Hamel and Prahalad (1994)

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Enhancing entrepreneurial ecosystems for education

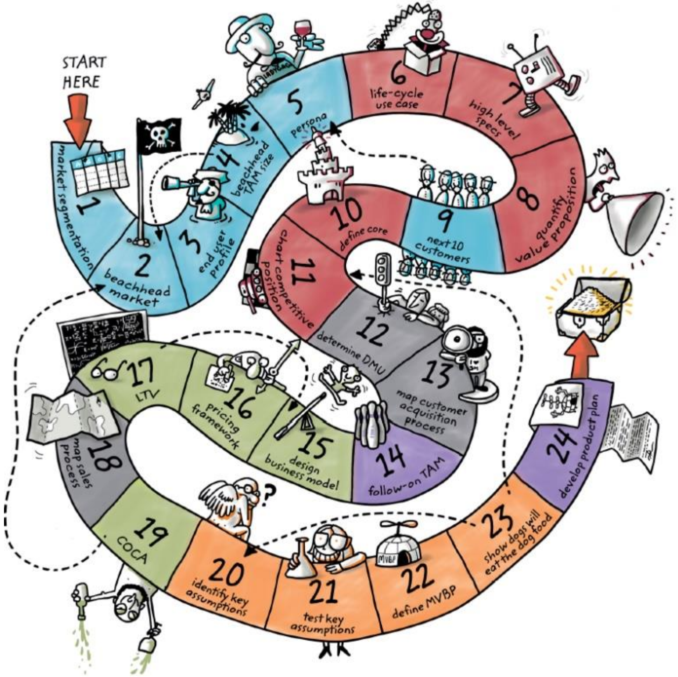
Funded by the European Union

UNIT 2: Crafting a unique value proposition

Αξίζει τον κόπο; (reality check) Κάντε τους υπολογισμούς σας

6 Legs in 24 steps

- Understanding your customers, their needs and problems.
- What can you do for your customer? How will you create value for her/him?
- How does your customer acquire your product?
- How do you make money off your product?
- How do you design and build your product?
- How do you scale your business?



LEG 2: What can you do for your customer? How will you create value for her/him?

WHAT CAN YOU DO FOR YOUR CUSTOMER?

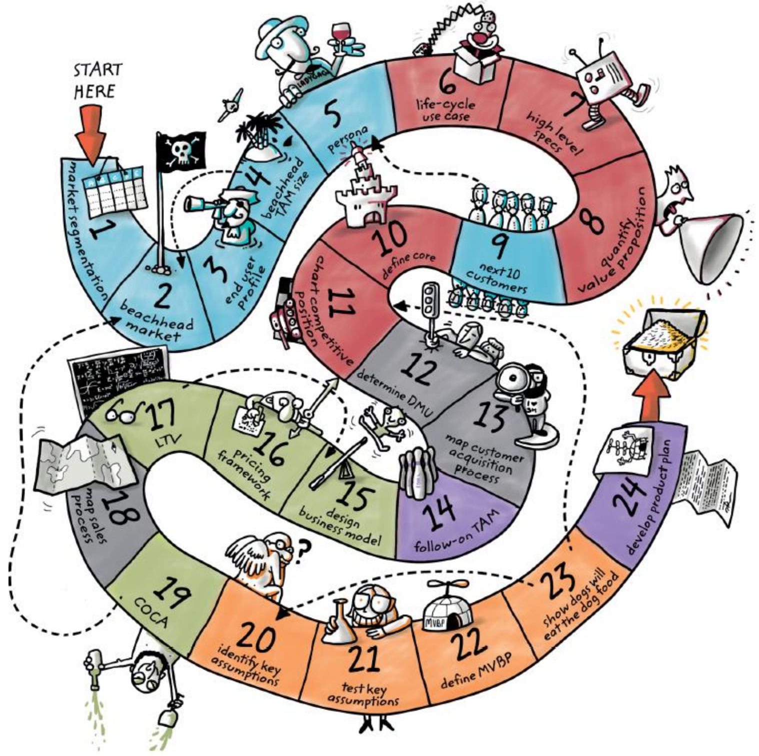
6 Full life cycle use case

7 High level product specification

8 Quantify the value proposition

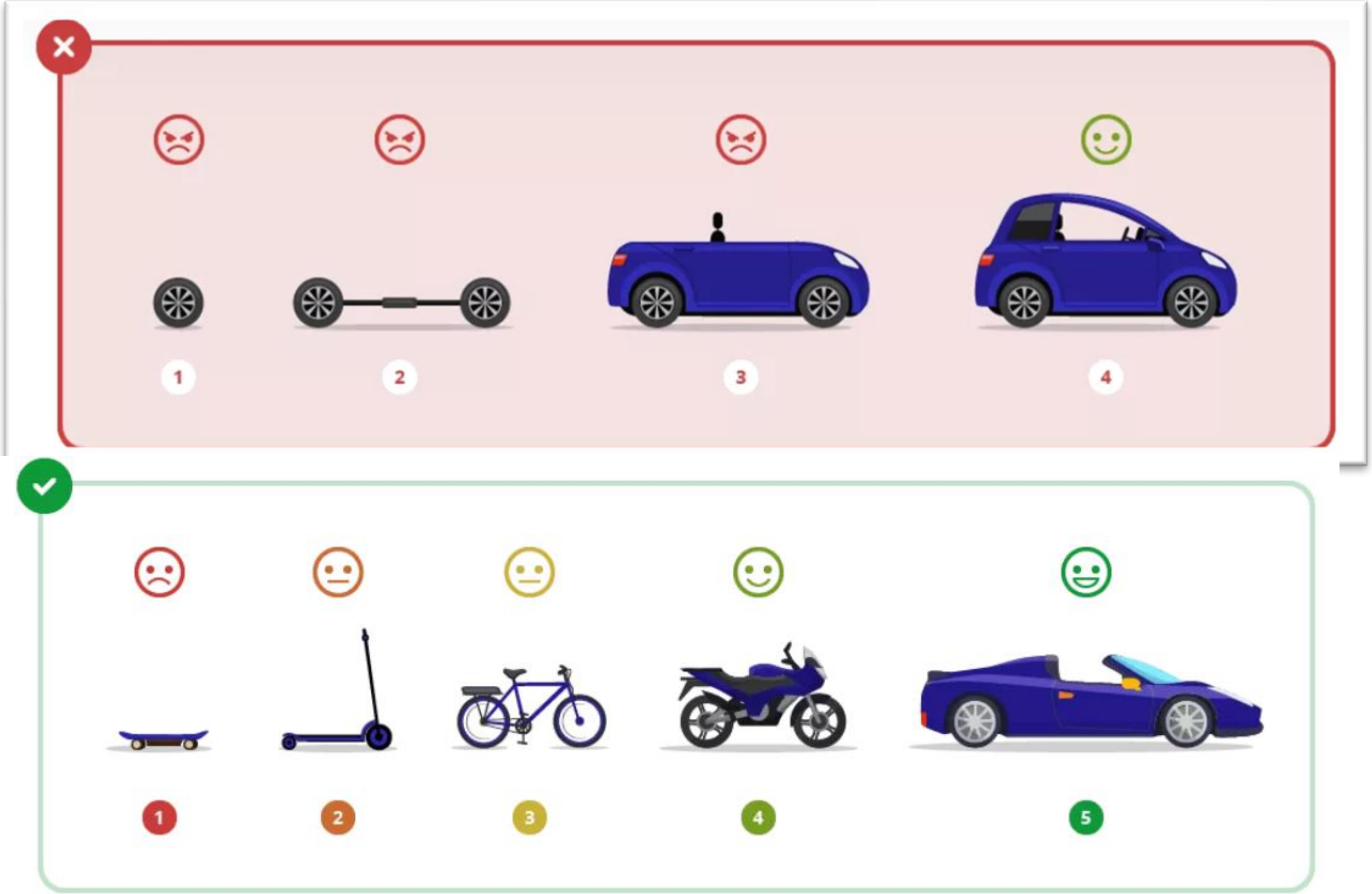
10 Define your core

11 Chart your competitive position



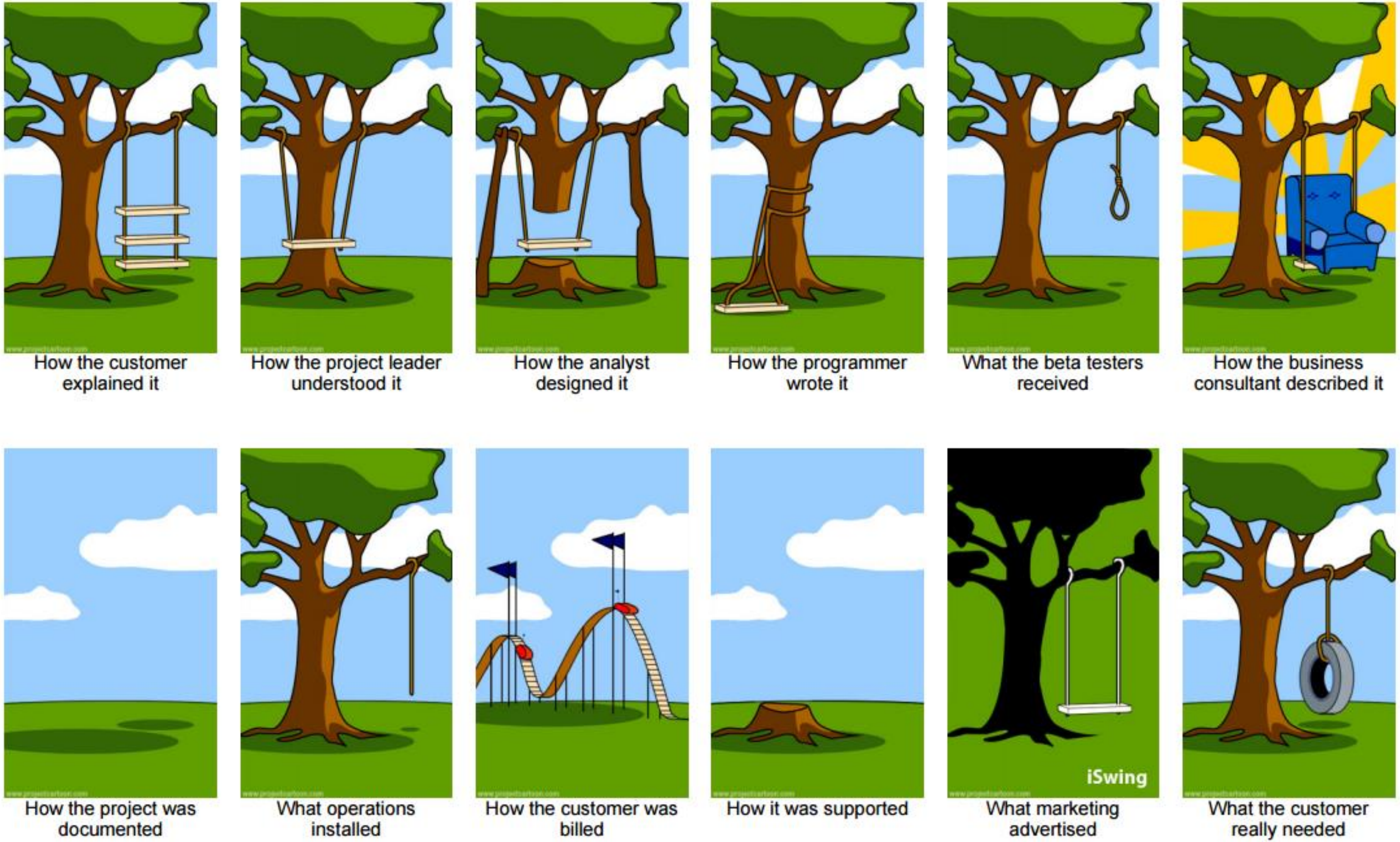
Ελάχιστο βιώσιμο προϊόν (Minimum Viable Product – MVP)

- Η «ελάχιστη» πλήρης μορφή του προϊόντος που θεωρούμε ότι θα είναι αποδεκτή ως τέτοια από τους πελάτες μας.
- Είναι αυτό με το οποίο θα ξεκινήσουμε τις πωλήσεις.
- Παρέχει τις βασικές λειτουργίες που καθιστούν το προϊόν πλήρες, χωρίς επιπλέον χαρακτηριστικά.
- Απαιτεί τον ελάχιστο δυνατό χρόνο και πόρους για την ανάπτυξή του και για την έναρξη των πωλήσεων.
- Αποτελεί βασικό στοιχείο της μεθόδου lean startup, καθώς επιταχύνει τη μάθηση από την αγορά. Με το MVP μπορούμε να αξιολογήσουμε τι αισθάνονται και τι σκέφτονται οι καταναλωτές για το προϊόν.
- Εφόσον το προϊόν πετύχει, χρησιμοποιούμε την ανατροφοδότηση από τους πελάτες για να αναπτύξουμε τις επόμενες εκδόσεις του προϊόντος.



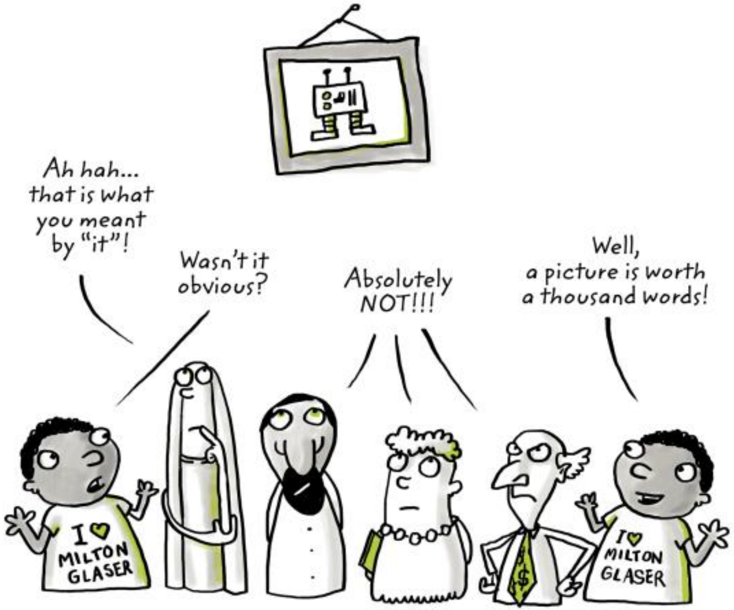
Source: Northell

Step #7: High-Level Product Specification



https://testpoint.com.au/what-the-customer-really-needed/

- Δημιουργήστε μια οπτική απεικόνιση του προϊόντος σας!
- Εστιάστε στα οφέλη του προϊόντος σας που δημιουργούνται από τα χαρακτηριστικά του και όχι στα χαρακτηριστικά του.
- Ο προσδιορισμός του προϊόντος σε υψηλό επίπεδο σε αυτό το στάδιο διασφαλίζει ότι το προϊόν εστιάζει περισσότερο στον πελάτη-στόχο σας και επίσης ότι όλοι συμφωνούν στο τι είναι το τελικό προϊόν.



Δημιουργήστε ένα φυλλάδιο/μακέτα πριν φτιάξετε το προϊόν σας

Πριν επενδύσετε σε πολύτιμους πόρους, ελέγξτε πρώτα

- Εάν ολόκληρη η ομάδα συμφωνεί για το τι πρόκειται να χτίσετε
- Ότι χτίζετε αυτό που θέλει ο πελάτης

Κάνετε αυτό φτιάχνοντας ένα φυλλάδιο ή μακέτα

- Χαρτί και ηλεκτρονικό - καθώς και τα δύο έχουν αξία
- Προτιμάται η ηλεκτρονική - παρέχει ανεκτίμητα στοιχεία
- Μην πιστεύετε όλα όσα λένε οι άνθρωποι. Δοκιμάστε το πρώτα

Επιτρέπει τη σπειροειδή καινοτομία σχετικά με τον καλύτερο σχεδιασμό και την αλληλουχία του προϊόντος

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.95)

Η δημιουργία ενός φυλλαδίου σάς βοηθά να δείτε το προϊόν σας από τη σκοπιά του πελάτη και σας δίνει τη δυνατότητα να ελέγξετε το προϊόν με τον πελάτη σας.

Σας αναγκάζει να δείτε το νέο σας εγχείρημα από τη σκοπιά του πελάτη σας, μέσα από τα λόγια τους.

Σας επιτρέπει επίσης να επικυρώσετε τις ιδέες σας και να μάθετε αν είστε στο σωστό δρόμο.

Συχνά, όταν οι επιχειρηματίες αρχίζουν να καταγράφουν τα χαρακτηριστικά του προϊόντος τους, τείνουν να γίνονται πολύ εστιασμένοι σε εσωτερικά χαρακτηριστικά (π.χ. τεχνικά). Η δημιουργία ενός φυλλαδίου βοηθά στην αποφυγή αυτής της παγίδας.

Step #8: Quantify the Value Proposition

Source: Aulet, B. (2013). Disciplined entrepreneurship: 24 steps to a successful startup. John Wiley & Sons (pp.104)

Ποσοτικοποίηση Πρότασης Αξίας

- Πώς τα οφέλη του προϊόντος σας μετατρέπονται σε αξία που αποκομίζει ο πελάτης από το προϊόν σας;
- Υπολογίστε ποσοτικές μετρήσεις (όπου αυτό είναι εφικτό) για τον πελάτη σας.
- Η ποσοτικοποιημένη πρόταση αξίας:
- δίνει συγκεκριμένη κατανόηση των μετρήσιμων πλεονεκτημάτων που θα αποφέρει το προϊόν σας στους πελάτες-στόχους,
- δηλώνει με σαφήνεια και περιεκτικότητα πώς τα οφέλη του προϊόντος σας συνάδουν με αυτό που ο πελάτης σας θέλει περισσότερο να βελτιώσει.

Visual One-Page Summary of Quantified Value Proposition

"As is" State

Result in "As Is":

____

____

____

____

____

#1 Priority of Persona: ______________________________

"Possible" State

Result in "Possible":

____

____

____

Summary of Benefits:

____

____

____

Reason for Benefits:

____

____

____

Source: Aulet, B. (2017). *Disciplined entrepreneurship workbook*. John Wiley & Sons.(pp.99)

SensAble quantified value propositi

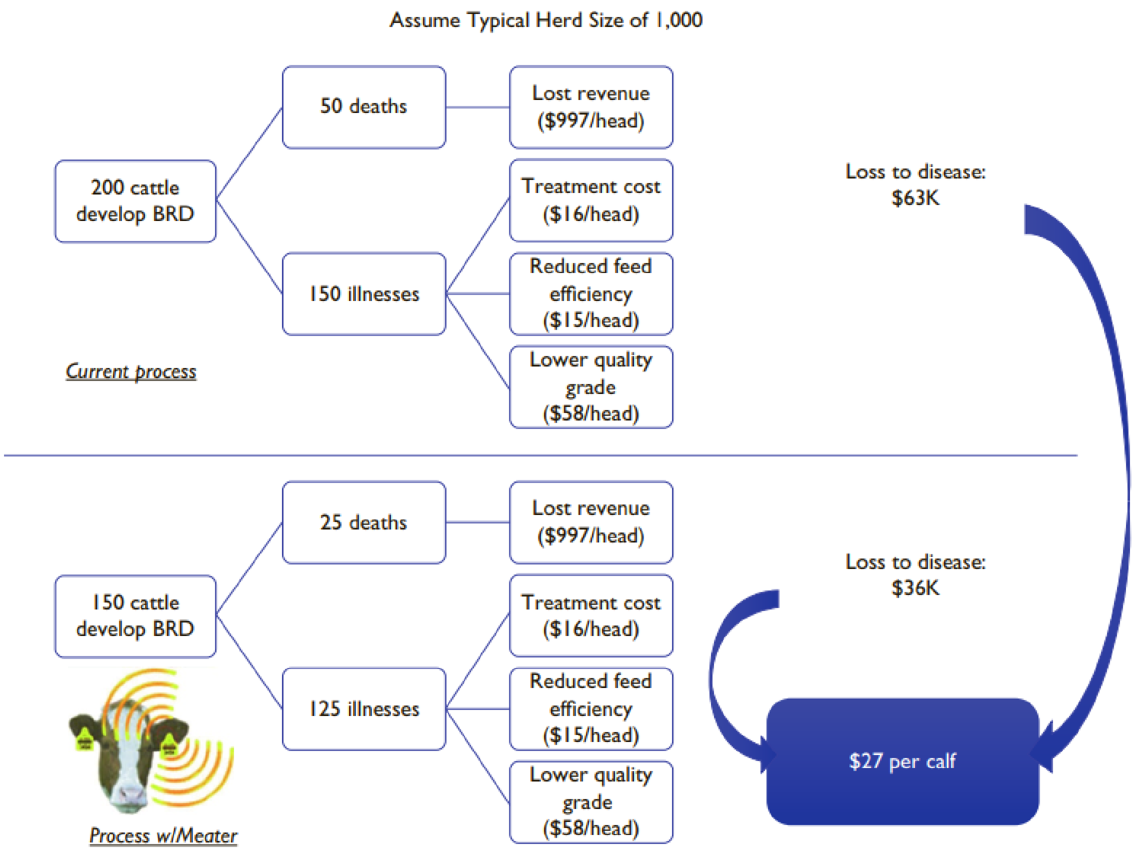
Development Times

	Ideation Phase	Tech Package Design	Looks like Works like	Commercialization	
Today's Process	4 Weeks	4–4 Days Model Types: 2D Drawings 3D CAD Models 3D Hand Models	2 Weeks Engineering Manufacturing Rework	2–3 Months Tool cavity development—analog CNC Software CNC Milling	16 Weeks Total Development Time
FreeForm Process	4 Weeks** Could be lower with FreeForm	4 Days Model Types: FreeForm Native File	3 Days Engineering Manufacturing Rework	3 Weeks Digital tool cavity via STL CNC FreeForm Files CNC Milling	8 Weeks** Total Development Time
			70% Reduction in Time	70% Reduction in Time	50% Reduction in Time FreeForm

US Design Firms → Asian Tool Suppliers

Source: Aulet, B. (2017). *Disciplined entrepreneurship workbook*. John Wiley & Sons.(pp.99)

Meater quantified value proposition

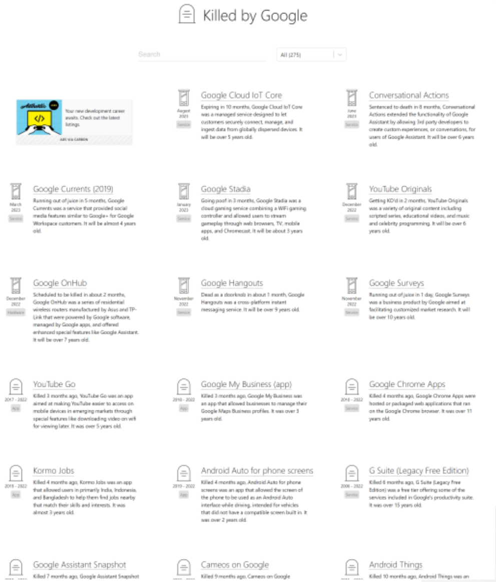


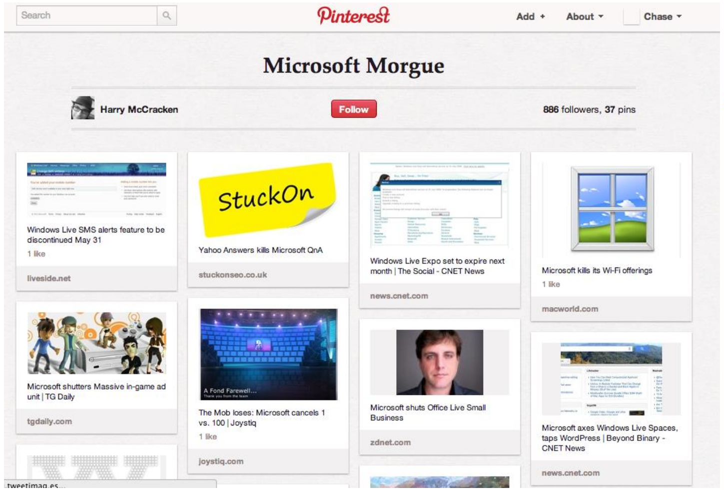
Source: Aulet, B. (2017). *Disciplined entrepreneurship workbook*. John Wiley & Sons.(pp.99)

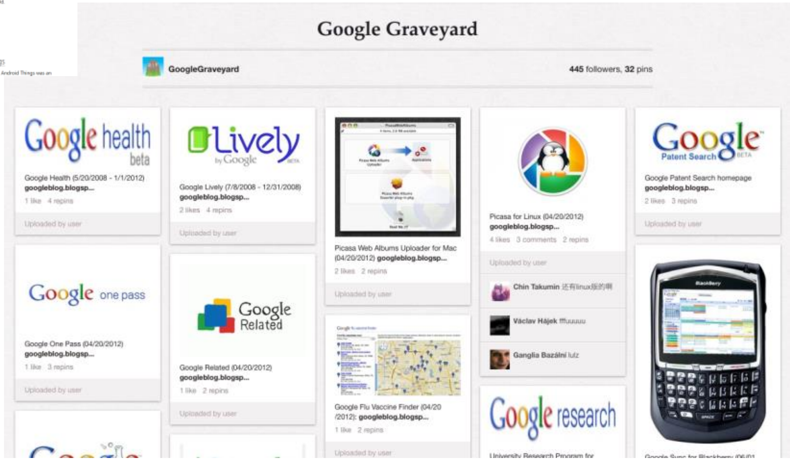
Ποια η αξία μιας υπηρεσίας ‘ride hailing’;

Will the customer buy our solution?

Ο καλός σχεδιασμός, η καλή ιδέα, η καλή εκτέλεση δεν εγγυώνται επιτυχία







[Stanford Seminar - Build The Right It, Alberto Savoia of Google - YouTube]

[The Microsoft Morgue (businessinsider.com)] [Google Graveyard - Killed by Google] [37 Microsoft Morgue ideas | microsoft, top technology, windows phone 7 (pinterest.com)]

ENTREPRENEDU

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UNIT 3: Prototyping techniques for MVPs

Pretotype Planning Canvas v1

Adapted from The Right It: Why So Many Ideas Fail and How to Make Sure Yours Succeed, by Alberto Savoia

A Turn an idea into an objective hypothesis @ 5 mins

1 Idea

A single, short sentence to describe your idea.

Example: Beer-for-dogs

2 MEH

Market Engagement Hypothesis

A short sentence to encapsulate the basic premise of your idea and how you expect the market to engage with it.

Example: Many dog owners don't like to drink alone; quite a few of them would buy dog-safe beer, so their best friend can drink with them.

3 XYZ Hypothesis

A clearly stated and testable MEH

Your MEH "said with numbers" to make an objective and testable hypothesis. Align with ROI.

X	Y	Z
X% is a specific percentage of your target market.	Y is a clear description of your target market.	Z is how you expect the market to engage with your idea
Example: At least 15%	Example: Dog owners who tend to drink alone	Example: Will buy a $4 six-pack of beer-for-dogs each time they buy dog food.

4 Your XYZ Hypothesis

Example: At least 15% of dog owners will buy a six-pack of beer-for-dogs for $4 when they buy dog food.

B Scale your hypothesis down into something testable @ 5 mins

5 Hypozooming ideas

Your XYZ Hypothesis "zoomed in" with regards to scope, space and time

Think about how you might test locally, quickly and inexpensively while staying true to your XYZ Hypothesis

Example: Scale down to shoppers at the local Dogs R Us store or people ordering from dogs-r-us.com or Dogs R Us Facebook page.

6 xyz Hypotheses

Small, local, and inexpensive testable XYZ Hypotheses (you may need multiple)

Example: At least 15% of people buying dog food at my local Dogs R Us this weekend, will buy a six pack of beer-for-dogs. At least 25% of people buying dog food at my local Dogs R Us this weekend, will take a six pack off the shelf to review it.

xyz 1	xyz 2	xyz 3

C Plan your pretotype with skin in the game @ 20 mins

7 Prototyping Method(s)

The pretotyping method(s) you will use

See example pretotyping methods opposite.

Example: Fake Door / Infiltrator + rent shelf space from local Dogs R Us store and wrap dog food cans in beer-for-dogs packaging.

8 "Skin in the game"

Something of value given to you by the market as evidence of interest in your idea

This could be money (paid, preorder, or a deposit), but also someone's time, email, or telephone number etc.

Example: $4 per six pack of beer-for-dogs purchased

How valuable is this evidence? e.g. cash is greater than email

9 Storyboard

How your pretotype will function and the sequence of events in the experiment

Think about context, how the 'transaction' takes place, how you will record data, and if/how you will follow up with people who showed interest.

Example: Buy several cans of dog food. Wrap in fake packaging. Negotiate shelf space with owner. Stop purchasers at checkout, refund them and explain.

10 Ethical Considerations

What are the ethical considerations of your prototype experiment?

Think how people might feel when they realise the product they've shown interest in isn't real and that they are part of an experiment. How can you mitigate, reward, or create a win-win situation?

Example: Provide people with a monetary reward, coupon or free trial should the product or service launch

D Resources and budget @ 5mins

11 Resources

The skills, materials, and people required

Be pragmatic and resourceful while true to your MEH

Example: 1 researcher, Dogs R Us owner on board, 1 small shelf, 6x six pack mock-ups designed and printed, 36 cans of cheap dog food (cans)

12 Cost

Estimate materials, incentives, ad spend etc.

Aim to experiment for as little as possible, $10 - $100

13 HTD

Hours To Data - how many will it take?

Aim to experiment within hours rather than days (max 48hrs)

E Extras @ 5 mins

14 Additional gains

Maximise experiment ROI

What other opportunities does the experiment provide?

Example: Audience building, customer interviews, financial projections, investment story telling etc.

Stanford University — **QUICK REFERENCE: Basic Pretotyping Techniques** — d. Hasso Plattner Institute of Design at Stanford — **MS&E 277 / Fall 2016** Tina Seelig/Alberto Savoia

Name	Description	Example
Fake Door	Test the Initial Level of Interest (ILI) in a yet-to-be-developed product or service by creating artifacts that suggest that the product exists and it's available to see if people would buy it.	Would anyone order **McSpaghetti** at a McDonalds? Don't cook a single strand of pasta! Put McSpaghetti on the menu (either in a store or online if applicable) and see if anybody orders it. If someone orders it, say that it's not currently available, apologize and offer them a free burger instead.
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https://www.albertosavoia.com/resources.html

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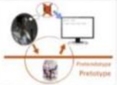
Mechanical Turk	Before making a major investment in designing and building a complex mechanism or back-end, consider using human skills to simulate the desired outcome.	IBM tested if and how people would interact with a **speech-to-text** computer by simulating the actual hardware and software using a hidden typist. The users, were given a microphone and a monitor but no keyboard; when text appeared on the screen they thought that their commands were being processed by a computer, not a person.	
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