

READY, SET, LAUNCH: Planning for Success



By HikingArtist.com

(12) **United States Patent**
Lipman et al.

(54) COMPUTING
(75) Inventors
(73) Assignee
(*) Notice

(21) Appl
(22) Filed
(65) US

(63) C

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(58)

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(10) Patent No.: **US 7,952,570**
(45) Date of Patent: **May 3, 2011**

©1998 Kahn et al.



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(12) **United States Patent**
Lipman et al.

(10) Patent No.: **US 8,547,364 B2**
(45) Date of Patent: ***Oct. 1, 2013**

(54) **INPUT SYSTEM FOR CONTROLLING ELECTRONIC DEVICE**

(56) **References Cited**

U.S. PATENT DOCUMENTS

(75) Inventors: **Robert Michael Lipman**, Jerusalem (IL); **Sarah Michelle Lipman**, Jerusalem (IL)

4,703,316 A 10/1987 Sherbeck
4,949,079 A
5,926,168
5,959,617
6,184,863
6,597,443

(73) Assignee: **Power2B, Inc.**, Santa Monica, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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JP
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WO WO 0:

This patent is subject to a terminal disclaimer.

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EPO Search Report

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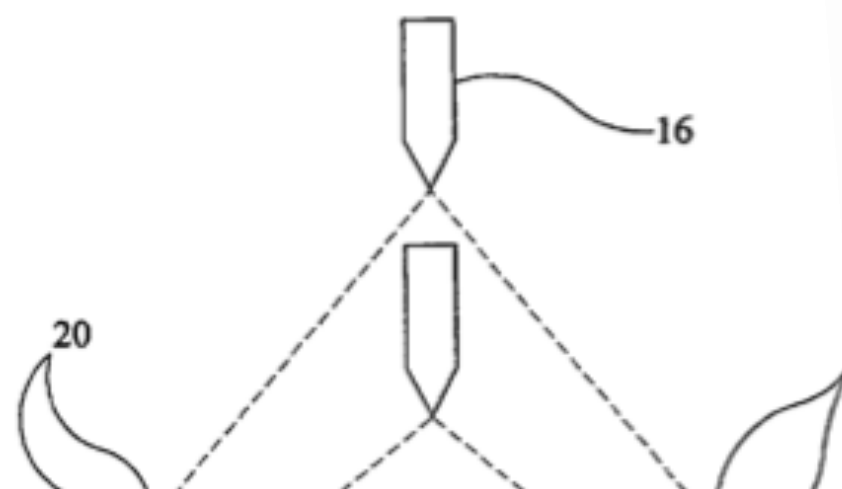
Jun. 8, 2002 (GB) 0213215.7

(51) Int. Cl.
G09G 3/28 (2013.01)
G06F 3/033 (2013.01)

(52) U.S. Cl.
USPC **345/182**; 178/19.05

(58) **Field of Classification Search**
USPC 345/183, 182; 178/19.05
See application file for complete search history.

21 Cla



(19)



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Office européen des brevets

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(54) **CONTROL APPARATUS**
STEUERVORRICHTUNG
DISPOSITIF DE CONTROLE

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

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24.01.2007 Bulletin 2007/04

(73) Proprietor: **Power2B, Inc (A Delaware Corporation)**
Santa Monica, CA 90405 (US)

(75) Inventors:

(11)



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G06F 3/03 (2006.01)
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WO 2005/094176 (13.10.2005 Gazette 2005/41)

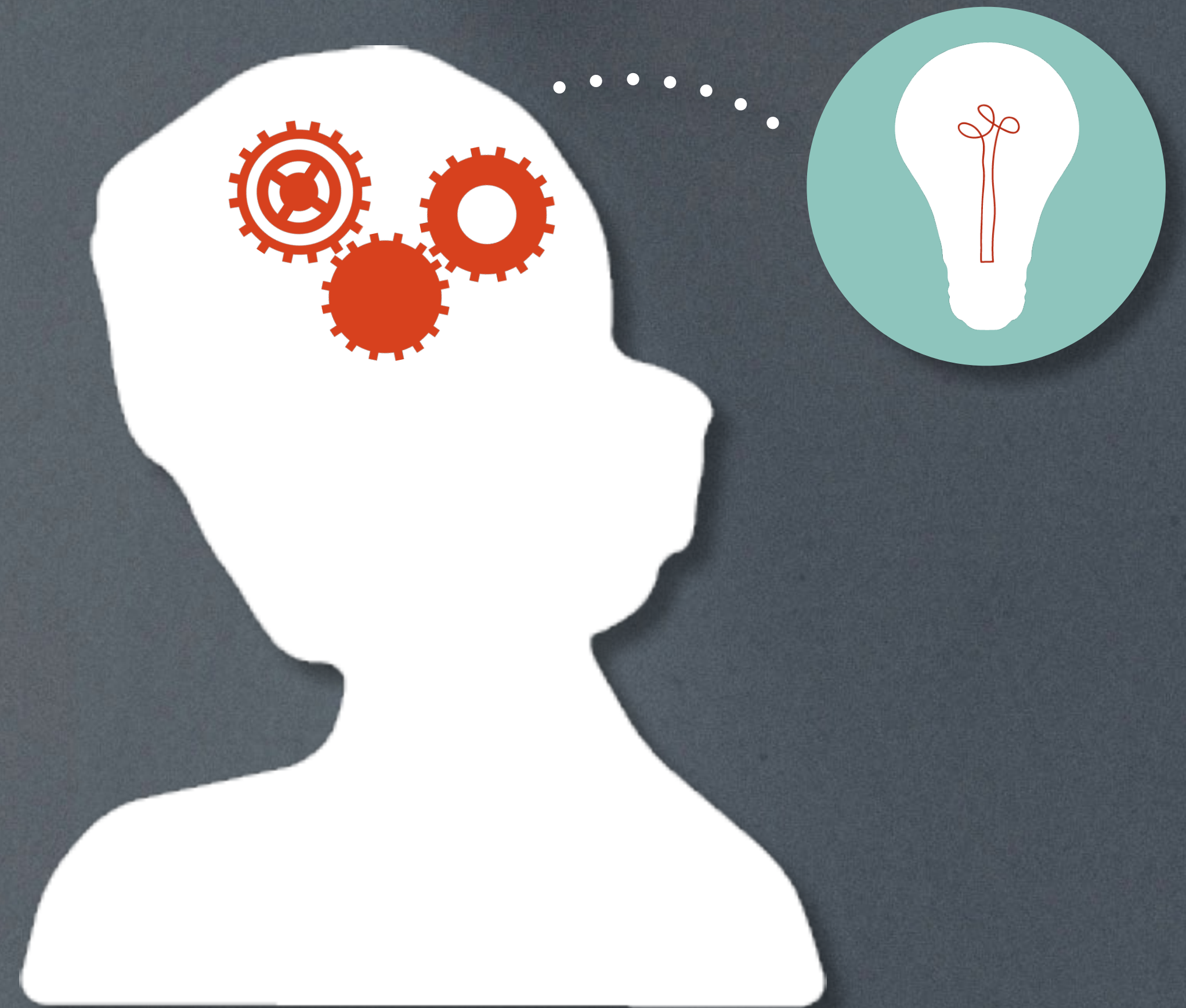
• **LIPMAN, Robert, Michael**
94423 Jerusalem (IL)
• **WEINBERGER, Zvi**
93871 Jerusalem (IL)

(74) Representative: **Bhimani, Alan et al**
Marks & Clerk LLP
Alpha Tower
Suffolk Street Queensway
Birmingham B1 1TT (GB)

(56) References cited:
WO-A-97/06506
GB-A-2 299 856
WO-A-03/104965
US-A-5 926 168

..... THE QUESTION

“WHAT DO I HAVE TO DO
TO TURN THIS GREAT IDEA,
INTO A PROFITABLE BUSINESS?”



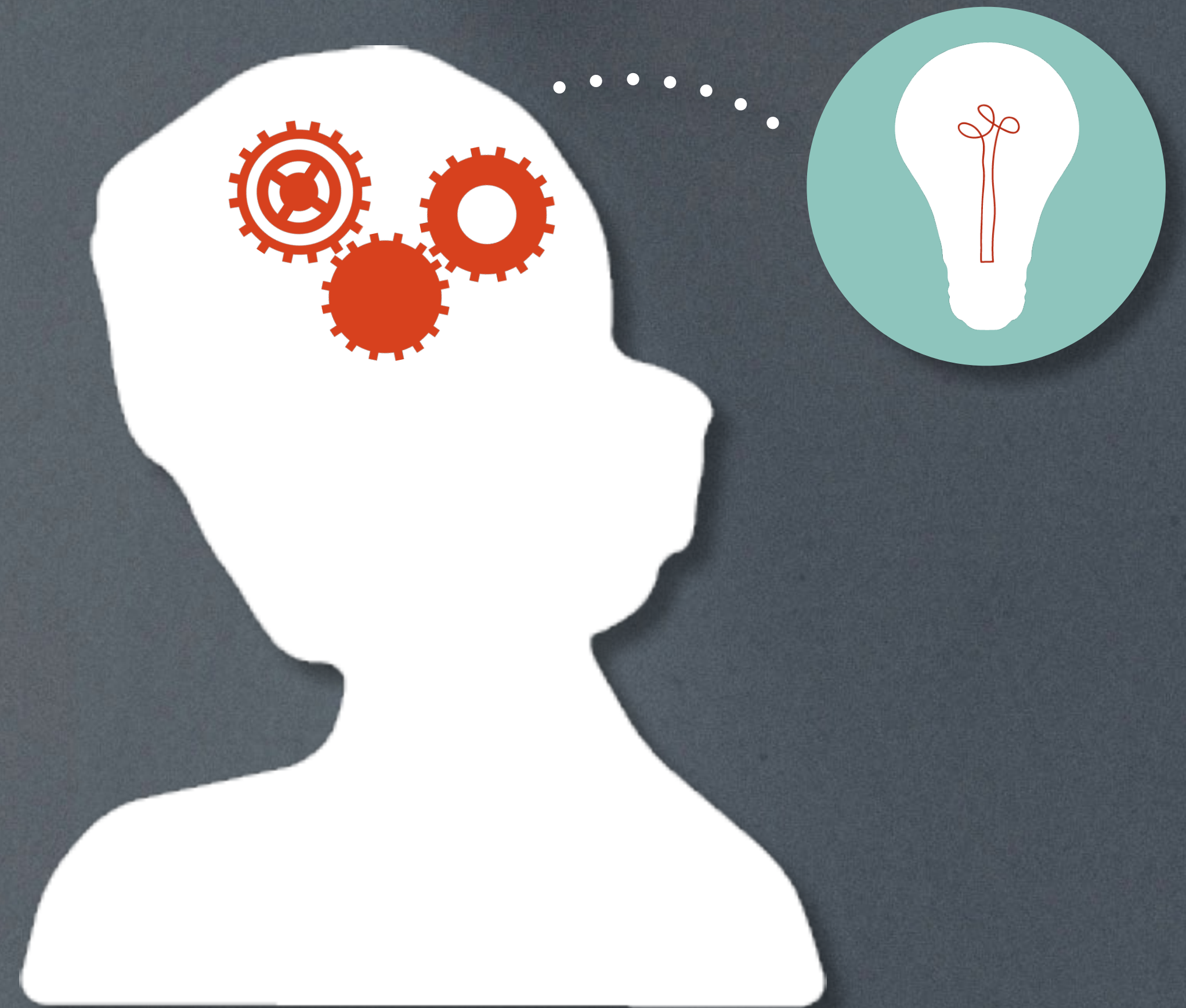
THINK LIKE AN INVESTOR*

*You are your biggest investor.



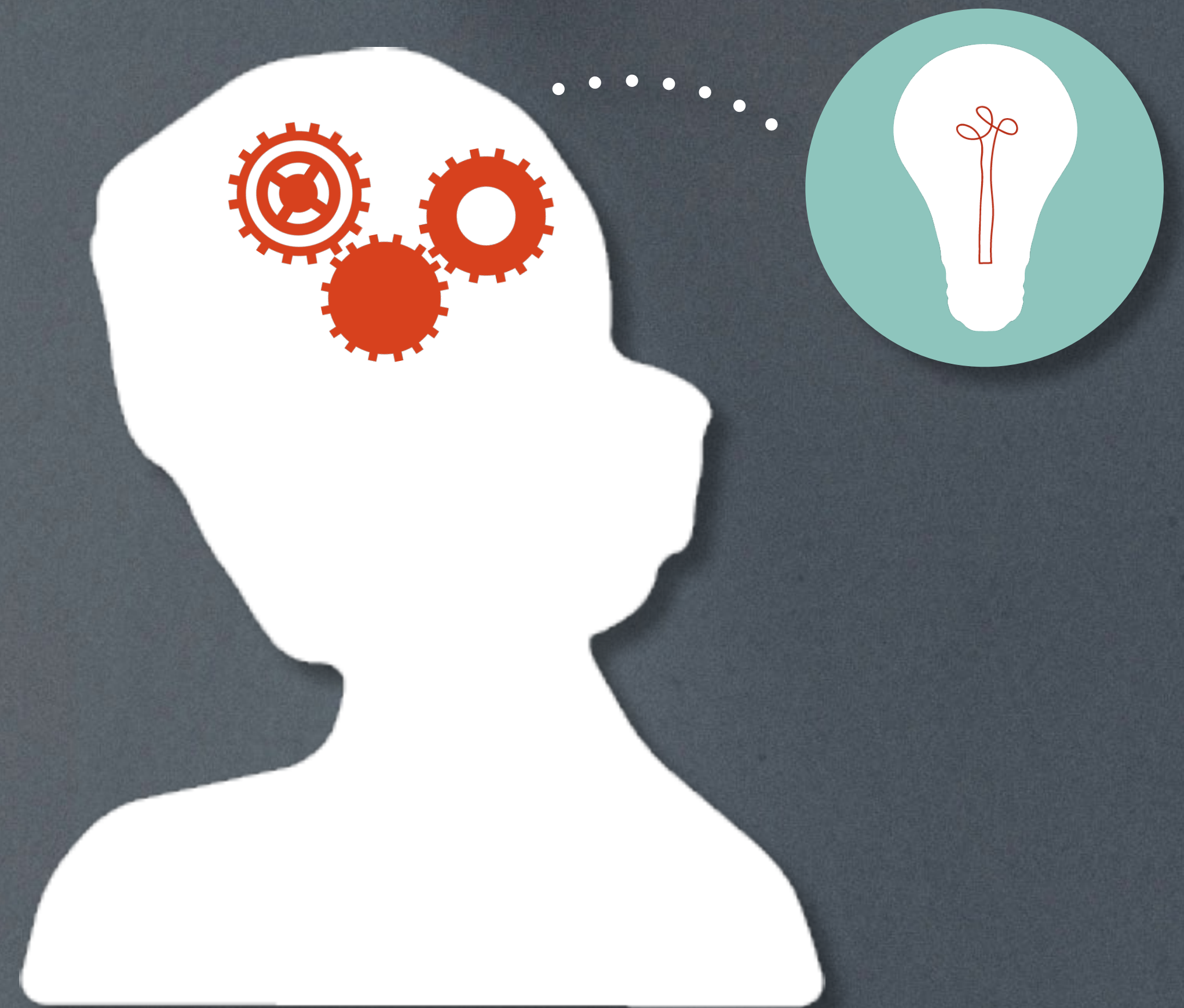
..... THE QUESTION

“IF I INVEST IN THIS COMPANY,
CAN I MAKE ENOUGH MONEY
TO MAKE MY INVESTMENT
WORTHWHILE?”

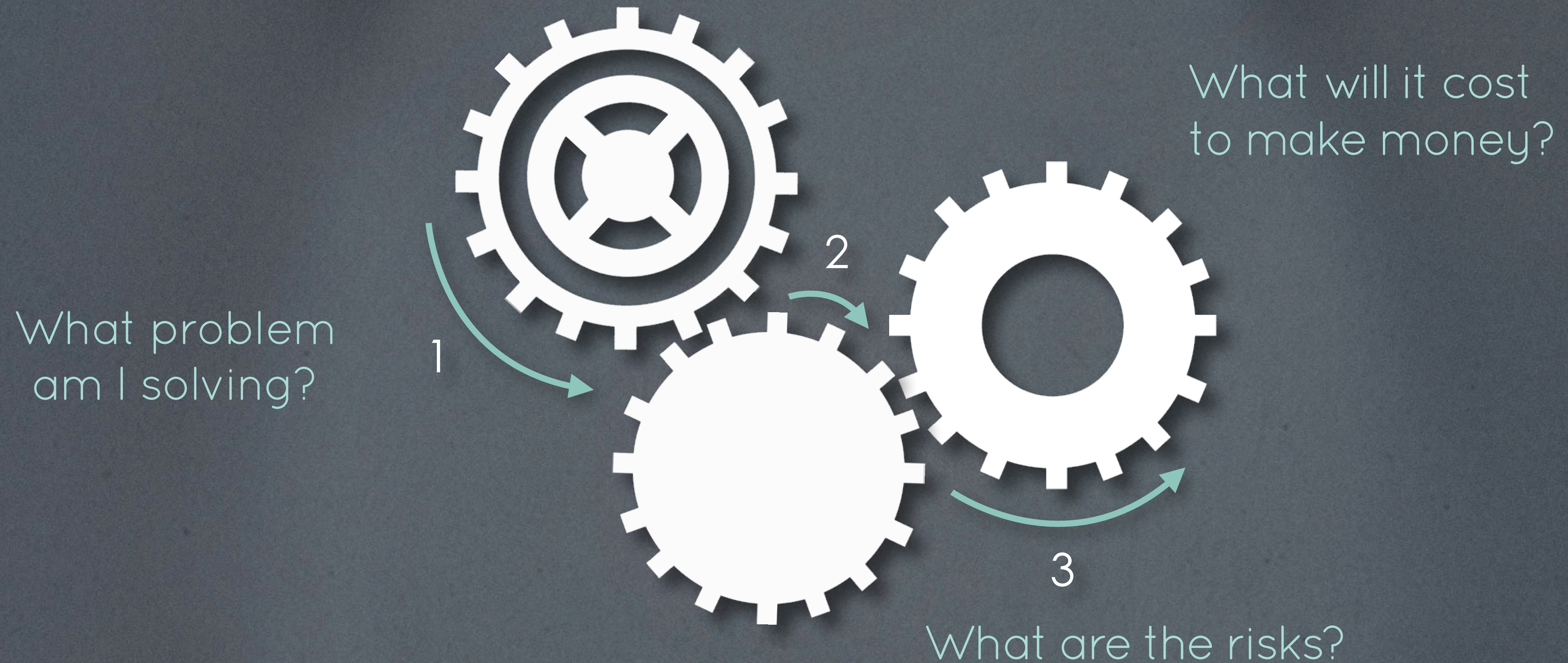


..... THE ANSWER

DOES THE OUTCOME JUSTIFY
THE INVESTMENT?
THE PROOF
IS IN THE BOTTOM LINE.



..... THE ANSWER



NEWCO

Newco Executive Summary

for more information contact Sarah Lipman, Founder and CTO
sarah@newco.com • Int'l: +972-54-555-2319 • U.S.: +1-310-555-4561

Background

Newco provides a 3D input technology that tracks the user in real space (x, y, z coordinates and angles of rotation and orientation). Newco's sensing system sees you coming even before you've touched the screen for true dimensional control, enabling a great user experience at a fraction of the cost of traditional touchscreens.

Newco Provides Absolute Coordinate Data

Near-space input:

- 2D touchscreen — without a touchscreen
- 2.5D hover-sensitive input
- Power UI for smartphones
- Handwriting input

Full freespace input:

- 3D interactive UI for mobile
- 3D zooming for web and document browsing
- 3D - 5D mobile gaming
- Gesture Input

Newco's core technology utilizes miniature sensors assembled around the LCD display to track a finger (2D - 2.5D), reflective stylus or light-emitting remote control (3D - 5D), providing an unmatched level of product design flexibility and integration with any device, without rendering legacy software unusable.

Why Newco Touch Technology for Mobile?

- Revolutionary **hover capability for 3D** finger tracking
- **Competitive cost**, exceptional scalability to larger display sizes
- Extremely small sensing arrays (**<700 μm**) to fit even the most demanding mobile device size constraints
- **No layers**, no bezel, no infrared window
- May be integrated with display module or protective window
- No moving parts
- **100% light transmissivity**
- Multi-touch and gesture compatible; stylus compatible
- Responsive, low-power, stable calibration IR system

Funding:
Seeking: \$XX to reach reference design

Current Status:
3 patents granted • 8 pending
3rd generation prototypes (mobile)
2nd generation prototype (tablet)
1st generation prototype (television)
First product has reached \$500K in sales
Telecoms Industry Awards

What do you do?

What value do you offer?
What problem do you solve?

How do you do it?

How do you differ from
your competition?

What can you do right now
to test/prove your market?

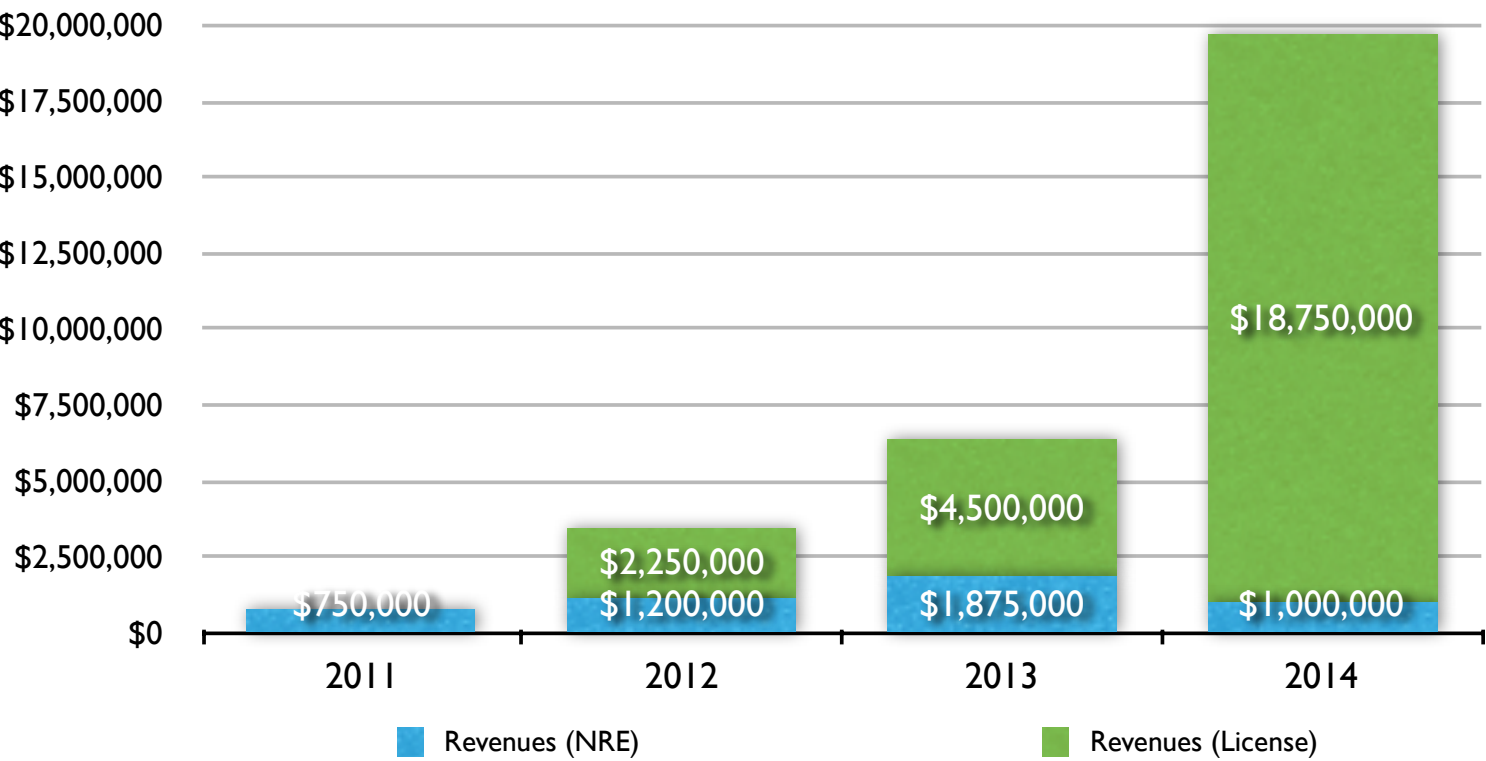
Business Model

Newco’s primary business model is to license its technology while developing customized solutions and products for our customers. Licensing will be on a per-unit basis. Initial estimates and market feedback suggest that for the mobile market, Newco will receive profits of \$X per unit with an overall target BOM starting at \$Y per unit for displays up to 4.5” (for comparison, the same size capacitive touch screen costs ~\$14). Integration will include close cooperation with display unit manufacturers and OEMs for maximum design optimization.

Typical agreements will be valued at \$XXX,XXX - \$Z,ZZZ,ZZZ (375,000-1,500,000 units sold); the addressable market size in each relevant sector (mobile phones, GPS, gaming, PDA) is phenomenal. *Touchscreen devices represented almost a third (27.4%) of all mobile phone sales in 2010, reaching 362.7 million units — up 96.8% on 2009 — and by 2013 will rise to nearly 1 billion units, representing 58% of worldwide mobile sales and over 80% of mobile sales in developed markets such as the United States and Europe, according to Gartner analysis.*

Newco expects to work hand-in-hand with content providers, software developers and others to maximize uptake of the technology. Nonetheless, market entry is not dependent on third-party integration contracts: viable and lucrative after-market “upgrade” products, such as aftermarket games, digital pens, and set-top box bundles, have meaningful market substantiation, and have proven themselves with the 2008 launch of Newco’s Revolution package, which has sold \$250,000 units via distributorship, and competitive per-unit revenue.

In the long term, Newco intends to move toward manufacturing proprietary components (sensors and ASICs) to protect margins and leverage volume manufacturing efficiency.



Notes: License fees appear 12 months after signing.
2011: NRE @ \$XXX,XXX. 2012: NRE @ \$YYY,YYY. 2013: NRE @ \$ZZ,ZZZ

Patents

Newco has aggressively defended its technology with a strategic constellation of 12 patents pending and 4 USPTO granted patents, covering methods, algorithmic principles, subassemblies and implementations of hardware, sensing array construction, finger touch, multi-touch, applications and others.

What are your customers paying for?

How much will they pay?

Who is your addressable market, and how big is it?

How will you get to market?

What are the barriers to entry?
How can you stay ahead of your competition?

When will you reach profitability?
On what basis?

Use of Funds

Newco estimates a manufacturing-ready production line will be ready to roll and initial market penetration to begin within one year of beginning full operations.

Many of the initial research and development costs have already been met during creation of Newco's first product brought to market and ready second-product design. Anticipated expenses include ongoing patent maintenance and design-to-spec / design-to-cost activities that will bring the technology to meet target specifications for production.

Newco has built relationships with industry insiders and Far East representatives to create a presence in target markets. In addition to increasing our presence in the Far East for business development and product development, we maintain offices in the United States and Canada.

Milestones

- Anticipated \$XXX investment to bring second product to market over 12-18 months
- Secure initial licensing agreements (three in months 1-12; six more in months 13-24).
- Hardware design optimization
- SoC
- Algorithm refinement
- IP portfolio maintenance and growth
- Application development with 3rd-party developers
- Strengthen company for low NREs over the short term; maintenance of revenue projections over the medium-term.

Competition

In response to the upsurge of interest in novel input technologies, a number of companies have entered the market in competition (direct or indirect) with Newco. These companies mainly rely on bulky-technology solutions to achieve less functionality than Newco's solution provides with infrared light only, and often are not practical for mobile device integration because of their size and expense (ultrasound + IR + RF, eg, FlightPlan, Apostrophe; accelerometer + gyroscope + RF + IR, eg, MiLeaf; inductive coil + resistive touch layer, eg, WhatsUpp).

Founding Team

Sarah Lipman, Founder and CTO: [Bio here, highlighting past experience and success]

Jamie Hauser, CEO: [Bio here, highlighting past experience and success]

Amy Lockman, VP R&D: [Bio here, highlighting past experience and success]

Kenichi Minamikawa, Chairman: [Bio here, highlighting past experience and success]

What do you need to do before you see revenues?

What's your burn rate?

What milestones can you set to rapidly reach market and revenue targets, without overexposure to risk?

How much will it cost to get to first revenues?

What are the risks?

Consider competition agility, market, regulatory and financial changes, supply & manufacturing challenges, personnel surprises, cash flow, taxes, fashion, industry trends.

What are your strengths?
Who do you need on board?

..... WHAT DO YOU DO?

WE PROVIDE...

WHAT

[a service]
[a method]
[a design]
[a product]
[an opportunity]

WHAT IT DOES...

HOW

[senses / prints /
interprets / designs /
sells / calculates / files
your taxes / paints
your garage / encrypts
your passwords]

THE BENEFIT...

WHY

[makes it better /
safer / smells fresher /
healthier / quicker /
automatic / legal /
reliable / cheaper /
lasts longer]

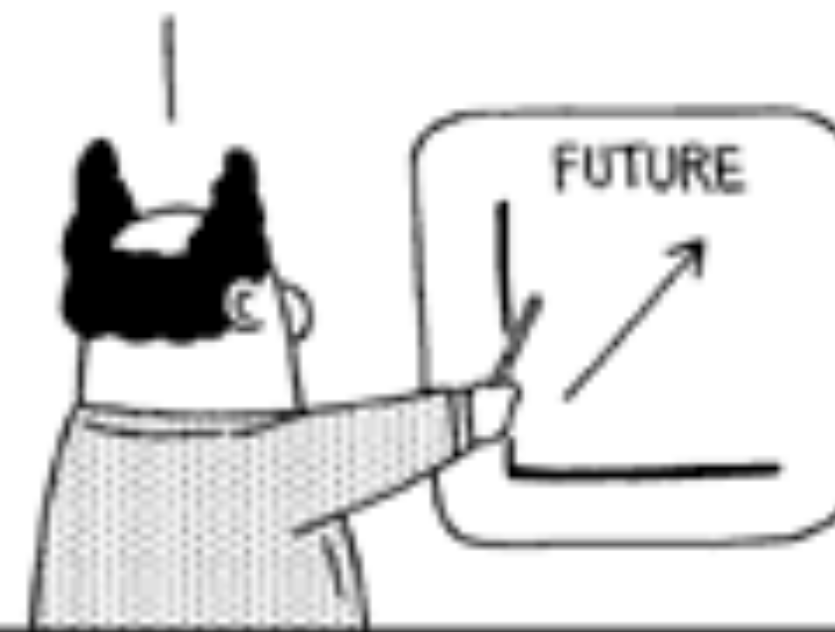
example: "Newco provides custom sensors which calculate a finger's position in 3D, enabling more sanitary and satisfying computer interaction."

SALES ARE
DROPPING
LIKE A ROCK.



www.dilbert.com scottadams@aol.com

OUR PLAN IS TO
INVENT SOME SORT
OF DOOHICKEY THAT
EVERYONE WANTS
TO BUY.



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THE VISIONARY
LEADERSHIP WORK
IS DONE. HOW LONG
WILL YOUR PART
TAKE?



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WHAT VALUE DO YOU ADD?



WHAT IS THE PROBLEM?

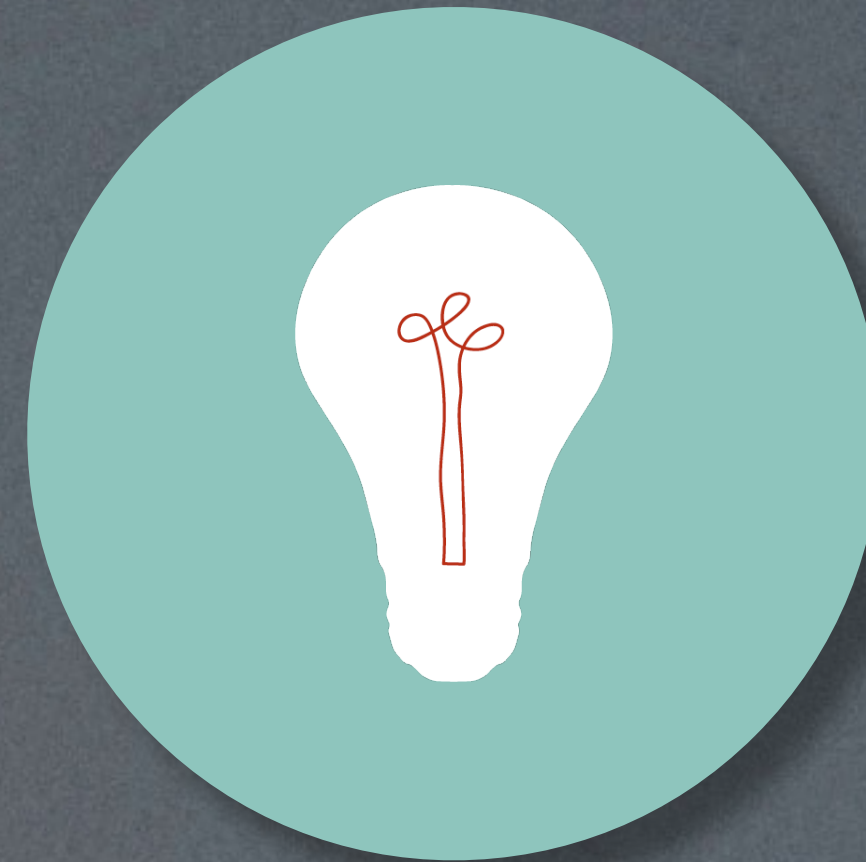
What is the “pain point” you solve?



WHY THIS? WHY NOW?

Is there a compelling problem not addressed by existing solutions on the market?

Find data to prove it.



HOW BAD IS THE PROBLEM?

Are people willing to pay you money to solve the pain?

How badly does it hurt?

“No pain; no gain”



HOW BIG IS THE PROBLEM?

How many people feel the pain?

How much are they willing to pay to resolve it?

WHY WILL THEY BUY FROM YOU?



NEED

Does this fill a want or a need?

Is yours really the only/best solution?

“I’m happy with my scroll wheel.”

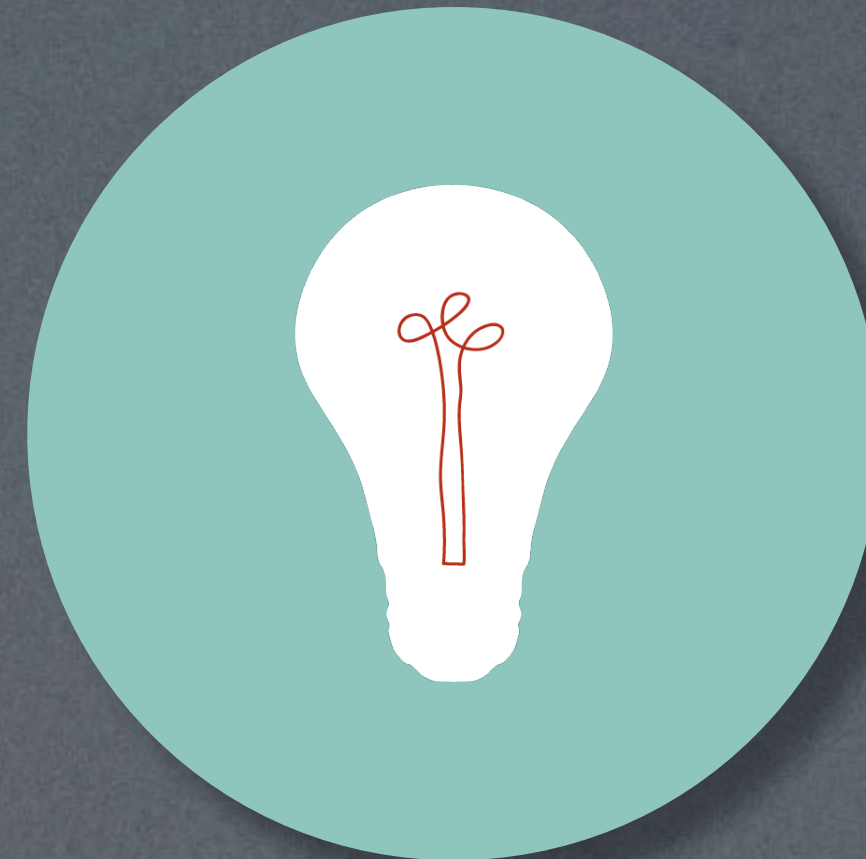


AVAILABILITY

Can’t they just buy existing solutions?

How does the price compare with other offers?

Is there data showing the failure of current options to meet need?



BARRIERS TO ENTRY

How easy is it for competitors to copy / steal / work around?

(“Secret sauce”, IP, HW, SW, unique personnel, TTM, manufacturing costs, R&D time, QA.)



EXCLUSIVITY

Will you file for patents?

Do you have an exclusivity clause?

First to market advantage vs. coming before your time.

..... COMPETITION

| <i>Company</i> | <i>Product</i> | <i>Price</i> | <i>Strengths</i> | <i>Weaknesses...</i> |
|-----------------|----------------|--------------|------------------|----------------------|
| Your Company | | | | |
| Competitor 1 | | | | |
| Competitor 2... | | | | |

MARKETS



WHAT DO THE OTHERS KNOW?

Why hasn't anyone tried this / done this / succeeded before?

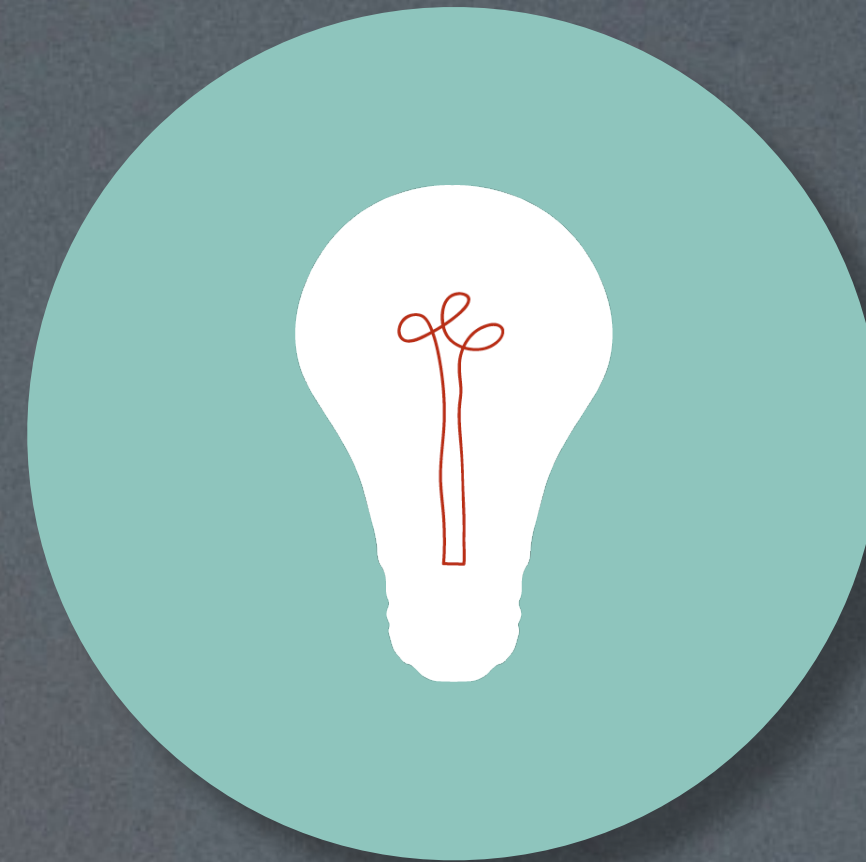
Check out prior results.

Study failure.



WHAT DO YOU KNOW?

What makes you think you're smarter than companies older and more successful than you?



HOW WILL YOU BE DIFFERENT?

How are you different from everyone else?

Research your market environment *heavily*.

File patents, if relevant, but beware expense.



ASK YOUR CUSTOMER BASE!

Build traction (=proof): users, partners, sales.

Elicit feedback from business partners / beta testers.

WHAT'S YOUR BUSINESS MODEL?



WILL THEY LIKE IT?

Tell the story. Walk through your business offering as it eliminates the pain. Demonstrate you've got a solution worth paying for.

Sell something!



WILL THEY PAY?

Have a solid business model (know what you're really selling).



HOW MUCH?

How much money are you going to make?
How are you going to get it?
How quickly are you going to earn it?
How much will it cost you to break even?



COMPETITION

Research comparable data from established markets.

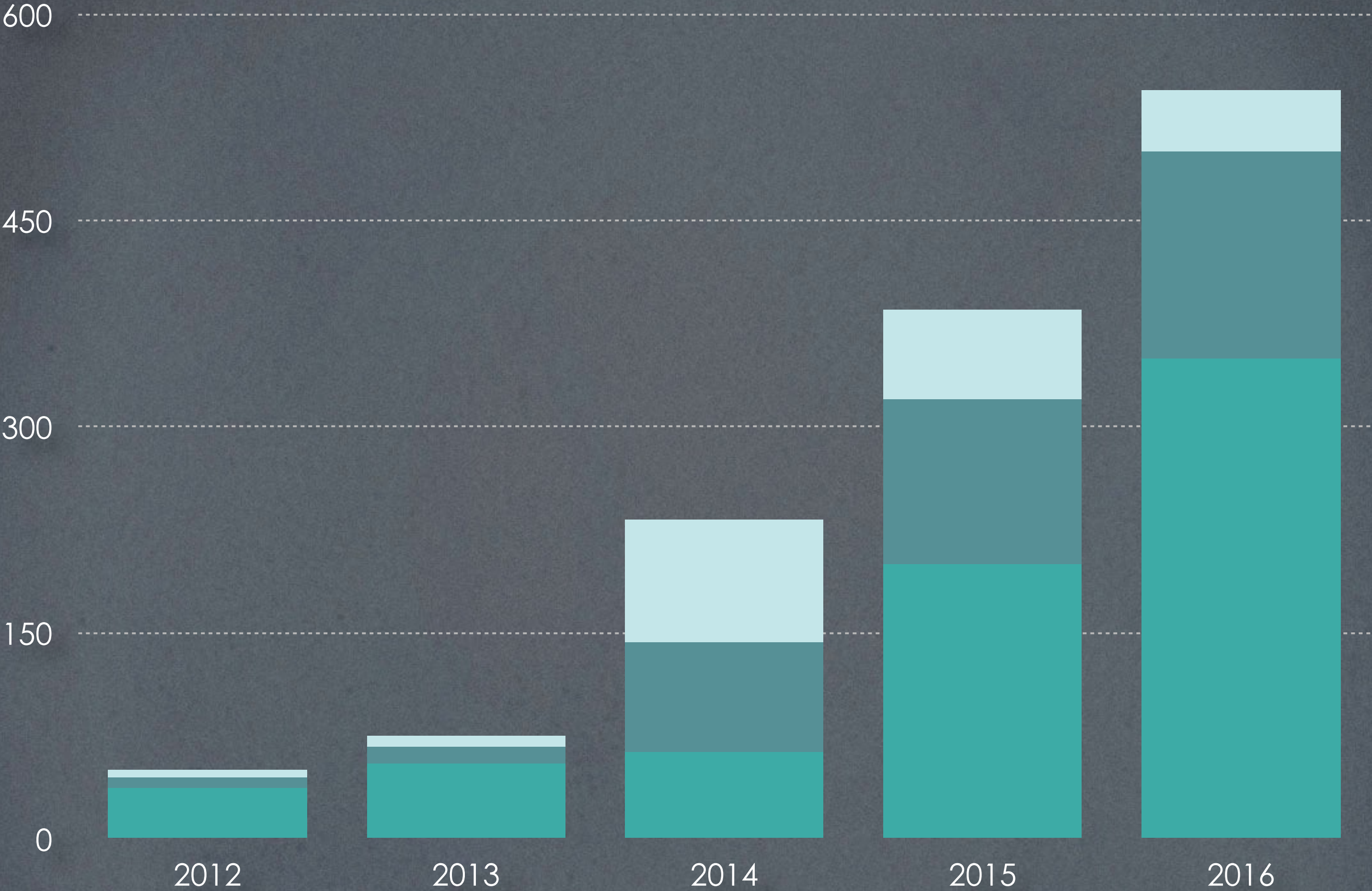
.....

REVENUE PROJECTIONS (EXAMPLE)

.....

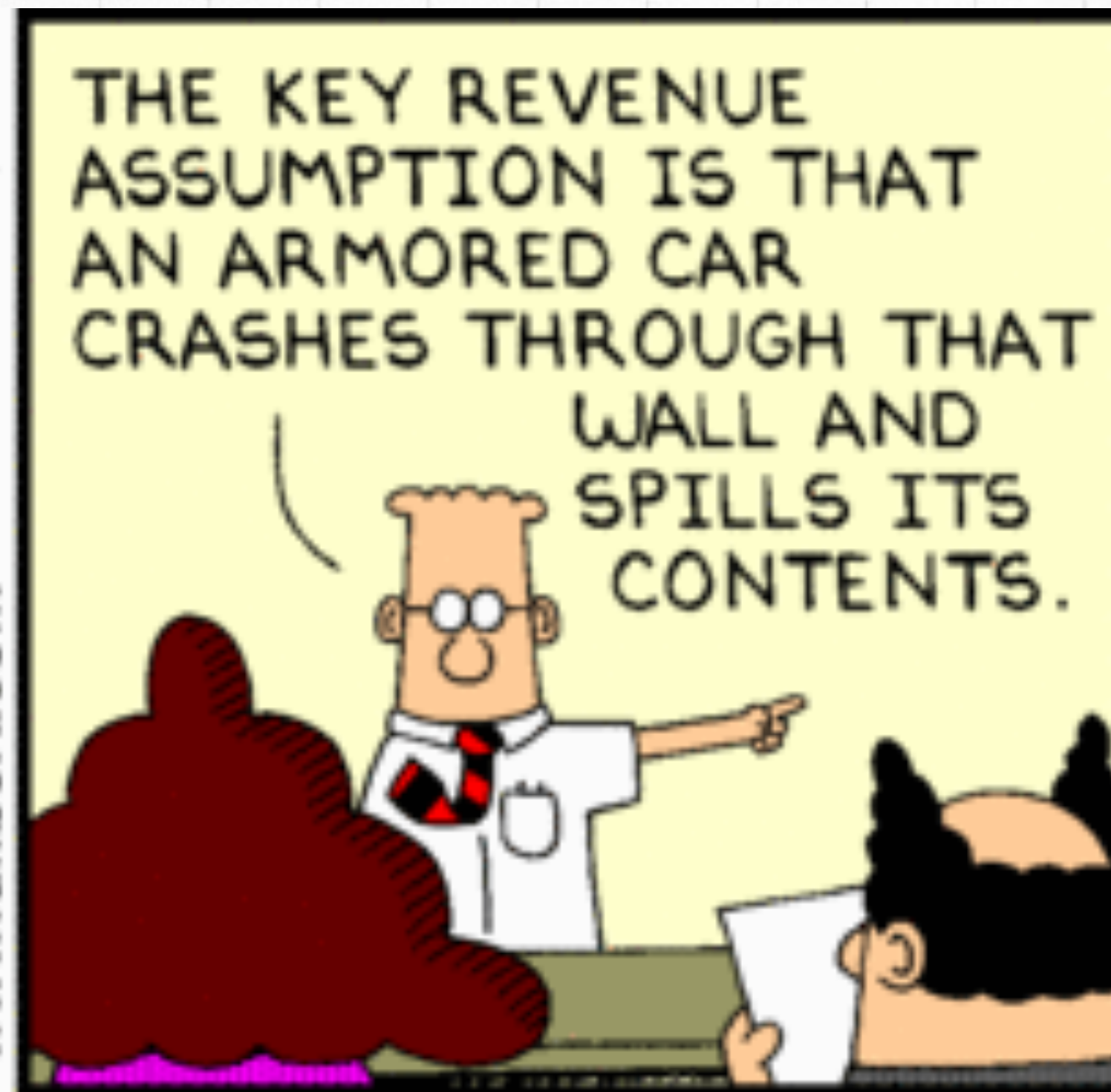
■ NRE
■ LICENSING
■ SALES

Historic and Projected Revenues, 2012-2016





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HOW MUCH WILL IT COST?



SURVEY YOUR CUSTOMER BASE

Make sure that the product or service you're developing is the product or service your customers will pay for. Starting over is expensive.



CHOOSE MILESTONES

Test the waters with small, inexpensive "proofs of concept". Real, paying customers mean everything.



MAKE A BUDGET

Create a budget. Start off with enough+ to get you to your first one or two milestones.



LOST WAGES

What it costs you to not be working at something else while launching your company. Cost is not only financial! "Sweat equity" is expensive.

HOW

HOW MUCH WILL IT COST?

2014

Q1

MILESTONE 01
Achieve first R&D goal and sign first customers/ agreement

BURN RATE
How much does it cost you just to stay open and service your business?

MILESTONE 02
Achieve second R&D goal and log first revenues.

Q2

CASH FLOW
Are you profitable?
(Earning more than you spend.)
When will you be?

Q3

MILESTONE 03
Achieve third goal and sign five agreements, log \$XK revenues

RUN LEAN
Run a lean company — always good.
Outsourcing may cost more, yet be cheaper.

MILESTONE 04
Put second product on market, log XX customers and \$X.

Q4

MILESTONE 05
Build your own production line / in-house staff

KNOW YOUR FLOW
Know what you're spending, and why.

Q1
2015

I HAVE A GREAT
IDEA FOR A START—
UP COMPANY.



Dilbert.com DilbertCartoonist@gmail.com

ALL I NEED IS A
SEED INVESTOR AND
AN ENGINEER TO DO
ALL THE WORK.



WHAT CHALLENGES DO YOU ANTICIPATE?



WHAT MIGHT GO WRONG?

What challenges do you anticipate?

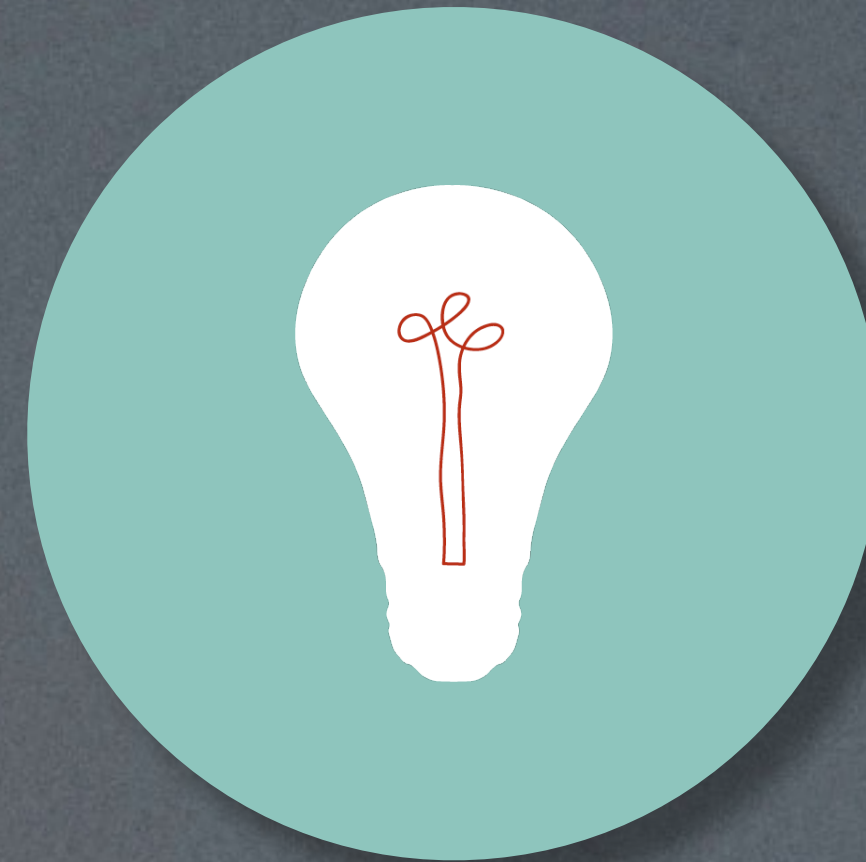
Consider what could fail at each step of the way. Can you hedge against it? Or reduce your exposure? Build in breathing room.



PREPARE FOR THE UNEXPECTED

What is the worst-case scenario?

What if you run out of capital? Or the business climate changes? Your suppliers let you down?



WHAT IS YOUR PLAN B?

Where are your red lines?

Incorporate scheduled health-checks with your team, so that you can spot trends early and react with agility.



ASK OTHERS WHO HAVE BEEN THERE

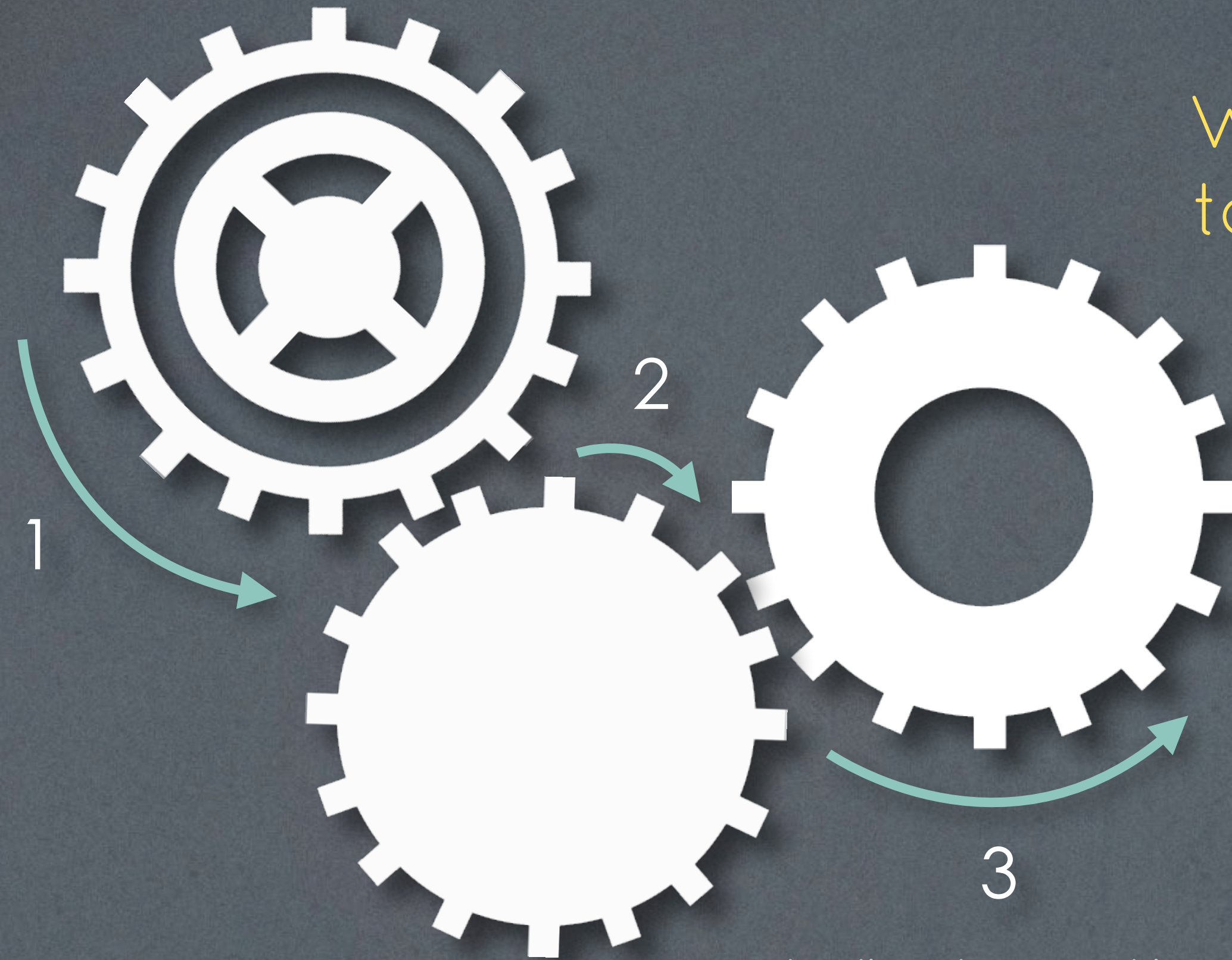
Create a risk assessment with someone who has done something similar.

PRICKLY CITY By Scott Stantis



..... THE ANSWER

What problem
am I solving?



What will it take
to make money?

What are the risks?



..... THANK YOU



L.A.

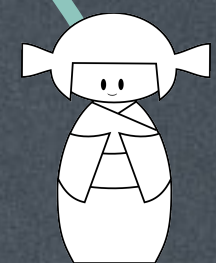
Sarah Lipman is CTO of Power2B, and inventor of its 3D touchscreen technology. Sarah has presented her UX vision globally, notably at Mobile World Congress in Barcelona, at MEX London, and as a member of IWEI, a project of the U.S. State Department. www.power2b.net.

Sarah founded the Temech / Kishor Women's Professional Network in 2008. The Network boasts over 500 members and hosts conferences, workshops and advanced professional training for Orthodox women in Israel. In 2013, Temech/Kishor opened the doors of The Jerusalem Hub, the world's first co-working space for religious women.

Sarah's *shiurim* are free to stream and share at www.SarahLipman.com



JERUSALEM



TOKYO