



Innovation – OIDD 614

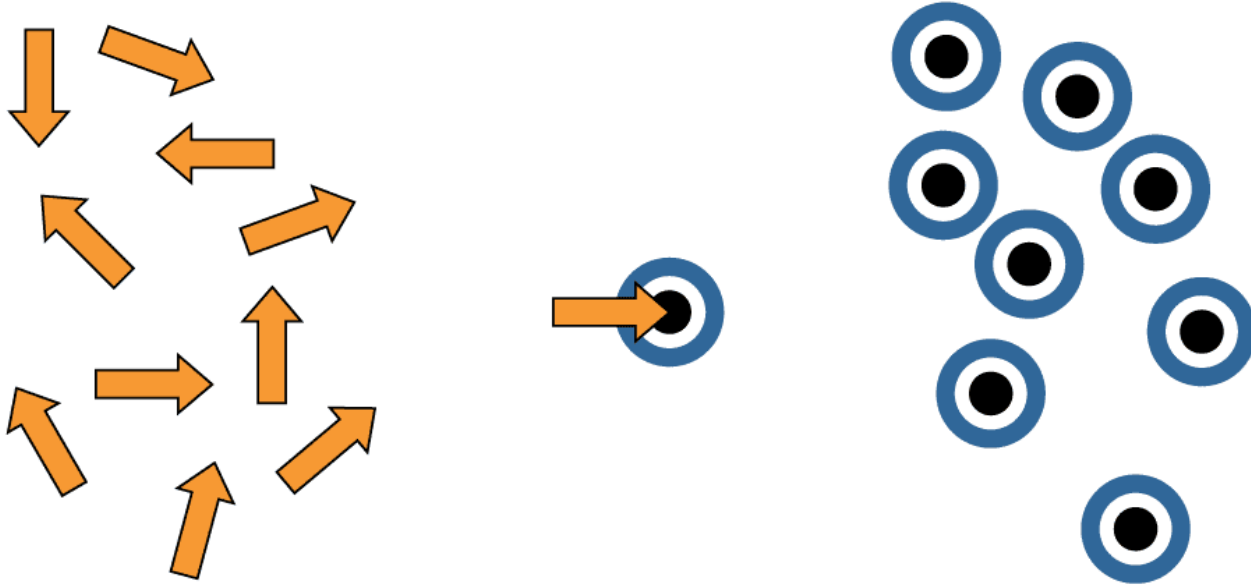
Innovation Tournaments

Professor Karl T. Ulrich
Vice Dean of Entrepreneurship & Innovation

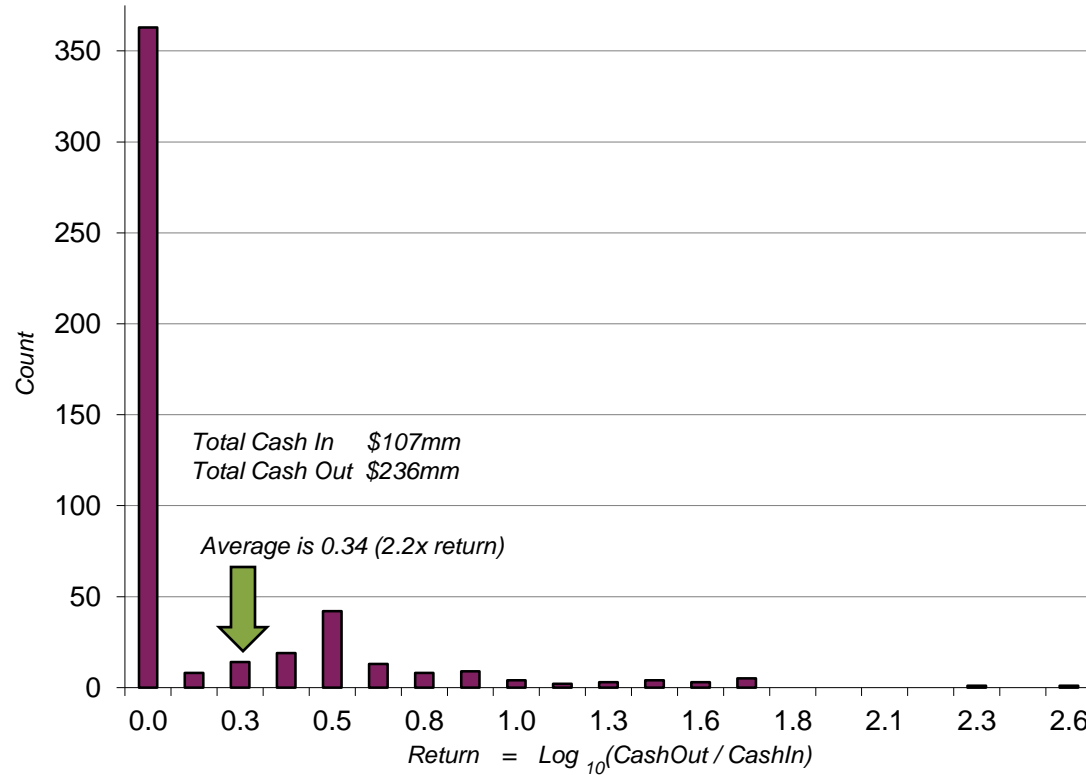
@ktulrich | ktulrich.com | ulrich@wharton.upenn.edu

innovation

A new match between a solution and a need.



Histogram of Returns for 499 Ventures by Angel Investors



e.g. 1,000,000 cash out on 100,000 cash in has Return of 1.0

Note: Negative or undefined returns set to 0.

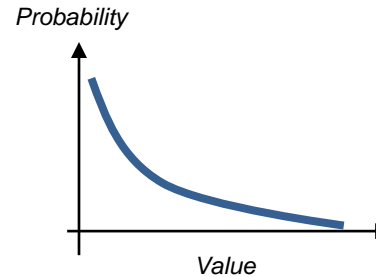
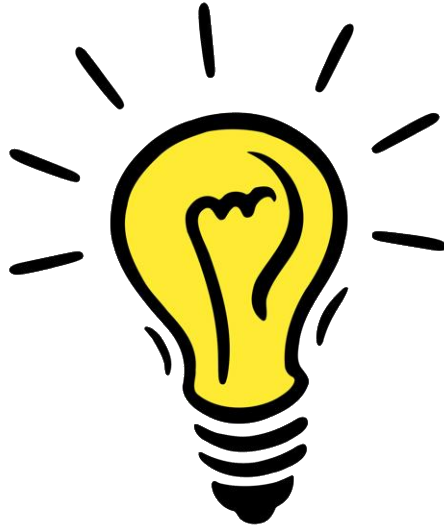
Source: Kauffman Foundation Angel Investor Performance Project.

Opportunity Identification

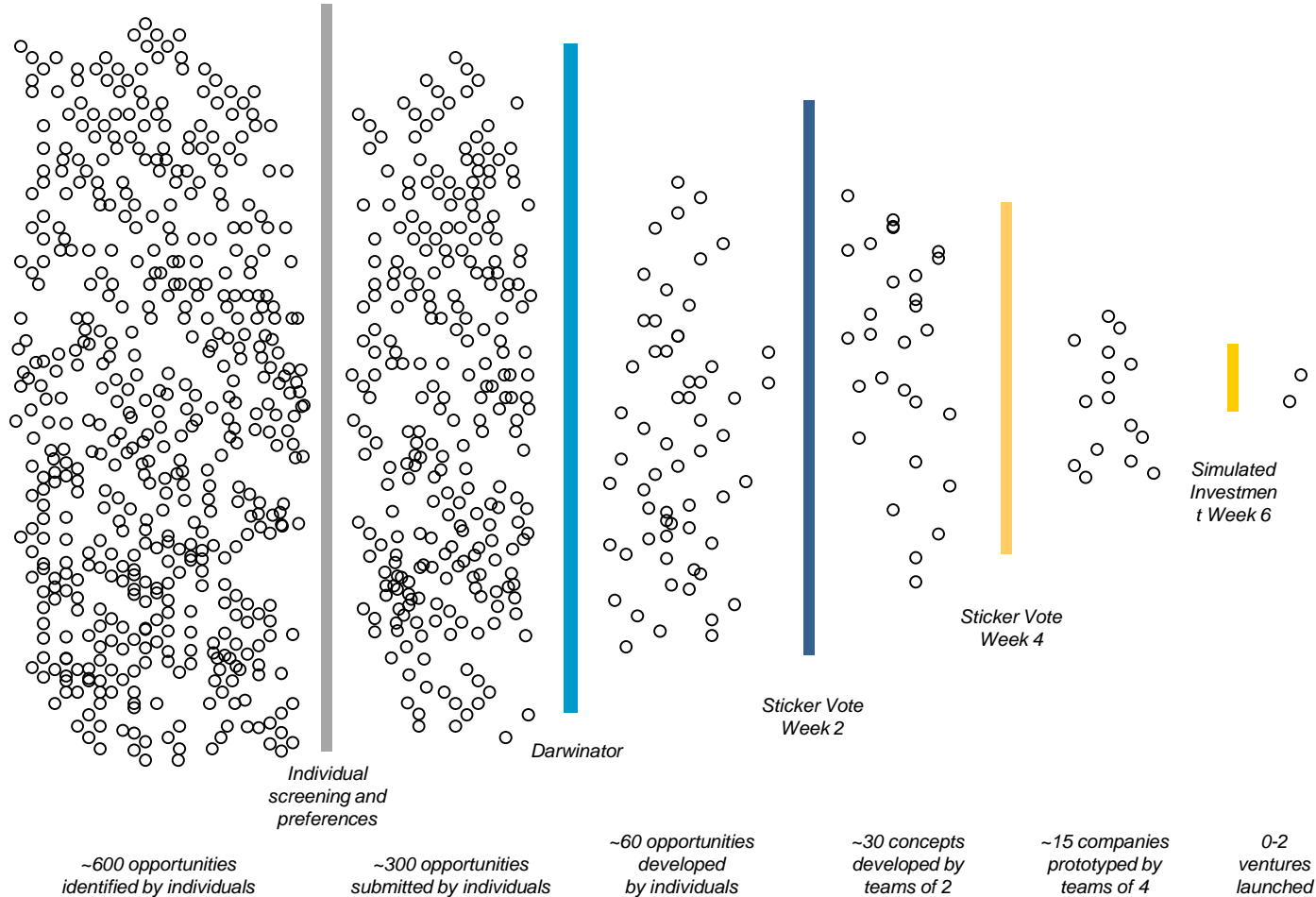
An opportunity is a *hypothesis* that value can be created and captured with further investment.

An opportunity is always incomplete and its value uncertain.

An opportunity only suggests a direction for further exploration, and both need and solution will likely change with investment.



Innovation Process – OIDD 614 (normalized to section of 60)





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Little Spoon gets \$7M for its organic baby food delivery service

1 day ago **Kate Clark**

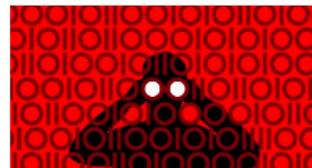
The startup, backed by Vaultier7 and Kairos, has delivered 1 million meals across the U.S. in the last year.



Signal Sciences secures \$35 million investment to protect web apps

1 day ago **Ron Miller**

Signal Sciences, an LA-based firm that helps customers secure their web applications, announced a \$35 million Series C investment today. Lead Edge Capital led the round (which seems appropriate, gi...



By Humankind picks up \$4M to rid your morning routine of single-use plastic

Single-use plastics are the scourge of the environment, which is why many lawmakers are working to eliminate them. Today, a new brand is launching to try to eliminate single-use plastic in the area...



Similar challenges when established firms pursue innovation opportunities...

McKinsey&Company



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Unlocking Leadership Potential

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Learn more about how we accelerate transformations of individuals, organizations, and communities by unlocking the potential of people

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Opportunities are Always Clouded by Uncertainty

Opportunity = hypothesis that value can be created with further investment.

It's only a hypothesis – *never* a sure bet.

Types of uncertainty:

1. How significant is the need?

Extent of pain?

Depth of pain?

2. How well does the solution meet the need?

Relative advantage?

Painkiller or vitamin pill?

“Product-Market Fit”

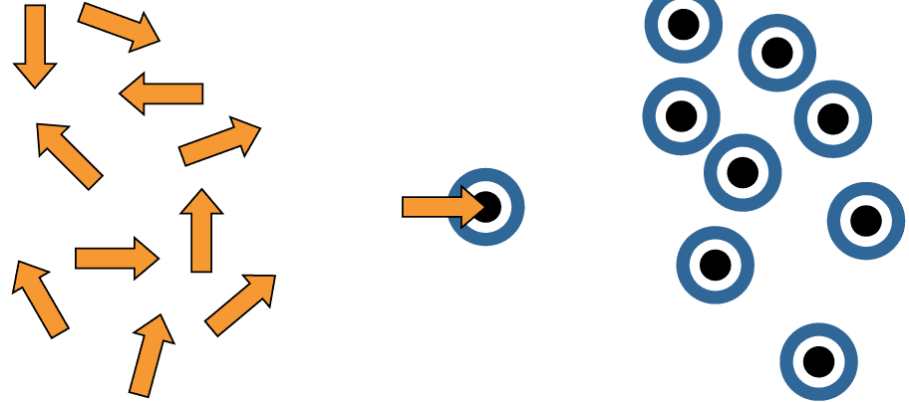
Cost efficiency of solution?

3. How much competitive advantage does the organization delivering the solution possess?

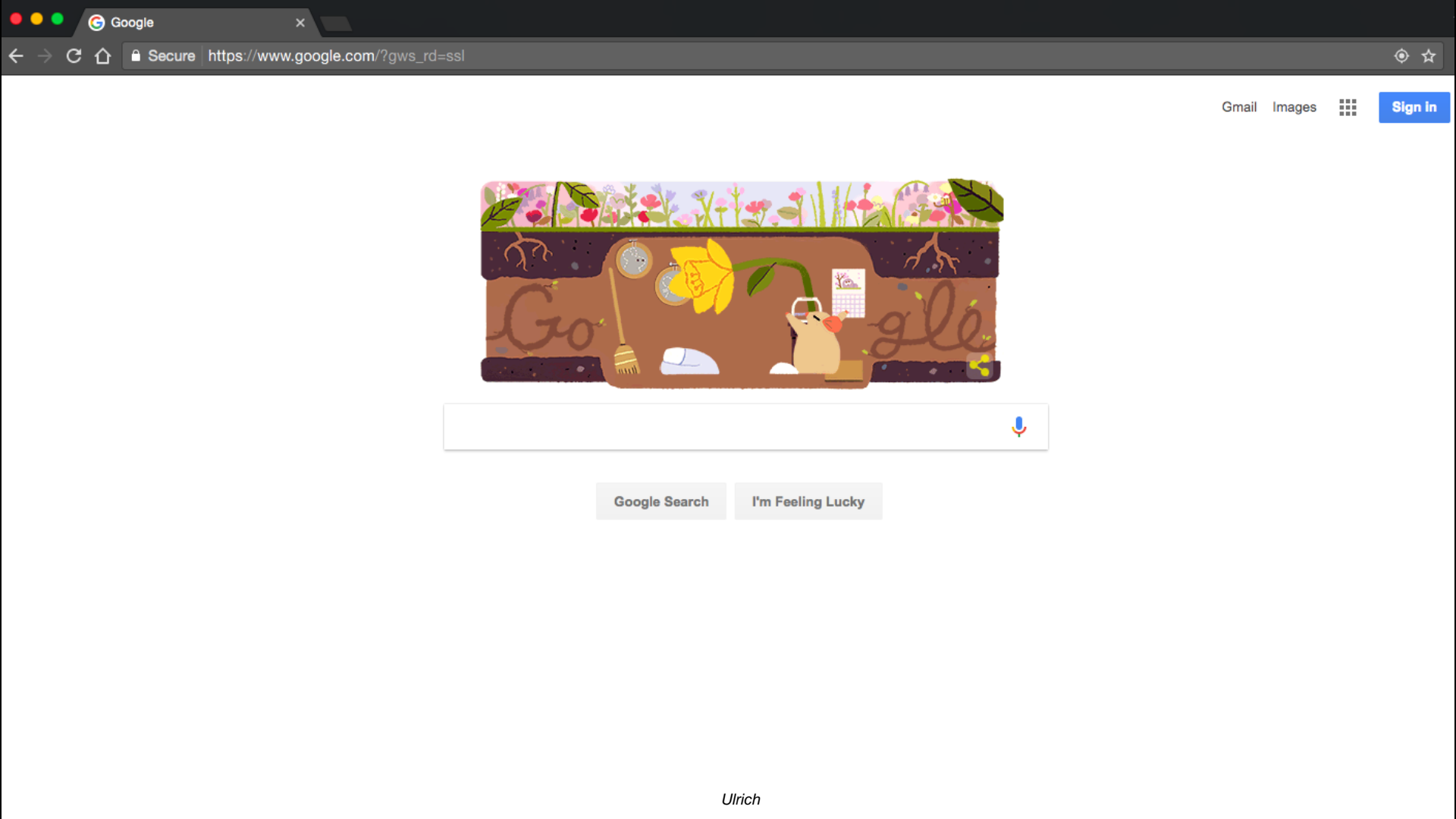
Superiority of solution?

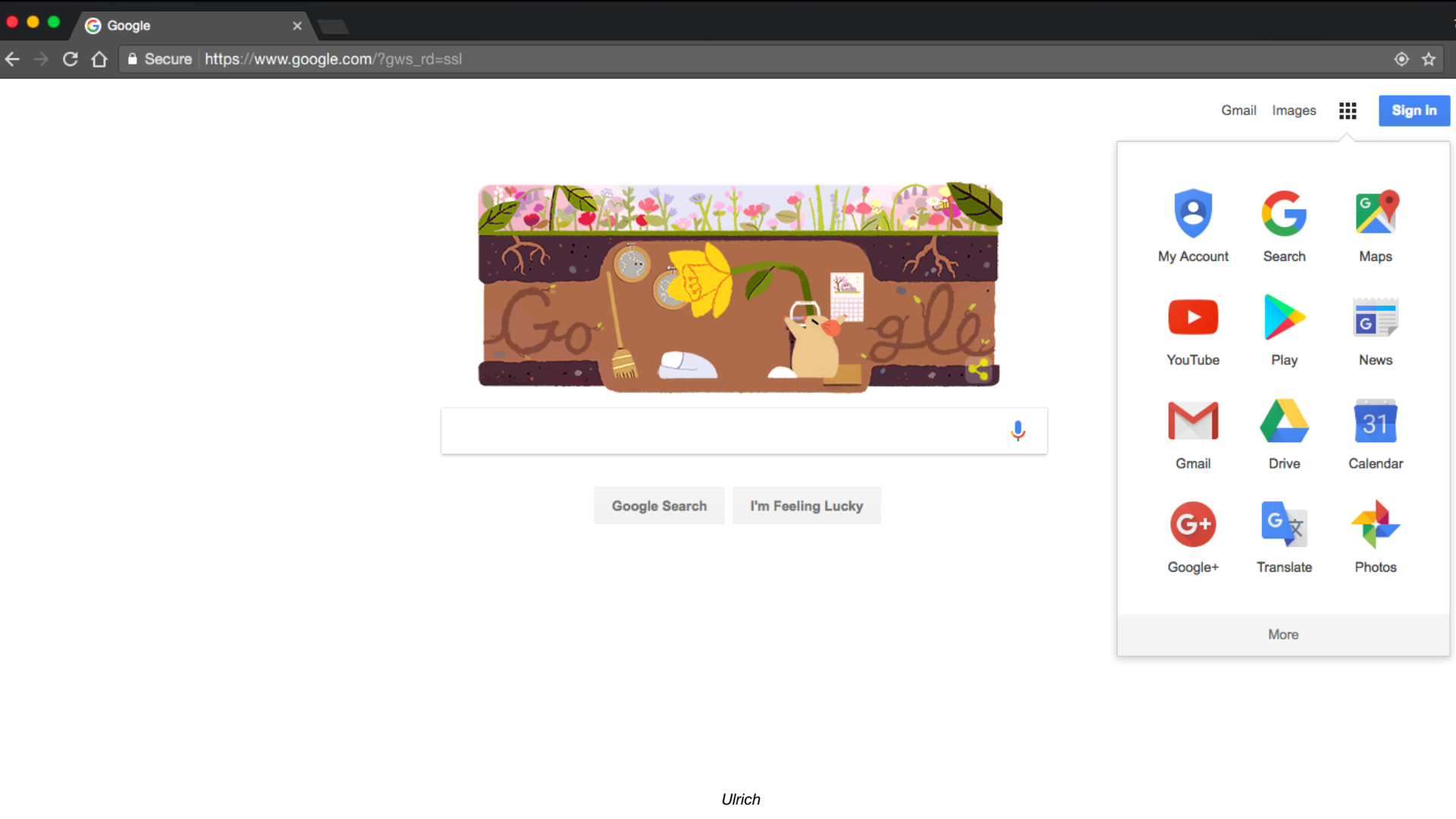
Ability to exclude rivals from offering the solution?

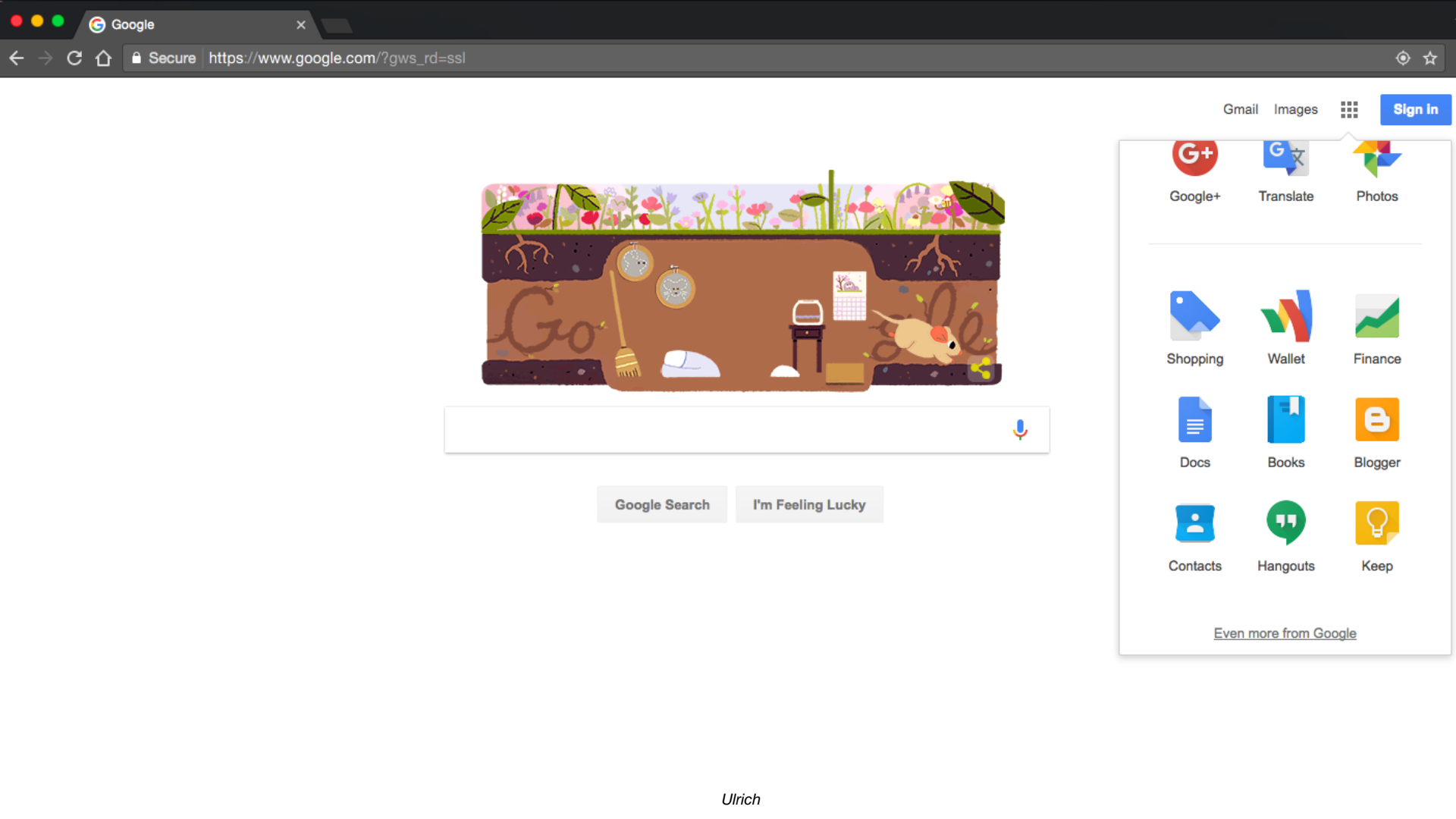
Development or acquisition of Alpha Assets.





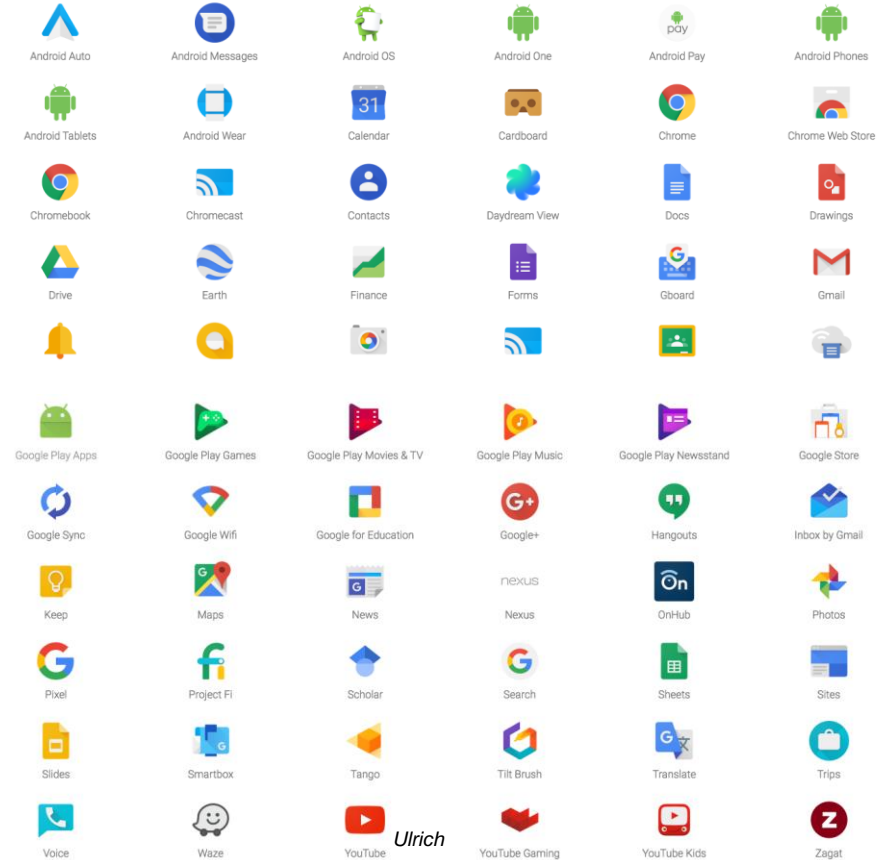






See all products

For all



Ulrich

Graduated projects

We don't expect projects to stay in X forever, nor do we want them to. And just as there's no set formula to solve the challenges facing each team, there is no set graduation path. Graduating from X can lead to being incorporated into a standalone business, folding into another Alphabet company, or even being acquired. Having this flexibility allows us to determine what's best for each project so it can succeed in the real world.



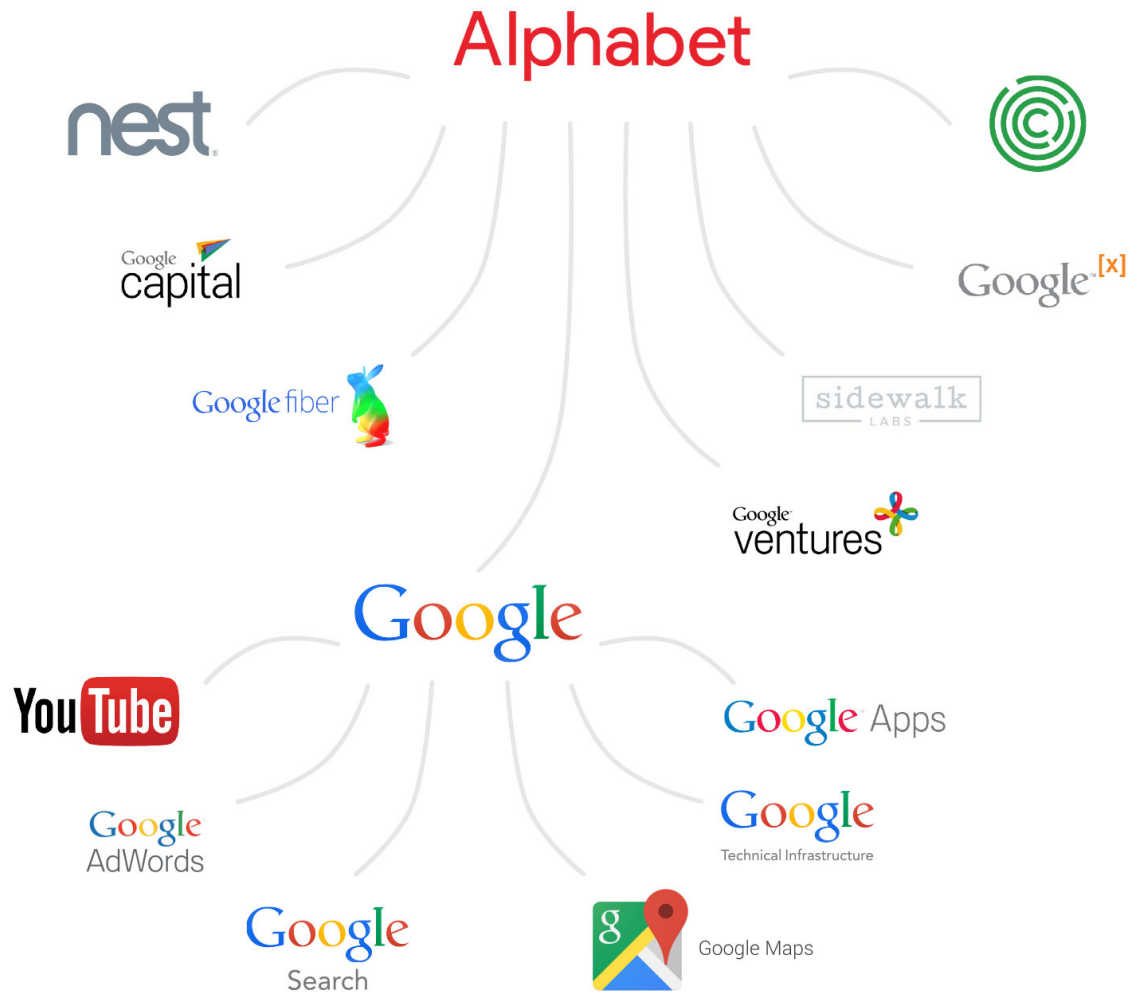
ABOUT
PROJECTS
JOIN US

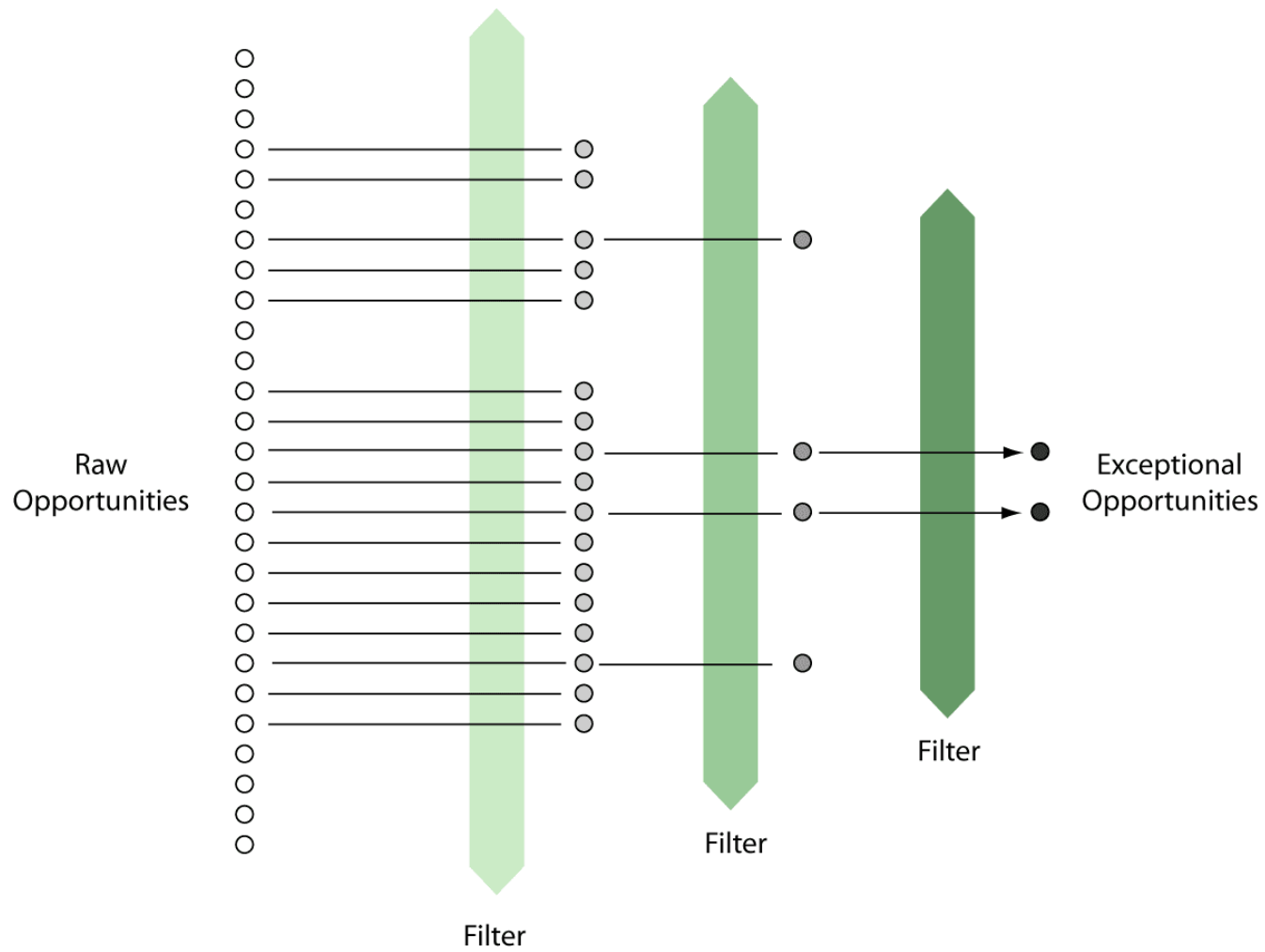
GRADUATED 2016

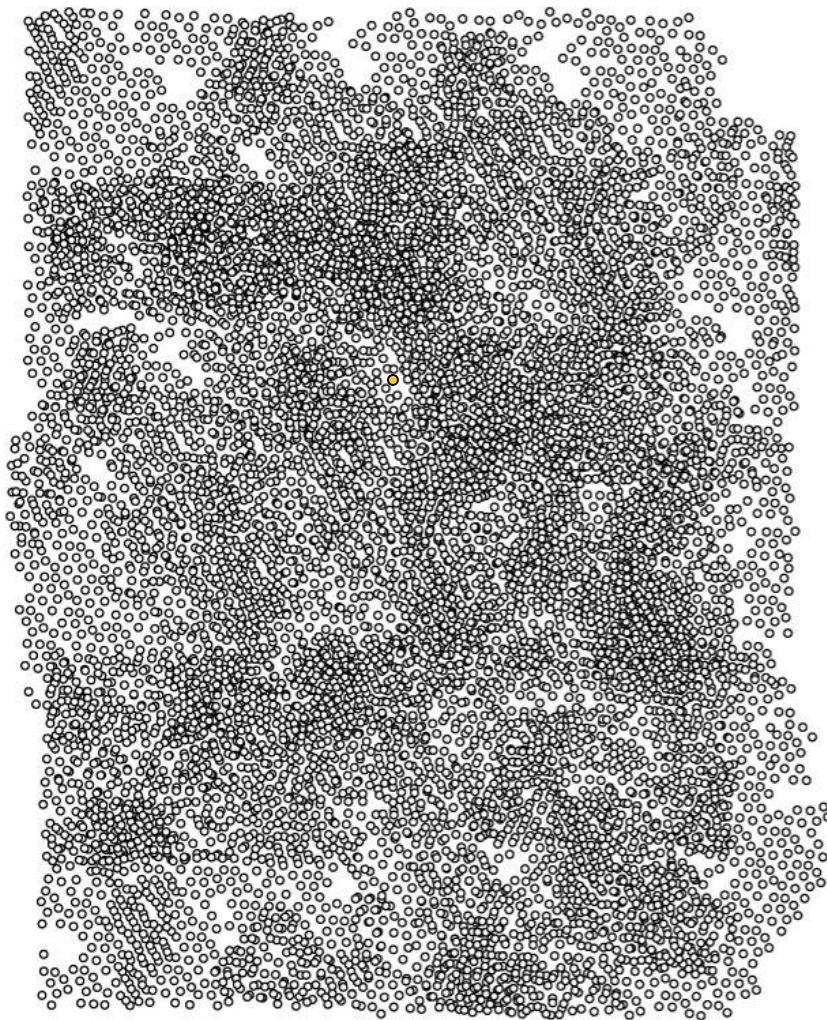
Waymo

The self-driving car project started in 2009 to develop technology that could make our roads safer and improve mobility for everyone. In October 2015, the team completed the world's first fully self-driving trip on public roads in a car without a steering wheel, pedals or test driver. The project graduated from X and is now Waymo, an independent Alphabet company.

VISIT WAYMO



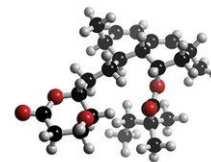




10,000 newly discovered compounds

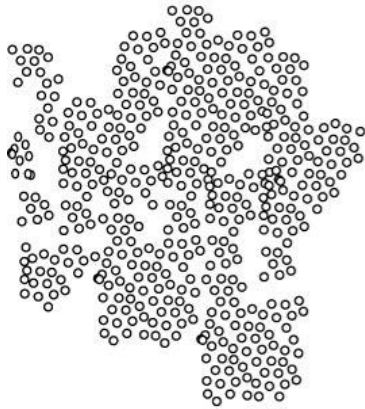


8-12 years
\$500 million - \$1 billion

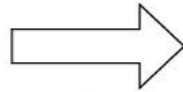


ZOCOR
(SIMVASTATIN)

1 new drug



500 "pitches"



3-5 years
\$50-200 million



1 new feature film

500 Investment Strategy

1. Start with large, well-screened funnel of co's.

Quantitative, Diversified Investing

("lots of little checks")

200+ companies @ \$50-100K (1st check)

- Assume high failure rate (60-80%)
- Identify top 20%+ performers for follow-on

2. Monitor & Follow-on investments in winners.

Double-down *after* Traction

50+ 'winners' @ \$100K-\$1M

(2nd + 3rd check)

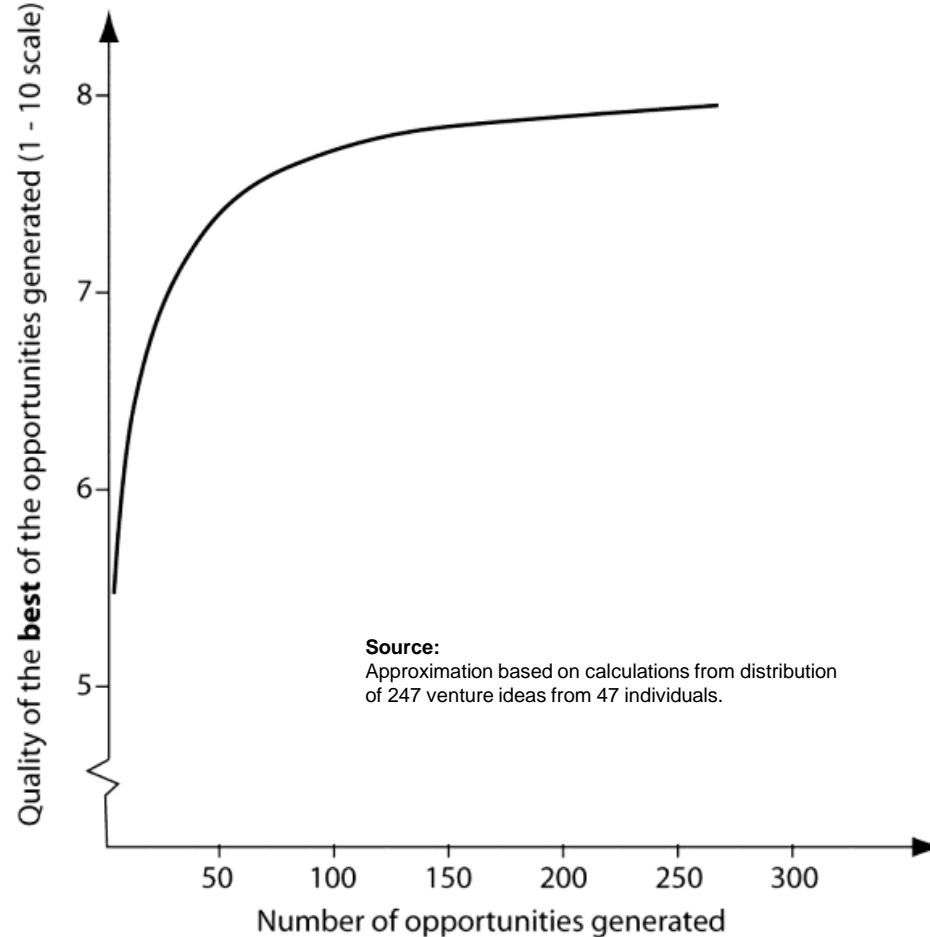
- Filter & focus on top 5-10%
- Increase ownership over time
- Target 10+ exits @ \$100M+



500 startups



Expected Quality of *Best Idea* as Function of Number of Ideas



10 CONCEPTS (workshops part 2)

- [1 Week Penn Patient Guarantee](#)
- [Almost Home](#)
- [Bereavement Room](#)
- [Discharge Prescription Concierge Service](#)
- [My Penn Scheduler](#)
- [Patient Education Videos](#)
- [Patient Service Kiosks](#)
- [Penn View](#)
- [Their Big Idea](#)
- [Way Finding](#)



Almost Home



One Week Penn Patient Guarantee



Discharge Prescription Concierge Service



Bereavement Room



MyPENN Scheduler



Patient Education Videos



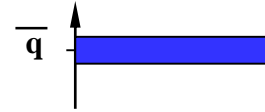
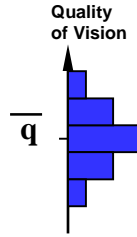
Patient Services Kiosks



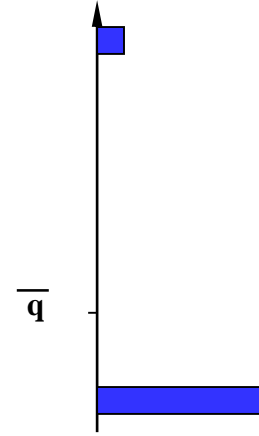
Their Big Idea



Way Finding



Option A



Option B



West Philadelphia X-Prize Team



http://www.rollingstone.com/news/story/24044267/boyz_under_the_hood





Meet the 2013 \$50,000 Grand Prize Winner



Congratulations to the winner of the 2013 Origami Idea Challenge, **Dean Pagonis**! Origami Capital is working with Dean to move his innovative idea forward!

The \$10,000 Division Prize Winners

Harvard University - Kelly Wagner

University of Pennsylvania - Justin Ang,
Ronak Gandhi, Eric Shoykhet, Ashutosh Patra,
Sahil Khetpal

Columbia University - Akash Shivashankara,
Charles Myerson, William Bartley

University of Chicago - Richard Rezny,
Jesse Graff

London Business School - Mohan Vamsy
Anem, Keith McRae

Indian School of Business - Gauri Gupta,
Ravi Kaushik, Krishna Kumar

Open Student - Dean Pagonis

Open Professional - Cale Smith



The world's first collegiate business school—advancing new ideas and leaders for more than 125 years.

Wharton...

Fosters a Dynamic and Stimulating Environment

Teaches and Requires Rigorous Thinking

Encourages a Data-Driven and Analytical Approach

Offers Inspired Ideas and Thought Leadership

Features a Global and Diverse Student-Body

Possesses a Broad, Multi-Disciplinary Curriculum and Research Focus

Wharton's multi-discipline approach and rigorous, global thinking stimulates inspired ideas and thoughtful leaders that yield enduring impact.



**“The Collective Intelligence of
our Global Community”**



**“Transforming the World
through Thoughtful Leadership”**



Wharton Branding Tournament

How does it work?



Users submit their ideas.



Our community discusses and votes for ideas.



The best ideas bubble up to the top.

Welcome to the Wharton Branding Tournam

We seek a tagline for Wharton that is as distinctive and compelling at a Time" (American Lung Association), "Helping Preserve the Plai Choices), or "Whatever it takes to Save a Child" (UNICEF). A comp School will be built on what we have learned in our research: In the 776 internet survey responses, the faculty, students, alumni and re and distinctive features of Wharton were (in no particular order):

- a dynamic and stimulating environment
- rigorous thinking
- inspired ideas and thought leadership
- a data-driven and analytical approach
- global and diverse student body
- broad, multi-disciplinary curriculum

within our mission of educating future business leaders

In this tournament, you can **submit** tag lines, **vote** on existing tag l

To **submit** a tag line, please click the new idea button below. You v line and some explanation. The explanation you provide need not t should stand on its own.

We have set up the site initially to be anonymous; the identities of s the community. However, we retain the authorship information in th reveal that information in the later stages of the tournament.

You will also have the option to add **tags** to the idea. A tag is simpl search for submissions with those keywords. To **vote** on an idea, s thumb to the left of the idea title/description. And to **add a comm** idea.

If you would like to see all ideas created with a specific tag, you can click on the word or phrase via the tagcloud in the left navigation area under "**What we're discussing**". You can also view ideas sorted by **Categories** from the left navigation area. To return to this page, click the **All Ideas** link.

Submit New Idea

(No tag line please.)

Think, inspire, lead.

Wharton means business.

Rigorous in our approach, diverse in our ideas.

Learn more. Do more. Be more.

Our business is your business.

You know what you know.

First in business.

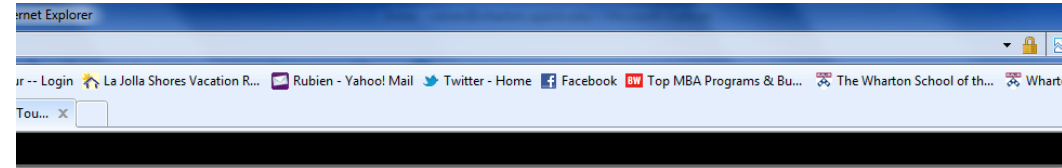
Transforming the world through thoughtful leadership.

Knowledge for action.



Wharton
UNIVERSITY *of* PENNSYLVANIA

////////////////////////////////////
KNOWLEDGE FOR ACTION
////////////////////////////////////



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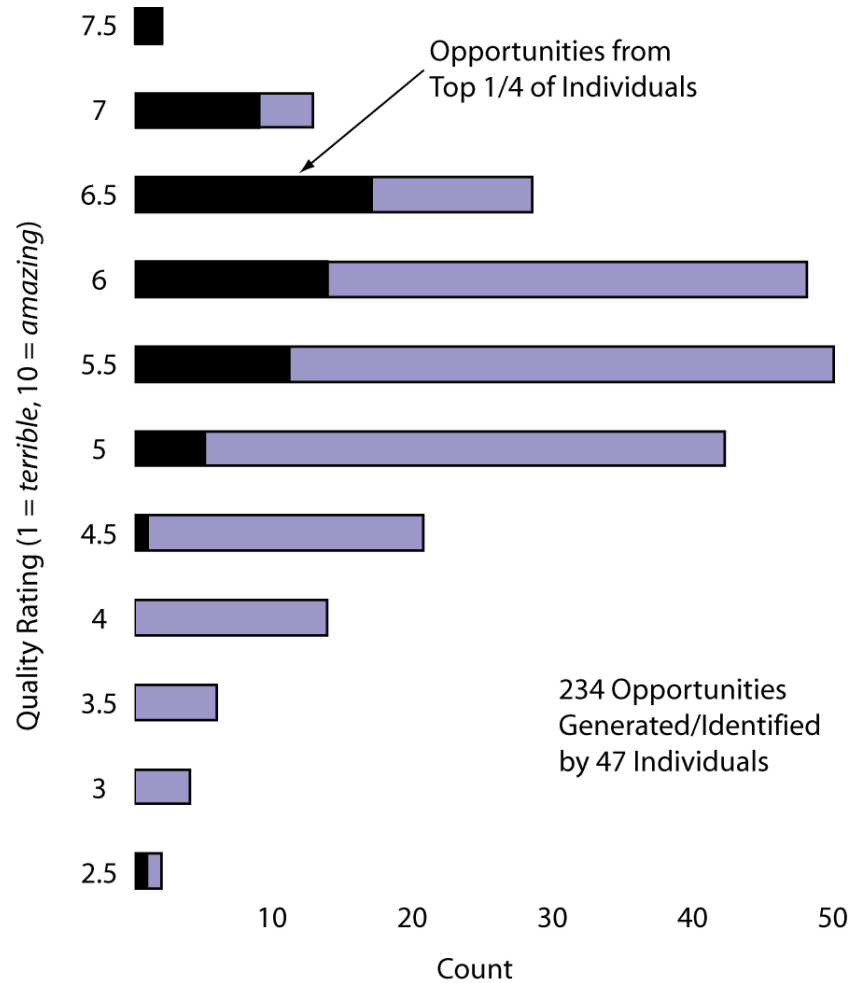
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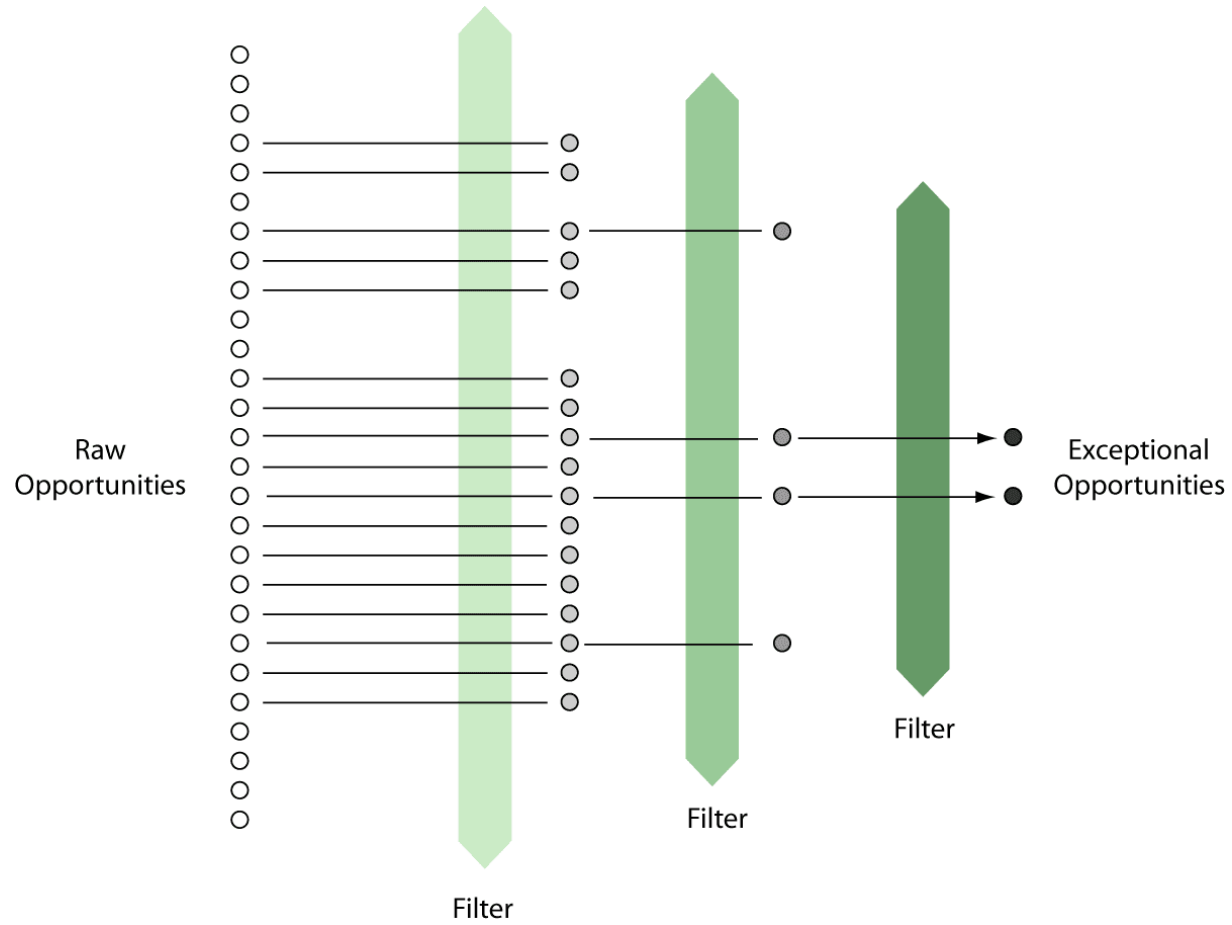
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Knowledge for action.

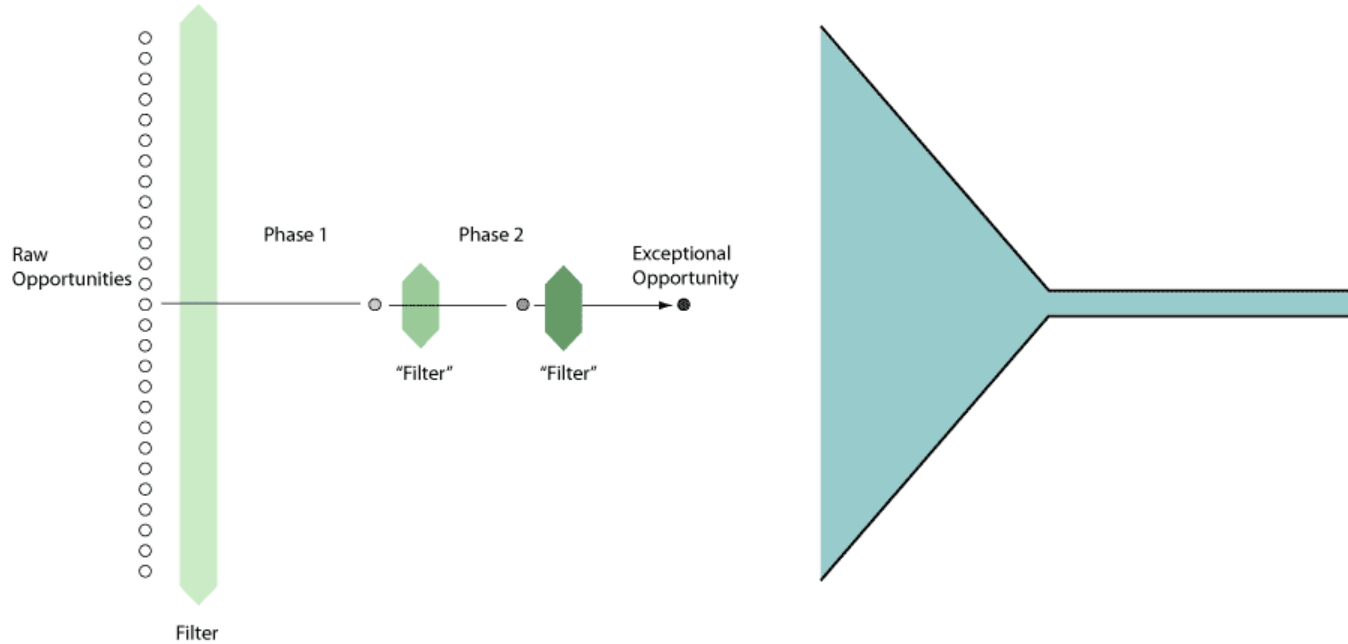


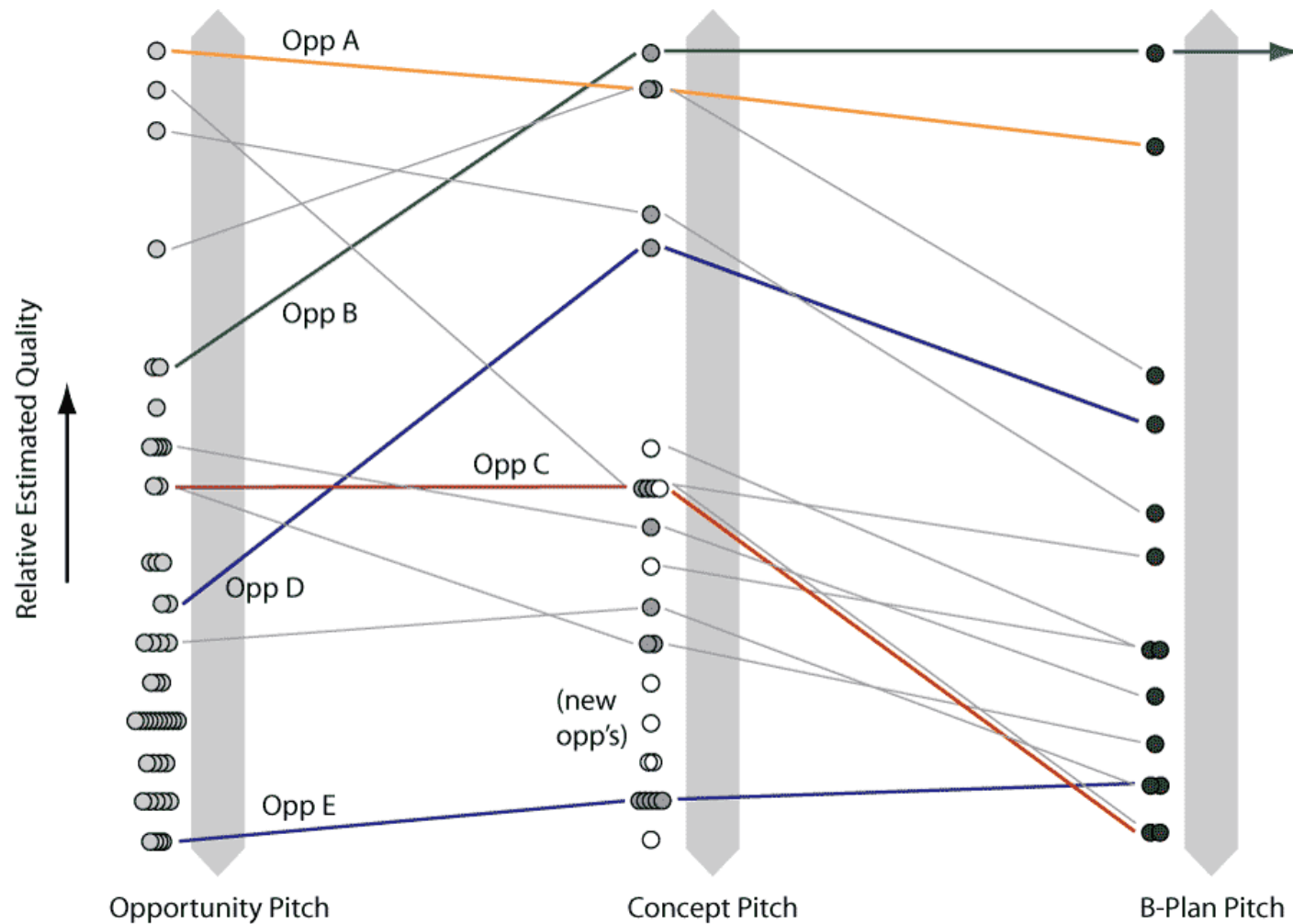
Adam Stein WG05

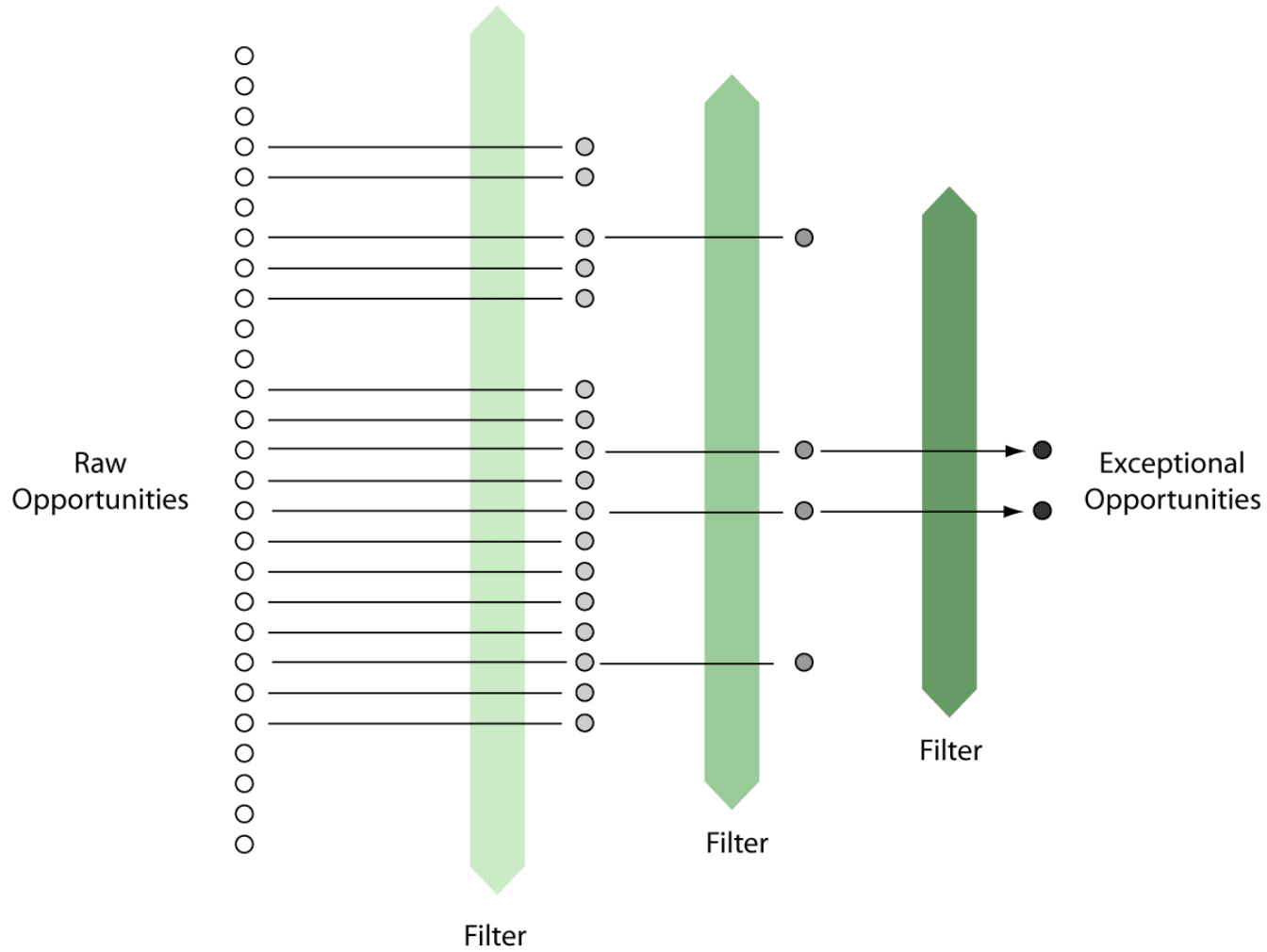




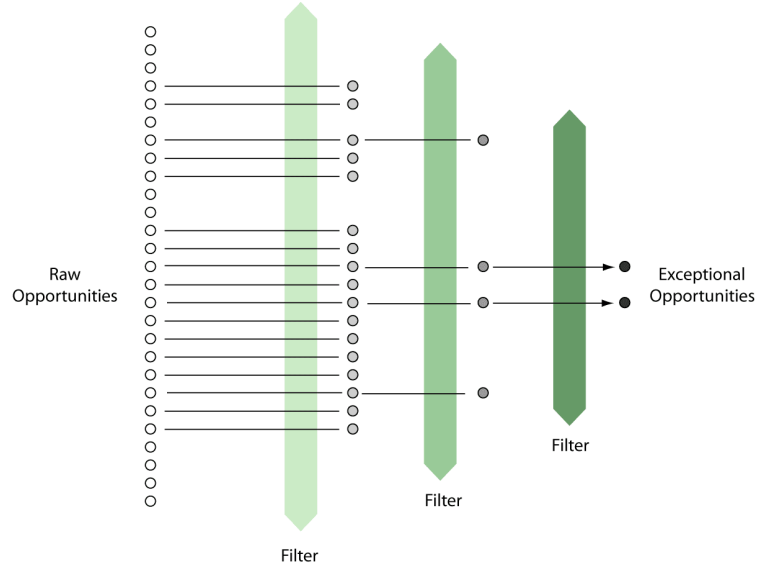
What should be the shape of the funnel?







Peter Thiel: You are not a lottery ticket.

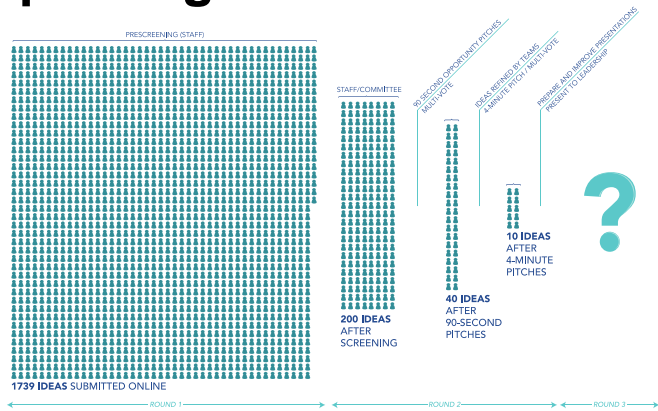


<http://startuptalks.tv/videos/peter-thiel-lottery-ticket-sxsw-interactive-2013/>

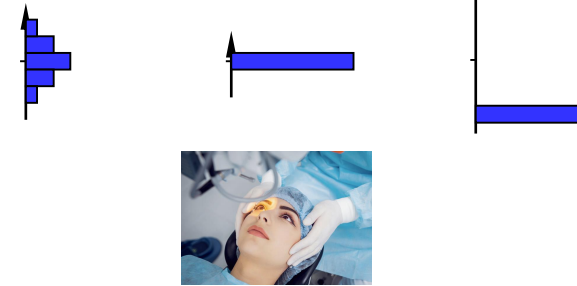
<http://blakemasters.com/post/23435743973/peter-thiels-cs183-startup-class-13-notes>



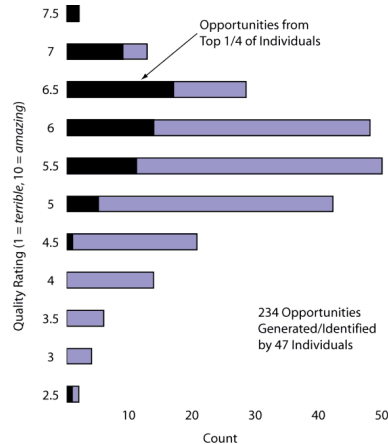
Improving Performance of Tournaments



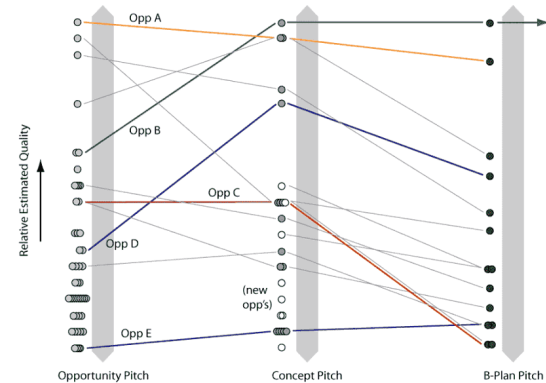
Many and diverse ideas via independent, parallel exploration.



Variance is your friend.



Solicit participation from proven high performers.



Filters generous early in process and ruthless later in process.