



Developing and Growing University Based Startups

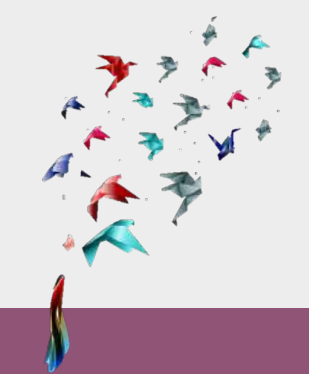
September 7, 2017

Rosemarie Truman, Founder and CEO

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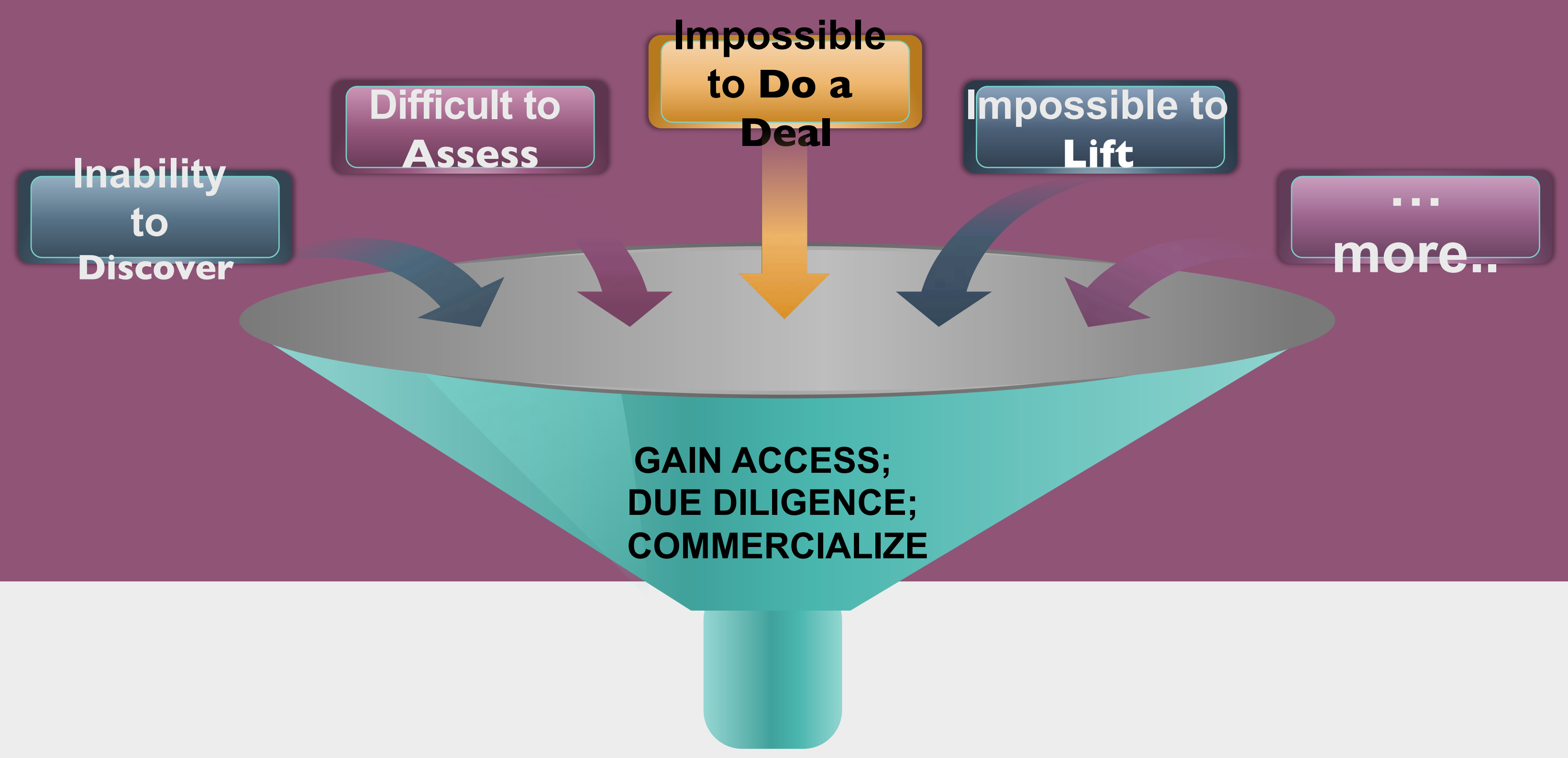


- Opportunity
- Introduction
- Track Record
- Keys to Creating Great University Based Startups
- Fund Financials and Expected Returns
- Key Team Members



WHY? Opportunity: \$1.5 Trillion

250,000 Federally Funded Inventions—Barriers to Transfer



Commercializing Promising 1%

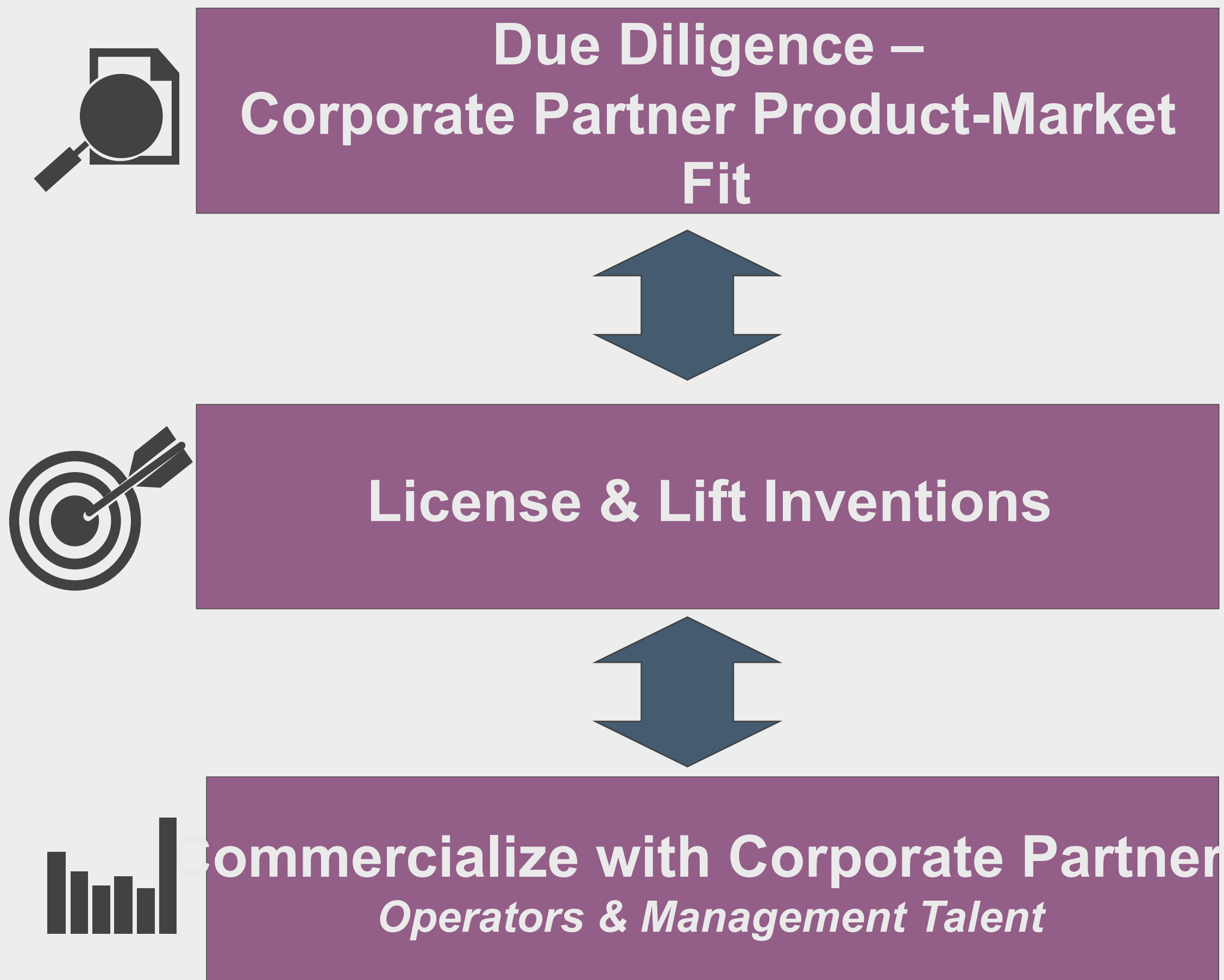
- THE CENTER FOR ADVANCING INNOVATION, AKA
- “Tinder for Startups,” Nature
 - “Shark tank on Steroids,” BIO
 - “Kickstarter for IP,” WIRED

Center for Advancing Innovation

Secret Sauce



Overview



**Team of 20. Leader 25+ yrs of experience.
Evaluated 200K+ inventions; results: \$210B
profit**



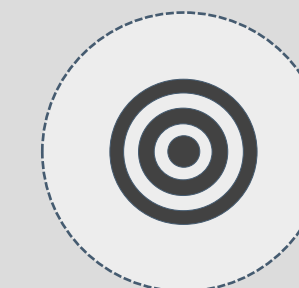
**Key Assets: Due diligence trade secrets
Award-winning Startup Catalyst &
Accelerator**



**Established: 80+ partnerships; 170K+
inventions; First of a kind venture
philanthropy**



**RESULTS: Launched 80 companies; 2000+
jobs
Unprecedented media attention/
recognition;**

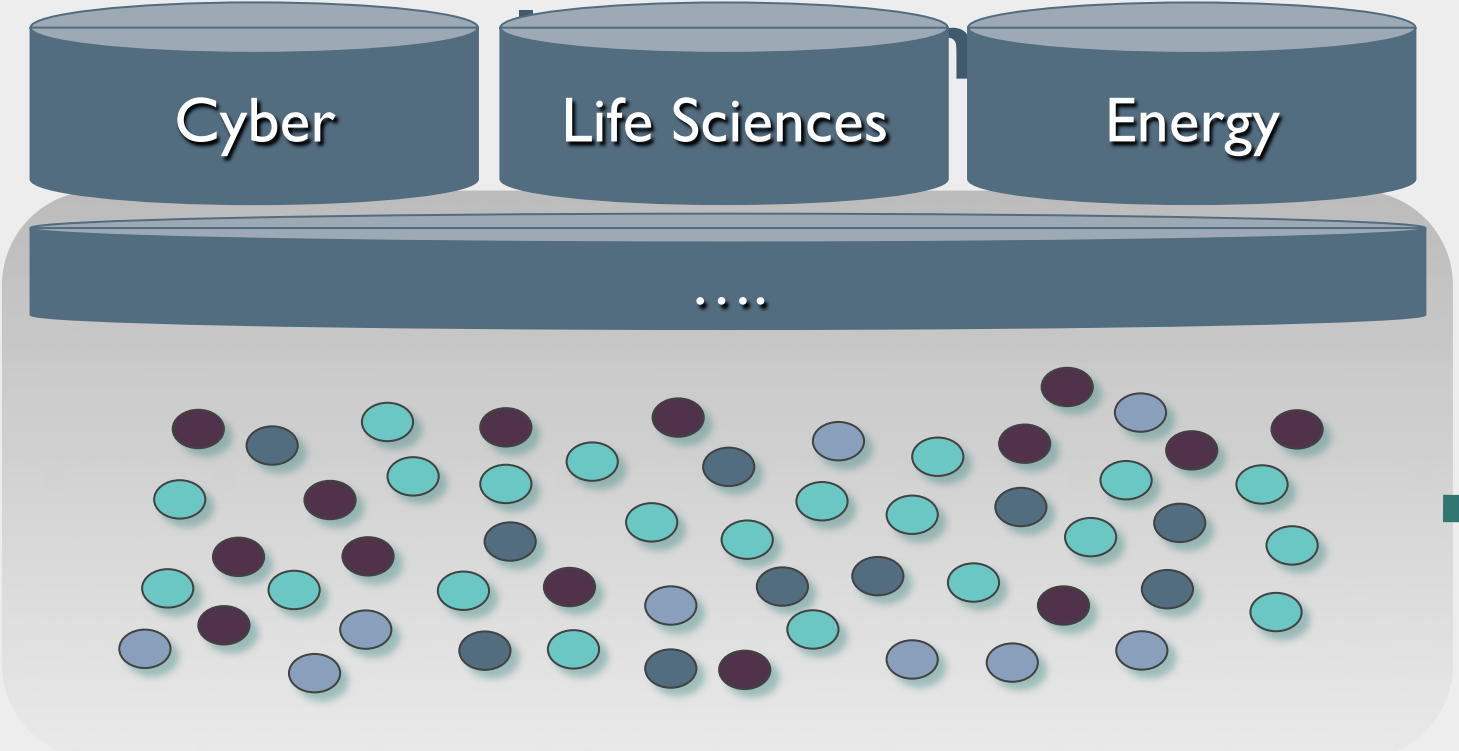


**Numerous Prestigious Awards HHS, FLC,
GAO Challenge.gov**

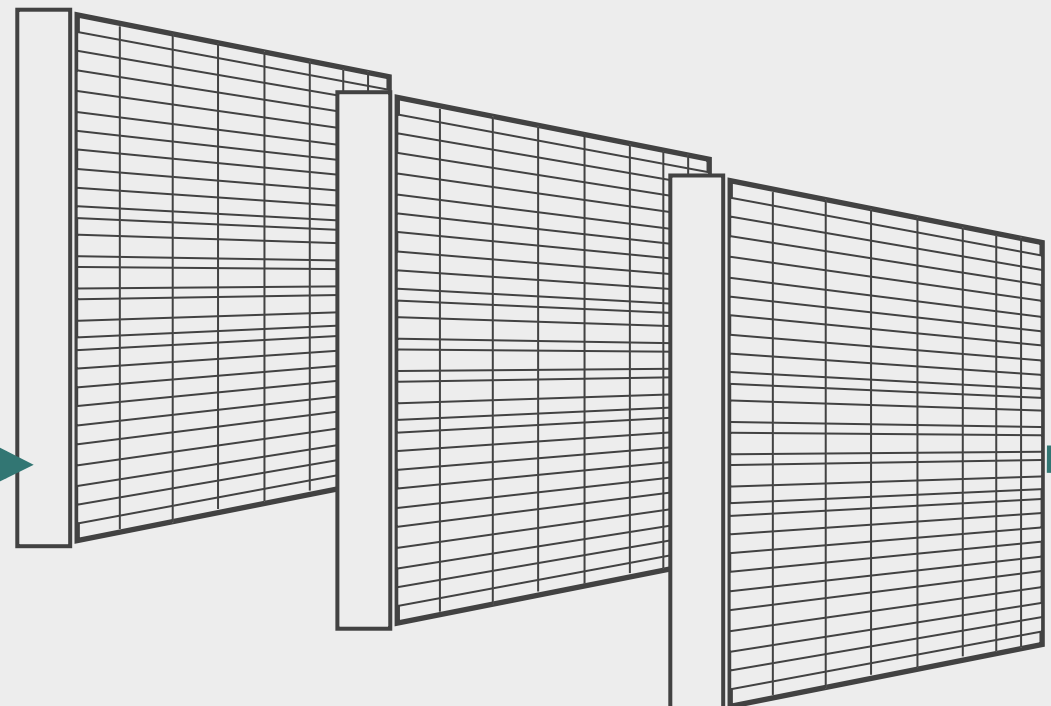
HOW? Start with the Inventions



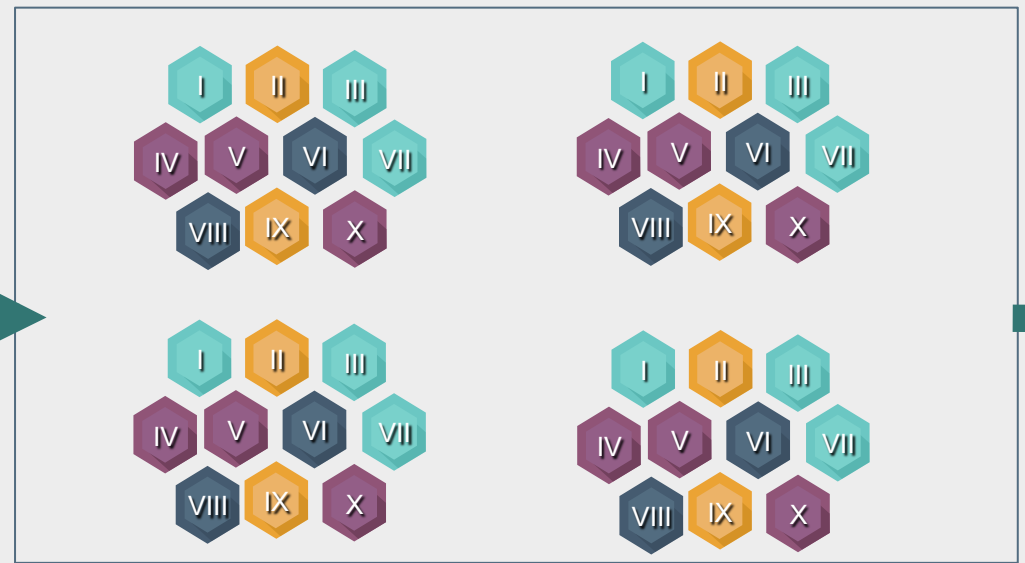
Identify High Value Inventions Globally
170,000 in Database across 80



Evaluate for Commercial Viability



Teams Compete & Receive Entrepreneurial Training



Great Startups Generated



Track Record



Freedom from Cancer Startup Challenge

2015-2016
15 companies
Ex., Joele

Space Race Startup Challenge



Neuro Startup Challenge



Nano Startup Challenge

2015-2016
15 companies
Ex, OneTest

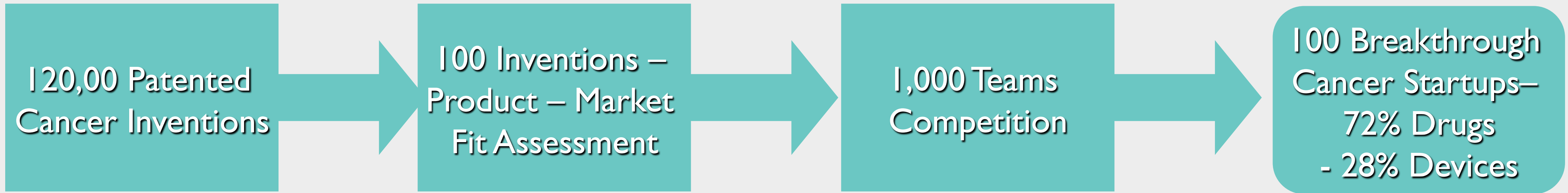
2014-2015
22 companies
Ex,Angio360



Breast Cancer Startup Challenge

2013-2014
11 companies
Ex, Oncolinx

Current: Launching 100 Cancer Startups



KEY ADVISORS

| | | | |
|---|---|--|--|
|  <p>David Berman Head of Oncology, MedImmune</p> |  <p>Elaine Jones Executive Director, Pfizer Ventures</p> |  <p>Henry Skinner Managing Director, Novartis Ventures</p> |  <p>Esther Dyson Super Angel, StartUp Health</p> |
|---|---|--|--|

KEY PARTNERS

What's Next?



80 Startups so Far

CHALLENGE.GOV

BEST in Business Plan and Entrepreneurship

WHITE HOUSE

#1 Accelerator Program

#6 out of 10 in Entrepreneurship

#36 out of 100 in IMPACT

HEALTH AND HUMAN SERVICES

“Secretary’s Pick” Innovation Award

FEDERAL LAB CONSORTIUM

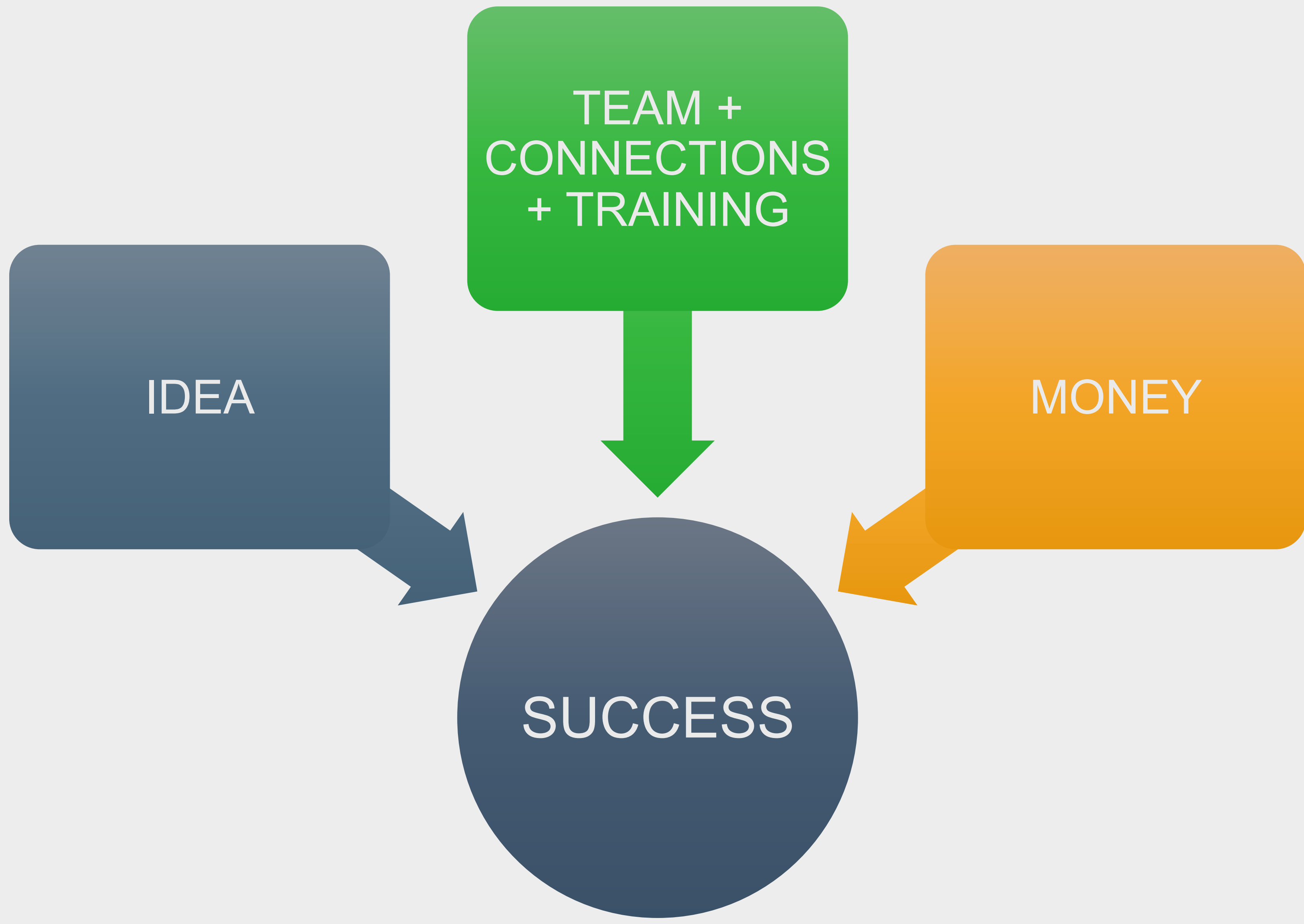
Technology Transfer Excellence Award

GOVERNMENT ACCOUNTABILITY OFFICE

Best in Innovative Commercialization Models



Critical Success Factors?



IDEAS #1



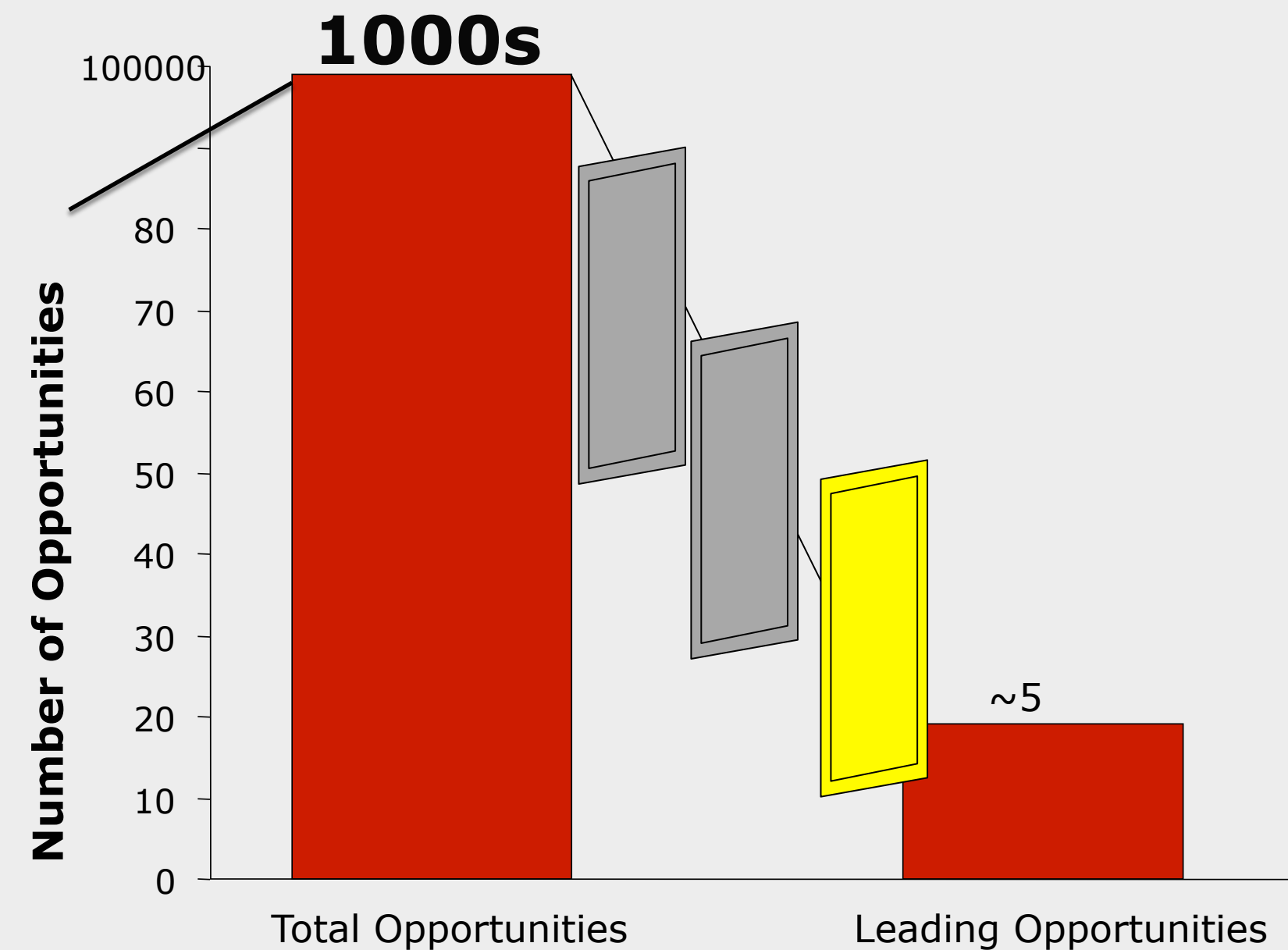
- **250,000 INVENTIONS**
- **CHARACTERISTICS:**
 - **\$50+ MILLION;**
 - **FDA APPROVED;**
 - **DEPLOYED AT SCALE**
- **RESULTS: \$1.5 TRILLION + EXPONENTIAL SOCIAL IMPACT**

IP - FIND & Select



...However, More is Required: Due Diligence, Capital Efficiency, Match to Region

Tops-Down and Bottoms-Up Analysis to Identify Key Opportunities



Applying Filter to ABC Co Opportunities

Ability to Attract Funding

- Ability to Attract Collaborators
- Ability to Attract Adequate Funding
- Total Amount of Commercial Funding Ever Provided
- In-Licensing Opportunity (not included in analysis)

Ability to Execute – Feasibility - Match to Region

- Current vs. Required Capabilities
- Strength of current position vs. competitors
- Access to patients / customers
- Barriers to Entry
- Risk

Market Attractiveness

- Upfront Investment Required/Capital Efficiency
- Addressable Market Size/Growth Rate
- Total Potential Revenue
- Profitability
- Market Sustainability

Scientific Attractiveness

- Novelty
- Efficacy and Efficiency
- Safety
- Standard of Care
- Medical / Scientific Competitive Advantage

Partial View of Parameters in 8 Categories

IP - Not that FAST!

Business Arrangements with NIH



National Institutes of Health

A PARTNERSHIP INTERMEDIARY AGREEMENT

BETWEEN

UNITED STATES DEPARTMENT HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

OFFICE OF TECHNOLOGY TRANSFER & THE NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

OFFICE OF TECHNOLOGY TRANSFER AND DEVELOPMENT & THE NATIONAL INSTITUTE OF ARTHRITIS AND MUSCULOSKELETAL AND SKIN DISEASES & THE NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES & THE NATIONAL INSTITUTE ON DEAFNESS AND OTHER COMMUNICATION DISORDERS & THE NATIONAL INSTITUTE OF BIOMEDICAL IMAGING AND BIOENGINEERING & THE NATIONAL INSTITUTE OF NURSING RESEARCH

AND

THE CENTER FOR ADVANCING INNOVATION, INC.

Arrangement Characteristics

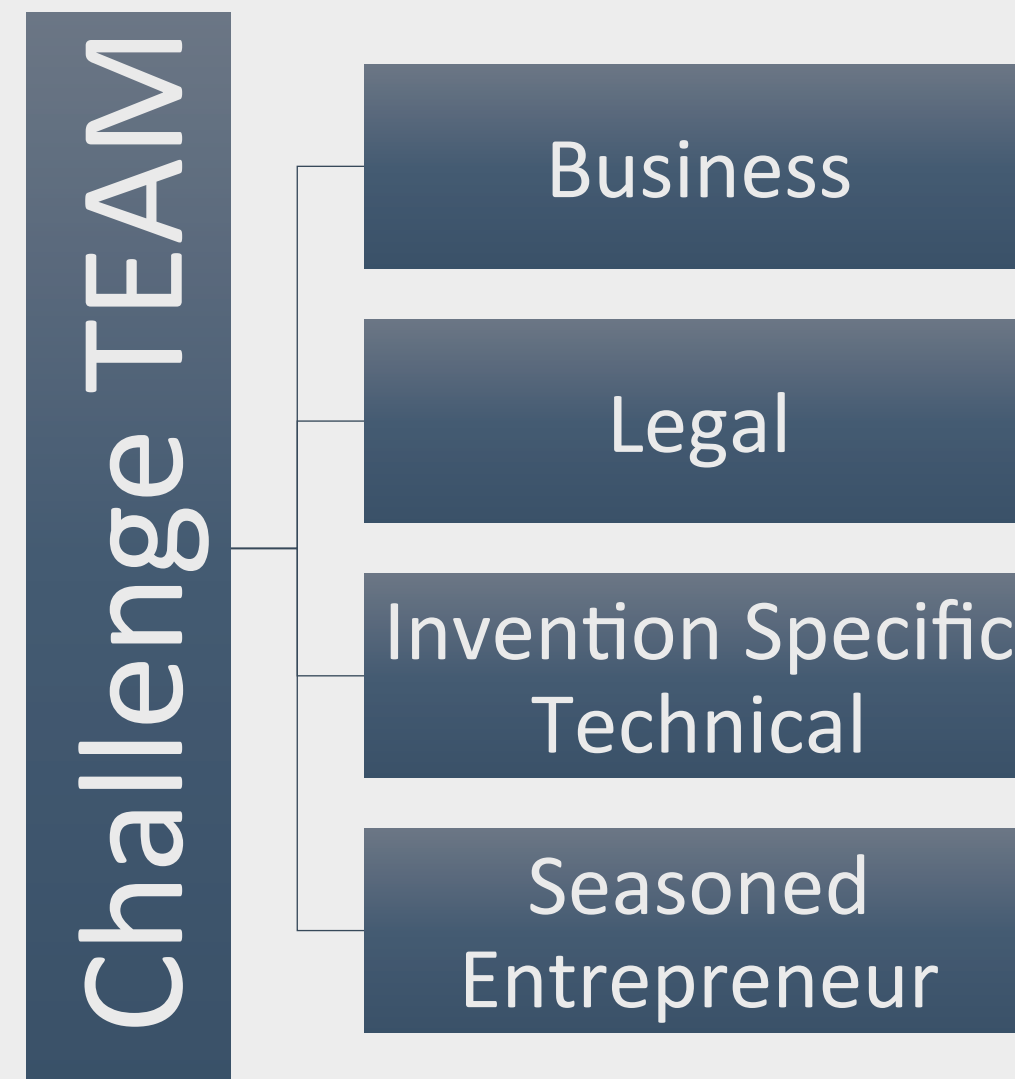
- 15 Partnership Intermediary Agreements available only to public-private partnerships
- 3 Collaboration agreements to run startup challenges
- Part of Technology Review Group to evaluate inventions not publically available
- Relationship strong due to Health and Human Services Secretary's Pick Innovation Award, Federal Laboratory Consortium Technology Transfer Excellence Award, White House attention as well as media attention
- Exclusive licensing between NIH and Startup through NIH Startup Exclusive License Agreements



Team Composition - #2

Recruiting Multi-Disciplinary Teams

Team Design: Mandatory Requirements



- Over 18 years old
- At least three students on the team

Other Key Notes on Who May Participate

Students:

- Graduate and undergraduate students
- Post-docs as well as those in residency

Anyone else beyond the three mandatory students

Match skill sets of mentors to invention and team gaps; possible additional team members include:

- Business Development Leaders from Large Companies
- Key Opinion Leaders
- FDA/Regulatory
- Venture Capitalists
- Clinical Research Outsourcer (CRO)



Execution - Recruiting Teams

Recruiting Multi-Disciplinary Teams

- Multi-disciplinary teams will include: core technology skills (e.g., engineering and/or medical/scientific that matches to the technology R&D requirements), legal, business, serial entrepreneur

| Create Stakeholder Engagement Plan | Form Collaboration Agreements | Get Local Champions | Perform Roadshow at Universities and Hospitals | Actively Form Teams in Letter of Intent Phase |
|---|---|---|---|---|
| <ul style="list-style-type: none">• Universities• Hospitals• Local Businesses• Potential Investors/ Funders• Lead Coaches | <ul style="list-style-type: none">• Appoint point persons within the collaboration agreements for Universities, Hospitals and VCs to assist in forming multi-disciplinary teams | <ul style="list-style-type: none">• Mentors• Advisors• "Lead Coach" / CEO across multiple teams | <ul style="list-style-type: none">• Actively form teams after roadshows• Coordinate with leads from Universities and Hospitals as well as economic development | <ul style="list-style-type: none">• Teams populate a letter of intent form and provide resumes of their team• Team is scored and either accepted or CAI will work with team to flesh out |

Advisors



Desiree Younge

- VP, Programs, Tory Burch Foundation
- Leader in Women Entrepreneurship



Anne Hubert

- Viacom Executive, Scratch Founder
- Venture for America Board



Anna Mason

- Revolution, Director of Investments
- Vinetta Project



Jay Samit

- Digital media disruptor - Disrupt You!
- Deloitte Digital



Shannon Bell

- Managing Director, The Orogen Group
- Directed Corporate Communications, Citi



Joanne Wilson

- Super Angel
- Co-Founder Womens Entrepreneur Festival
- Investment focus on women entrepreneurs



Cassandra Kelly

- Strategy consulting, disruptive innovation
- Fintech Investor
- Fund manager



Esther Dyson

- EDventure, Super Angel
- Investor in health care, government, and space
- CAI Technology Review



Lisa Caputo

- EVP, CMO, Travelers
- EVP, CMO, Citi, Women & Co



Karen Kerrigan

- SBE Council
- World Entrepreneurship Forum
- Womens' leadership



Execution - Team Training

40 Entrepreneurship Training Classes and Q&A with Mentors

Training Sessions Listed Below

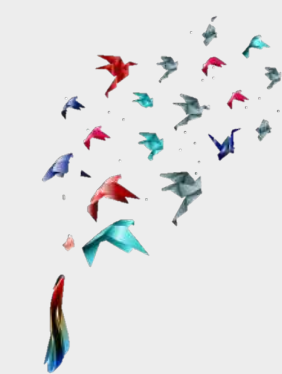
| Topic | Phase |
|--------------------------------------|-------|
| Program Management and Team Work | Ph I |
| High Level business plan development | Ph I |
| How to Create an Elevator Speech | Ph I |
| How to Create an Executive Summary | Ph I |
| Developing an IP Strategy | Ph II |
| Licensing | Ph II |
| Product Description | Ph II |
| Risk Assessment | Ph II |
| Stakeholder Assessment | Ph II |
| Regulatory Strategy | Ph II |
| IP Strategy | Ph II |
| Commercialization Planning | Ph II |

| Topic | Phase |
|-----------------------------------|--------|
| Competitive Analysis | Ph II |
| Financing/Fund Raising/Investment | Ph II |
| Negotiation | Ph II |
| Financial Modeling: | Ph II |
| 1. Valuation | Ph II |
| 2 P&L – cost | Ph II |
| 3 P&L - revenue | Ph II |
| 4 Equity models | Ph II |
| R&D Planning | Ph II |
| Live Pitch | Ph II |
| Voice of the Customer | Ph II |
| Structuring a company | Ph III |
| Employment issues | Ph III |
| Fundraising | Ph III |

Critical Success Factor #3 – Money!!



- **Financial:**
 - Buying Beta but Receiving Alpha - Lowest Cost/% Ownership
 - Highly Selective Basket of Assets with Multi-billion Payouts, e.g., 100 cancer startups
- **Social:**
 - Allowing Philanthropic Effort to Result in Furtherance of Legacy
 - Company Level Transparency - Opportunity for Targeted Impact Investments



Metrics from \$20MM Fund

(90% Failure Rate)

Financial Impact

20

Companies

Proven, award winning accelerator matches inventions to region's strengths & significantly increases new startups

\$104M

Investor Returns

Limited Partners that invest \$11.5MM are positioned to realize strong exit return multiples over the 10 yr life

\$76M

Endowment

MCA returns based on investment of \$8.5MM based on 5X return

56%+

Fund IRR

Securing the majority of equity at the early stage captures all value creation, resulting in strong for all investors

Social Impact

2500

Trained

Over 500+ people per year x 5 years receive advanced STEM training during the 12 month accelerator process

82%

Employment

Challenge graduates have attractive entrepreneurial skills that lead to high job placement success in market

18K

Total Jobs

Growing Life Science oriented startups creates a large multiplier effect, leading to job growth throughout the local ecosystem




\$600M

GDP Impact

Even with highly conservative assumption of 90% failure rate, startups jobs generate a large commerce impact in area



Example Startup Successes

| Targeted Cancer Therapies  | Batten's Disease Therapy  | Cancer Diagnostic  |
|--|--|--|
| Breast Cancer Startup Challenge Winner | Neuro Startup Challenge Winner | Neuro Startup Challenge Winner |
| \$35MM Valuation In Boston, MA & Buffalo, NY | \$5MM Valuation In Los Angeles, CA | \$20MM Valuation In Milwaukee, WI |
| <ul style="list-style-type: none"> • Co-founder raised \$65M Series A round with Freenome • Won MassBIO, MassChallenge & Rice Business Plan Competition • Received \$1 million in funding for winning 43North Competition • 18 agreements Pharma&Academia • Top 30 under 30, TEDMED • Products tested in space (ISS) | <ul style="list-style-type: none"> • Oxbridge/SR One OneStart Finalist • Received orphan drug indication • Expertise in medicine, toxicology (INDS), regulatory affairs • Recruited VP, Merck Veteran • Top 5 percentile SBIR Grant | <ul style="list-style-type: none"> • “Best Pitch”, Healthcare Innovation • Top 6 “Startups to Watch” • Finalist, Wisconsin Governor’s Competition; WI Innovation Award • Non-dilutive financing raised • PoC: Human (Completed) • First sale in 2017 |

Investment Strategy

Unlike typical minority interest angel funding, Gazelle's early stage investments in companies formed from **exclusive low cost license of high impact, capital efficient de-risked IP portfolio** secures meaningful equity for outsized exit returns



Capital efficient investments selected that can deploy to market within 3-4 yrs



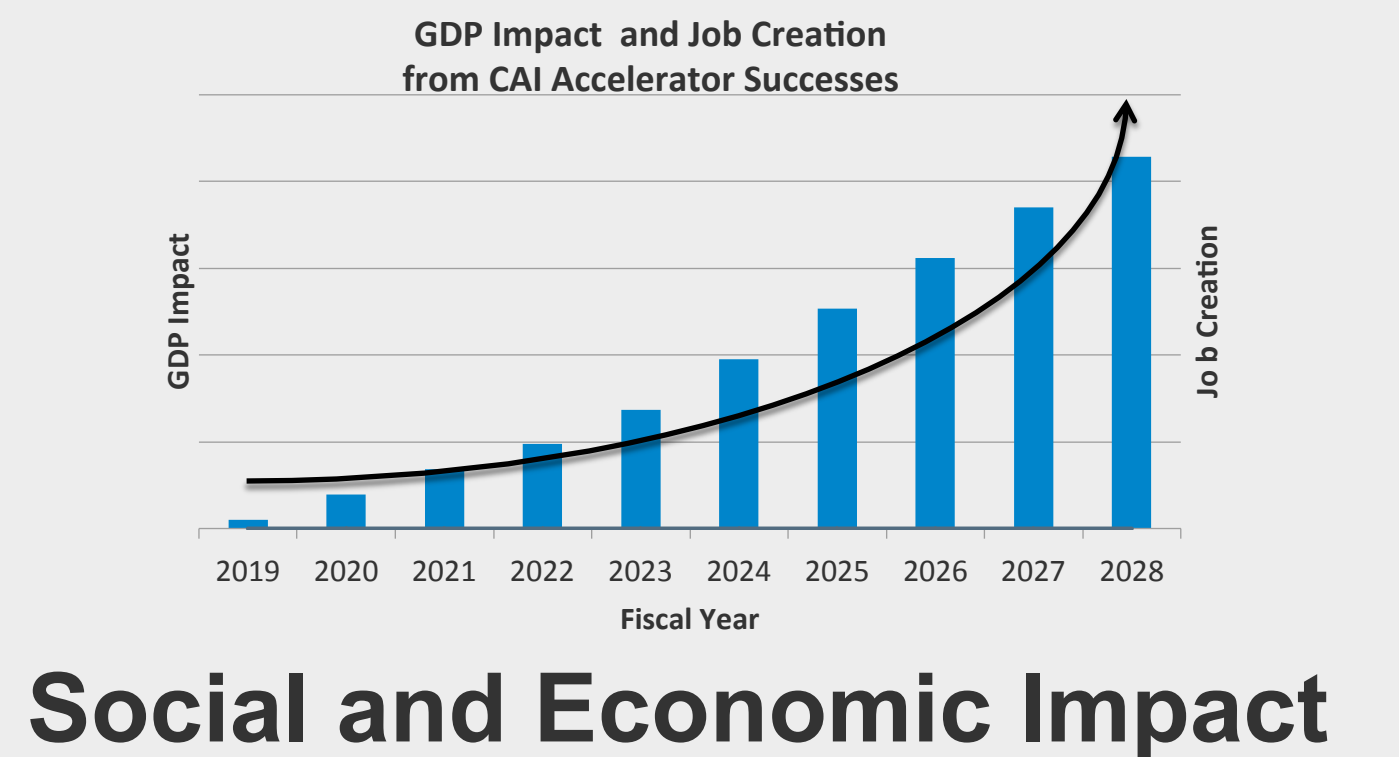
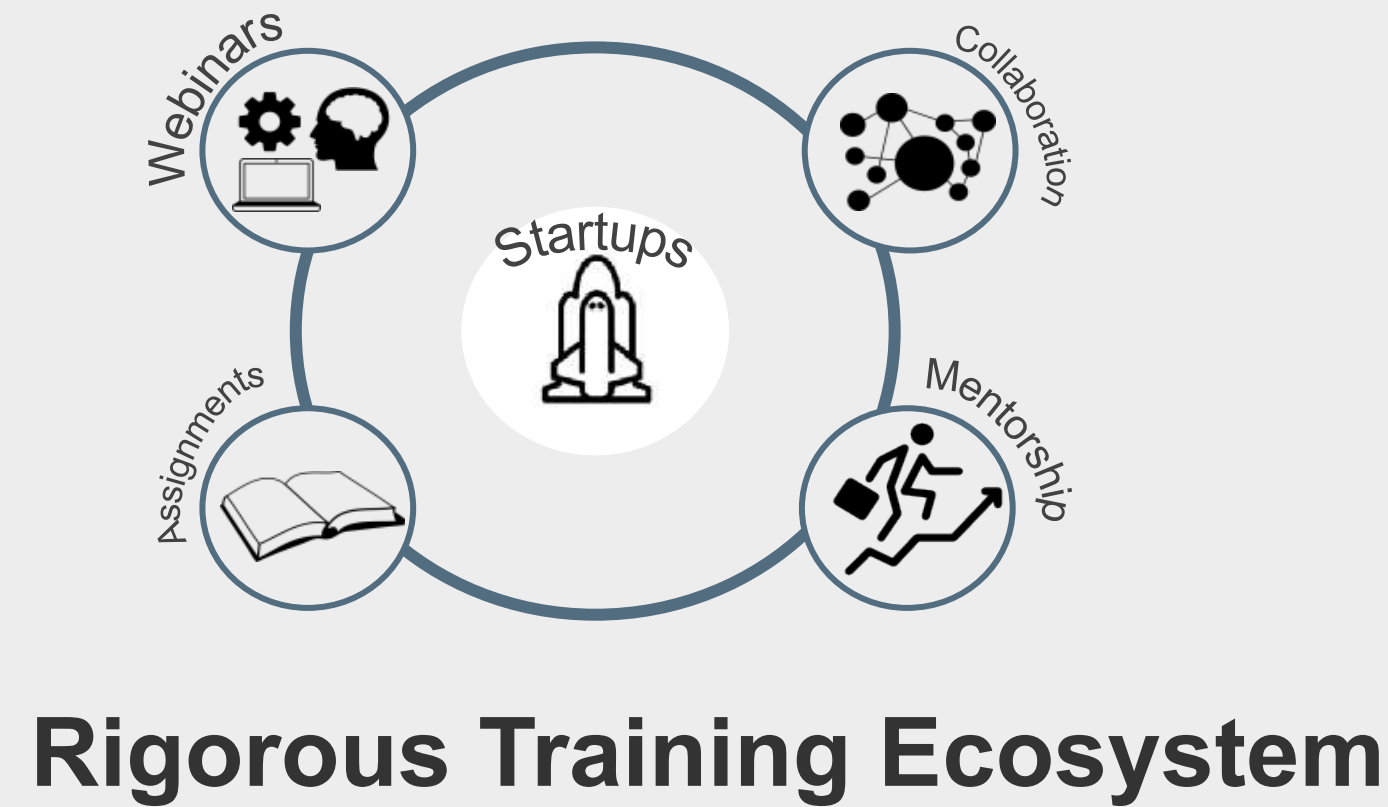
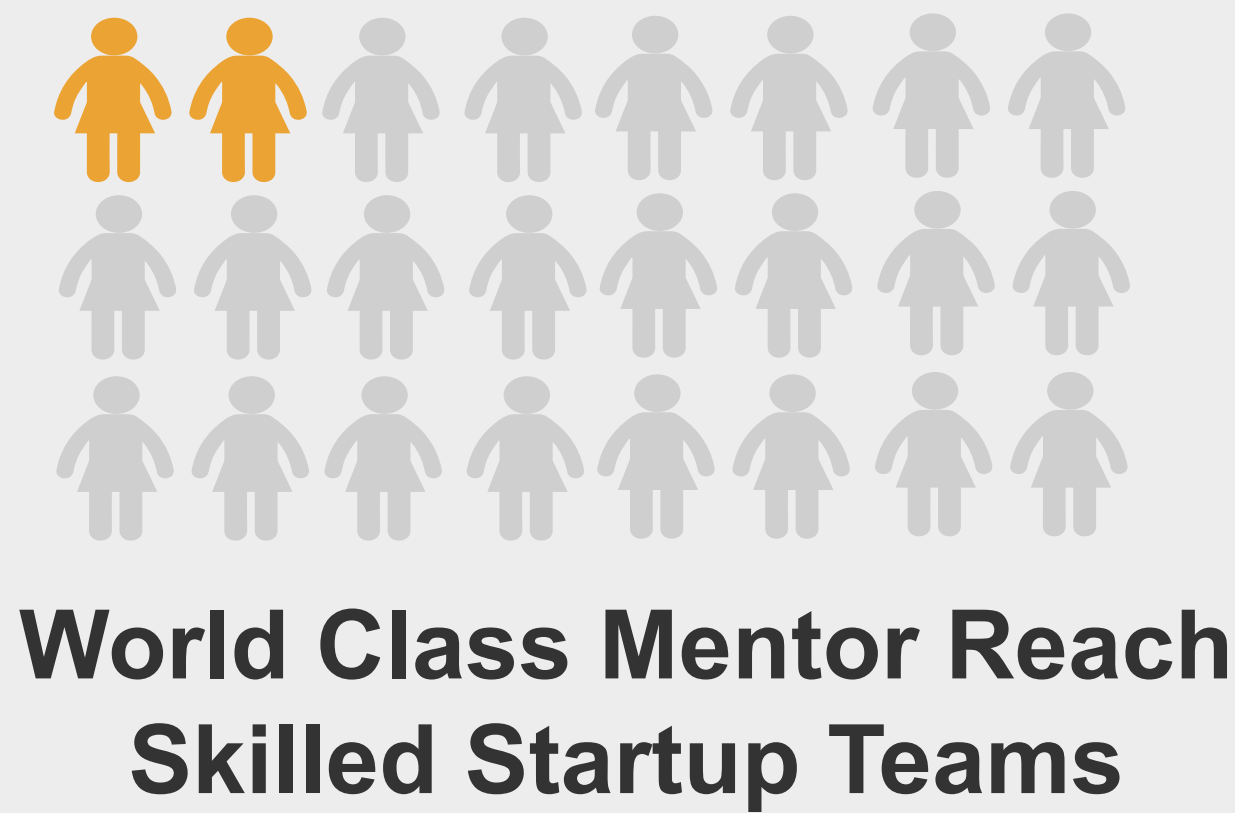
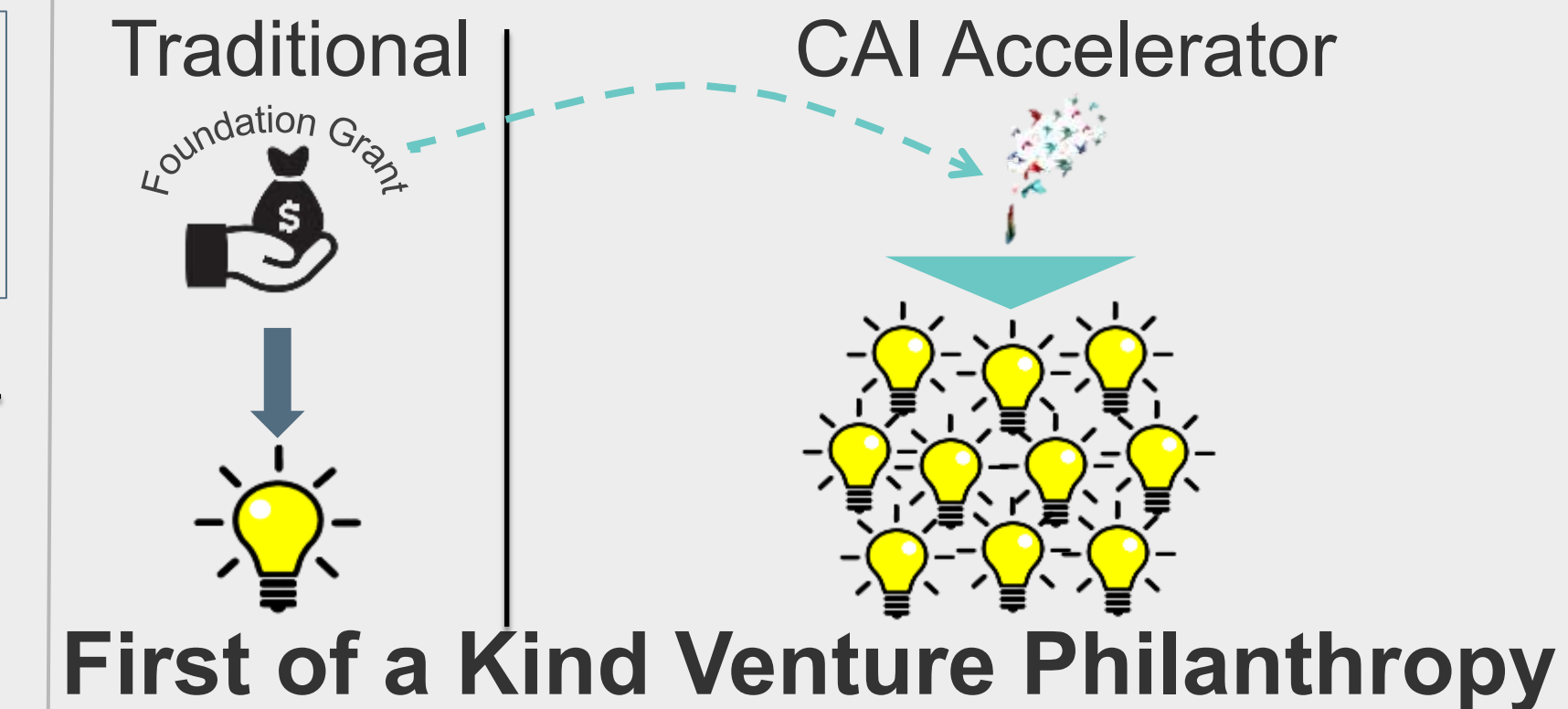
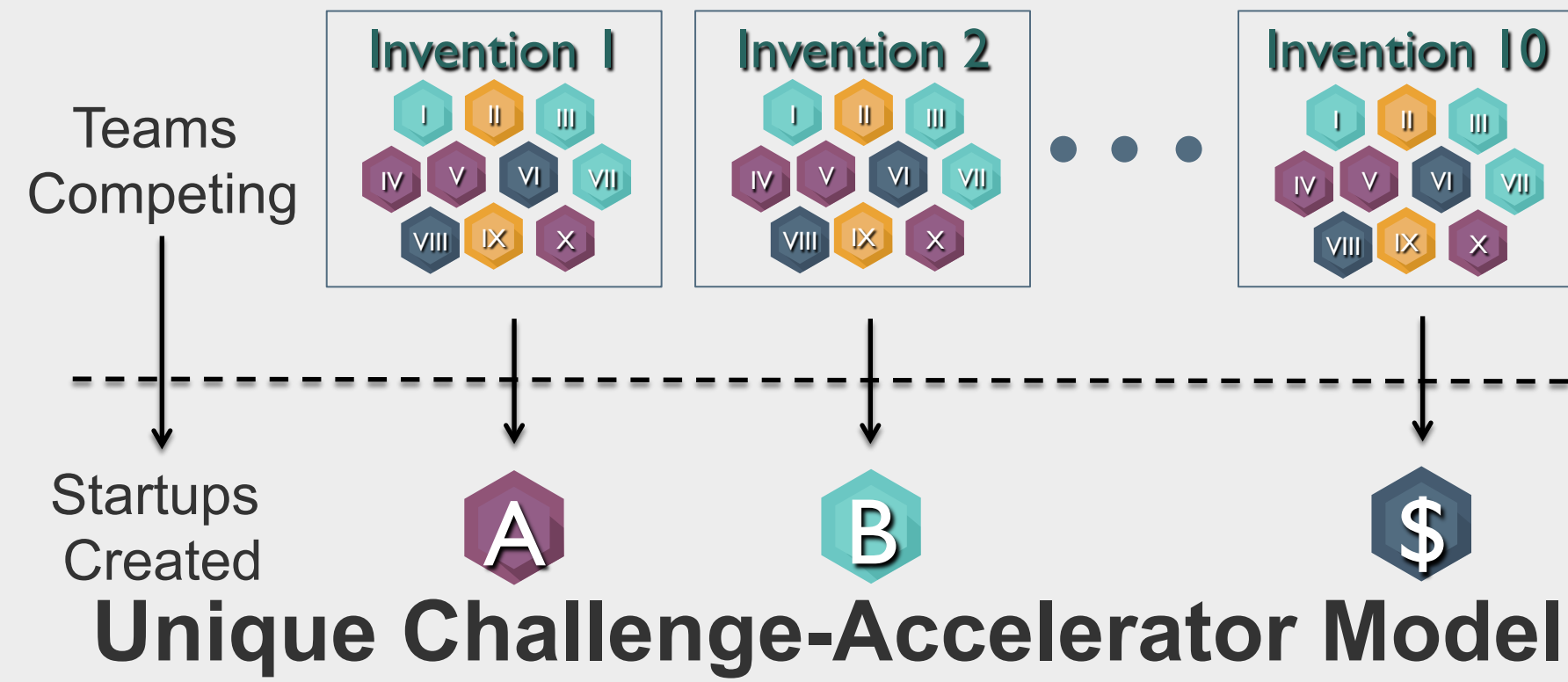
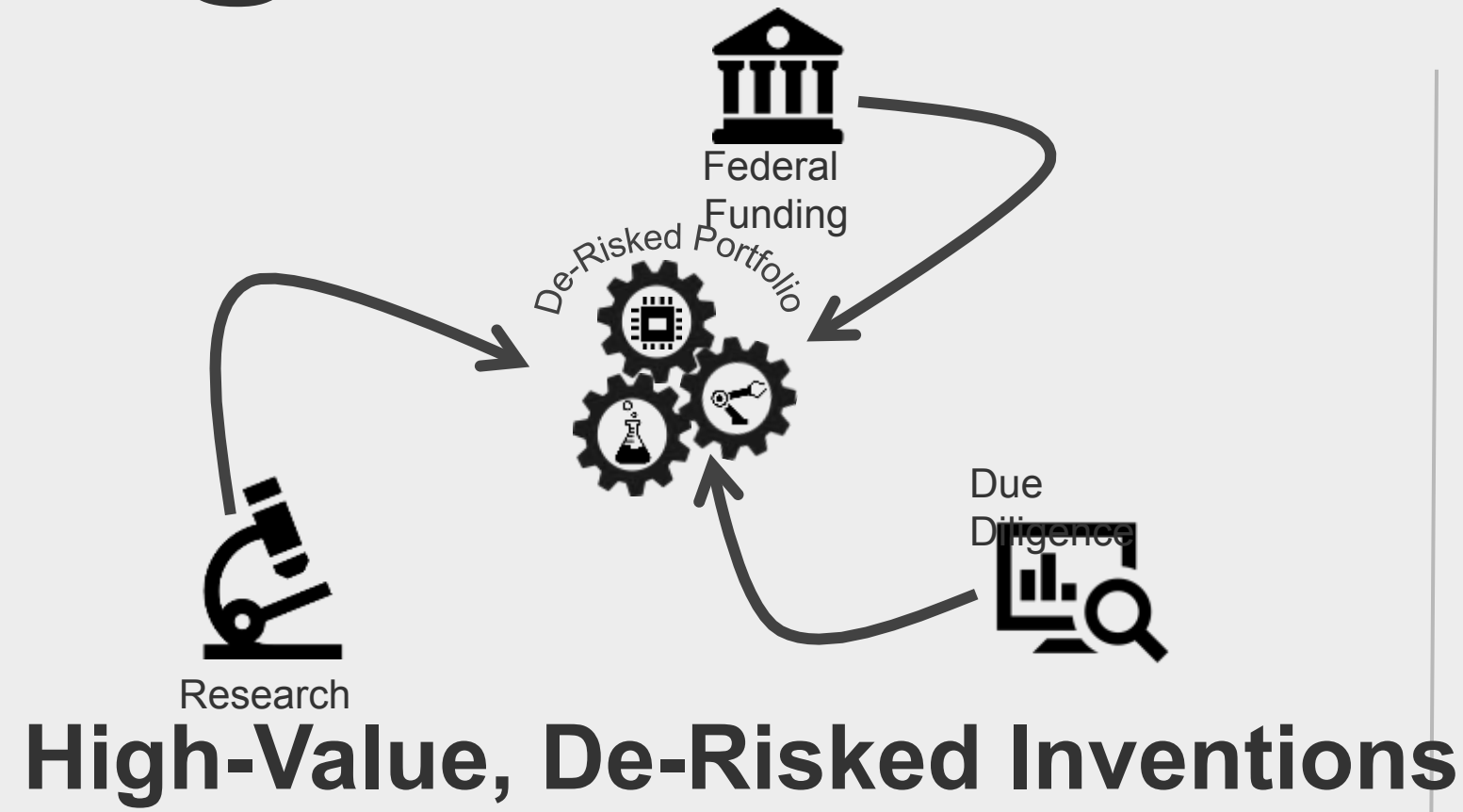
Secures majority controlling equity position & maintains through future dilutive rounds



Capital reserved for follow-on A Round for accelerating top breakout winners



Ingredients to Create BAD ASS Startups



The CAI Team



Rosemarie Truman

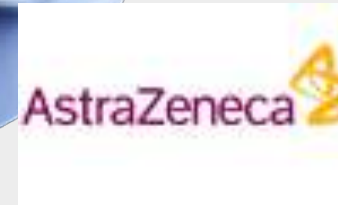
Founder and CEO

Former: Global Head of Innovation Strategy, IBM



Reg Seeto

Board Member
COO at
Ardelyx, Inc.



Nick Donofrio

Board Chairman
EVP IBM, 45 Years
His Brain Child is
Watson

CORE TEAM



Jonathan Lui

CVO

**Chief
Ventures
Officer**



Cody Locke

CIO

**Chief
Innovation
Officer**



Jenna Baker

CBO

**Chief
Business
Development
Officer**



Sam Bahreini

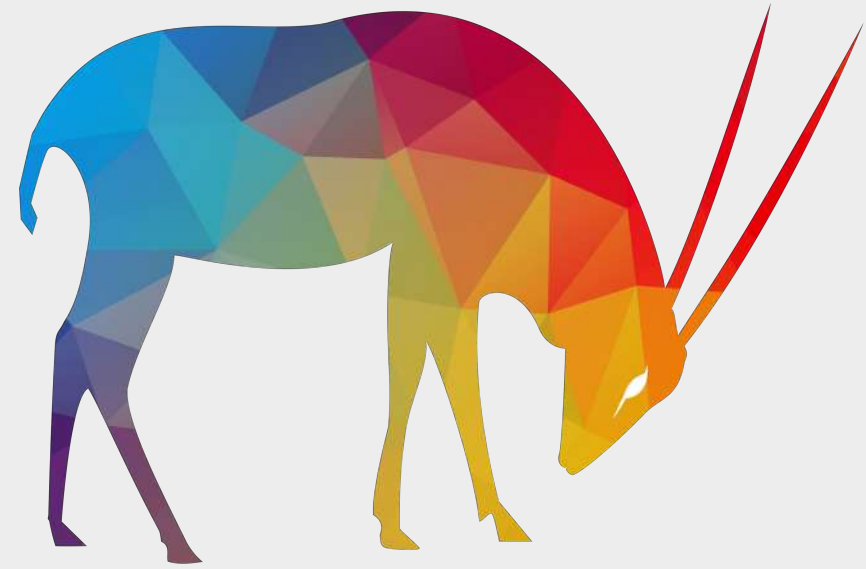
CXO

**Chief
Experience
Officer**



Sourav Sinha

Entrepreneur
In
Residence



GAZELLE FUTURES

Contact

Gazelle Futures, LLC

**Rosemarie H. Truman | Founder and
CEO**

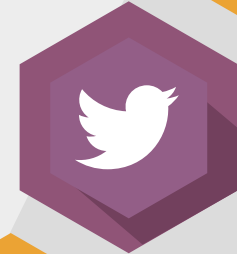
**Sourav Sinha | Entrepreneur-in-
Residence**



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www.thecenterforadvancinginnovation.org



<https://www.linkedin.com/company-beta/2827441/>



Bethesda, MD 20817

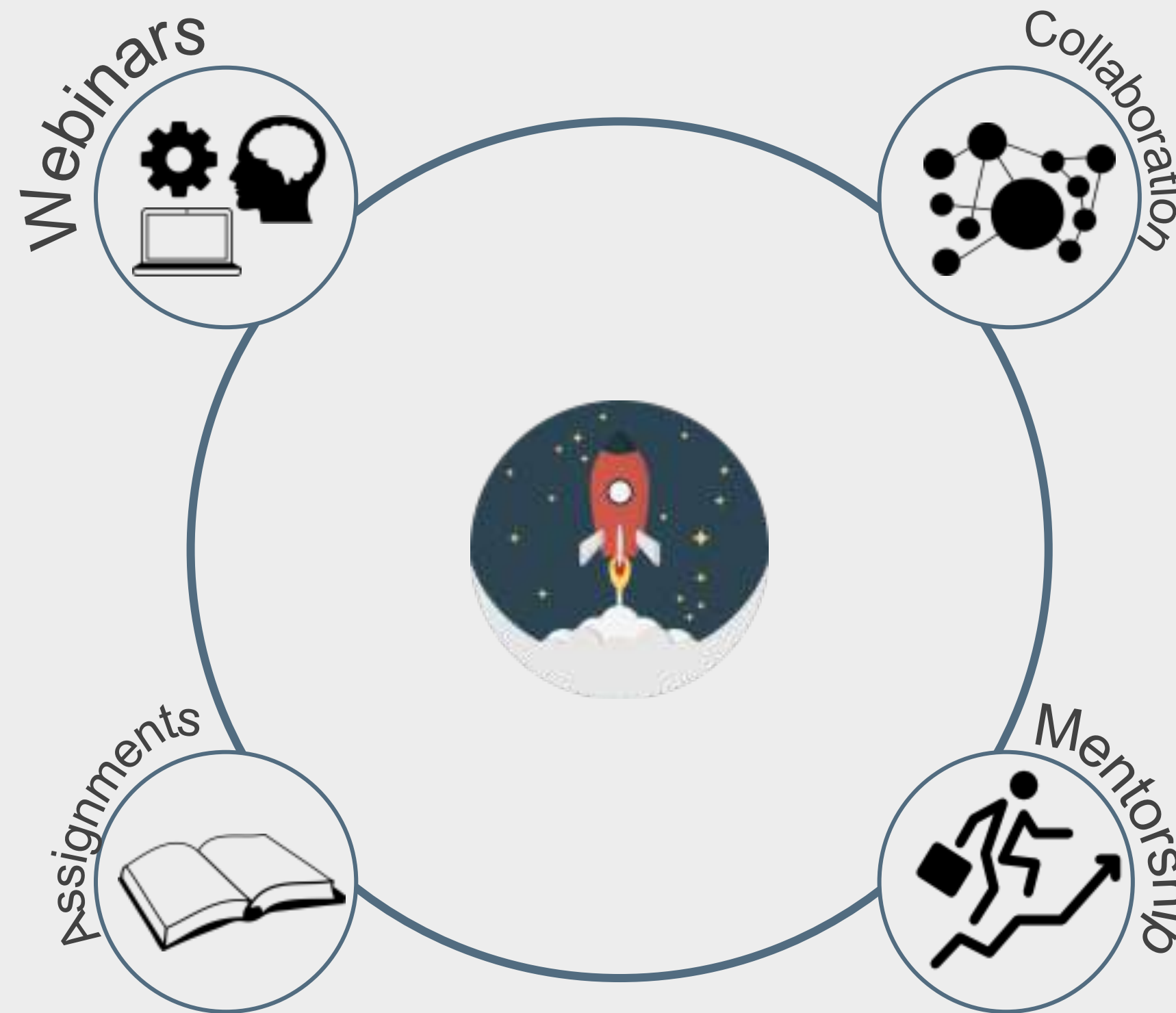
Accelerator Training Model – Deep Dive

40+ Webinars on Business of STEM

- Given by industry experts
- Topics include: Incorporation, R&D Planning, Business Development, Financial Modeling etc.
- Eg. Venture Collaborations w/ Scott Weiner, Partner, Pappas Ventures

12+ Assignments

- Development training for business documents
- Guidance provided along with templates, training, and feedback
- Eg. Financial model, Pitch deck, Stakeholder engagement, VoC



Training for Next Generation of STEM

Collaboration across the ecosystem

- Participants work together to form teams and gather experts
- Establish new connections
- Expand entrepreneurial network
- Create a Dream Team for the startups

CAI Mentors

- Mentors are seated in every team to provide close mentorship
- CAI augment expertise depending on startup needs
- Mentors provide one-on-one guidance on success measures