

# Start-Up APEC Conference II: Business to Global Market

24 September 2013  
Lima, Peru

Talking Points of Thomas D. Nastas

[www.scalingupinnovation.com](http://www.scalingupinnovation.com)

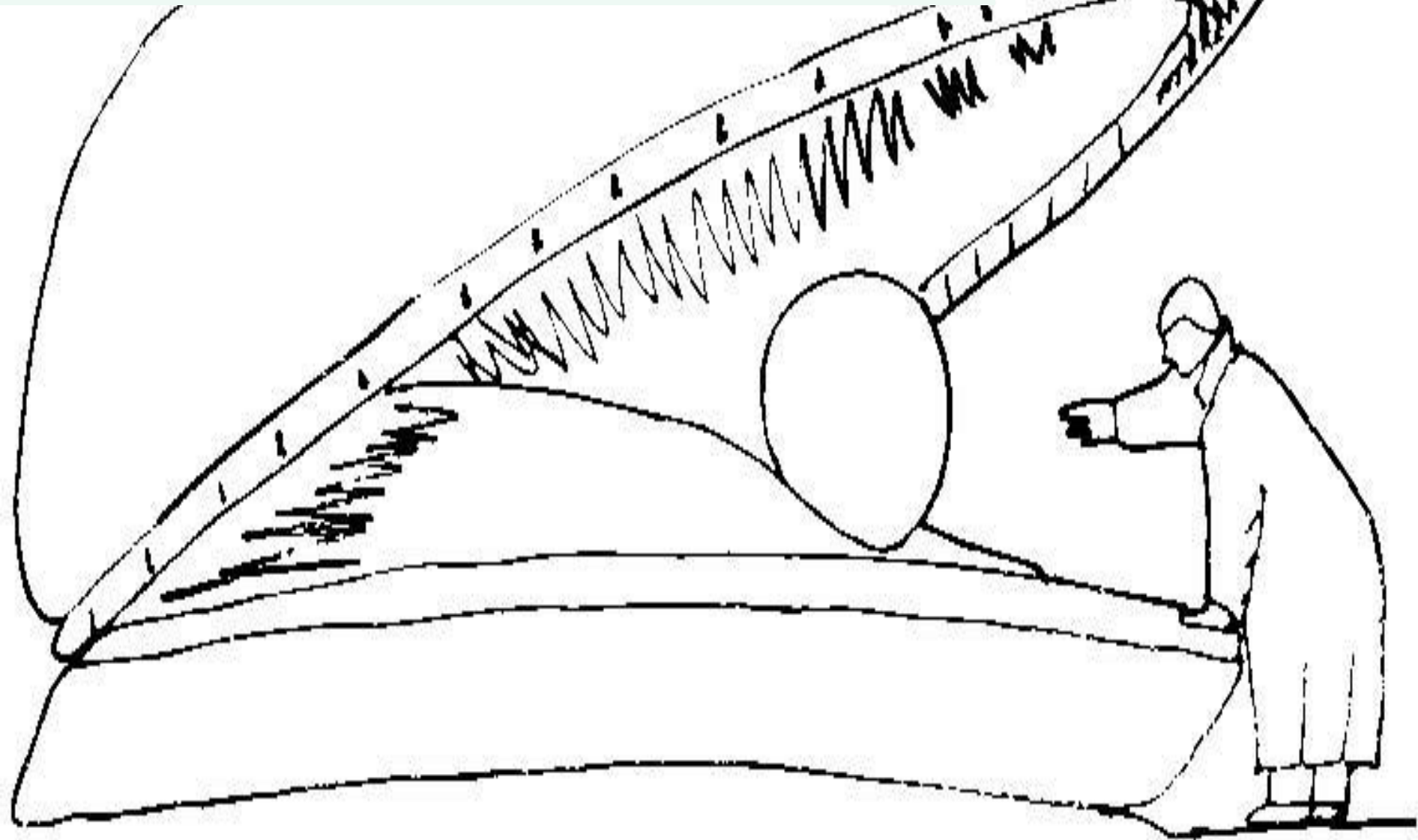
[www.IVlpe.com](http://www.IVlpe.com)

# Financing the VC Ecosystem



**to Scale Up Investment—a Need  
Worth Solving**

# Culture of Risk in Emerging Markets Drive Investor Behavior



# Nastas—IVI: Investors/Partners & Funds—Financing Entrepreneurs

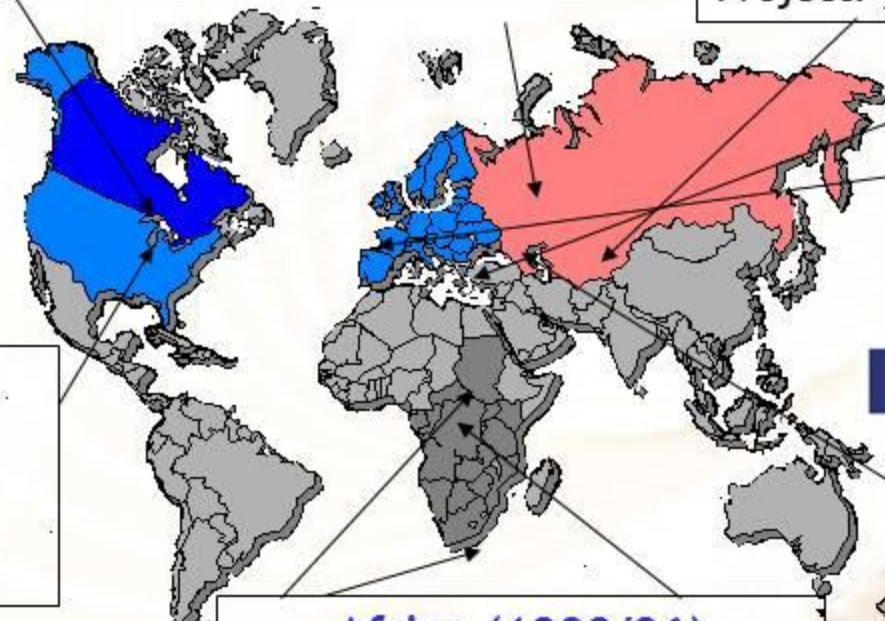
**Russia (2005):** CIS Hi Tech Partnership Initiative: Investor-Shell Oil, Shell Tech Ventures + IVI



**Kazakhstan (2010)-Present**  
 \$85MM Tech Commercialization Project. \$ from



**Canada (1992)**  
 C\$100MM-Canadian Bus. Dev. Bank-Investor



**Europe (1992/94)**  
 Tech Fund, \$10MM-EU, \$5MM Financière St Dominique, Paris

**USA (1986)**  
 Investor-The Michigan Product Dev. Fund (\$4MM)



**Russia (1997)**  
 HP LP, \$30MM-Investors EBRD & USAID

**Africa (1993/96)**  
 E. Africa \$5MM, Sub-Saharan, \$280MM, South Africa, \$30MM, Investors-IFC/World Bank





Innovative  
Ventures  
INCORPORATED

# Nastas Experiences with Deal Structures & Strategies

**Canada (1992)**

Venture Lending

**USA (1986)**

Royalty + Equity

**W. Europe (1992/94)**

Cash flow &  
Royalty

**Slovakia & Croatia (2004 & 2010)**

Grants & VC

**Kazakhstan (2010-Now)**

Commercialization  
Grants to Overcome  
the Valley of Death

**Russia (1997-2010)**

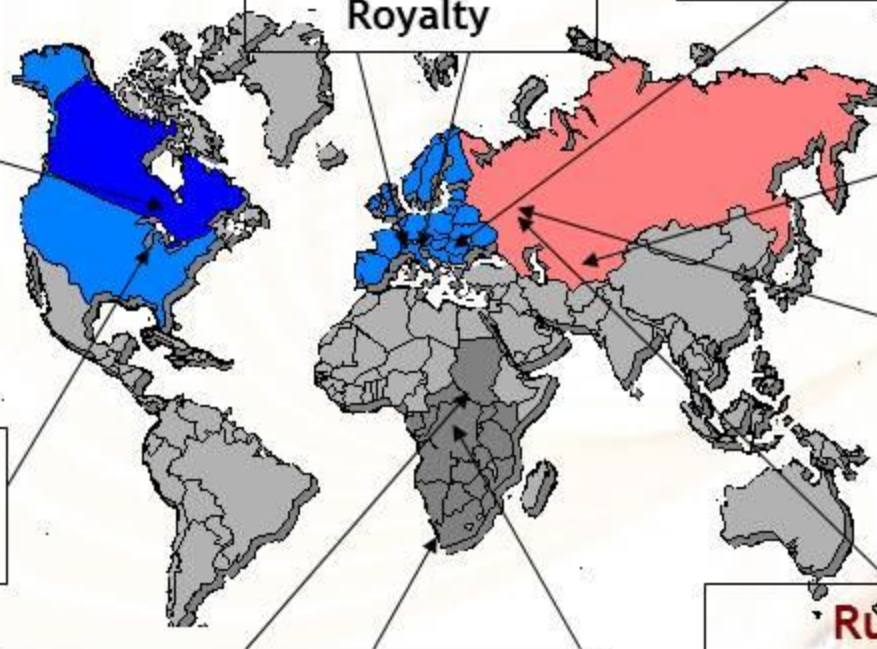
Venture, Private  
Equity & SME Bank  
Lending

**Russia (2010-Now)**

Proof-of-Concept for Cross-  
Border Tech Dev/Transfer  
(Russia—USA—Russia)

**Africa (1993/96)**

Venture Lending, Fund-of-  
Funds & Private Equity



**“Lessons from the  
Battlefield”**

**“Lecciones del  
campo de batalla”**



**With So Much \$ Seeking  
Opportunity**

**Why is it Such a Struggle?**



# to Get Local Investors to Open Their Wallets



**& Finance Technology, 1<sup>st</sup> time  
Entrepreneurs & Early Stage SMEs?**

# For Example—Russian Oligarchs: Plenty of \$ to Invest in Tech



Net Worth-\$14 Billion



Net Worth-\$15 Billion




Net Worth-\$11 Billion



Net Worth-\$18 Billion

# Reasons Why Wealth Not Invest in Tech—Say Entrepreneurs

Reason #1 “Wealth Takes No Risk, Only Invest in Sure Things”



**In Moscow, this Construction Site Sat Unfinished for 2 years, No Cash Flow, No Revenues, No Customers**

**\$2 Billion Invested—No Customers, No Cash Flow—Nastas Comment: “Gee—Seems like Big Risk to Me”**

# Reasons Why Wealth Not Invest in Tech—Say Entrepreneurs

Reason #2 “Wealth Does Not Invest in Start-up Projects”

# Every Building Begins with a Hole in the Ground



**Nastas Comment: “Gee—Looks like a Start-up Project to Me”**

# Reasons Why Wealth Not Invest in Tech—Say Entrepreneurs

Reason #3 “Tech is Small \$”



IPO Valuation: \$11 Billion

ЯНДЕКС



IPO Valuation: \$5 Billion

@mail.ru  
group

Nastas Comment: “Gee—Seems Like Big \$  
to Me”

# Risks Typically 'Bought:'

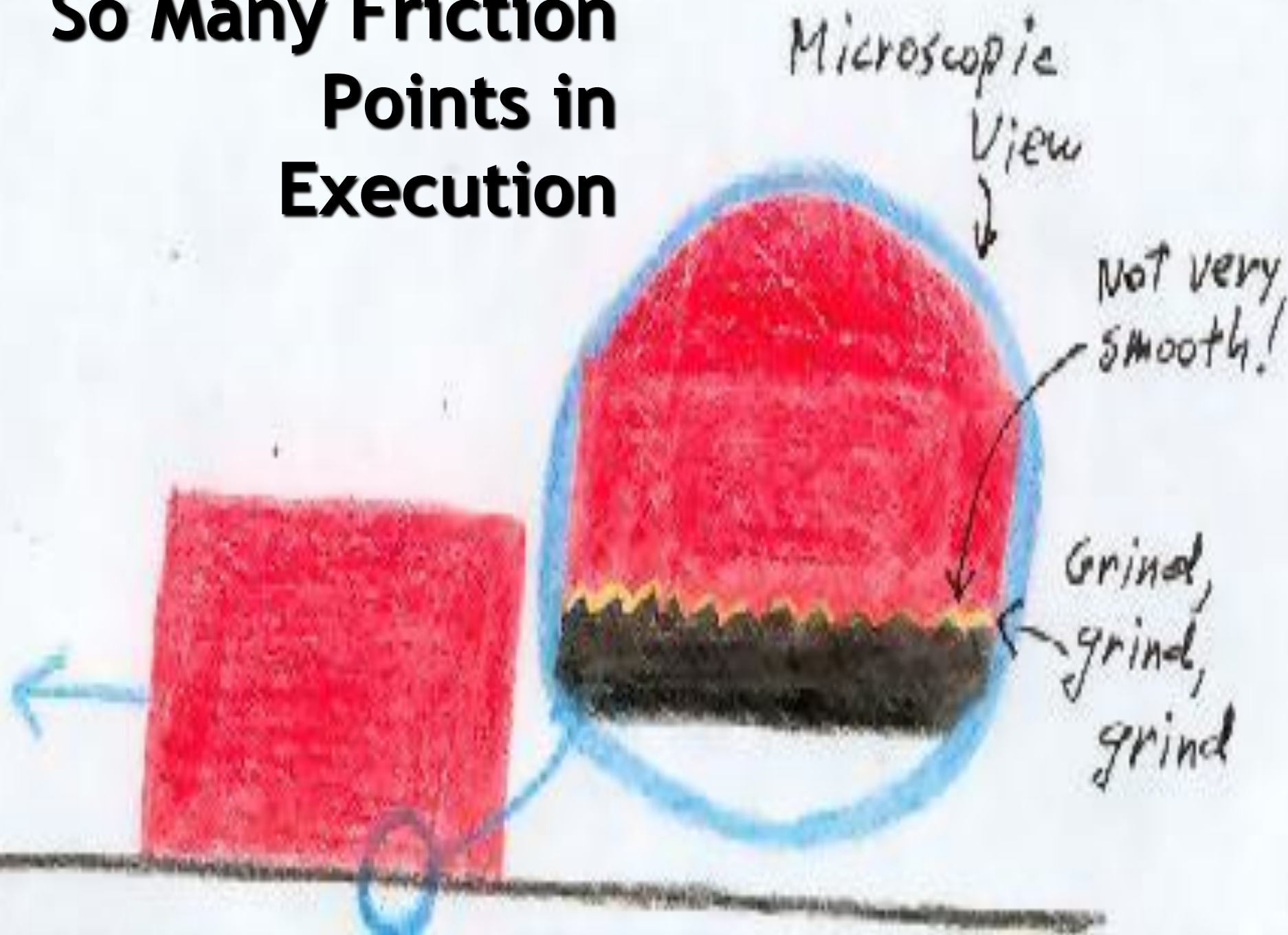
- Real Estate/Construction
- Consumer, Food & Beverage
- Retailing
- Mining & Minerals
- Manufacturing
- Agriculture/Fishing

*Even in Greenfield Projects,  
Markets & Customers Are  
Guaranteed*

Results Assured if Execution  
is Successful



# So Many Friction Points in Execution



**Even the Big Guys Trip**



# Big Uncertainties: Risks in Tech\*



*“Does a Market Exist?”*

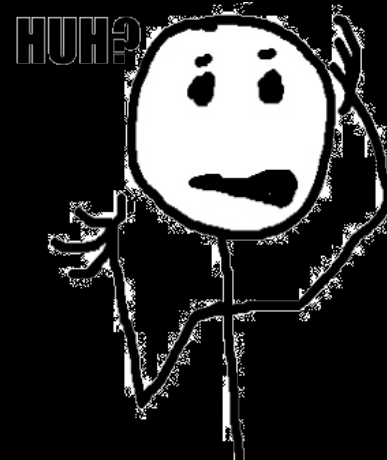


*“Will They Pay?”*



*“Will the Tech Work?”*

*“Do Customers ‘Get It’?”*



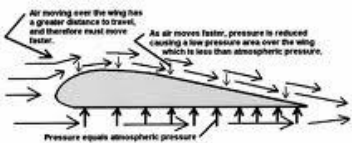
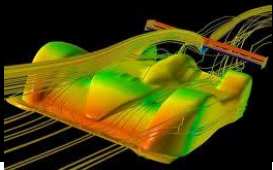
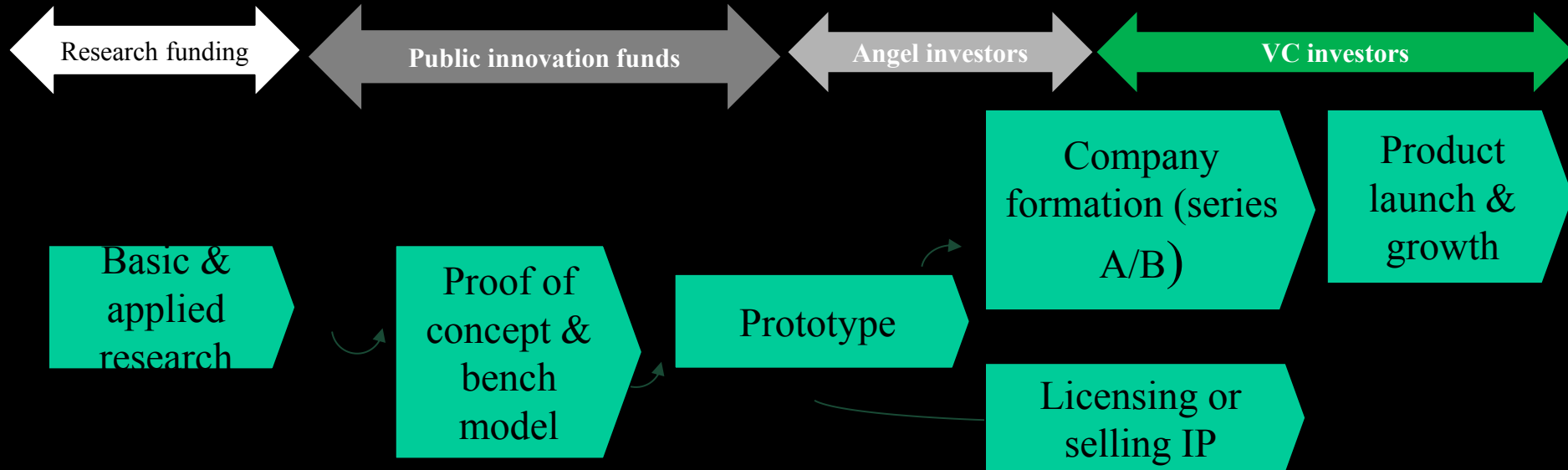
# Tech Commercialization Project (TCP) in Kazakhstan

## Make Technology More Commercial

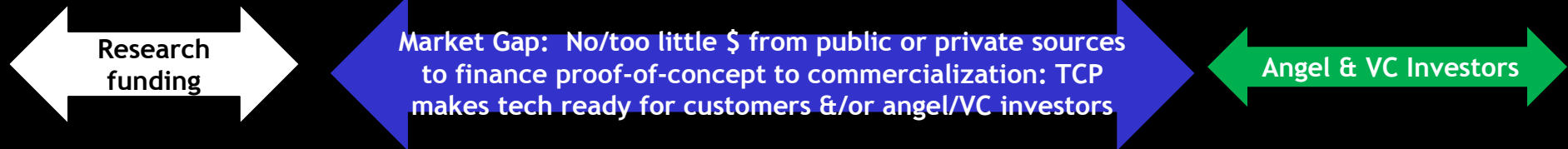
Thomas D. Nastas  
Member

International Science & Technology Board (ISCB)  
Tech Commercialization Project, Kazakhstan

# The Finance Chain in USA



# TCP Finances the Market Gap in Kazakhstan



Basic & applied research

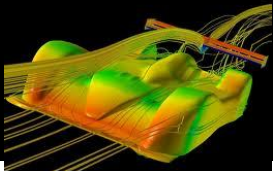
Proof of concept & bench model

Prototype

Company formation (series A/B)

Product launch & growth

Licensing or selling IP





# So Tech Meets Customer &/or Investor Needs—to Prove that:



*“Yes a Market Exists!”*



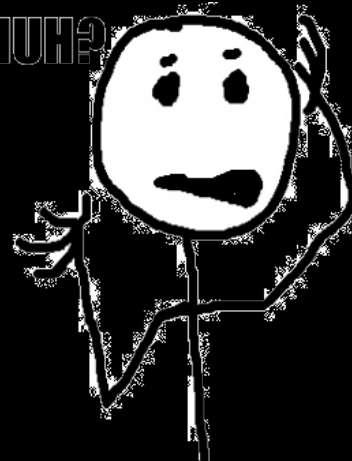
*“Yes They Pay!”*



*“Yes the Tech Works!”*

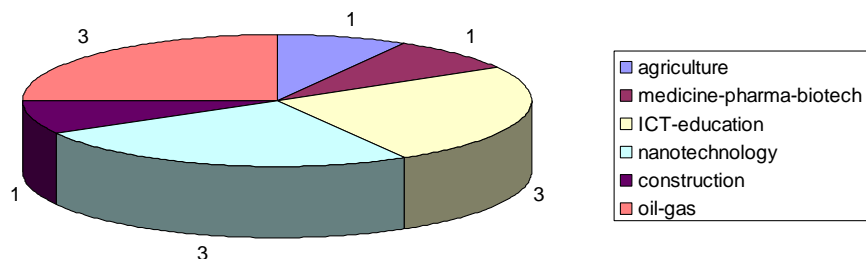
*“Yes, Customers ‘Get It!’”*

HUH?



# Project Results (as of 14 August 2013)

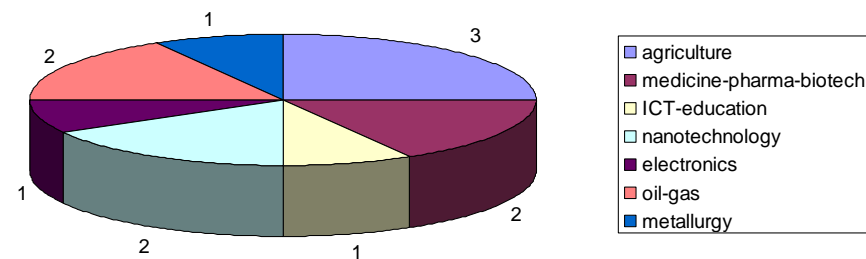
SRG + JRG Proposals (12) Selected: June 15th, 2011



10 Projects Financed in 2011

\$10.5 million Committed  $\approx$  \$1 million/project

SRG + JRG Proposals (12) selected: **June 22<sup>nd</sup> 2012**



12 Projects Financed

\$13 million Committed  $\approx$  \$1 million/project

# Big Demand for Commercialization Financing

In 2011 International Science & Technology Board (ISCB) received:

- 304 research proposals in Senior Research Group (SRG)
- 63 research proposals of Junior Research Group (JSG)
  - 10 projects selected for finance, \$10.5 million committed ≈ \$1+ million/project

In 2012 International Science & Technology Board (ISCB) received:

- 208 research proposals from Senior Research Groups (SRG)
- 24 research proposals from Junior Research Groups (JRG)
  - 12 projects selected for finance, \$13 million committed ≈ \$1+ million/project

1 August 2013 announced 2013 tender; 15 September 2013 last day to submit proposals

**Details of 3<sup>rd</sup> tender + all guidelines, forms, etc., of TCP at this [link](#) (in English, Russian & Kazak)**

# Other Initiatives

**To Scale the Start-Community & the Venture  
Capital Ecosystem?**



## And Impact the DNA of Investors?

- in Tech/Innovation
- to Venture Stage SMEs
- Possible to ‘Shape’ Deals to  
DNA of Investors?

**Deal Flow Funds Centered Around  
a Platform are One Such Solution**

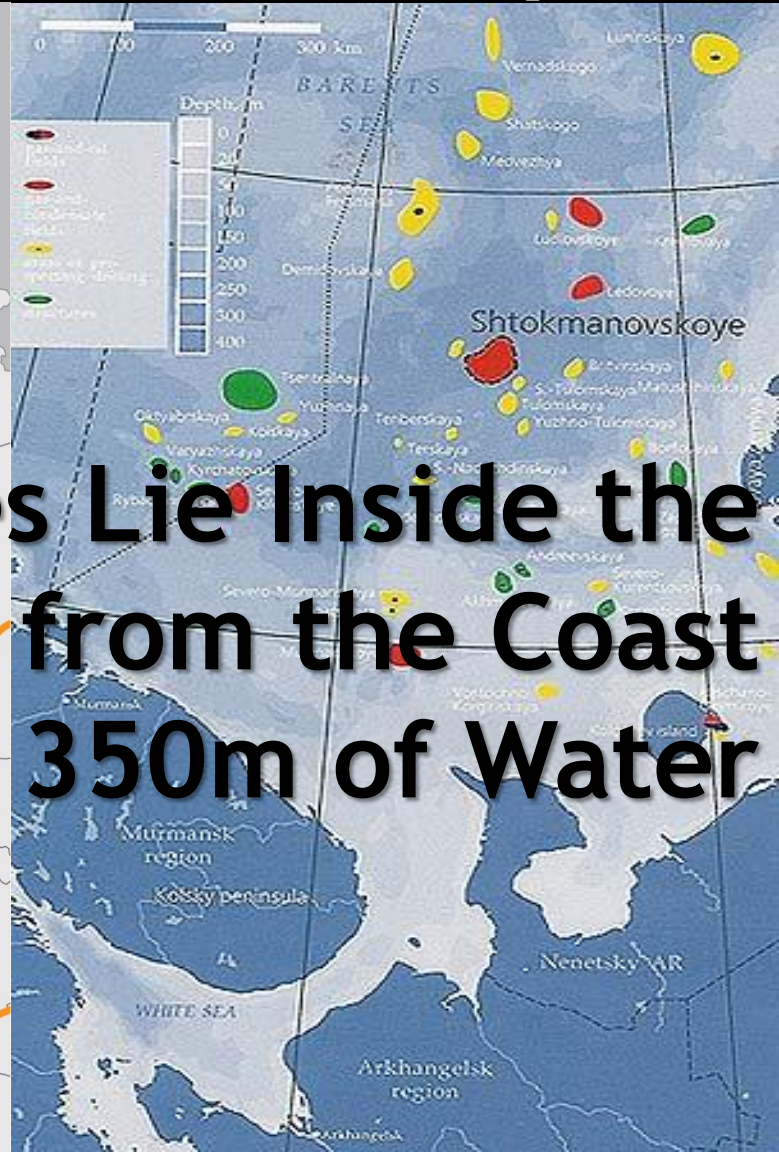
Deal  
FLOW

# Finance Creation of New Technologies & Technical Solutions

- Focus & Channel Scientific & Engineering Talent to Specific Needs to Specific Problems



# Let's Take the Natural Gas Shtokman Project as 1<sup>st</sup> Example



**Reserves Lie Inside the Arctic, 555km from the Coast of Russia, in 350m of Water**



# It Contains Breathtaking Wealth

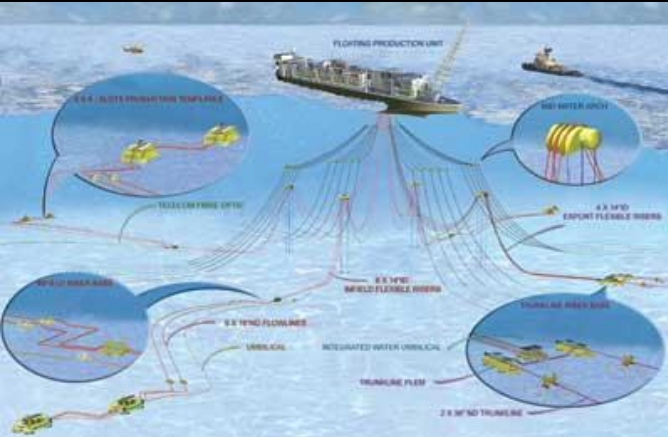
- Gas Reserves=3.2 Trillion cubic meters + 31MM tons of condensate, spread over an area of 1,400m<sup>2</sup>



- Exploiting Reserves, Environmentally Safe & Economically Requires New Technology That *Does Not Now Exist*

# Challenge #1

## Design, Build & Operate the 1<sup>st</sup> Floating Platform for Pack Ice



- Ice, 3m Thick, Uneven Ridges
  - Able to Withstand Impact of Icebergs Weighing 1-2 Million Tons, Drift at 0.25m/second & 1.2m Drift Ice Moving 1m/second



# Challenge #2

Transport Gas Over an Uneven Seabed 565 km from Production to Receiving



- Operate to  $-45^{\circ}\text{C}$

# Accomplished

- Reliably
- Environmentally Safe
- Economically Viable Over the Entire Supply Chain



Deal  
FLOW

# Finance Creation of New Technologies & Technical Solutions

- Focus & Channel Russian Scientific & Engineering Talent to Specific Needs to Specific Problems
- Oil/Gas as a Fund Too Broad & Too Horizontal to Catalyze Ideas



# Tech Solutions Not Russia Limited

- More Exploration in Hostile Environments—Extreme Cold, Deep & Far Off-Shore

- New Tech for Export, a Small But Substantial Success for Russia in the Global Community

Deal  
FLOW



# Deal Flow Funds Impact the Entire Ecosystem

BRAND CAMP

by Tom Fishburne

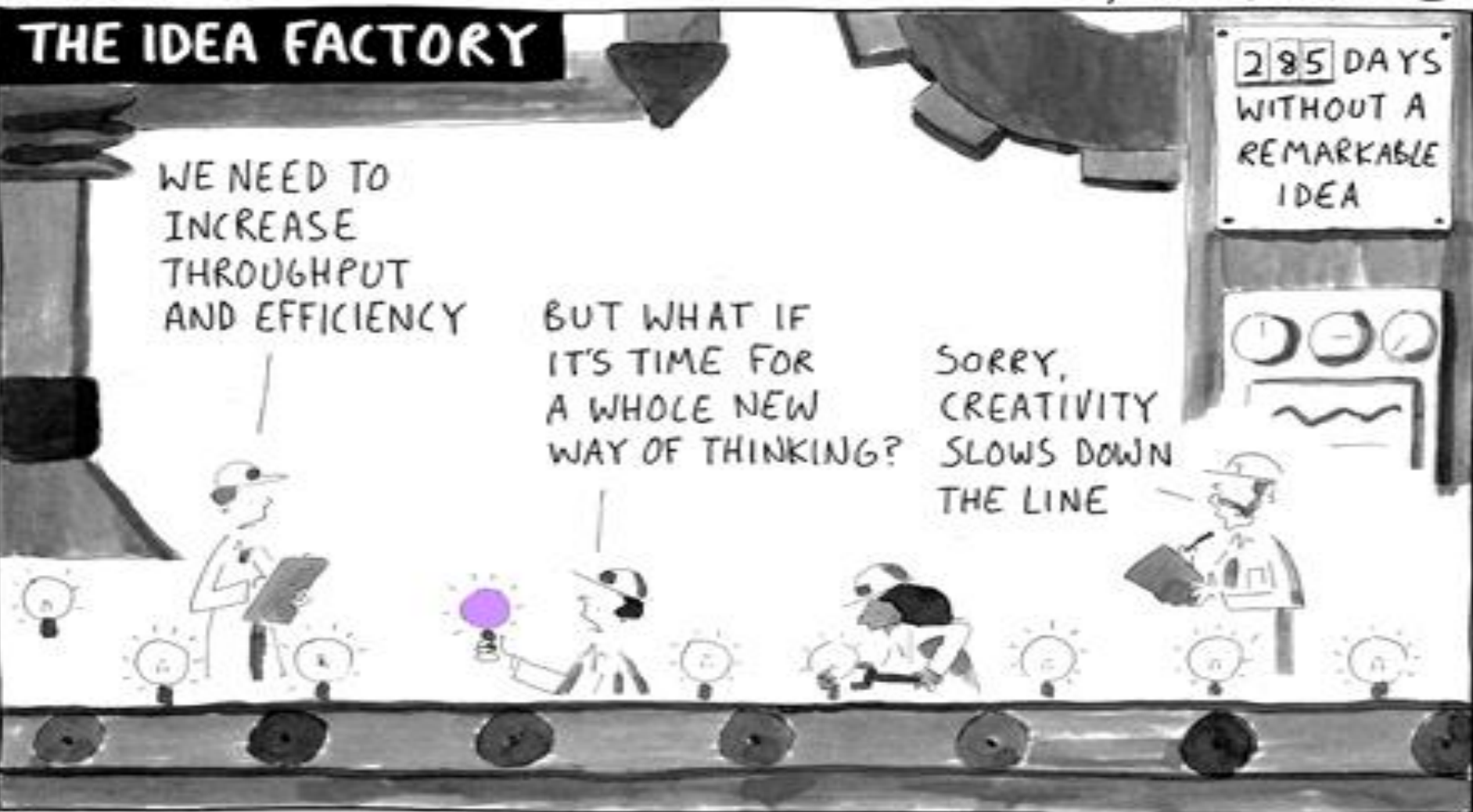
## THE IDEA FACTORY

WE NEED TO INCREASE THROUGHPUT AND EFFICIENCY

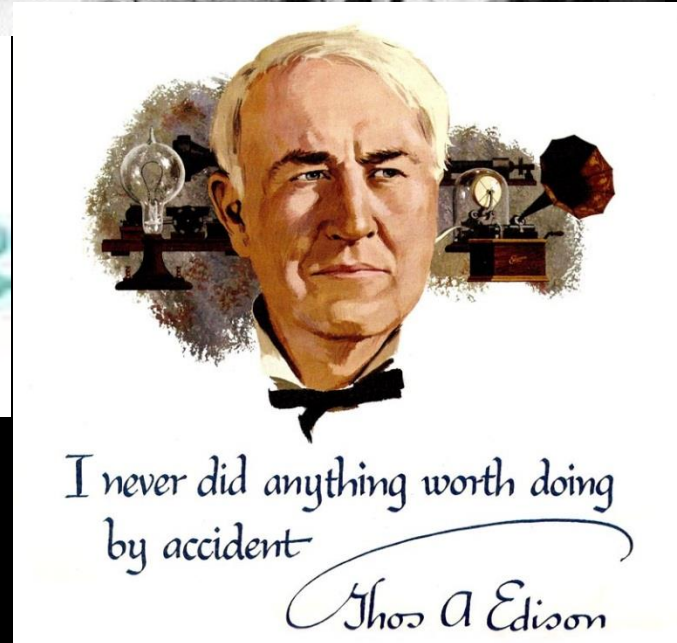
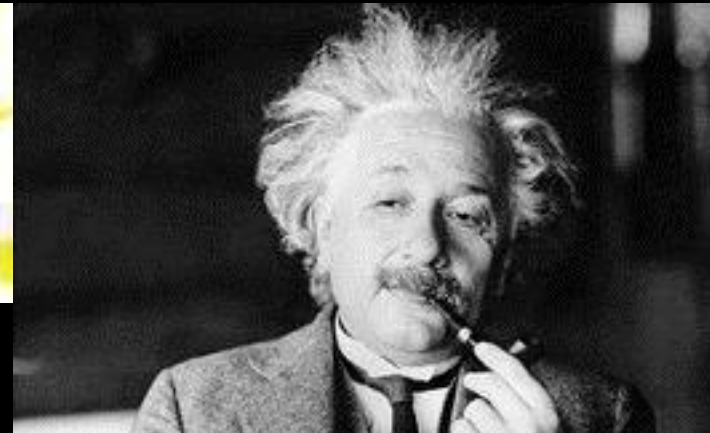
BUT WHAT IF IT'S TIME FOR A WHOLE NEW WAY OF THINKING?

SORRY, CREATIVITY SLOWS DOWN THE LINE

285 DAYS WITHOUT A REMARKABLE IDEA

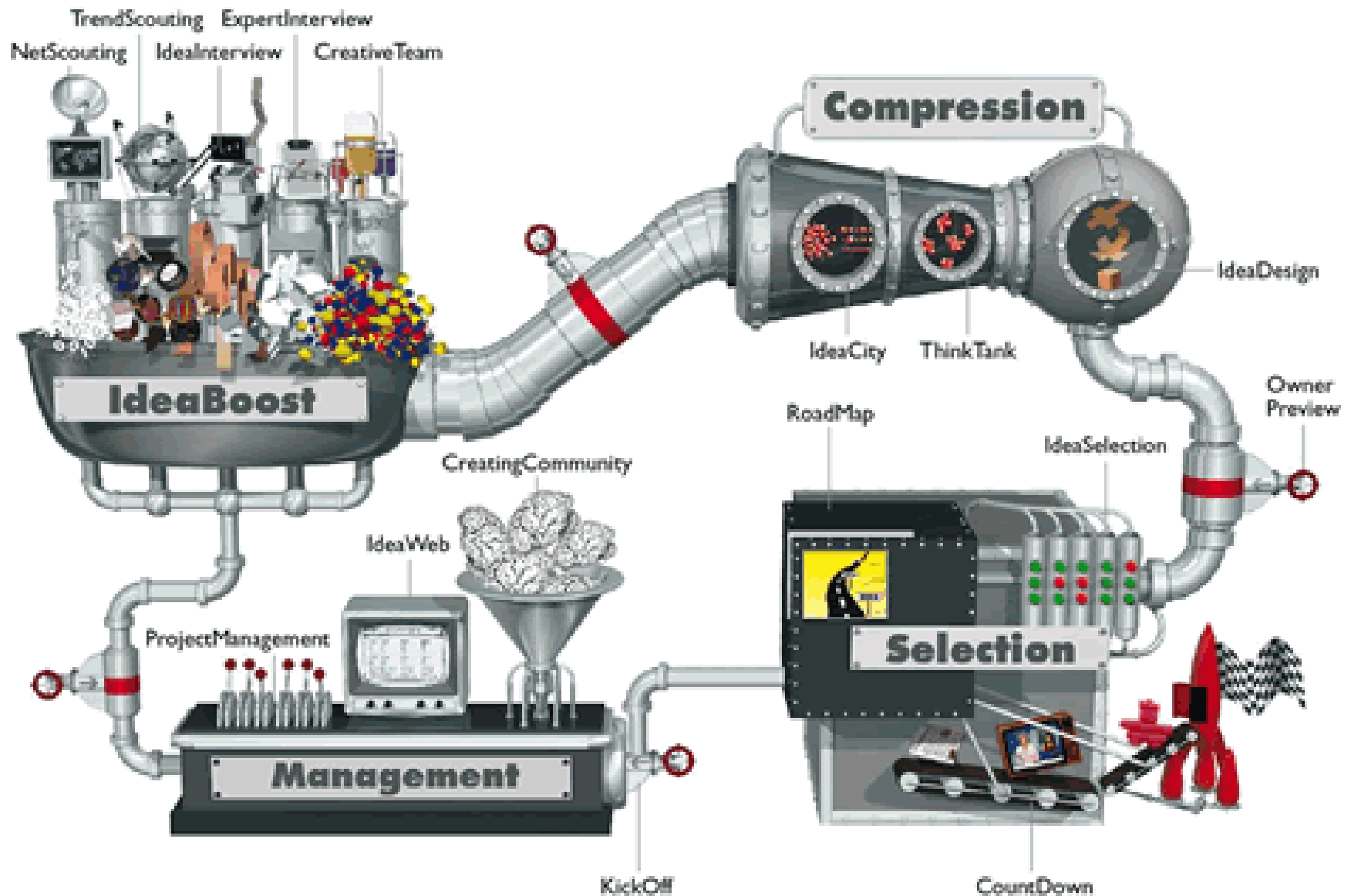


# Connect Scientific Talent & Entrepreneurs





# To Generate & Refine More Ideas



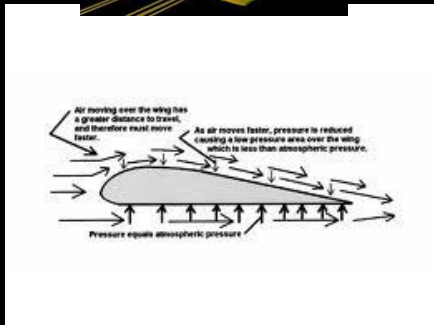
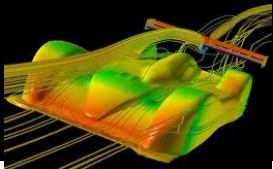
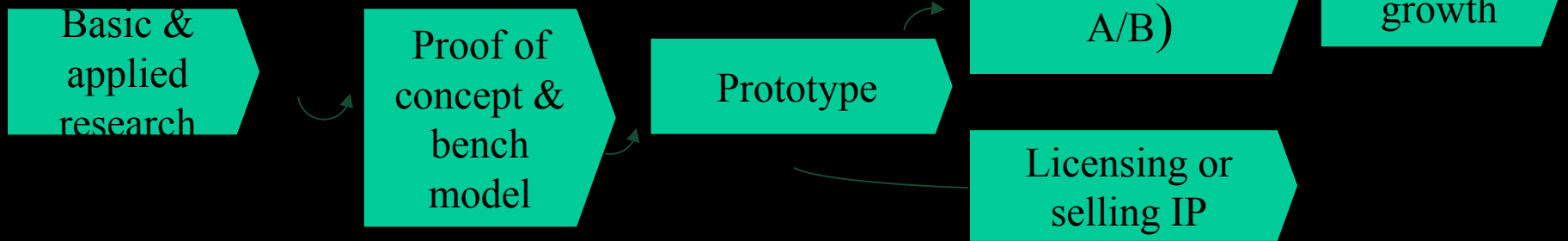
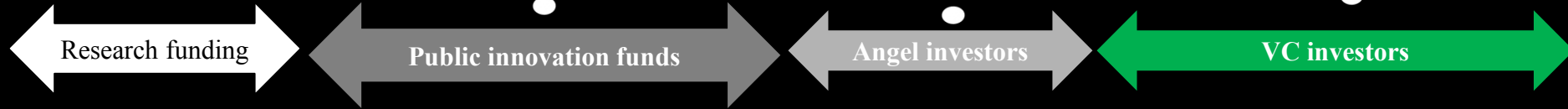
# Linked to National Priorities Requiring Solutions



# Other Ecosystem Issues: How Create?

- Culture of Licensing
- Culture of Commercialization
  - Globalize Talent

# What Gaps Exist in Your Country?



# What's in Your Head?

**Deal Flow Funds?**

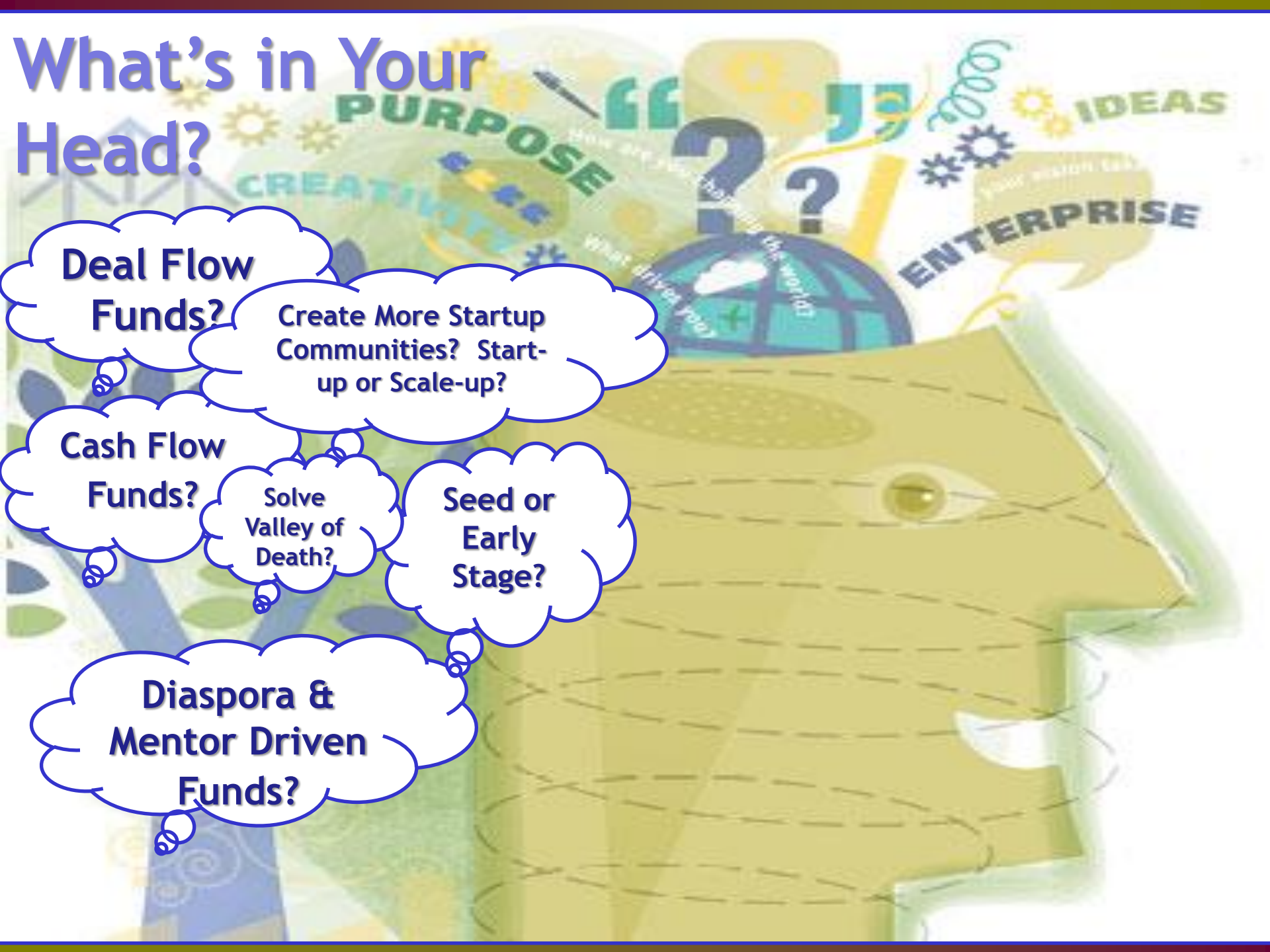
**Create More Startup Communities? Start-up or Scale-up?**

**Cash Flow Funds?**

**Solve Valley of Death?**

**Seed or Early Stage?**

**Diaspora & Mentor Driven Funds?**



**Solution #2: For Investors**

Venture initiatives (e.g., deal flow funds) 'shaped' to risk behavior of local investors  
+  
mentor to build an early stage tech portfolio

**Solution #1: For Entrepreneurs**

'Shape' business models (e.g., clonentrepreneurship) to risk behavior of local investors  
+  
mentor entrepreneurs to 'sell risk—then opportunity'

**Solution #3: For Development Finance Institutions & the Gov't**

Grant schemes which make technology more commercial, e.g., model to \$85MM Tech Commercialization Project in Kazakhstan



*“Initiatives to Finance a VC Ecosystem in Your Country”*



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