

Does Every Scientist Have To Be an Entrepreneur?

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CERN

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NO

About myself...

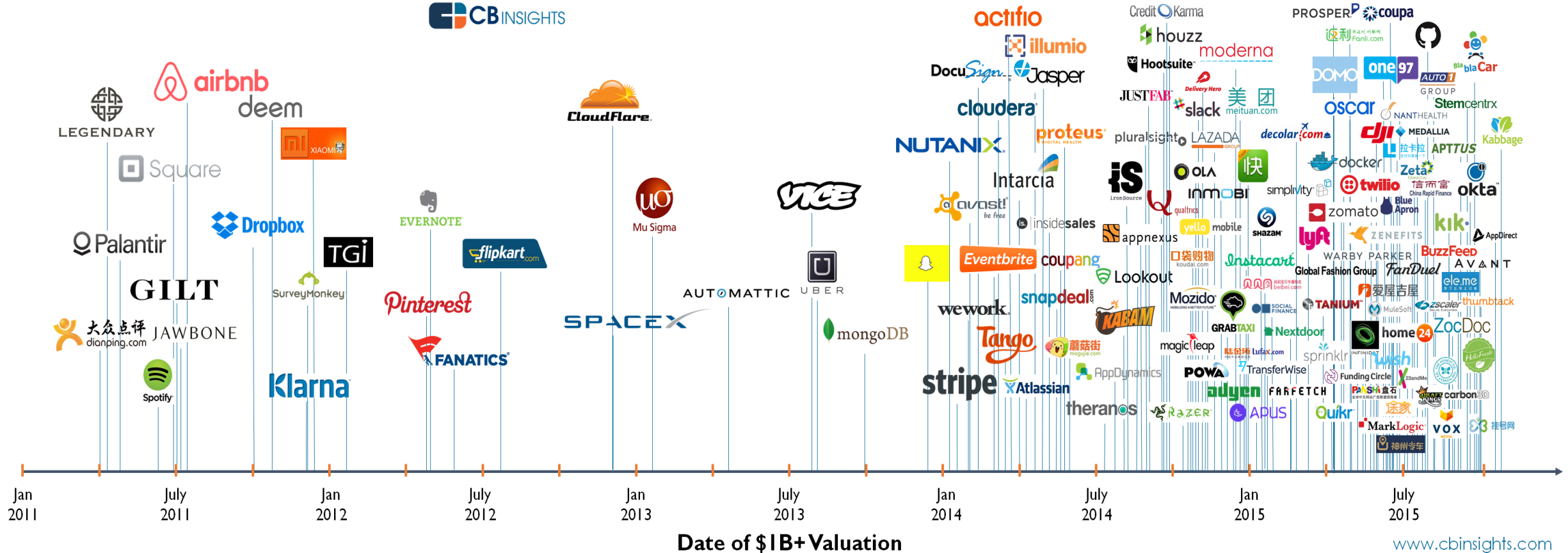
- ... I didn't work in CERN...
- ... but...
 - *Test results of a BaF2 calorimeter tower with a wire chamber readout; CERN-EP-84-82*
- I was in
 - Zeuthen
 - DESY
 - SLAC
- „A” in physics
- And I am into business, university, mentoring, international acceleration programs, connecting Idea 2 Business, funds

Who wants to own an unicorn?

The Increasingly Crowded Unicorn Club

Private Unicorns since 2011

Created by:



The process we are teaching...

- If you have an idea or a technology
- And preferably a market
- Come to us
- Incubators
- We help with the IP
- POP, POC, MVP
- Find seed fund & create a company
- Accelerators
- Teach you pitching
- Find A round, then B, then probably C, and then IPO maybe
- And there are some legal issues as well, equity and options negotiations, KPI's, valuation and convertible note
- And sometimes it will work...
- ...and after 4-7 years you will become successful. Maybe.

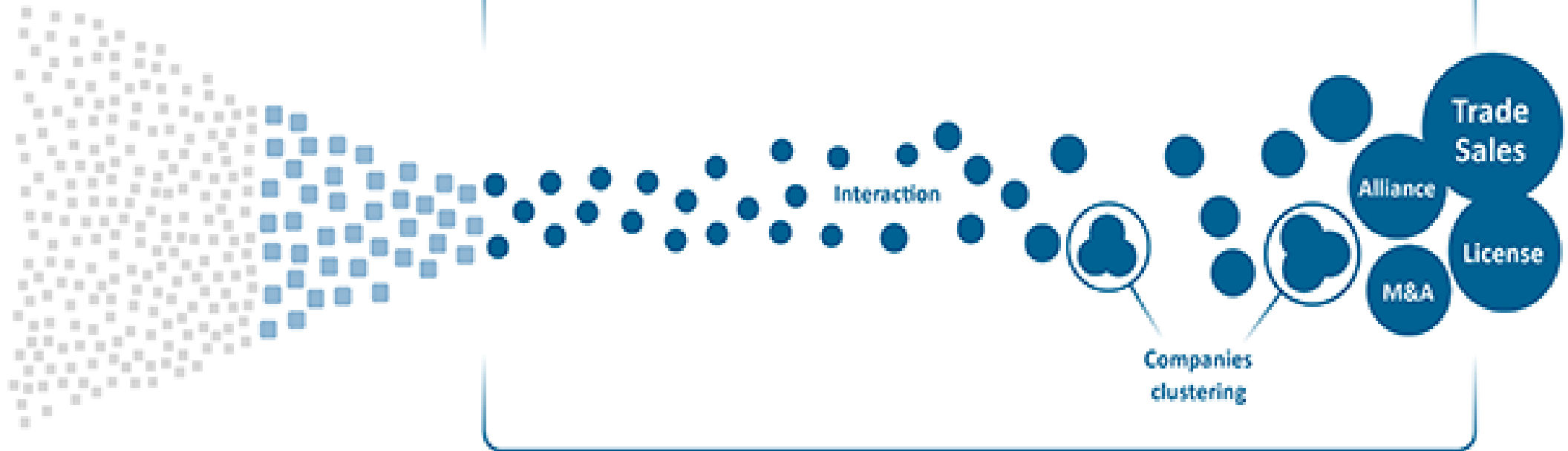
INNOVATE

EVALUATE

SELECT

DEVELOP

COMMERCIALIZE



Workshop
&
Scouting

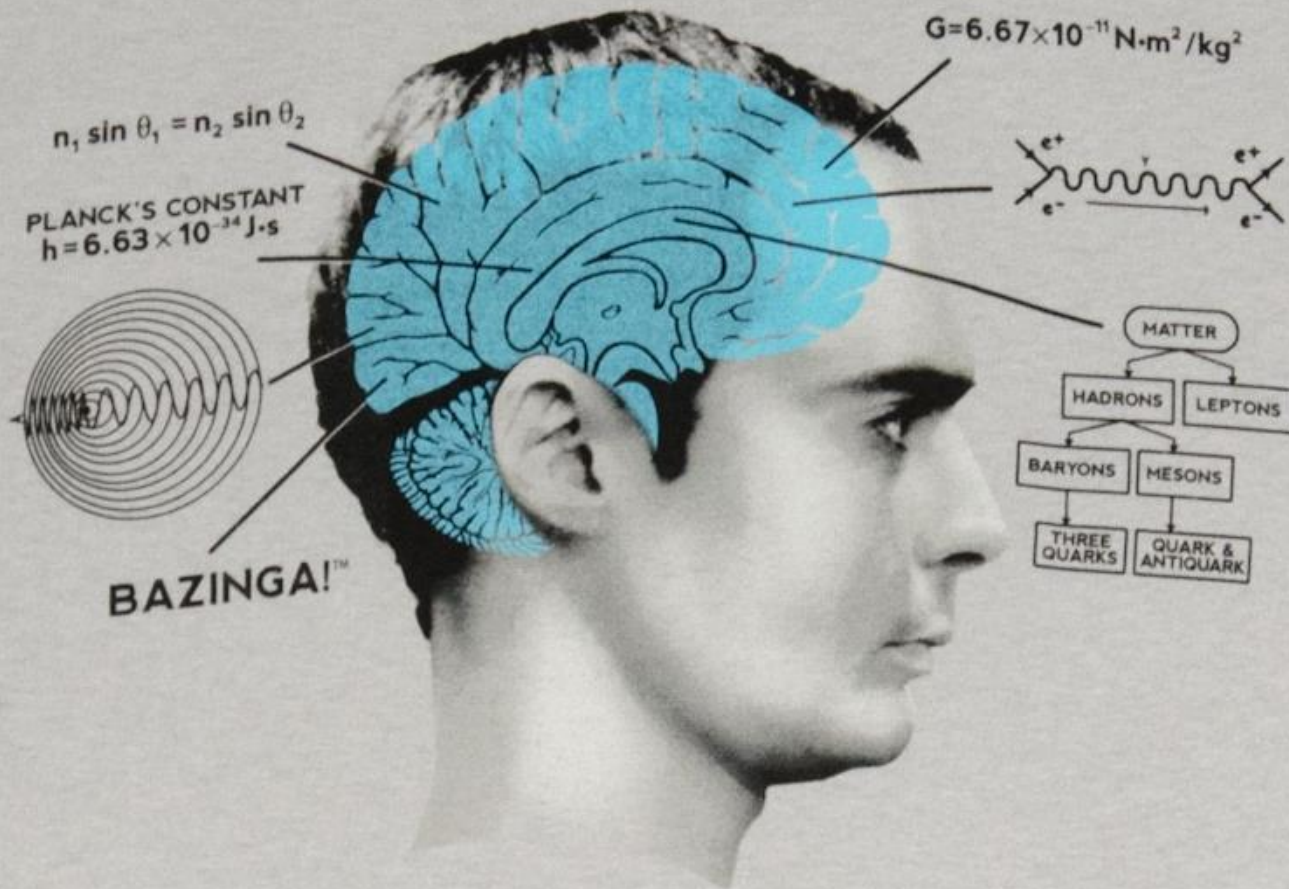
Incubation &
fundign

Acceleration &
funding

Exit
PE, IPO, BF

THE MIND OF DR. SHELDON COOPER

(B.S., M.S., M.A., Ph.D., Sc.D.)



The logical way...

- Post diploma studies
- Trainings
- Workshops
- Incubators
- Accelerators
- International Startup Contests

Adding various skills

- Communication
- Story telling
- Selling
- [Ability to Focus](#)

But do not forget...

- Technology &
- Money &
- Market &
- People &
- Time &
- ...
- The brutal truth:
 - team and owner



Motivations?

- Personal & deep
 - Changing the world for the grandmother
 - Prestige
 - Nobel prize
 - Upbringing as a „smart guy”
 - Influence / inspiration

Nothing about...

- I need to meet and fulfill other needs...
- I want to sell to the customers something they do not need but then they will addict to it and will pay me more money... (Heinz Ketchup)
- I have to find a disruptive technology to change the way people communicate... (The Sitting Piper – inventor of NASSA - Native American Smoke Sign Alarms)
- I love to calculate ROI on everyday basis.... (every, literally every CFO...)

That is why the most desired letter is

T

willingness to collaborate



depth of expertise & skill

“T-shaped person”

as described by Tim Brown, CEO of IDEO

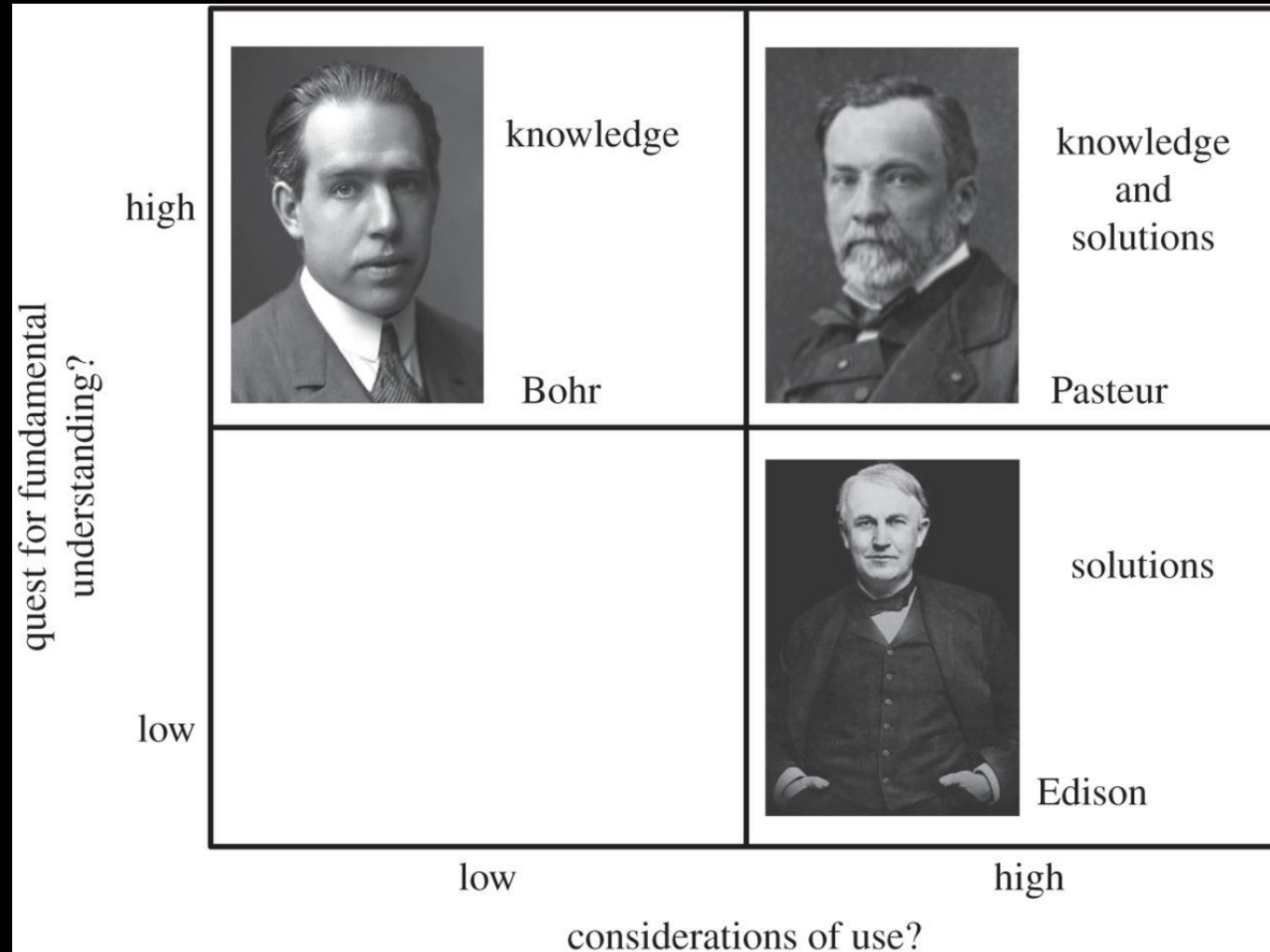
Peter Fiske – Successful PhD's in non-academic world...

- Finding one's own path and taking initiative with little assistance
- Ability to work in high stress environment
- Independence
- Maturity
- Computer skills
- Circumventing the rules
- Learning to seek out problems and solutions
- Ability to persuade
- Ability to create
- Ability to work productively with difficult people
- The ability and courage to start smth even if you don't know how

But...

- Do you really want to change the good scientists into entrepreneurs?
- Maybe it is better to change them into very good scientists?
- And allow them to work in the field they love?
- And give them other way to be a part of business?

Pasteur's Quadrant





T – shaped teams

- Business - looking for solution to its problem
- Entrepreneur - having access to funds and people
- Scientists - having deep expertise

- Facilitator connecting the dots... (Dyson, Jobs, [open hand](#))

- And then you create Business 2 Idea model, which is my favourite...

The real life

- Malcolm Gladwell „Tipping point” – mavens, salesmen & connectors
- Somewhere there are people with:
 - Problems – business, healthcare, industry etc.
 - Relations – connectors
 - Sales skills - salesmen
- You are the people with solutions – scientists

The right way...

- Brand yourself
- Build your network
- Learn to listen
- Talk to various people
- Talk to smart money only
- Care about IP (strategy, not only single filing)

- Find partners with other skills than yours

Radical collaboration

- Different background
- Different experience

- and
 - Empathize
 - Redefine
 - Ideate
 - Prototype
 - Test

- With reflection, drawing, story telling

Design Thinking

- Gift giving...

HBDI – whole brain thinking model

What do the numbers say?

When is it due?



What is the big idea?

Who is working on it?

Sense a style

- A. What are the 5 most important things to know about the European Union?
- B. Describe your closet ... is it generally messy or neat?
- C. Describe your most recent GOOD decision... and your most recent BAD decision.
- D. Have you ever had an idea that made someone else ANGRY? Explain.

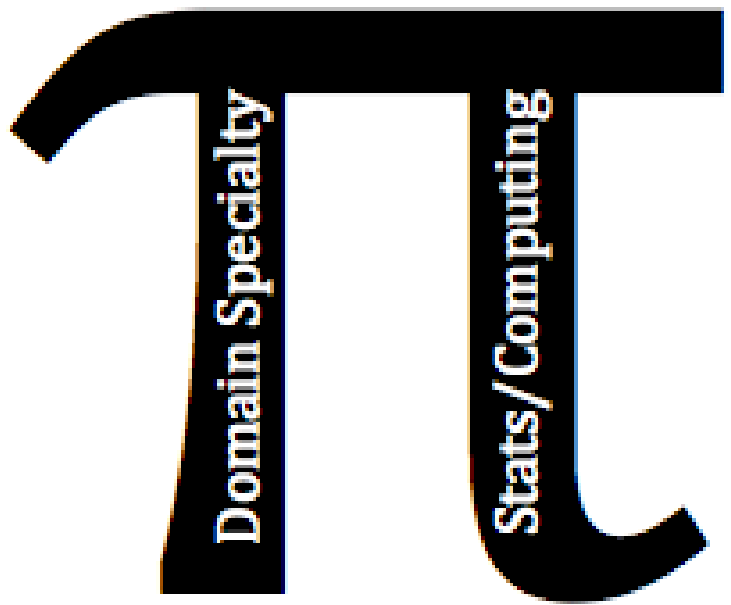
Breadth of Knowledge



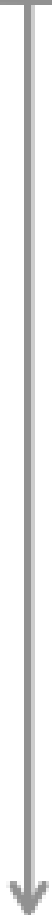
Classic researcher:
T-shaped



Modern researcher:
Pi-shaped

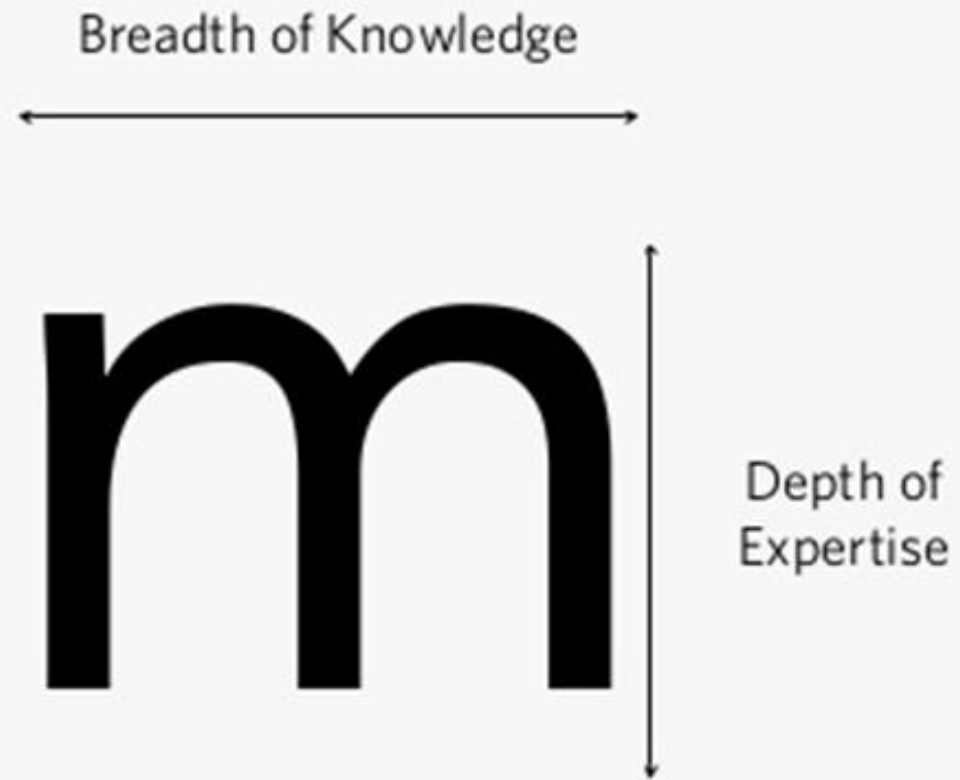


Depth of Knowledge



What if the new sort of worker was the m-shaped person?

Where they have a wide breadth of knowledge on various topics, but shallower knowledge where appropriate.





O shaped...

Inventions I like to talk about...

- [3 doodler](#)
- [Myo](#)
- [Eagelman](#)

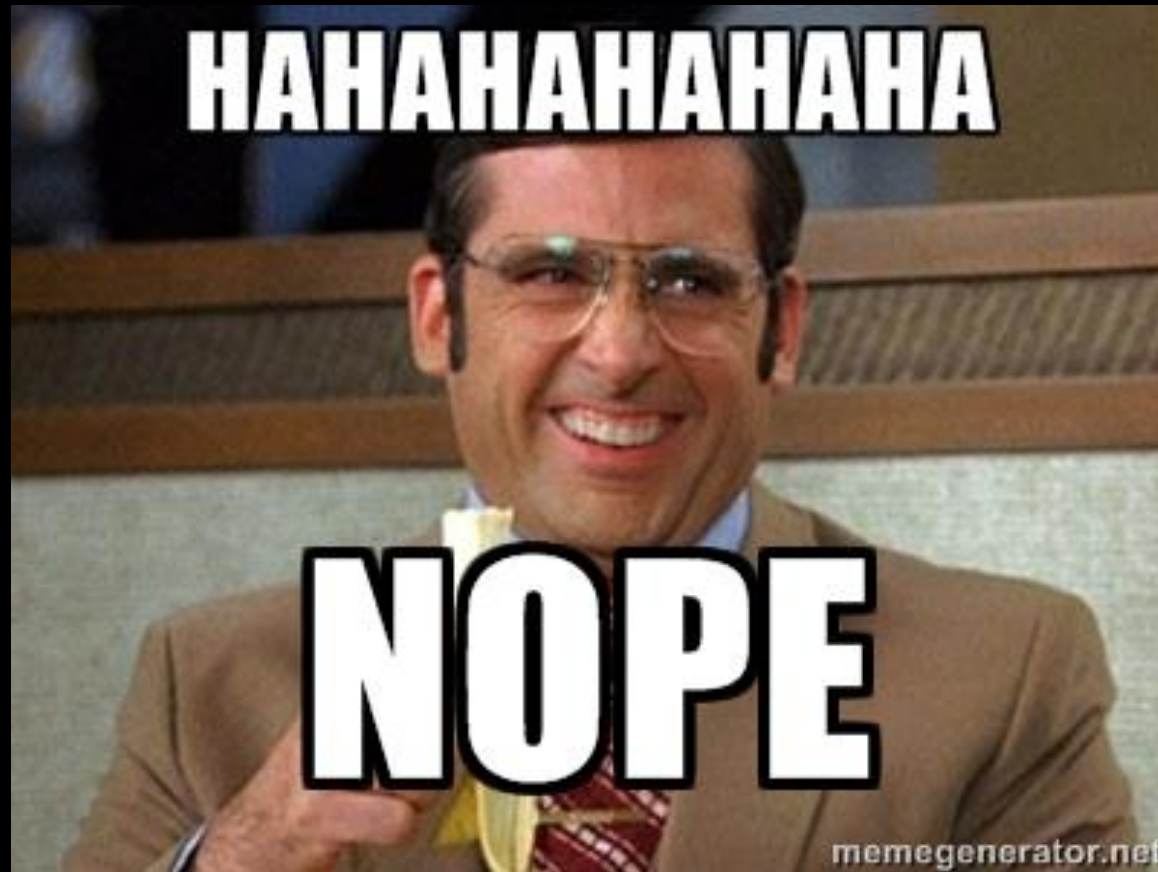
Did you know?

- Challenge Based Innovation
- Idea^s
- Incubator
- CERN Open Lab
- CERN Knowledge Transfer
- Trainings
- Funds

How could you combine and use them?

- It is always about people: culture and mindset
- Siloses?
 - Break them, build connections, bridges, force cooperation
- Be curious
- Listen
- Talk
- Open your networks (main activity of accelerators)
- Ask for help and advise (successful people do share knowledge)

Do you have to be entrepreneur being a
scientists?



Can you earn money on your ideas?

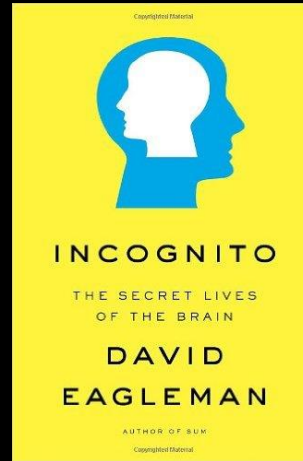


To do so

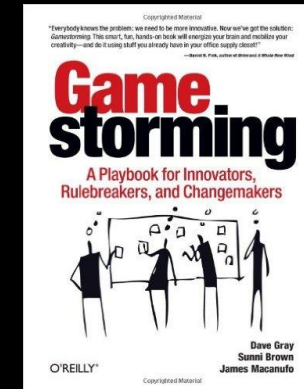
- Forget the unicorns – work to solve a small but real problem
- Work in a group – T shaped one
 - Balanced in skills, good in communication
 - Not only people who „love” you!
- Think about IP strategy

Some lectures

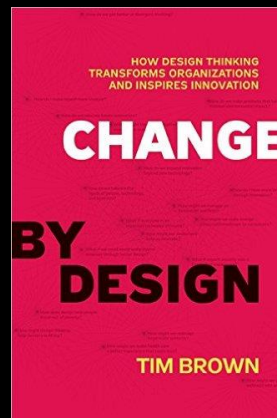
- [David Eagleman](#)



- [Dave Gray , Sunni Brown, James Macanufo](#)



- [Tim Brown](#)



Questions?

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THE EVOLUTION OF INTELLECTUAL FREEDOM

