

# FROM TRANSLATION TO TRADING

WHAT CAN **YOU** DO TO GET  
YOUR IDEA INTO MARKET?

SEAN FIELDING RTTP

FORMER DIRECTOR, INNOVATION, IMPACT AND BUSINESS, UNIVERSITY OF EXETER,

FORMER CHAIR OF PRAXISAURIL AND SETSQUARED





# THIS STUFF IS HARD

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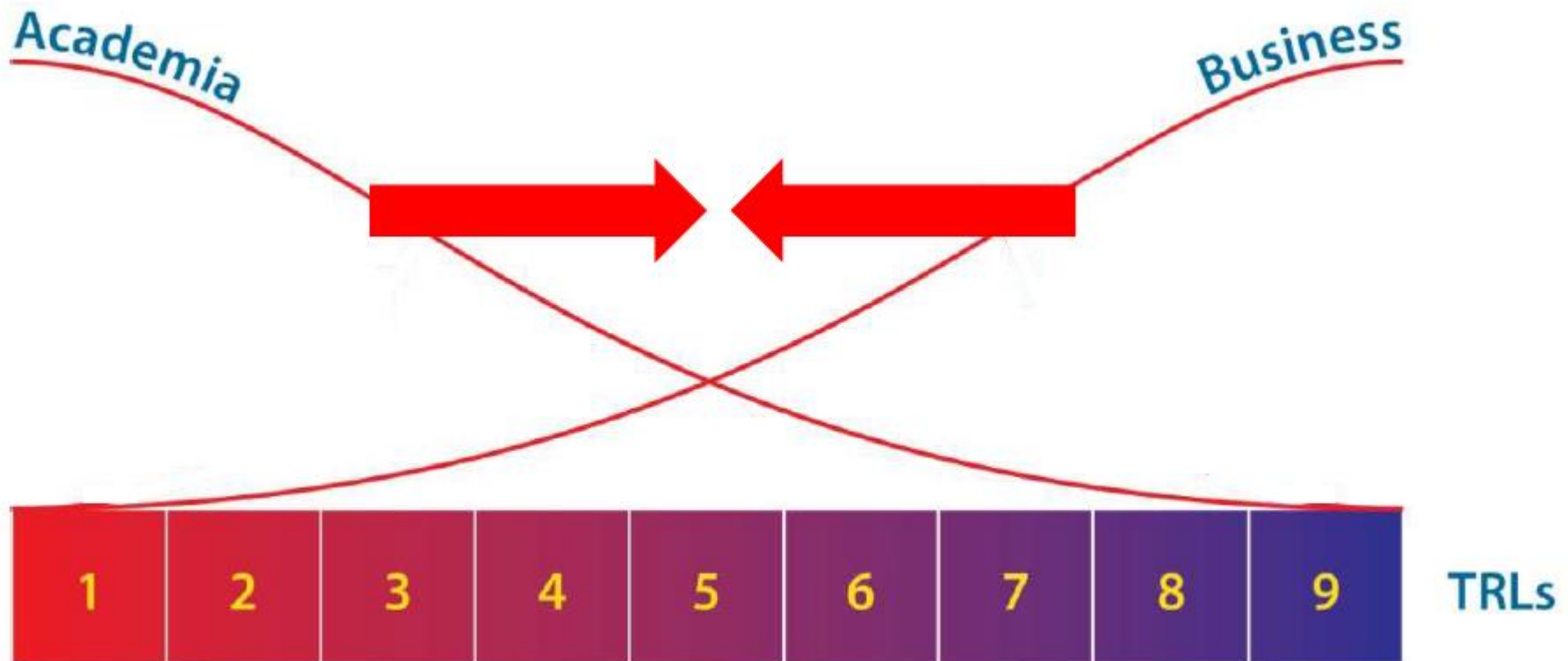


Creating something:

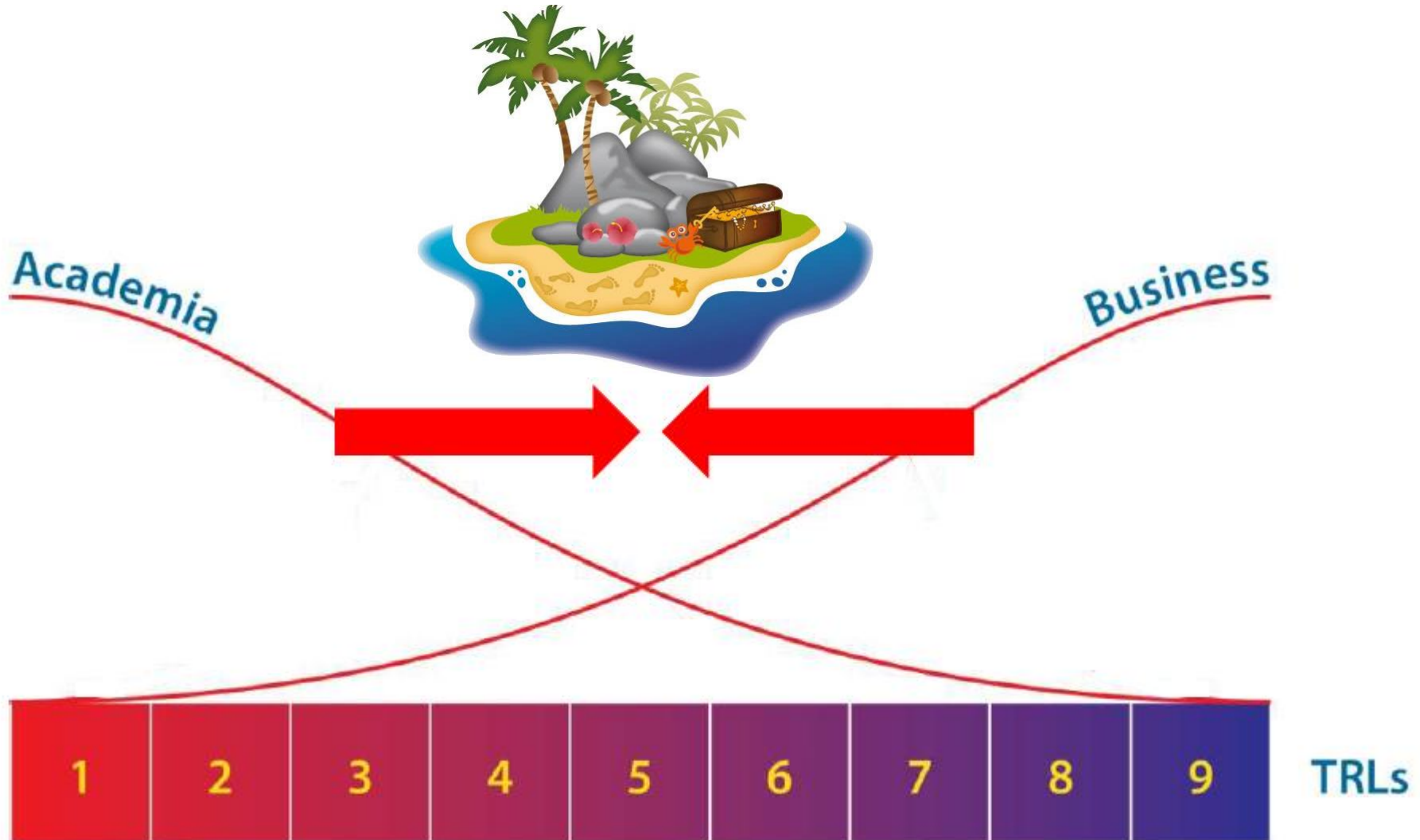
- new,
- with a market,
- that's reachable,
- and willing to pay the price,
- before you run out of money

Can take 20+ years to get a medical innovation to market

# The valley of death?



# The Island of Indifference



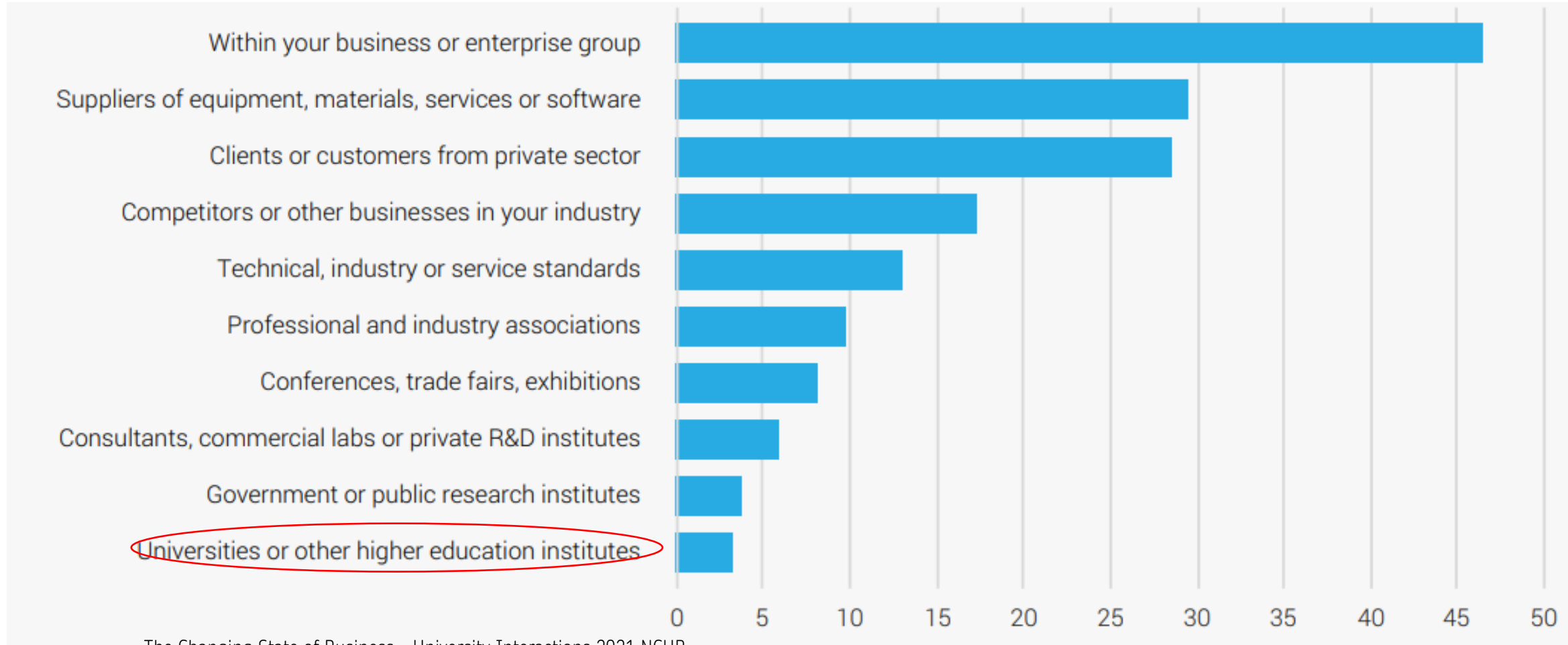


TRLs

# Businesses do not often take innovation from universities

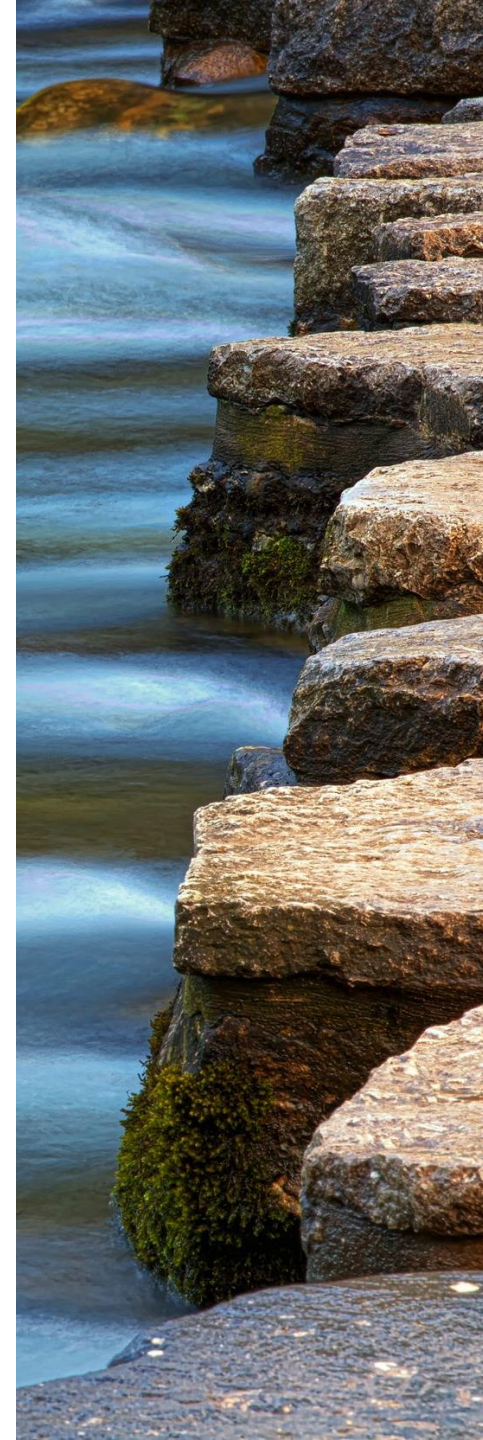
## HIGHLY IMPORTANT SOURCES OF INNOVATION

THIS STUFF IS HARD



# THERE ARE MANY STEPS BEFORE TRADING

- Inertia in companies – sunk costs – other opportunities
- Further development and trials
- Meeting standards
- Getting funding
- Market acceptance – Marketing
- Project can be cancelled or key people can leave at any point
- The initial idea can be 1000<sup>th</sup> of the final outcome



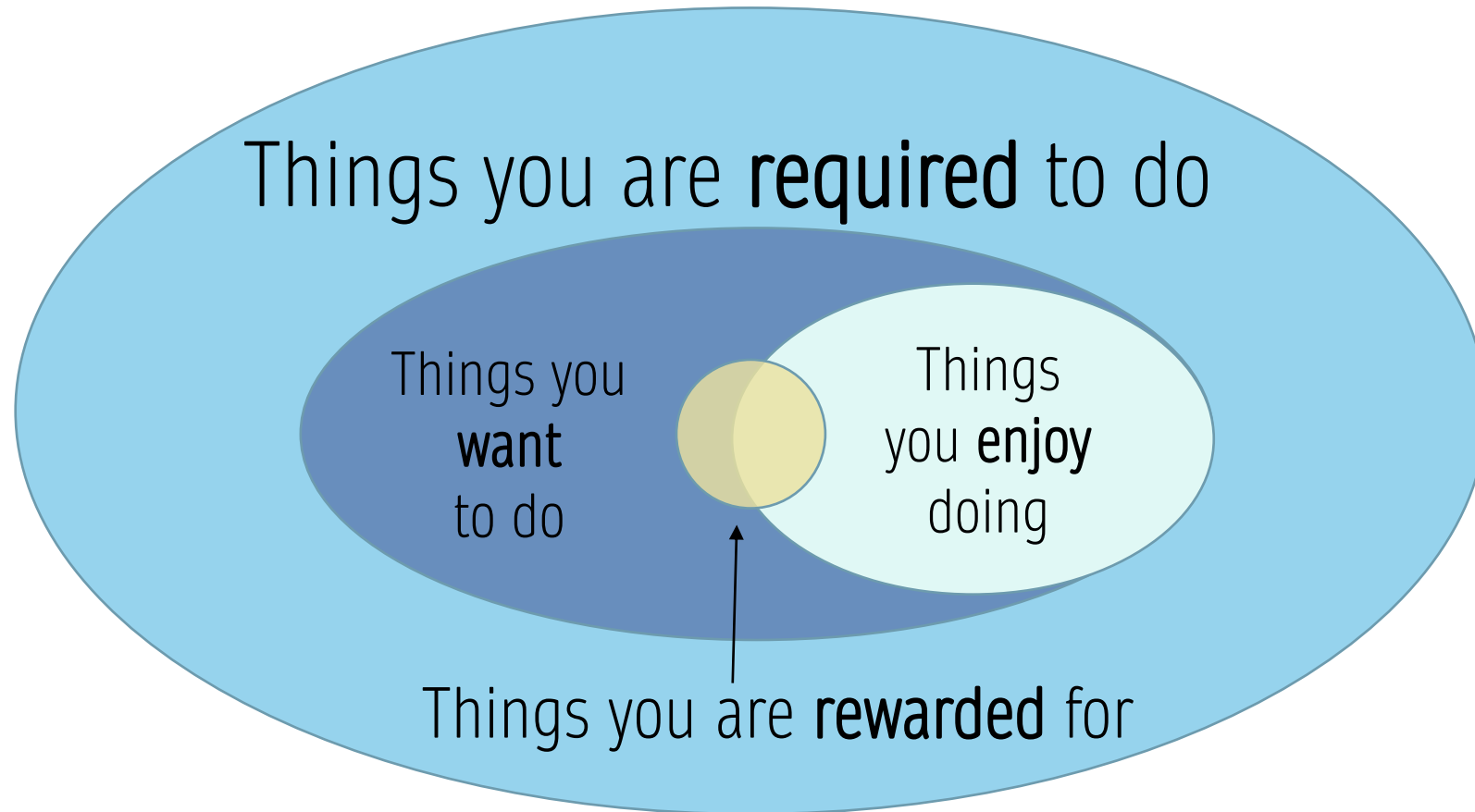


# IT'S PROBABLY NOT GOING TO GENERATE BIG MONEY (RELATIVELY SPEAKING)

- Since 1970 Stanford had 4512 inventions from 6557 inventors and 13,485 disclosures
- Only 20% of inventions produced net additional income.
- Total net income over 50 years is \$581M – ie average annual net income = £11.62M
- Stanford's annual surplus is \$845M.
- IP income represents 0.014% of its surplus



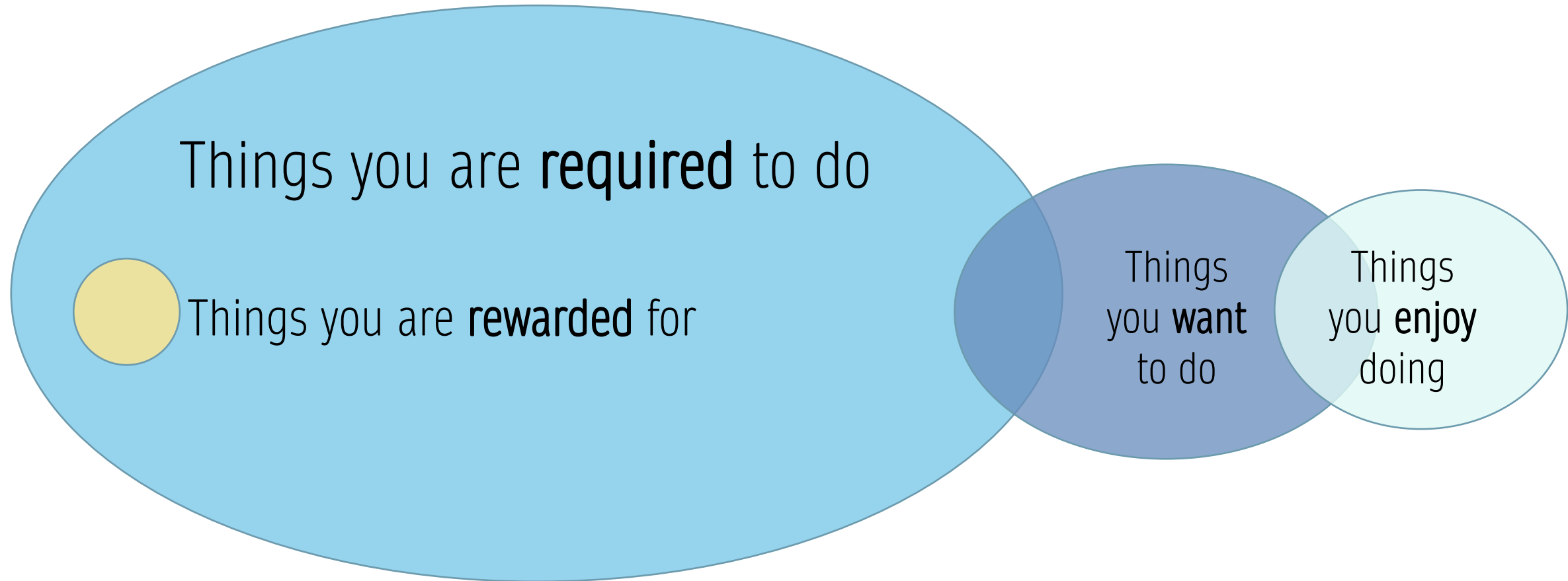
# You have a lot of other pressures



Let's hope all these things are aligned!

# You have a lot of other pressures

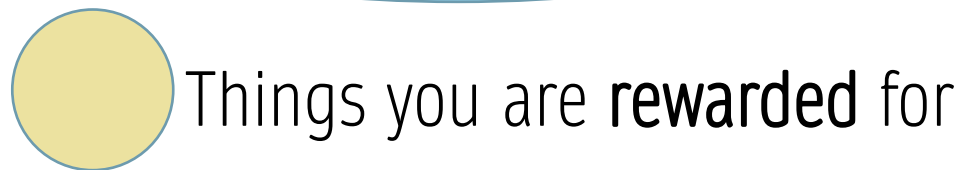
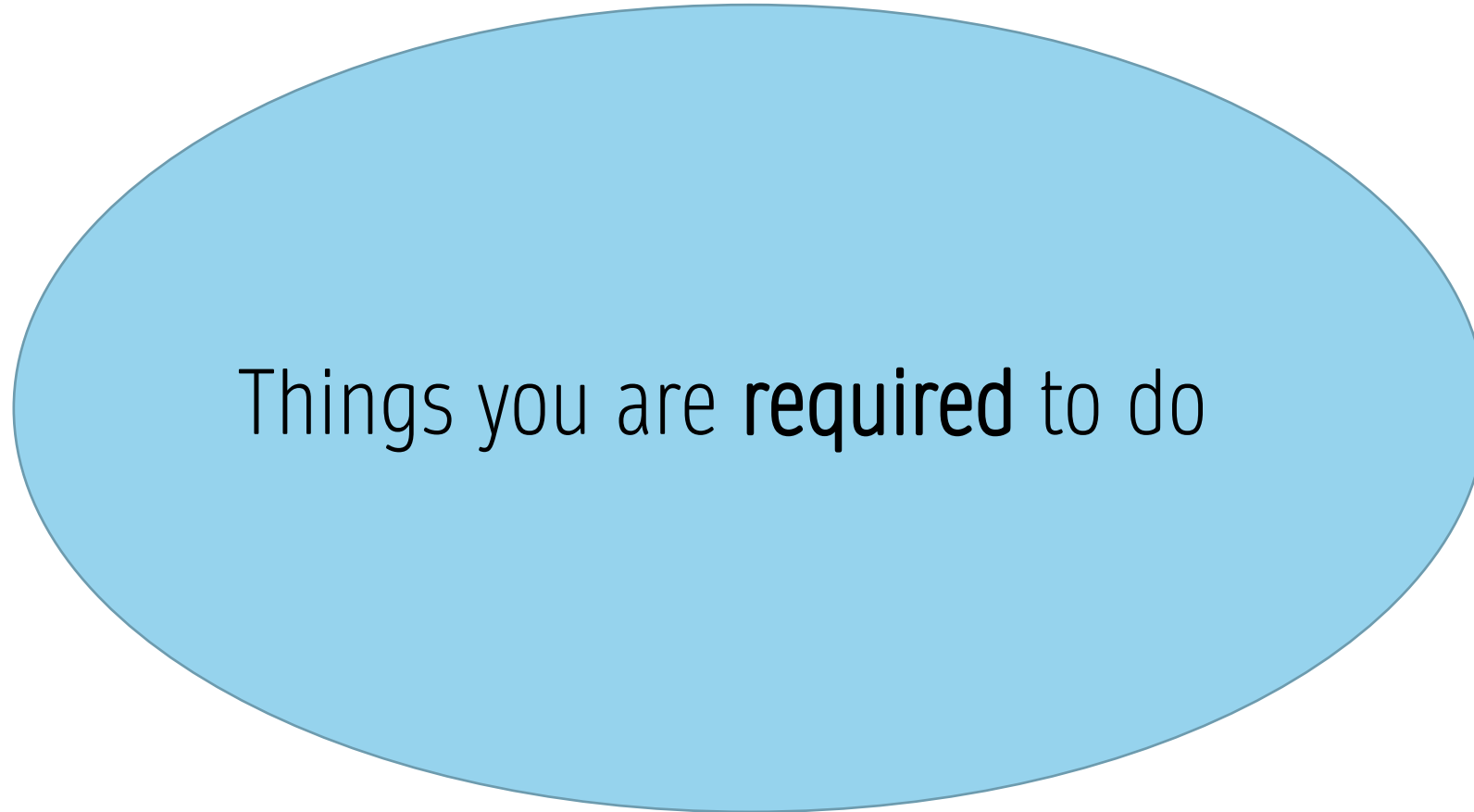
THIS STUFF IS HARD



It might look more like this!

# You have a lot of other pressures

THIS STUFF IS HARD



It could be like this!

# SOME EXAMPLES OF SUCCESS

IMPACT



## Dr Waltz

Sports scientist

Interested in the impact of food/ drinks on sports performance

Developed relationships with producers of drinks

£10Ms in research funding

Supported Nike in 2 hour marathon challenge

Led to huge increase in sales of Alphafly running shoes



## Dr Becker

Biochemist

Developed a point of care test for an invasive fungal disease

Spin out company to bid for EU-funded research projects

Licensed test to companies that sell to hospitals worldwide

Less than £0.5M turnover (mostly profit)

Saves £65k per patient – 1000s of patients ie at least £65M saving



# SOME EXAMPLES OF SUCCESS

IMPACT



**Dr Steffi Jones**

Psychologist

Researcher in suicide prevention

Worked with a national charity to understand triggers for suicide

Advised the charity to place warning signs on bridges

Saved 100's of lives

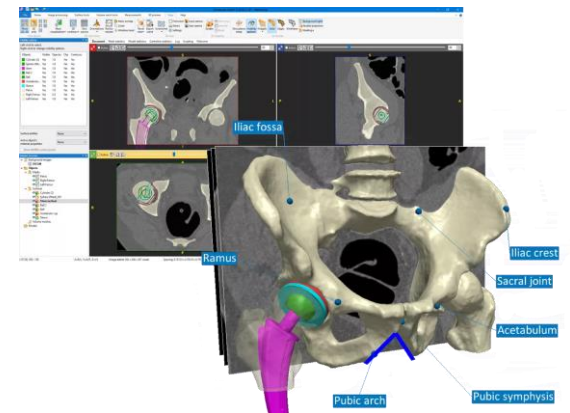


**Dr Merkel**

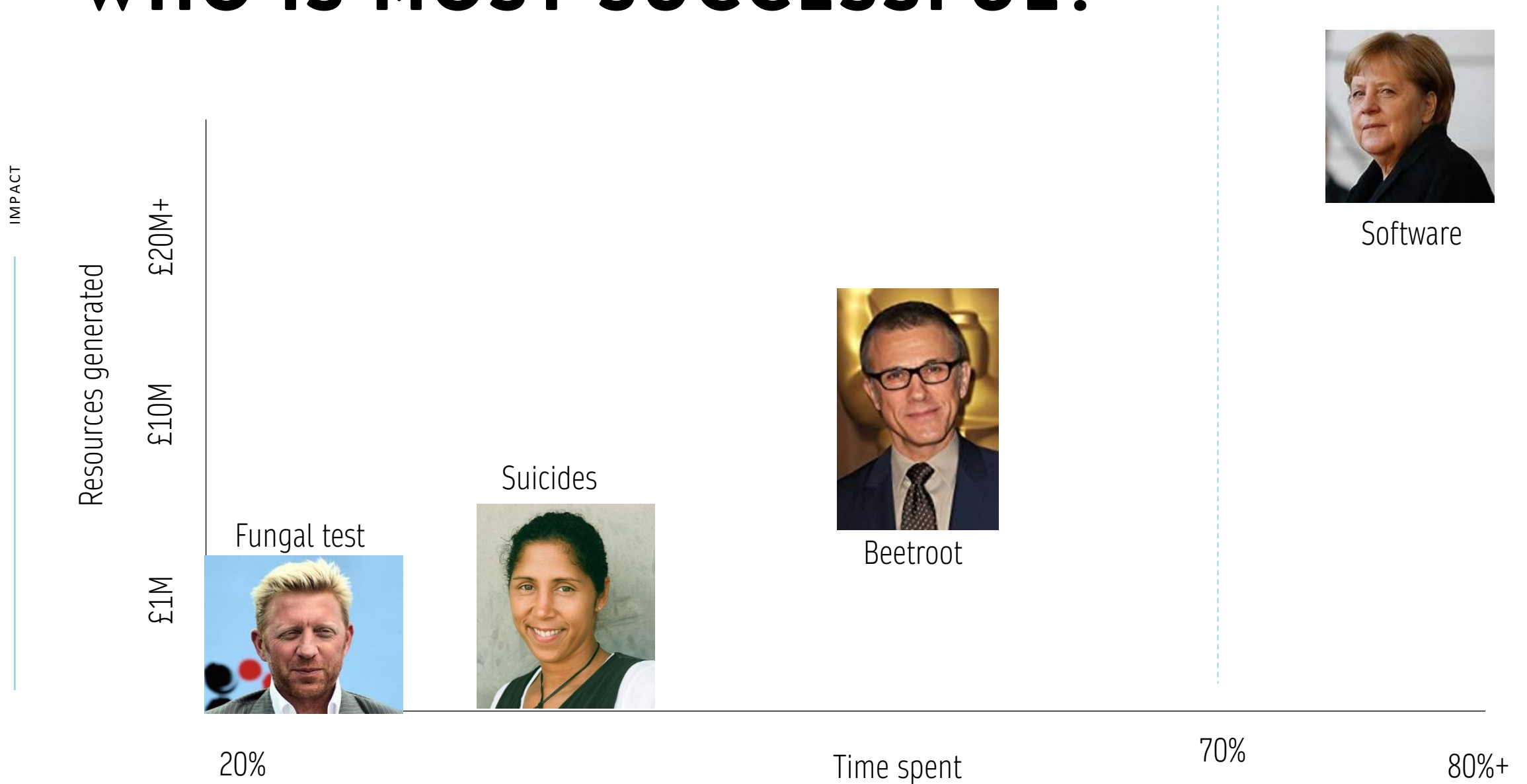
Software engineer

Developed software to create CAD drawings from 3D images. Major application in prosthetic devices such as replacement bones/ joints etc  
Created spin out company – sold software around the world. Bought by major US software company.

Acted as CEO. Retained a role at the University as a visiting professor



# WHO IS MOST SUCCESSFUL?



IMPACT

Resources generated

£20M+  
£10M  
£1M

20%

Time spent

70%

80%+



Fungal test



Suicides

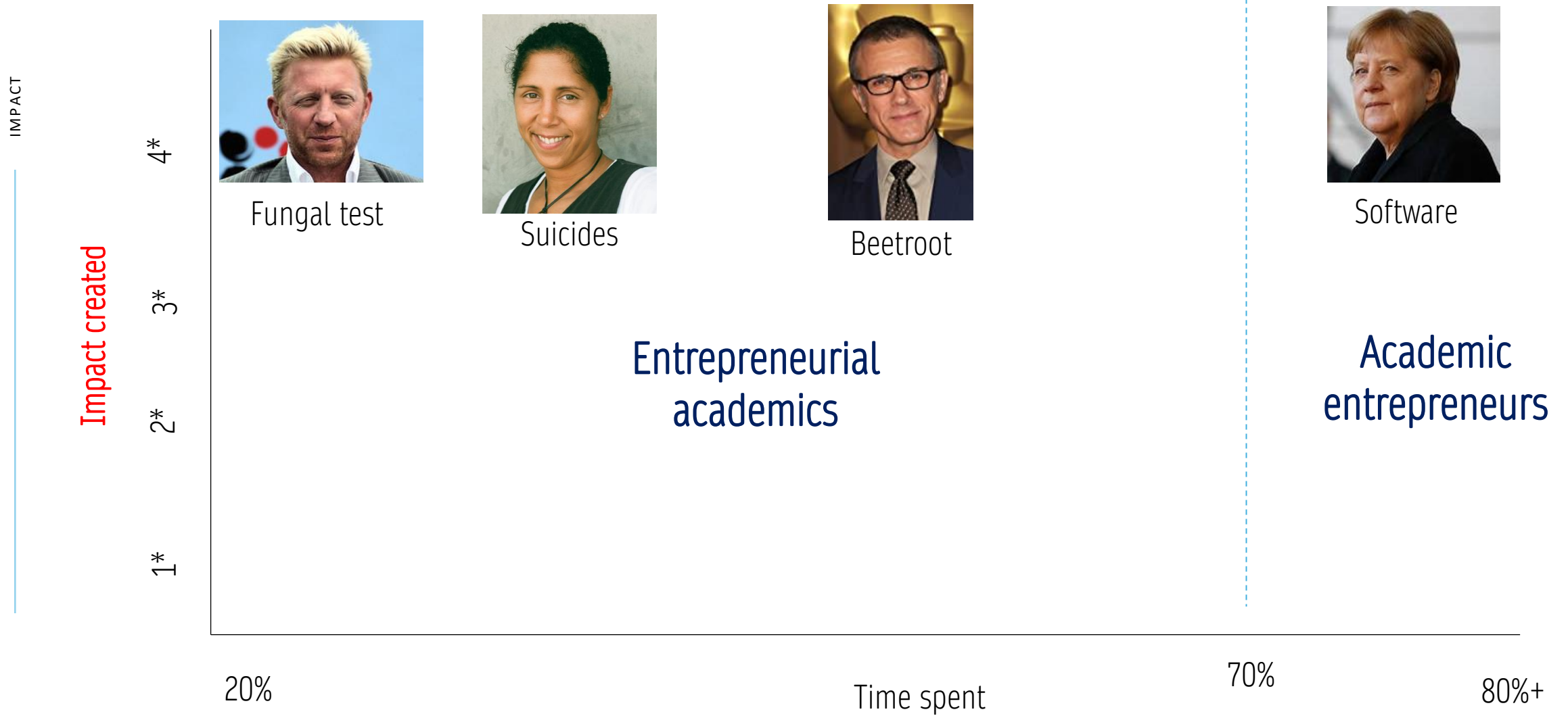


Beetroot



Software

# WHO MAKES MORE IMPACT?



IMPACT

Impact created

4\*  
3\*  
2\*  
1\*

20%

Time spent

70%

80%+



Fungal test



Suicides



Beetroot



Software

Entrepreneurial academics

Academic entrepreneurs



# It's not a binary choice



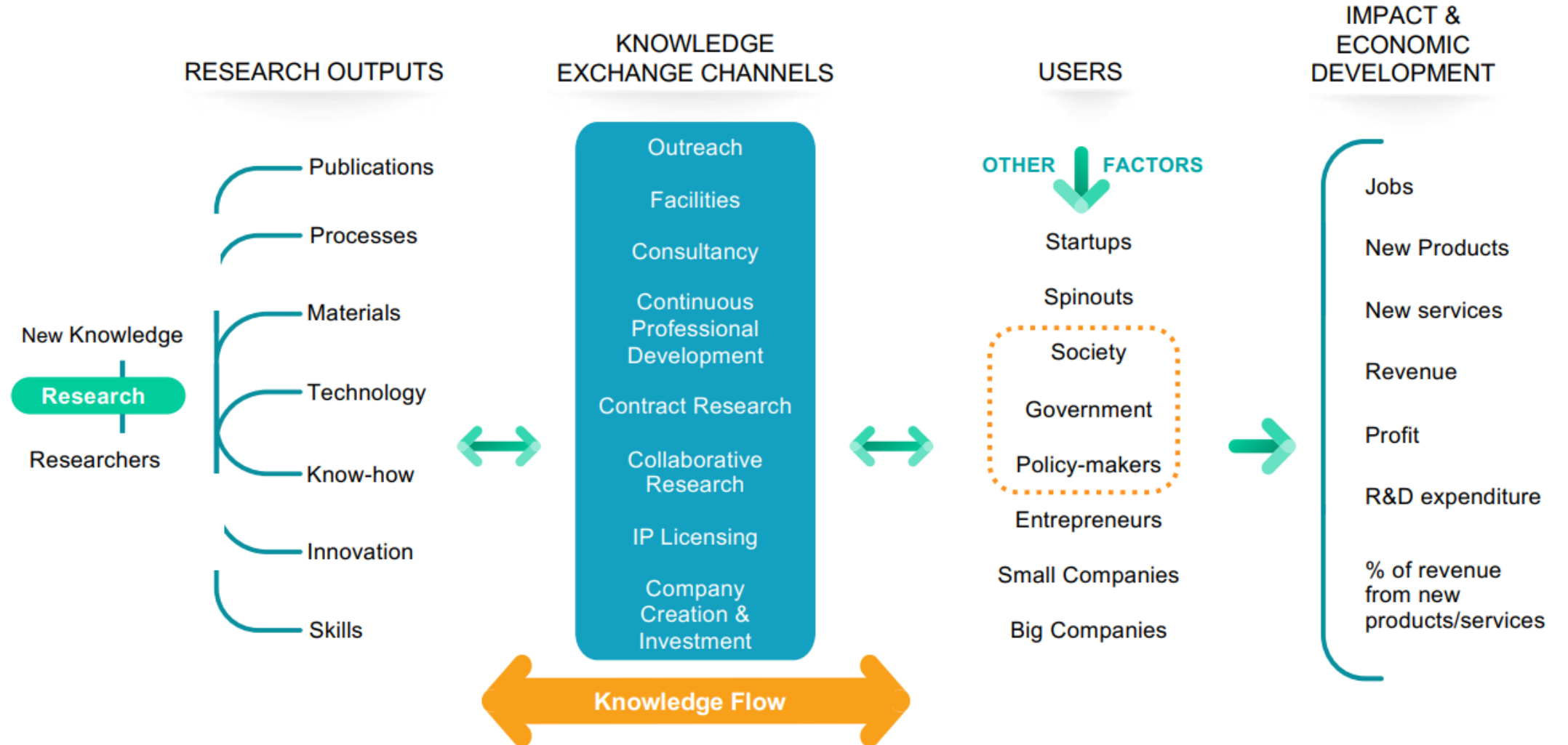
'an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia'

REF impact definition

SO WHAT CAN YOU DO  
TO HELP YOU SUCCEED?

FIVE TOP TIPS

# 1. Understand the routes to impact



## 2. Sort out the idea!

### Who owns the idea?

- Usually the University (except Sweden)
- Students
- Honorary appointments

### Which other **organisations** expect to share in your success?

- Previous research funders
- Previous universities
- Previous business funders



# Agree who gets a share!

Which other **people** expect to share in your success?

- Other researchers
- Technicians
- Students

What types of contributions?

What relative shares?

What outcome are they looking for?

- Research partnership
- Education partnership
- Cash for research
- Cash
- Share in a company



# Make sure the IP is understood

- Confidentiality
- Don't patent too early but don't disclose unless protected
- Equity shares – don't get too focused on this now. Valuation, dilution and time will resolve it.
- Get approval from your head of dept



### 3. Get out of the Lab

“Problems in science commercialisation are primarily bounded by the relationships that emerge between stakeholders (or rather, that do not emerge). Cultural problems and institutional problems (e.g., the lack of money to create a proof-of-concept) just worsen the situation, but are not the core issue. Instead, the roots of the problems are more embedded into the relationships between stakeholders.”

Latest research - Battaglia, Paolucci, Ughetto  
– Italian spin outs (4 May 2023):



# Engage with potential users

- Go where the businesses are – conferences, networks
- Find the virtual networks – Linked-in etc
- Take advantage of your uni's ecosystem
- Don't forget alumni
- Trade/ industry networks
- Industry research institutes
- Fraunhofers





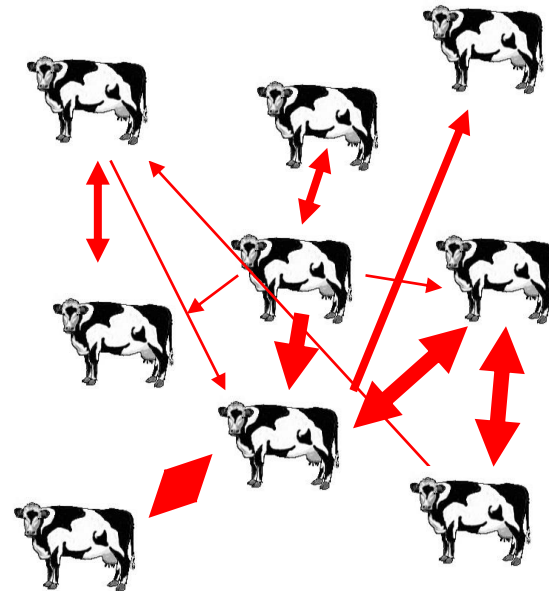
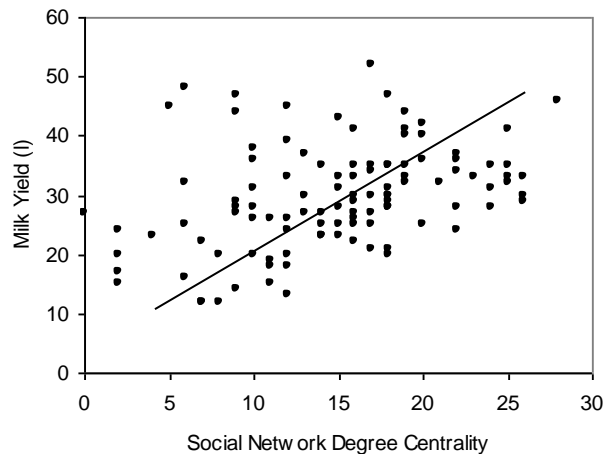
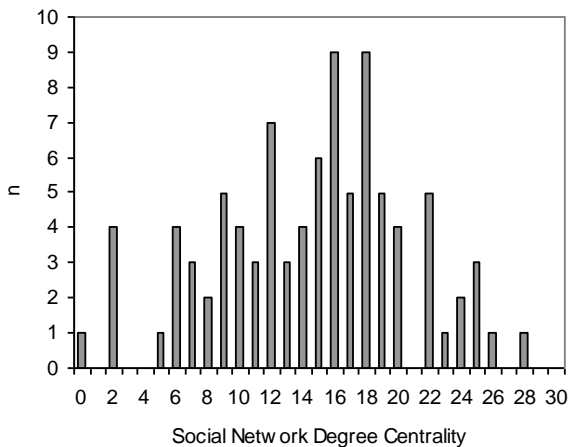
# Test your hypothesis

- Not selling but listening - One mouth two ears
- Develop your verbal business card:
  - What is the problem and how big is it?
  - What am I doing about it?
  - What do I think the benefit will be?
- Discover the transformative outcome for them if they could solve their problem.
- Help them understand the implication of doing nothing.
- Beware 'The Mom Test'
- You are building a case:  
"I can help [X] achieve [y] without having to do [z]."



# Building relationships is key

- Might lead to a research partner or some data
- Might help build a research project to develop the idea
- Will enthuse investors if you know key industry players
- Will help you build a team
- Relationships are key to your success



## 4. Seek Expert help

- Discuss with your KTO/ TTO
- Understand the process and how long it will take
- Understand University policies
- Understand University reward mechanisms
- Complete Innovation Disclosure
- Engage them to help you access their networks and funding and bring in other experts – angels, partners, lawyers etc
- Get training
- Seek out RTTP recognised practitioners.



## 5. Understand what motivates you and who you want to be

- Time - scarcest resource. This will take lots of it.
- What's your own commitment/ reward trade-off?
- What's the role of this project in your career?
- What do you need to secure from it? – Opportunity to make an impact? New research opportunities etc.
- New employment opportunities in industry?



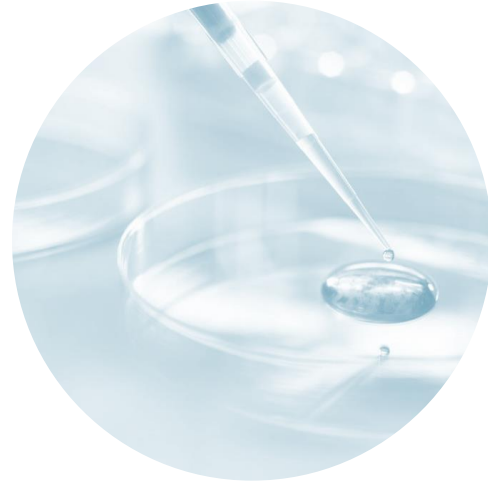
# SUMMARY

This stuff can be hard

but you can make your life easier by:

- Embracing impact
- Sorting out your idea (expectations of funders, colleagues and partners and IP protection)
- Getting out of the lab and talking to users
- Talking early with the people who work on this all the time
- Understanding your own motivations and who you want to be





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