

TOM HOCKADAY

**UNIVERSITY**

WHAT IT IS AND

**TECHNOLOGY**

HOW TO DO IT

**TRANSFER**



# University Technology Transfer – What It Is and How to Do It

Tom Hockaday, JHUP 2020



# My work experience



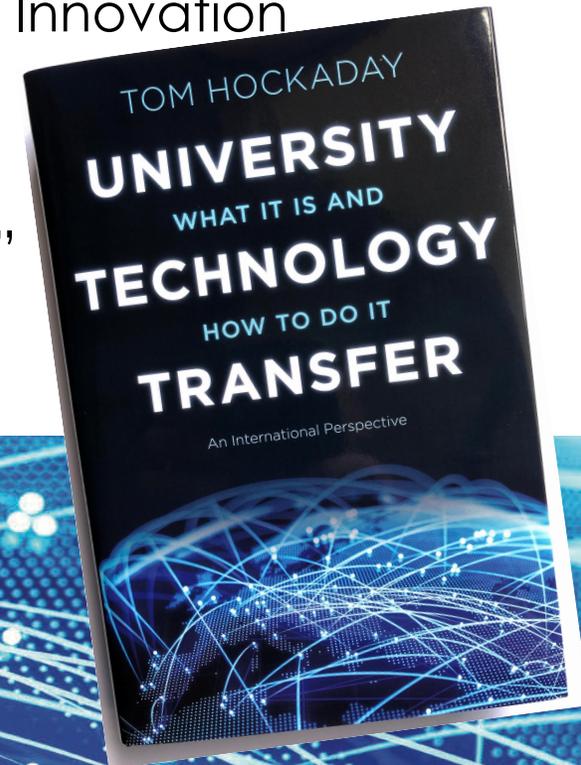
University College London (1989-1993)

Bristol University (1993-2000)

Oxford University (2000-2016) - CEO Isis Innovation / Oxford University Innovation

Independent Consultant - Technology Transfer Innovation Ltd

Author - "University Technology Transfer - What It Is and How to Do It"  
(Johns Hopkins University Press, 2020)



# Contents

Purpose

History

How It Works

Going to Market

Mind the Gap

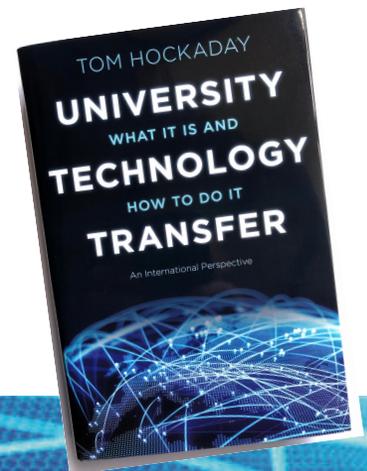
Innovation Community

Give and Take

Metrics

Impact

Whatever Next



# Purpose

“The purpose of university technology transfer is to transfer university research results from the university out to businesses where the results are developed into new products and services that benefit society”

from: University Technology Transfer – What It Is and How to Do It  
Tom Hockaday, Johns Hopkins University Press, 2020

# Purpose

What is the Purpose of your TTO/Office ?  
*write it down, 'a purpose statement'*

What, then How

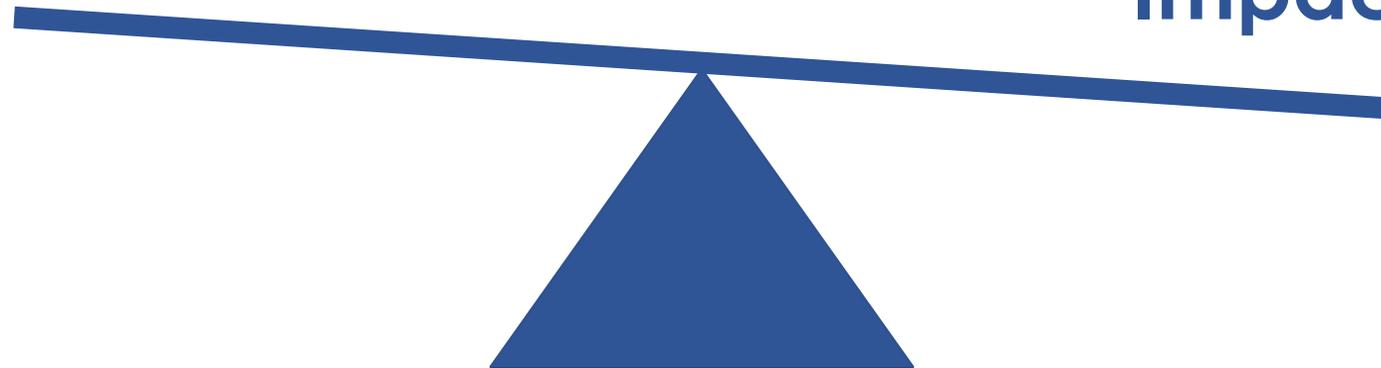
What do we want?

How can we achieve it?

# Balance

**Income**

**Impact**



# What's In , What's Out?

For Me

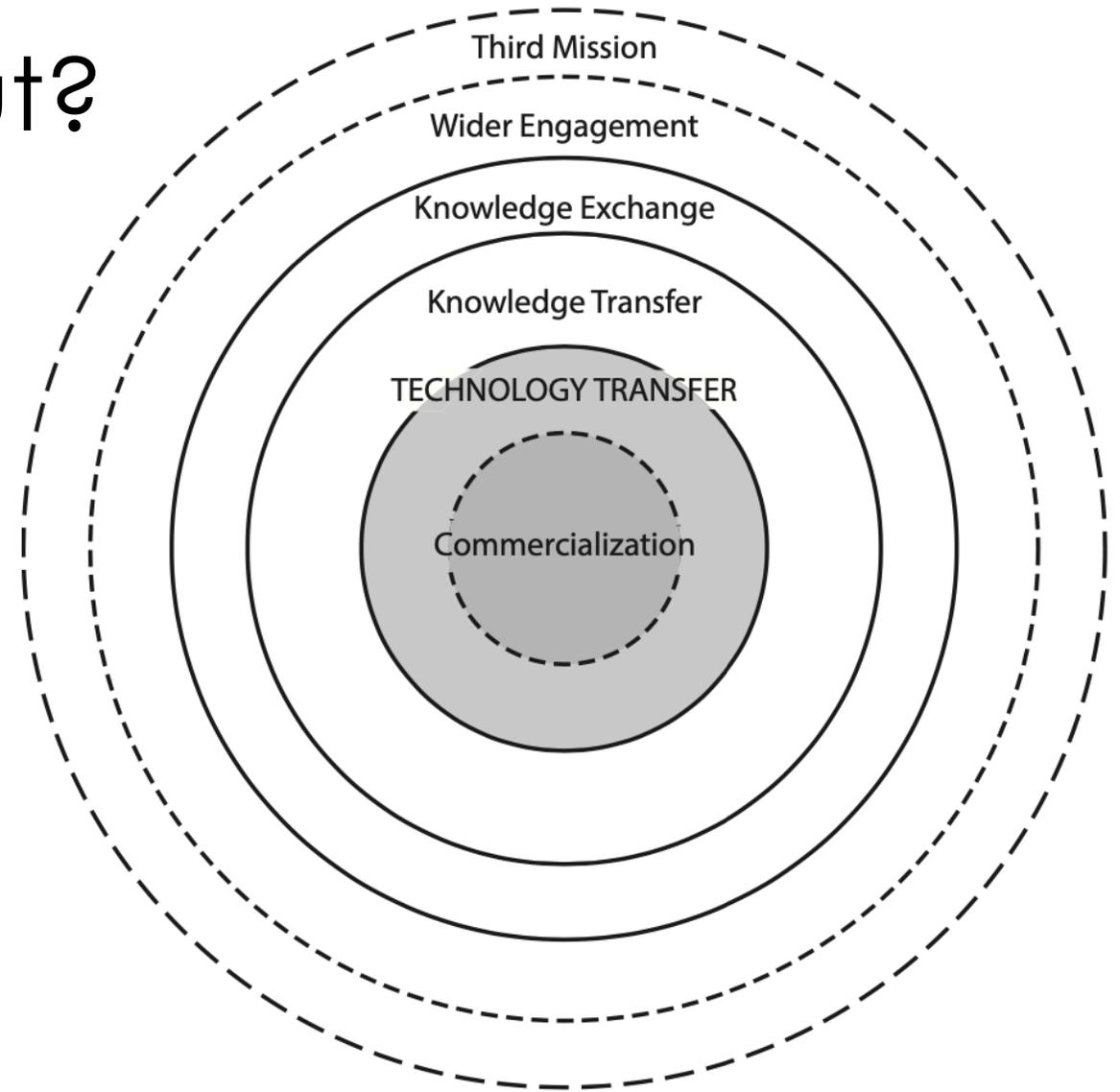
For my Office

For my University

For Industry

For Investors

For Government



# Who Wants What?

## **WHO**

You

Your Staff

University

Industry

Investors

Government

Society

*... and Who Is Paying!*

## **WHAT**

### **Income**

Royalties

Spin-out shares

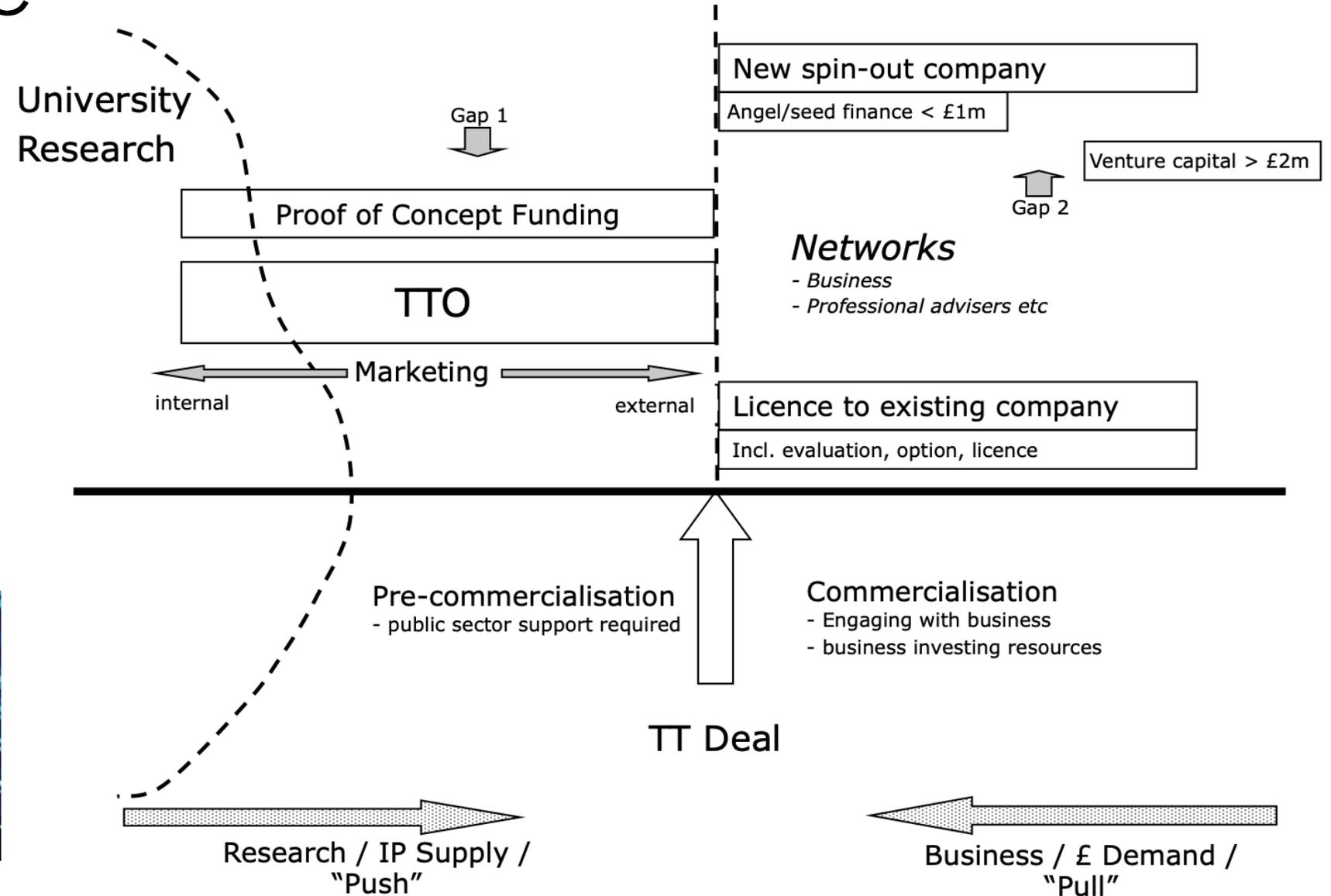
Research Funding

### **Impact**

Reputation

Stories

# Landscape



# History

1948	NRDC	Legislative Framework
1985	Joseph–Kingman	TTOs
1999	UCSF	Proof-of-Concept, Seed Funds
2002	HEIF	Government Support
2014	REF	Impact
2020	KEF	Monitoring

# Legislative Framework

Universities - independent (charitable) bodies

1977 Patents Act

Rights to employees' inventions, Section 39

Compensation of employees for certain inventions, Section 40

1988 Copyright Designs & Patents Act

First ownership

2006 Companies Act



# 1948 National Research and Development Corporation

1948	NRDC, National Research and Development Corporation
1981	British Technology Group (merged with National Enterprise Board)
1992	BTG plc
2019	Acquired by Baxter Healthcare

# 1985 Joseph–Kingman

Sir Keith Joseph - politician

Sir John Kingman - civil servant

14<sup>th</sup> May 1985

*Obligation to BTG removed*

*Monoclonal antibodies, penicillin*



Sir Keith  
Joseph



Sir John  
Kingman

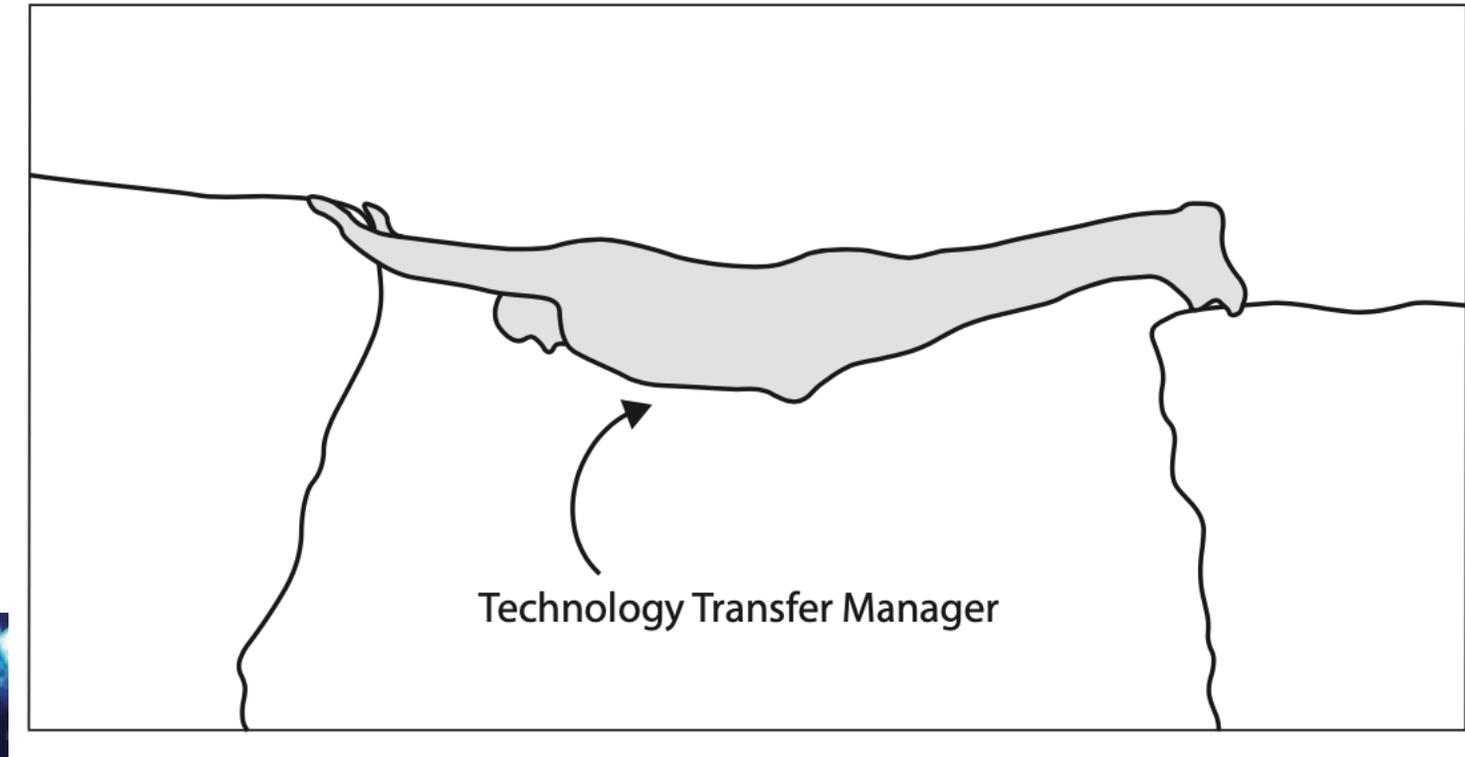
# Establishment of TTOs (in the UK)

Cambridge	1970s
Manchester	1981
Oxford	after 1985 - 1987
Others	1985, 2000 onwards
Names	TTO, KTO, Innovation, Enterprise, etc

# TTO Models

Administration unit inside the University, or  
Separate company, wholly owned  
Relationship with Research Support Office  
One place or Distributed across campus

# The supportive technology transfer manager bridging the gap



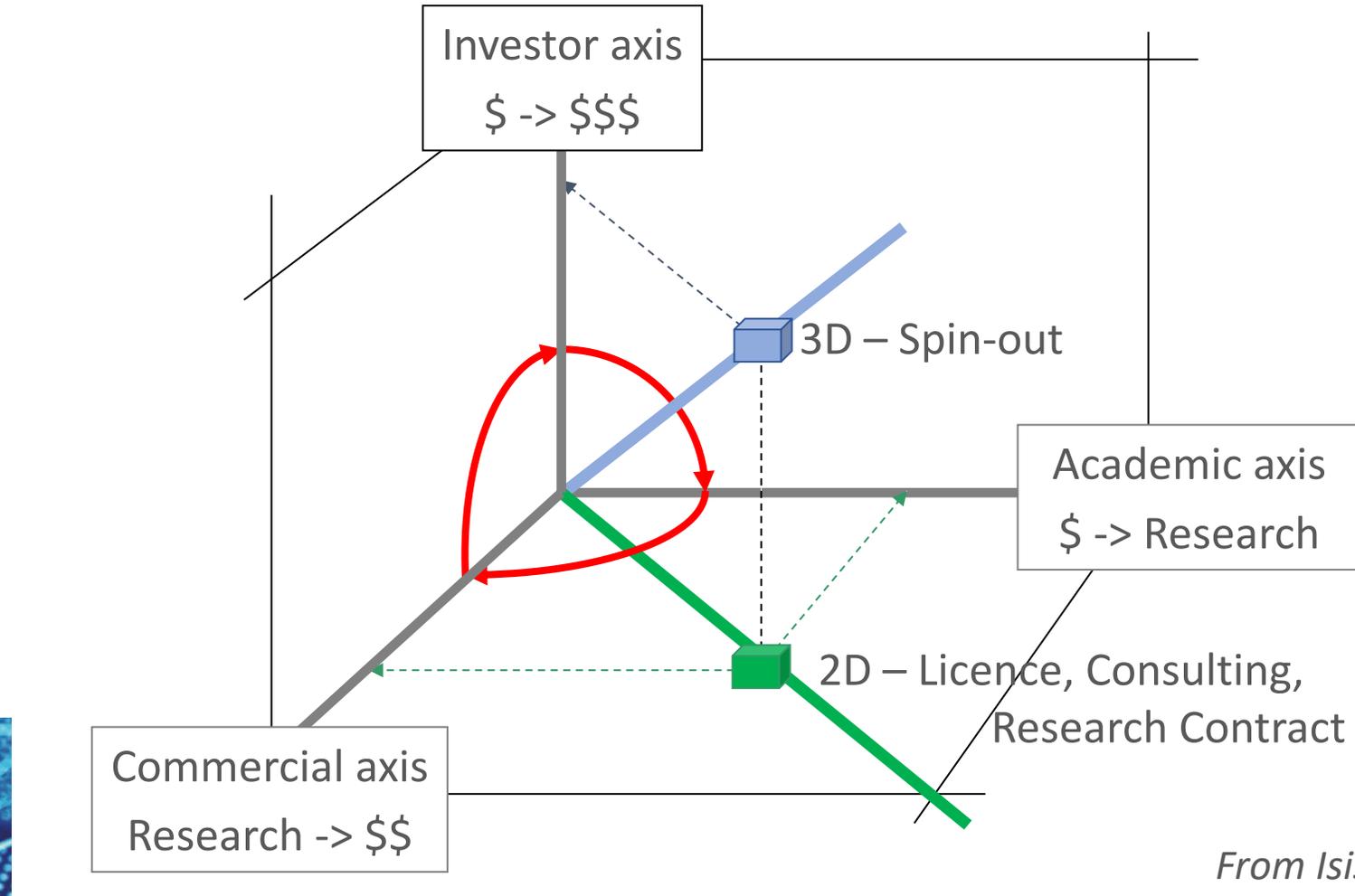
Technology Transfer Manager



# Things beginning with P

- people
- patent budget
- policies
- proof-of-concept
- promotion
- processes and procedures
- project management
- paperwork
- performance measurement

# People



# Ownership, Revenue sharing, Spin-out Equity

## Ownership

Staff, Students, Visitors

## Revenue Share

Licensing income - individuals, department, central

## Spin-out equity

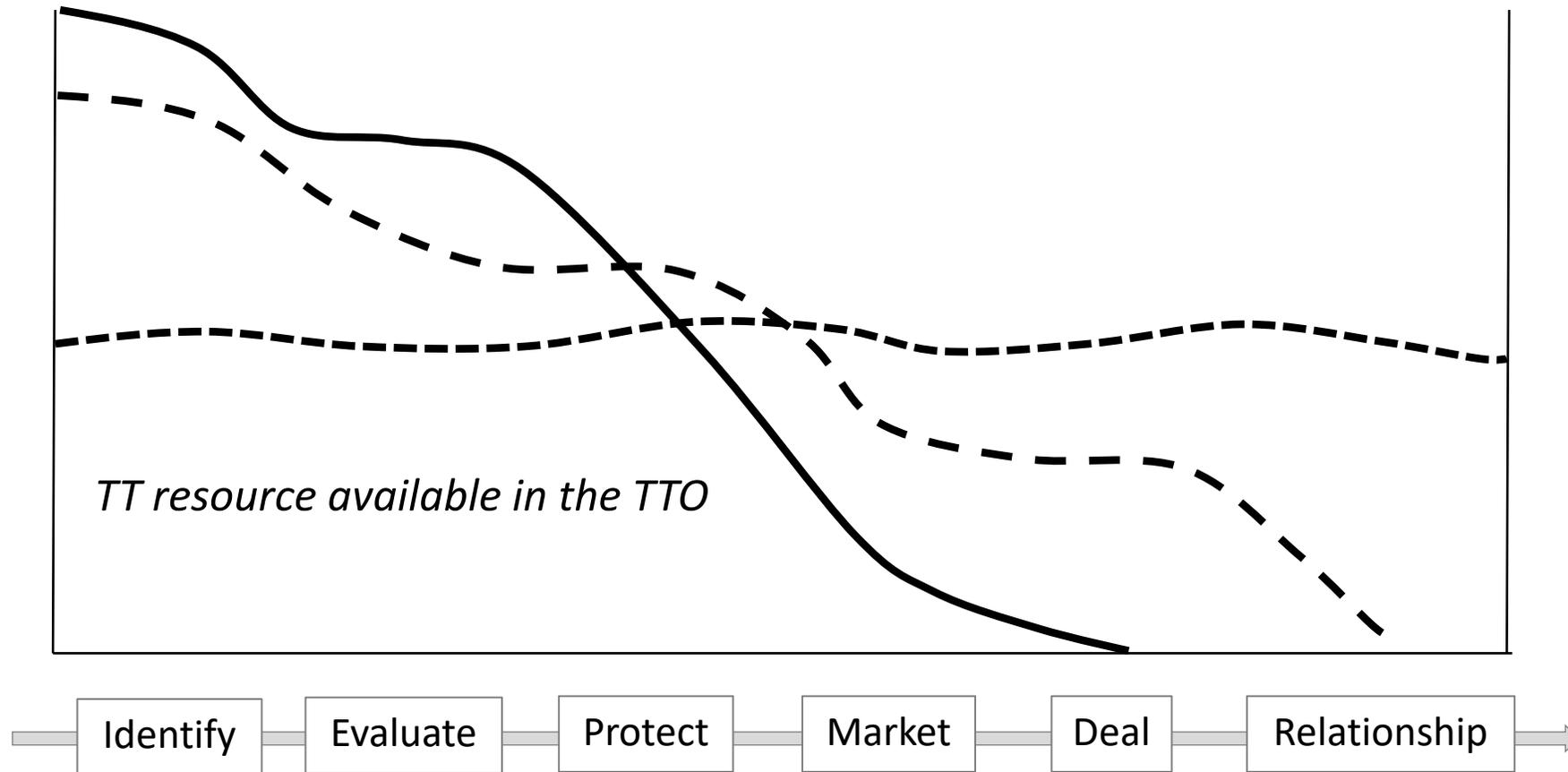
Shareholders - individuals, university (investors, managers)

Realisations from University share - department, central  
(not individuals, as they have shares)

# Piers & Bridges



# Project Management





# Assessment, Measurement

## Numbers

TTO Numbers are Boring!

Disclosures, Patents ... z z z z !

Spin-outs

= jobs, economic growth

Money

universal

## Narrative

Stories

Exciting

New inventions

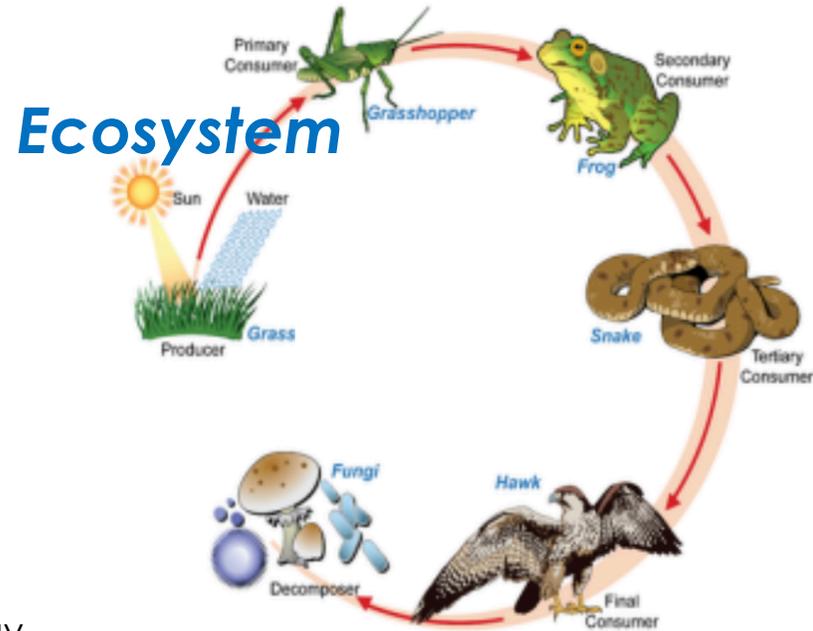
New companies

*Easy to Measure*

*Difficult to Measure*

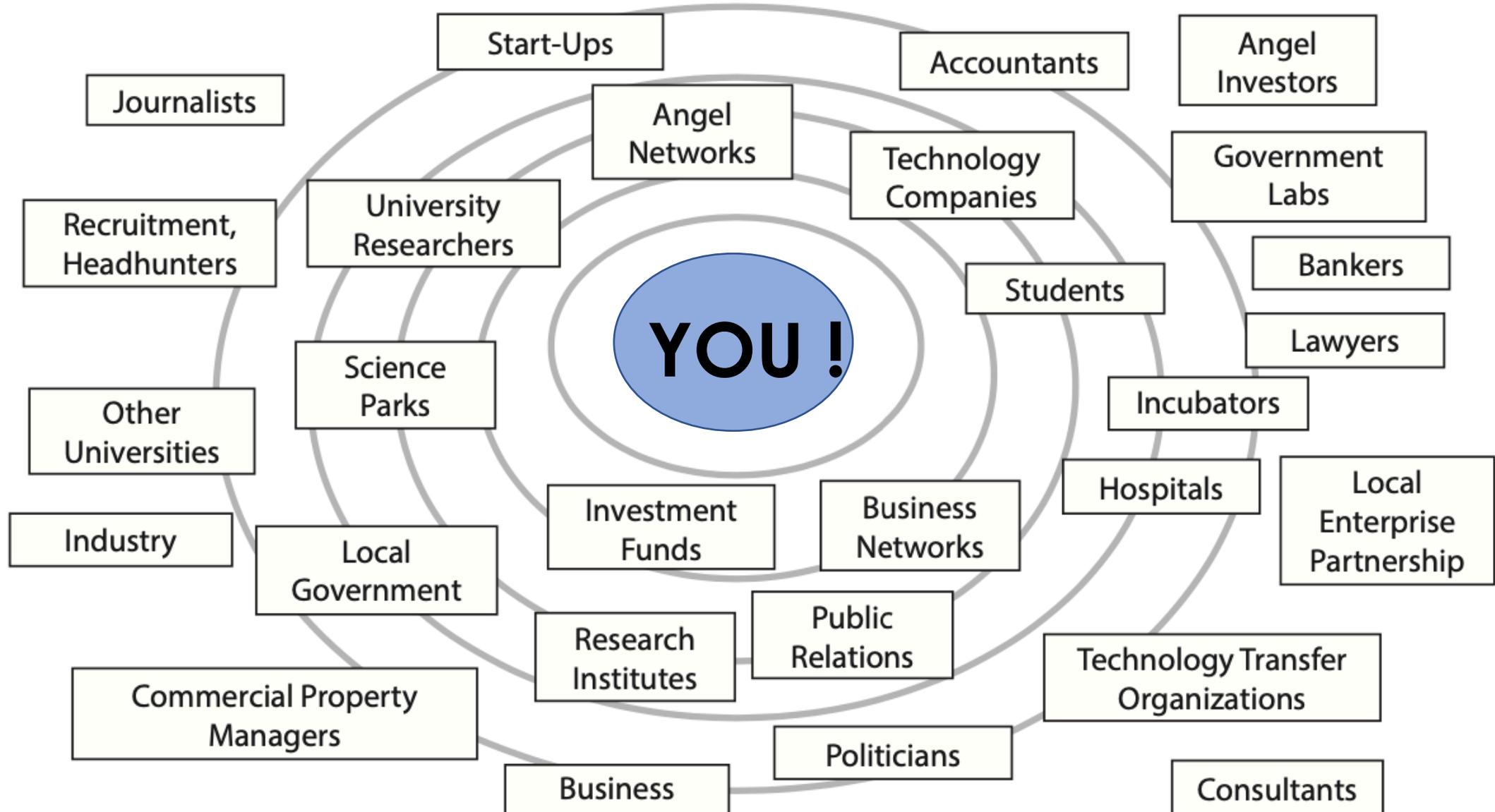


# Innovation Community



© ASFC

# Innovation Community



# Government Support

## Gives - Grants

HEIF

InnovateUK

## Takes Away -Taxation

Company - Corporation Tax

Individuals - Capital Gains Tax, Income Tax (dividends), Inheritance

## Tax incentives - EIS, R&D Tax credit

Company - R&D Tax Credit

Individuals - Enterprise Investment Scheme

# 1999 University Challenge Seed Fund

£30m UK Government, Wellcome Trust, Gatsby Foundation

Single university or multi university

3 UCSF for 1 University

Must have fund manager partner

Oxford £3m + £1m = £4m Fund

Proof-of-Concept (pre deal) and Seed (first round financing)

# 2002 Higher Education Innovation Funding

HEIF

£250m pa

Universities submit plans for capacity building and activities

Spread across campus

Amounts awarded by formula, based on current activity level

# 2014 Research Excellence Framework

1986 onwards Research Assessment Exercise (RAE)

2014 Research Excellence Framework (REF)

Research Outputs 65%

Impact 20%

Research Environment 15%

Impact Case Studies

<https://impact.ref.ac.uk/casestudies/>



# 2020 Knowledge Exchange Framework

KEF

KE Concordat

KEF Metrics

Groupings



# Whatever Next

*"I never think of the future. It comes soon enough" - A. Einstein*

Issues

Innovation Landscape

Reputation Management

So what?

Impact

Research Collaboration

Student Entrepreneurship

Letter to a Vice-Chancellor

*from A.N. Optimist*

University

Industry

Government

# TECHNOLOGY TRANSFER INNOVATION

HOME

ABOUT

Tom

Tom Hockaday is a leading  
transfer leadership, managing  
technology transfer activities  
years from 2006 to 2016, h  
Tom has over 27 year

Tom Hockaday is an independ  
with a number of clients in the  
sect

Johns Hopkins  
University Press  
April 2020

CONTA

