



MASTER IN ENTREPRENEURSHIP
INNOVATION MANAGEMENT
IN COLLABORATION WITH **MIT SLOAN**

IN COLLABORATION WITH
MIT MANAGEMENT
SLOAN SCHOOL



UNIVERSITÀ DEGLI STUDI DI NAPOLI
PARTHENOPE

MASTER MEIM 2021-2022

The role of university in IP development

April, 28th 2022

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Assistant Professor of Innovation & Business Design at Università degli Studi di Napoli Parthenope

First Mission - Education



The University of Oxford

Second Mission - Research



Vannevar Bush's (1945) influential report titled *Science, the Endless Frontier*

The Linear Innovation Process



**Basic and Applied
Research**



Innovation



Diffusion



Stanford Research Park



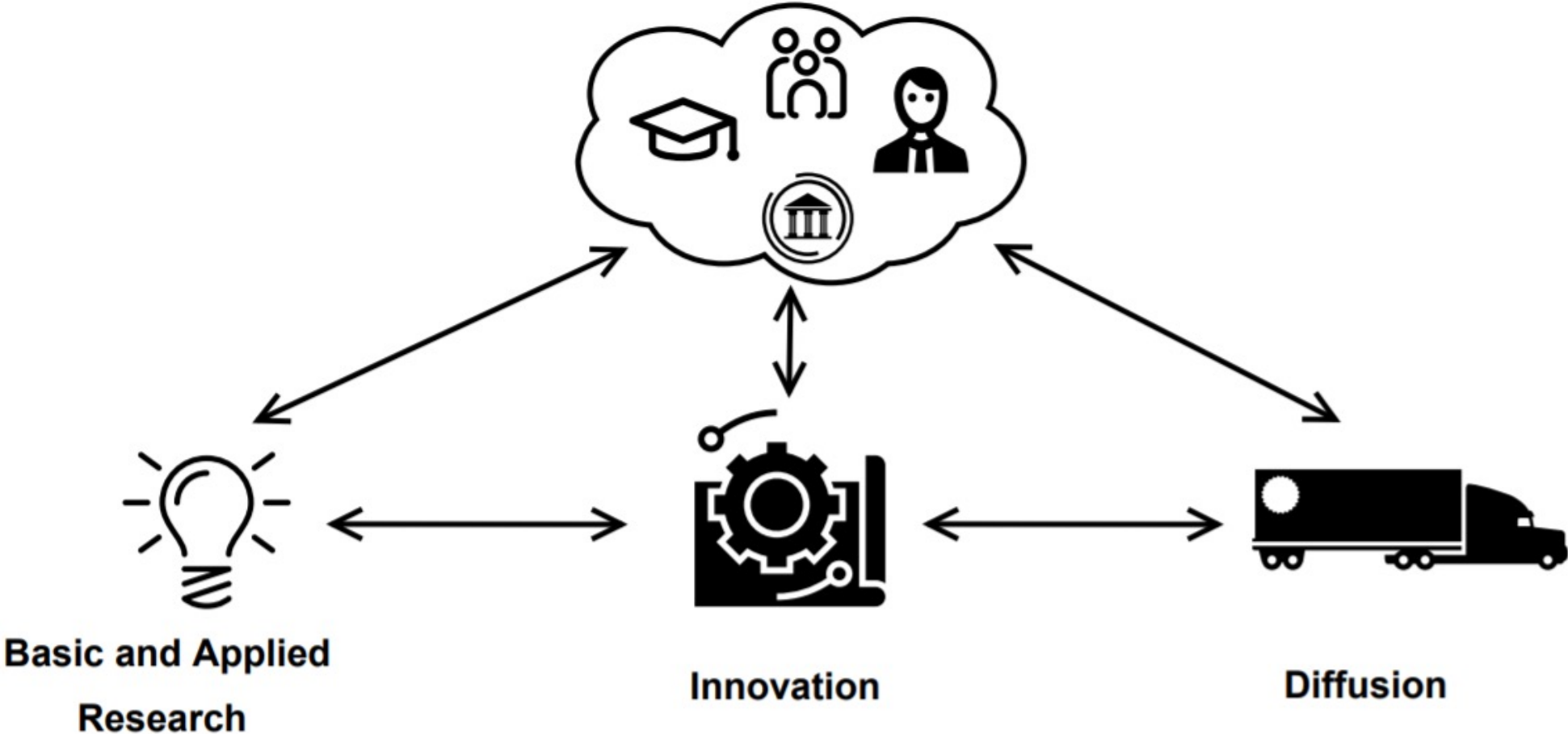
Established in 1951

Technology Parks

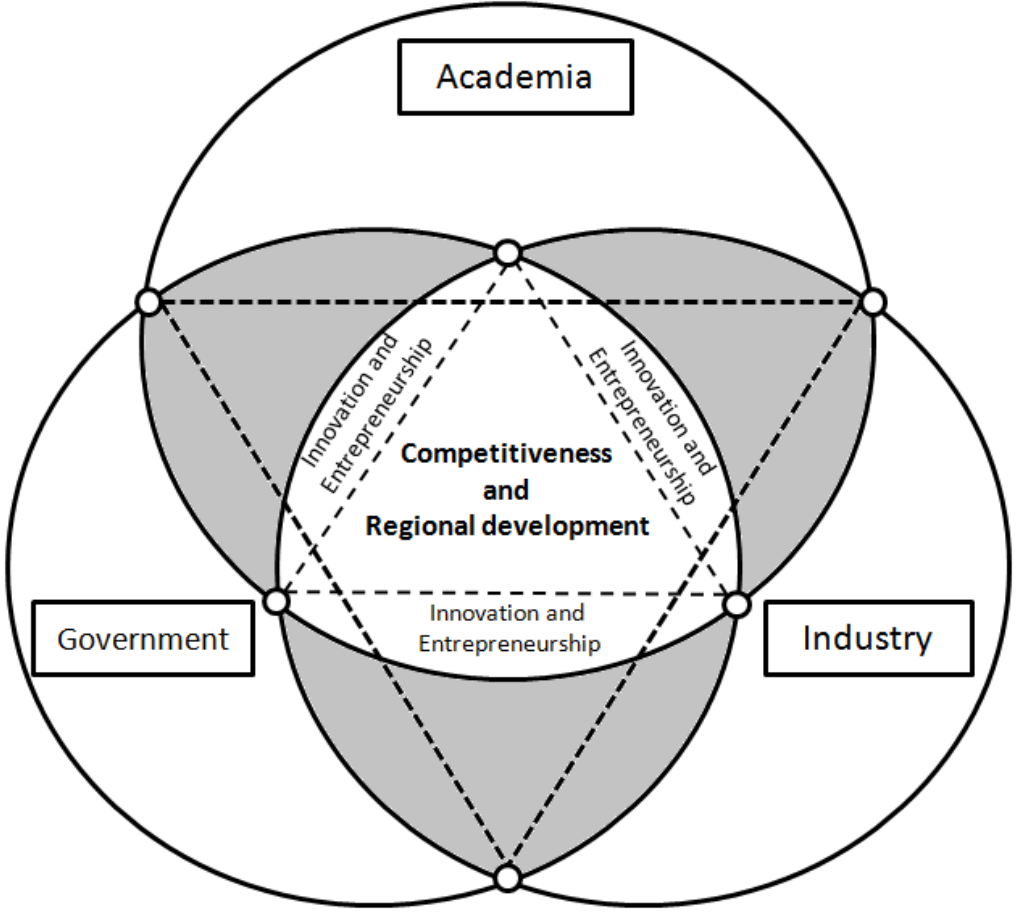
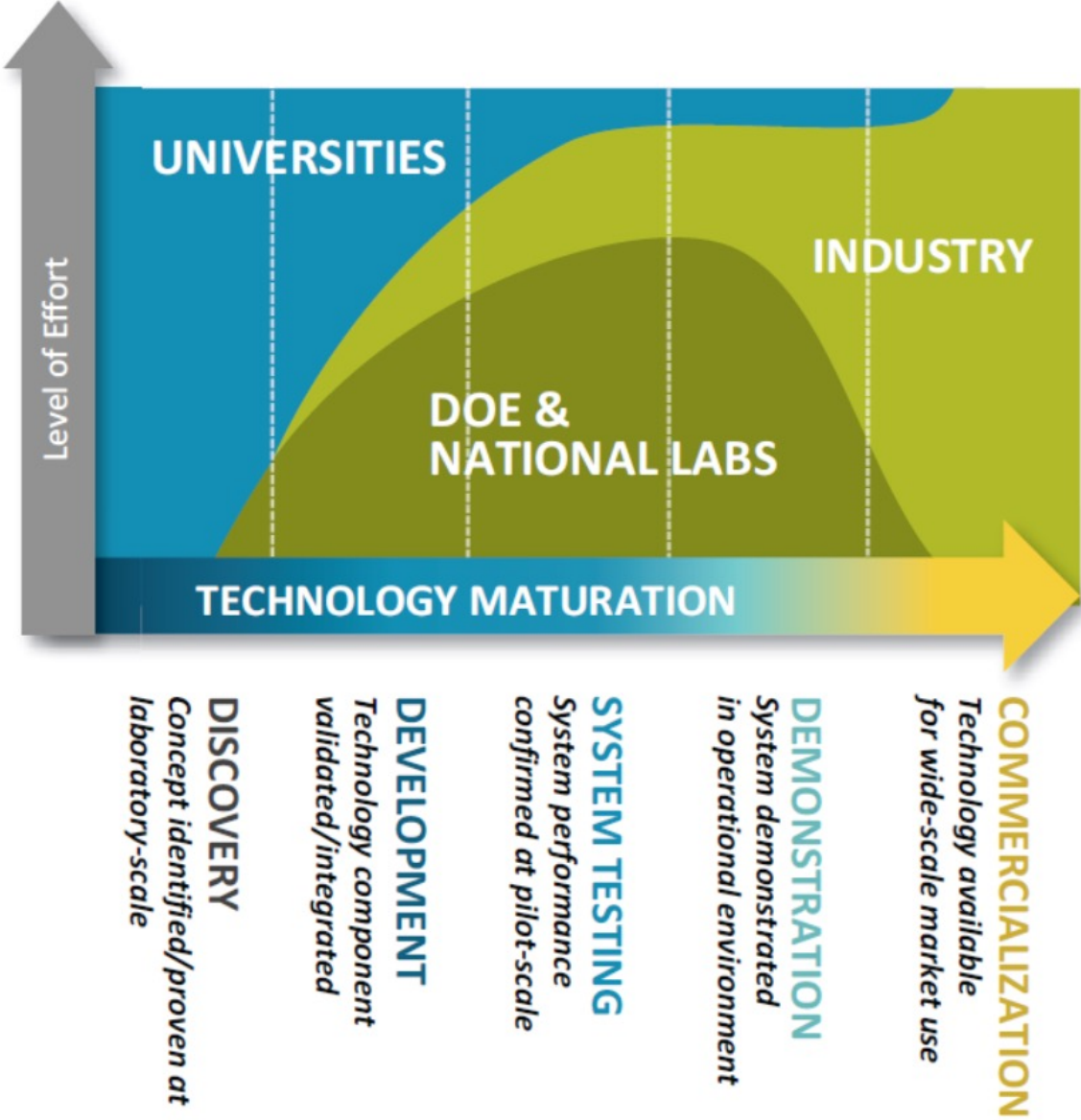


Sophia-Antipolis (1972)

The Non-Linear Innovation Process



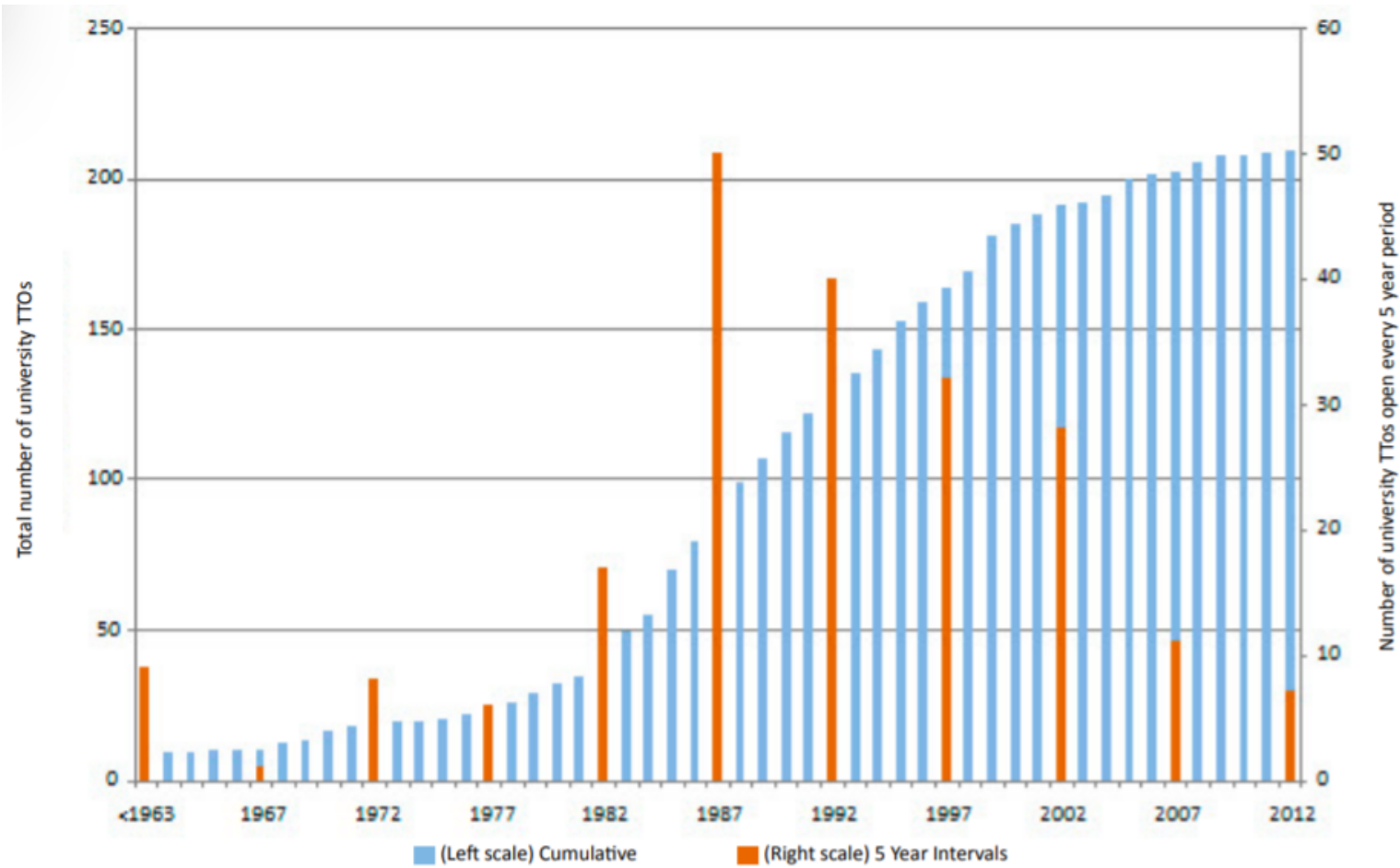
Triple-Helix model of innovation



Farinha, L., & Ferreira, J. J. (2013). Triangulation of the triple helix: a conceptual framework. Triple Helix Association, Working Paper, 1.

The Bayh-Dole Act

- In 1980, the Bayh-Dole Act allowed recipients of Federal government-funded research projects to own their research, invention, and thus the patents.



Valdivia, W. D. (2013). University start-ups: Critical for improving technology transfer. *Center for technology innovation at brookings*, 19(12), 1-22.

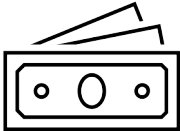
Third Mission



“a contribution to society”



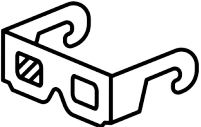
An anchor



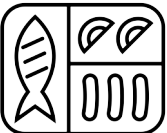
Financially sustainable



Startups/spinoffs



Entrepreneurial culture



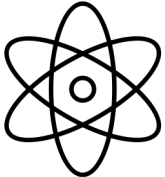
Respond to Societal Challenges



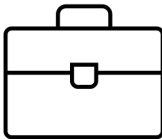
Social justice / Community-engagement



Relevant skills

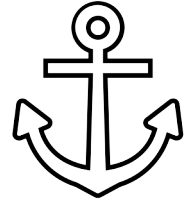


Open science



Work with the private sector

Third Mission



An anchor



“a contribution to society”



Yale University and New Haven – An intertwined relationship

Third Mission

What are the contributions that universities can make?

RESEARCH AND INNOVATION



PROMOTING ENTERPRISE,
BUSINESS DEVELOPMENT AND
GROWTH

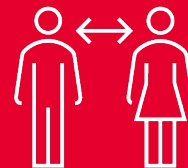


Third Mission of the University

DEVELOPMENT OF
REGIONAL HUMAN
CAPITAL AND SKILLS

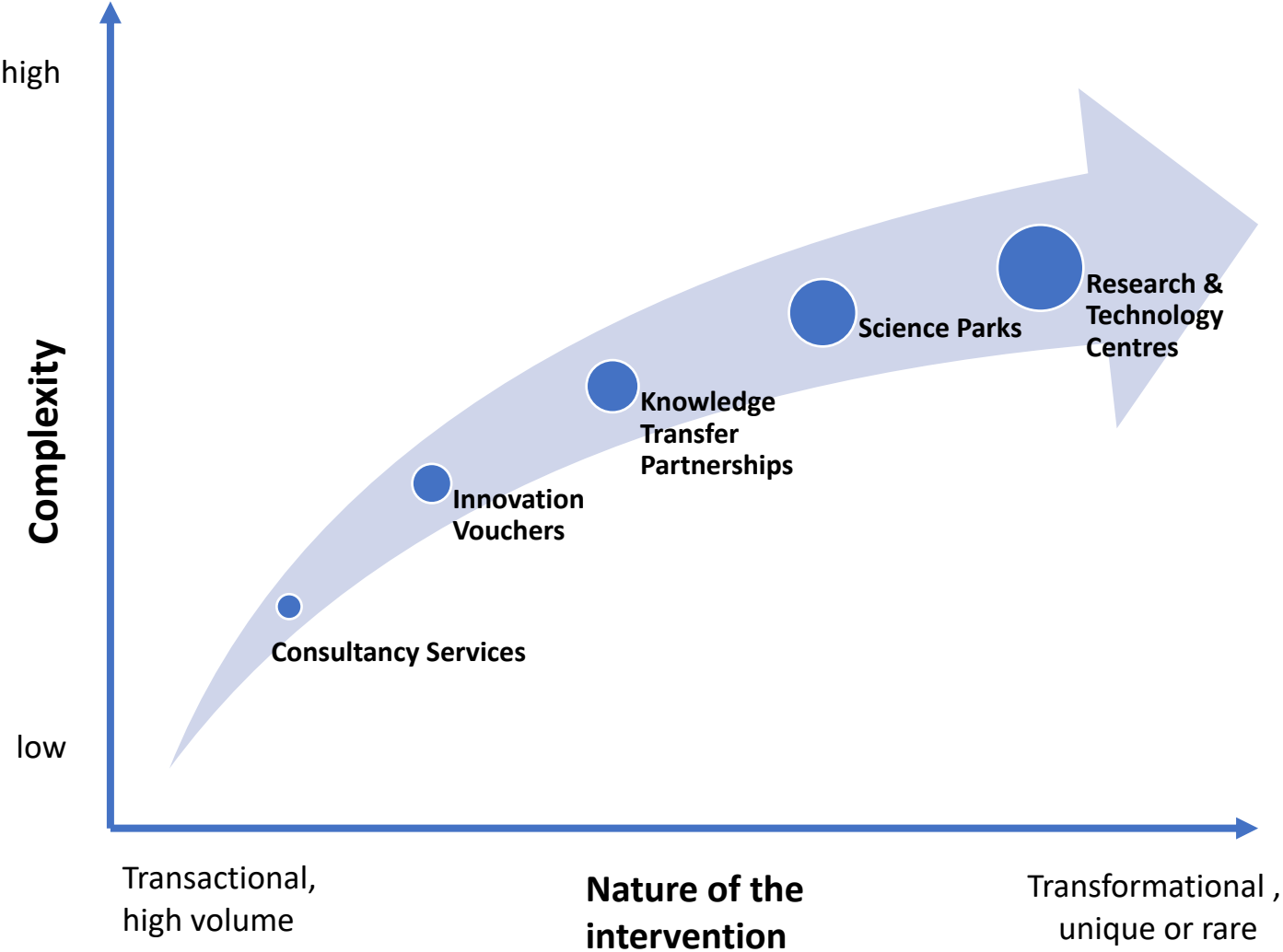


SOCIAL EQUALITY
THROUGH COMMUNITY
DEVELOPMENT AND 'PLACE
MAKING'



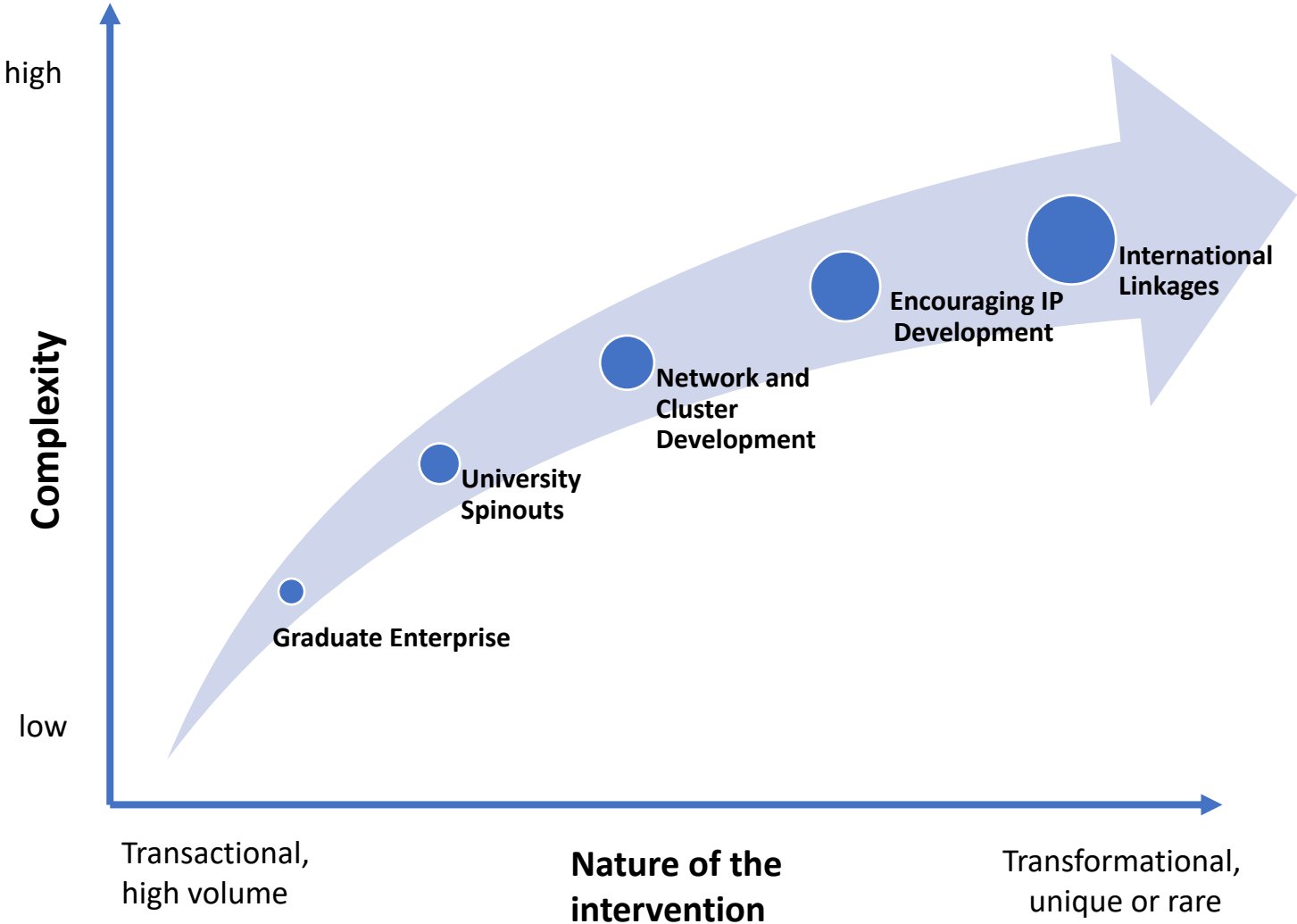
Third Mission

What are the contributions that universities can make?



Third Mission

What are the contributions that universities can make?

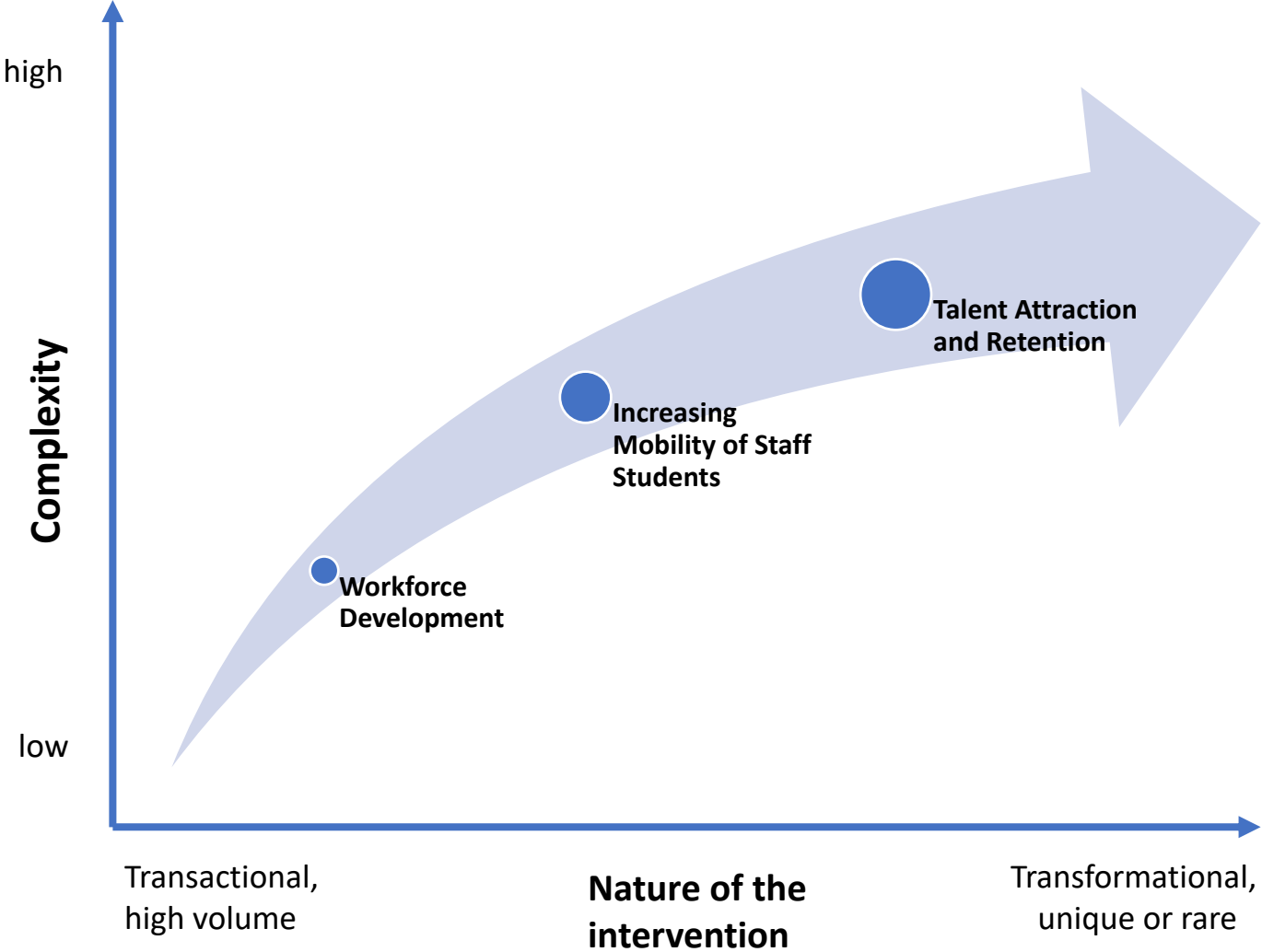


**PROMOTING ENTERPRISE,
BUSINESS DEVELOPMENT AND
GROWTH**



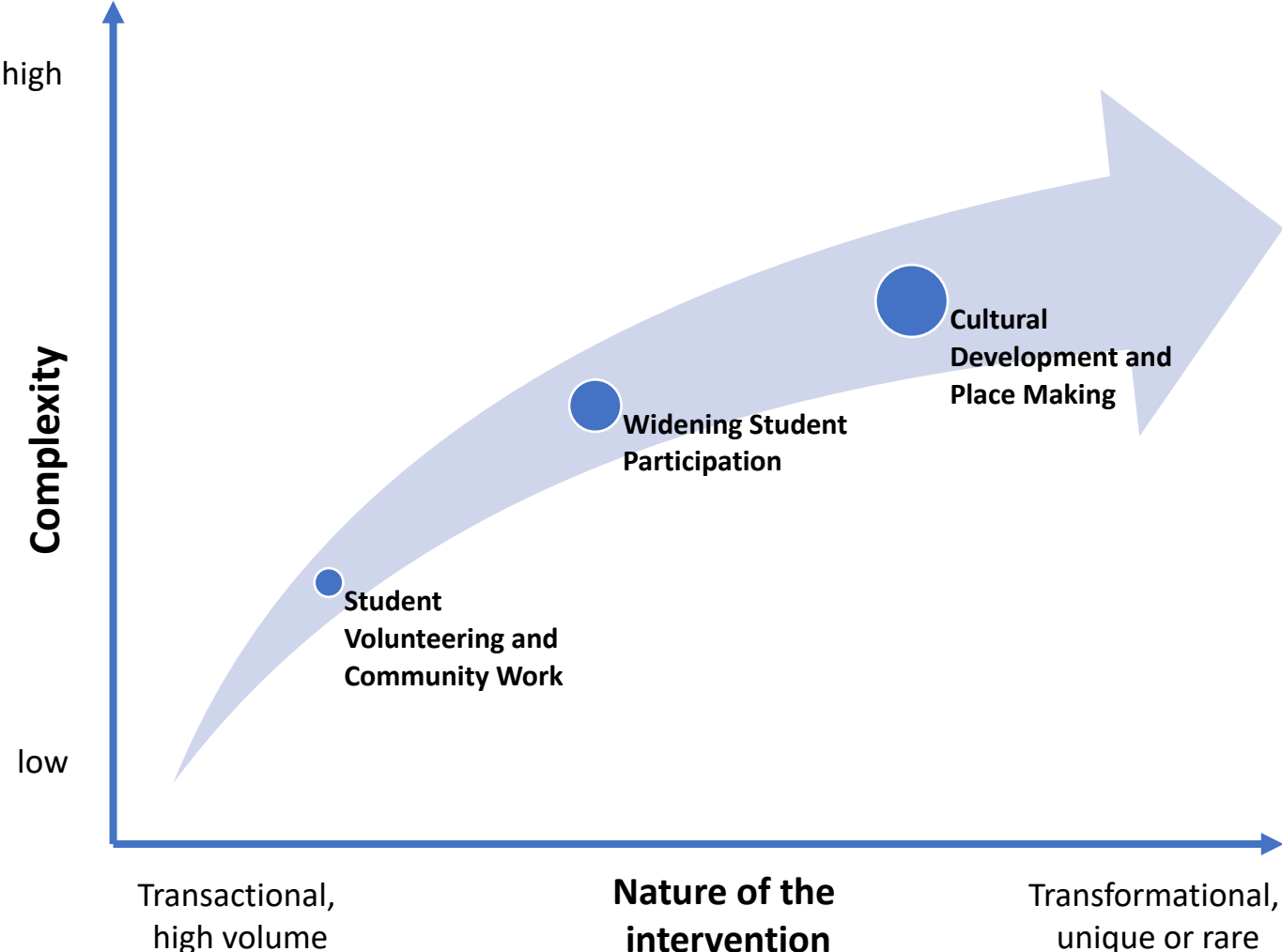
Third Mission

What are the contributions that universities can make?



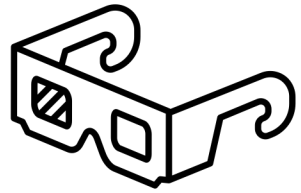
Third Mission

What are the contributions that universities can make?

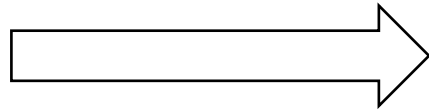


Reward Mechanisms

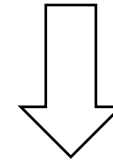
Students



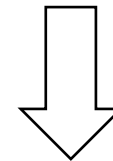
Students



Have good grades



Write a thesis



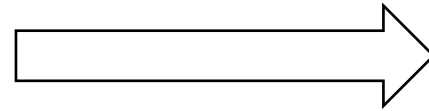
Find a job

Reward Mechanisms

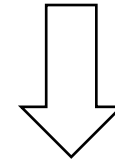
Faculty



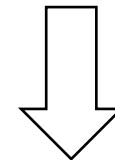
Faculty



Do your PhD



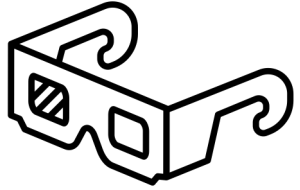
Write many articles in good
journals, be liked by your peers



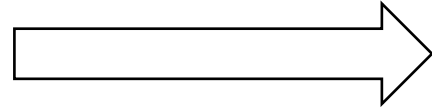
Become a full-time professor

Innovation Culture

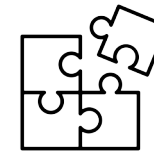
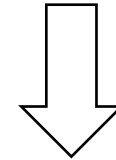
A process



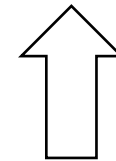
Students



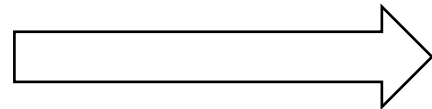
Basic and applied assignments



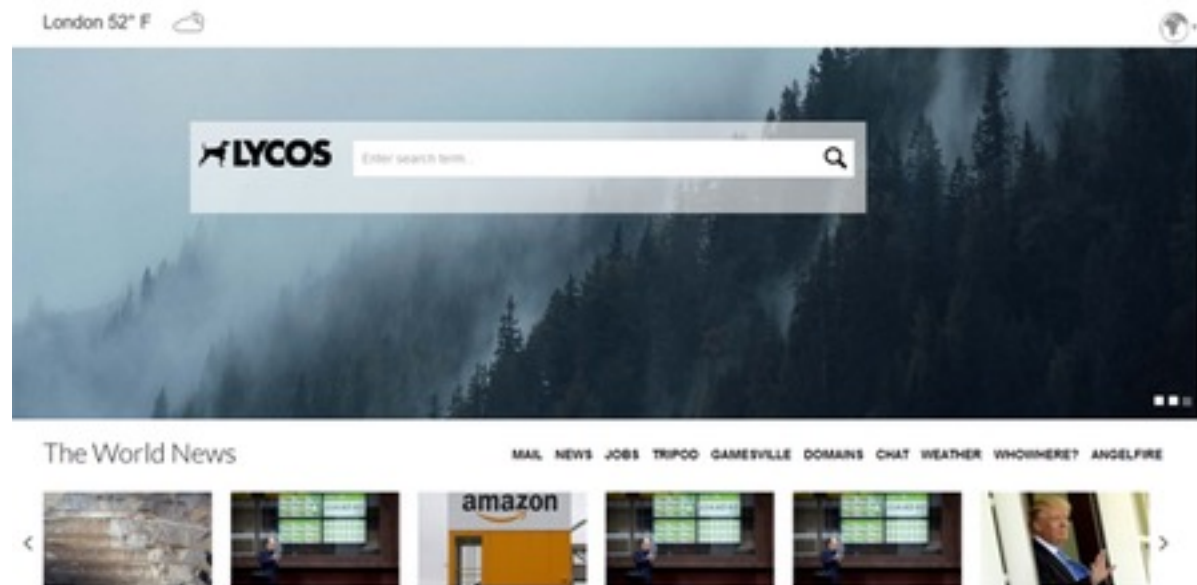
**Is there a
commercial
application?**



Faculty



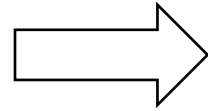
Basic and applied research



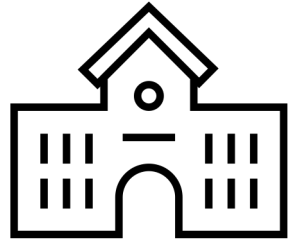
Academic spin-off

What is an academic spin-off?

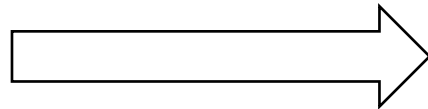
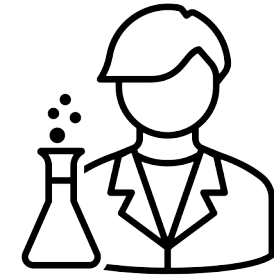
- Enhanced role of TTOs
- Bayh-Dole Act effect



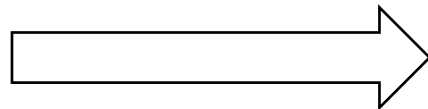
Academic spin-off



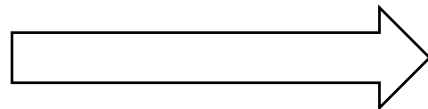
A company founded to exploit the results of university research



University invests in protecting IP



University gets a share of the company



Company licenses the technology

Academic spin-off

Two approaches to spin-off formation

INSIDE - OUT APPROACH



UNIVERSITY



Intrapreneur



Near-market



Identify Customers



OUTSIDE - IN APPROACH



Entrepreneur/Start-up



Mid stage TRL



Vision of the market

Academic spin-off

4 key dimensions



#1 MINDS

- Technology experts
- Infrastructure
- Strong IP

#2 MANAGEMENT

- Entrepreneur/Intrapreneur
- Good Market Vision
- Business Opportunities

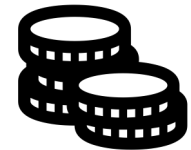


#3 MARKET

- Strategy
- Industrial Partners

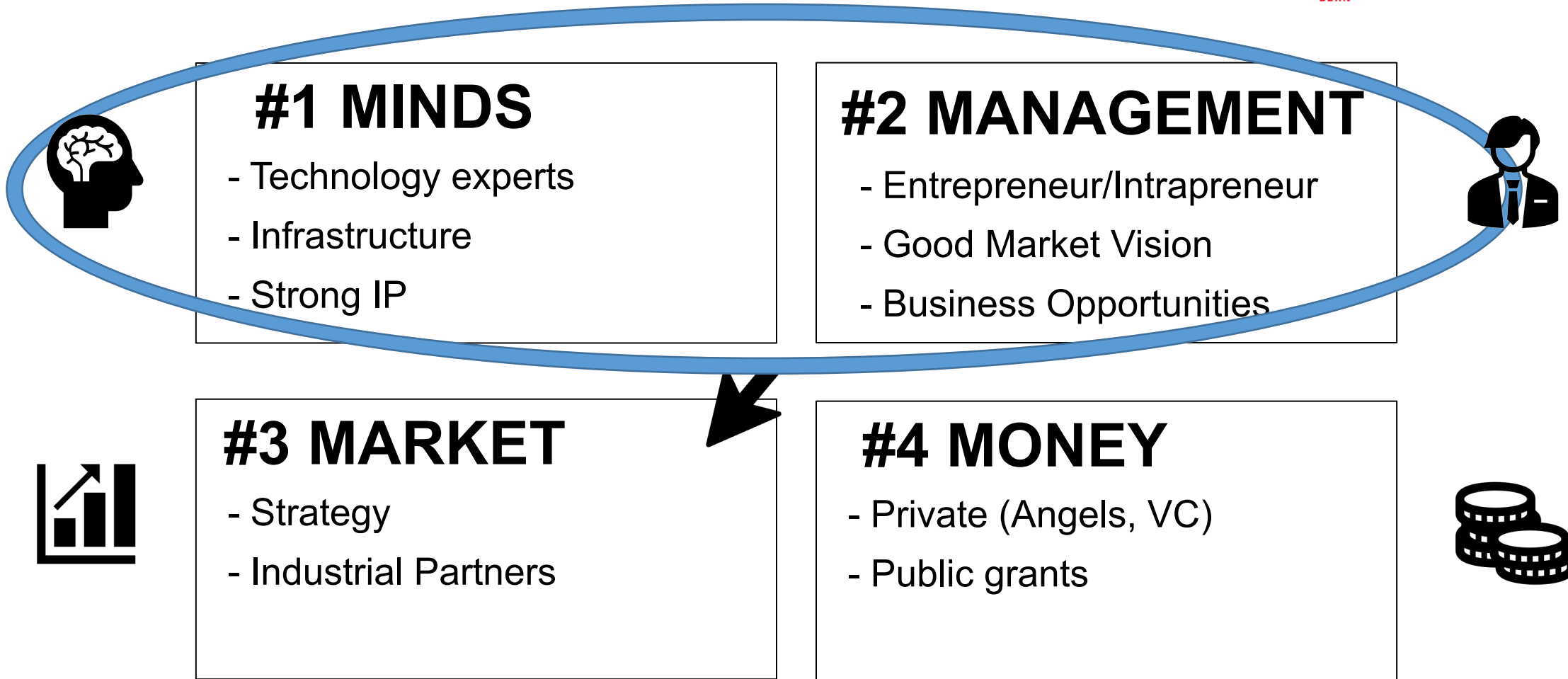
#4 MONEY

- Private (Angels, VC)
- Public grants



Academic spin-off

4 key dimensions



INSIDE-OUT APPROACH

Academic spin-off

4 key dimensions

u^b

UNIVERSITÄT
BERN



#1 MINDS

- Technology experts
- Infrastructure
- Strong IP



#2 MANAGEMENT

- Entrepreneur/Intrapreneur
- Good Market Vision
- Business Opportunities

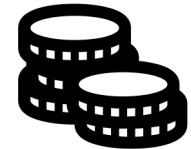


#3 MARKET

- Strategy
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#4 MONEY

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OUTSIDE - IN APPROACH

Academic spin-off

Equity share at formation

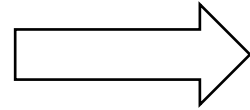
A survey of 350 university spin-offs provided an average distribution of university spin-off ownership split

Owners	Share
Founders	56.5
University	24.7
Angels	2.2
VC	7.7
Banks	0.5
Others	8.4

Academic spin-offs

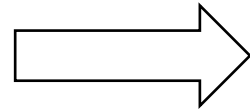
Regional factors favoring spin-off formation

Presence of risk capital providers
(e.g. Venture Capital)



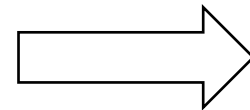
competitive pressure

Initiatives supporting local e-ship
(e.g. science parks, innovation
centers)



to avoid market failures

Industrial environment
(level of innovation orientation)



innovation demand

Academic incubators

Connecting university students to innovation & investment



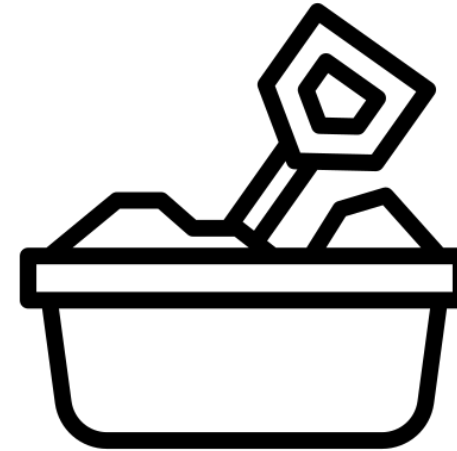
University of East London, Knowledge Dock — London, United Kingdom

Academic incubators

What is an academic incubator?

A sandbox for experimentation

University incubators provide a **safe space to build a startup** before student entrepreneurs enter into a competitive market and grapple with life's constraints post-graduation.

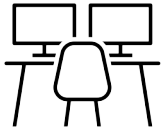


Academic incubators

What is an academic incubator?

Academic incubator offer support measures:

Office & Lab Space



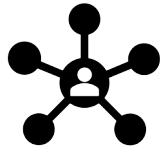
- below market rates
- shared with other startups

Mentoring



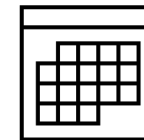
- Office advice in dealing with problems

Network connections



- potential partners
- potential investors
- potential clients

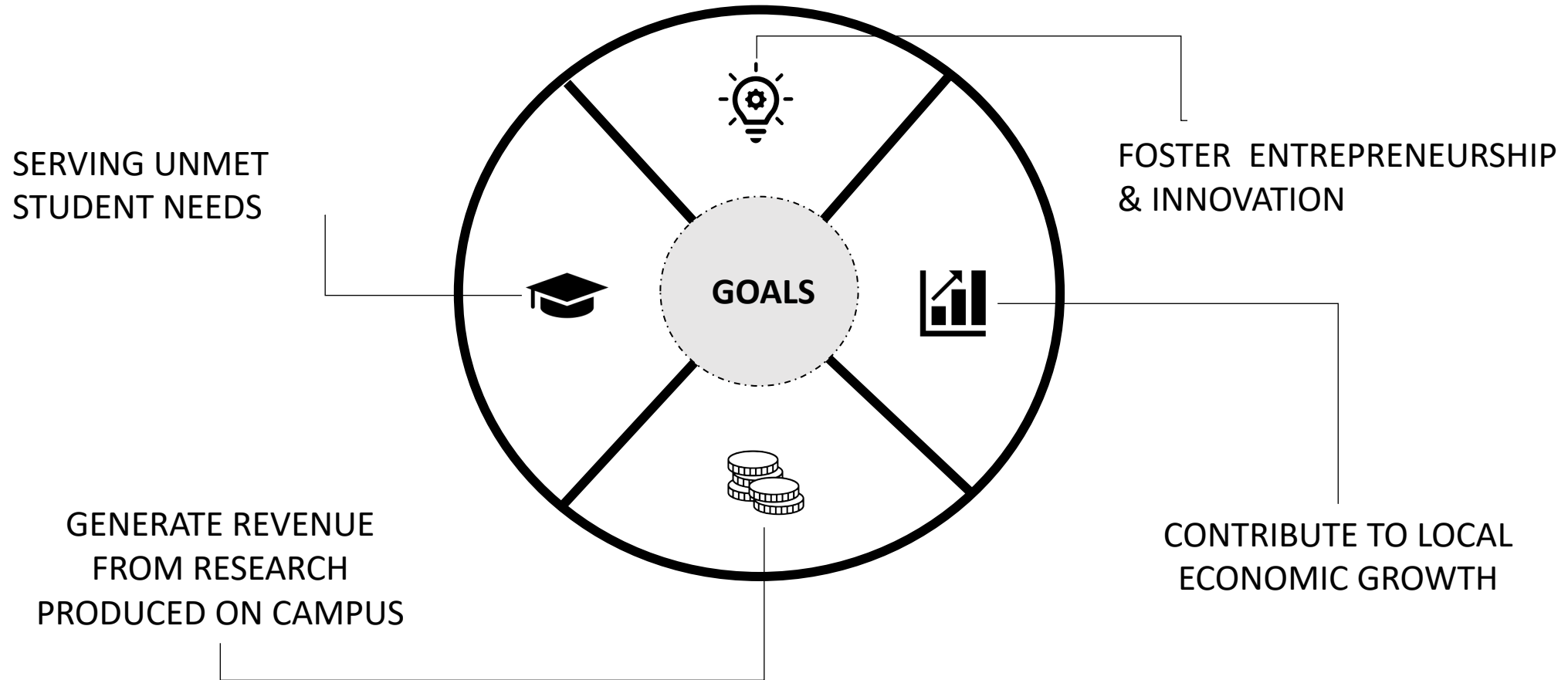
Management assistance



- Business plan
- Pitching
- Applications for funding
- Accounting

Academic incubators

Why are universities building them?



Academic incubators

Good Practices

Northwestern



Northwestern

The Garage

About ▾

Our Programs ▾

Our Programs

The Tinker Program

The Residency Program

Jumpstart Pre-Accelerator

Little Joe Ventures Fellowship

The X-Factor Program

The Propel Program

The Activate Program

The Opportunity Fund

Academic incubators

Good Practices

Northwestern

