

# **METRICS FOR KNOWLEDGE TRANSFER**

## **Past, Present & Future**

**Dr Kevin Cullen**  
**Director**  
**Research & Enterprise**  
**The University of Glasgow**

## Today I will.....

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- Tell you about the TT/KT Measurement model we developed in the UK
- Tell you about the metrics we developed
- Tell you what we are doing now and where we are going with metrics.

**To Measure effectively, we must know  
the objectives of Knowledge Transfer!**

**Well, the University exists to:**

- **Create knowledge**
- **Disseminate knowledge**

- Publication to peers
- Teaching to students
- Knowledge Transfer – to industry/society/economy

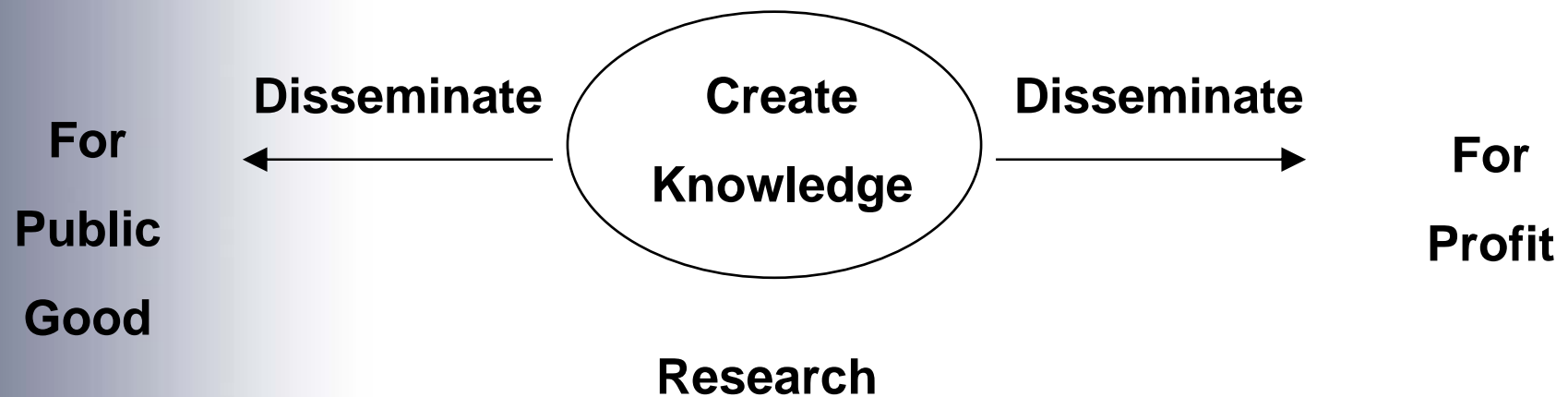
sooooo...Knowledge transfer is the 3<sup>rd</sup> Dissemination channel

And....

## Technology/Knowledge Transfer fits University mission

- Need to understand drivers
- Define success

## In our Model:



**Outreach**

**SME support/  
Student  
support**

**Research**

**Collab/  
Contract  
Research**

**Outcome**

**Licensing  
Spin-outs**



## A coherent spectrum of objectives, activities and beneficiaries

	Outreach	Research	Outcome
Objectives	Public Good	Create	Profit
Partners	EDA	Research Funders	Investors
Financial returns	None	Cover costs	Can be significant
Beneficiaries	Students, Small Co's, Society, Economy	Knowledge Base	University

## Financial Profile Across the Spectrum

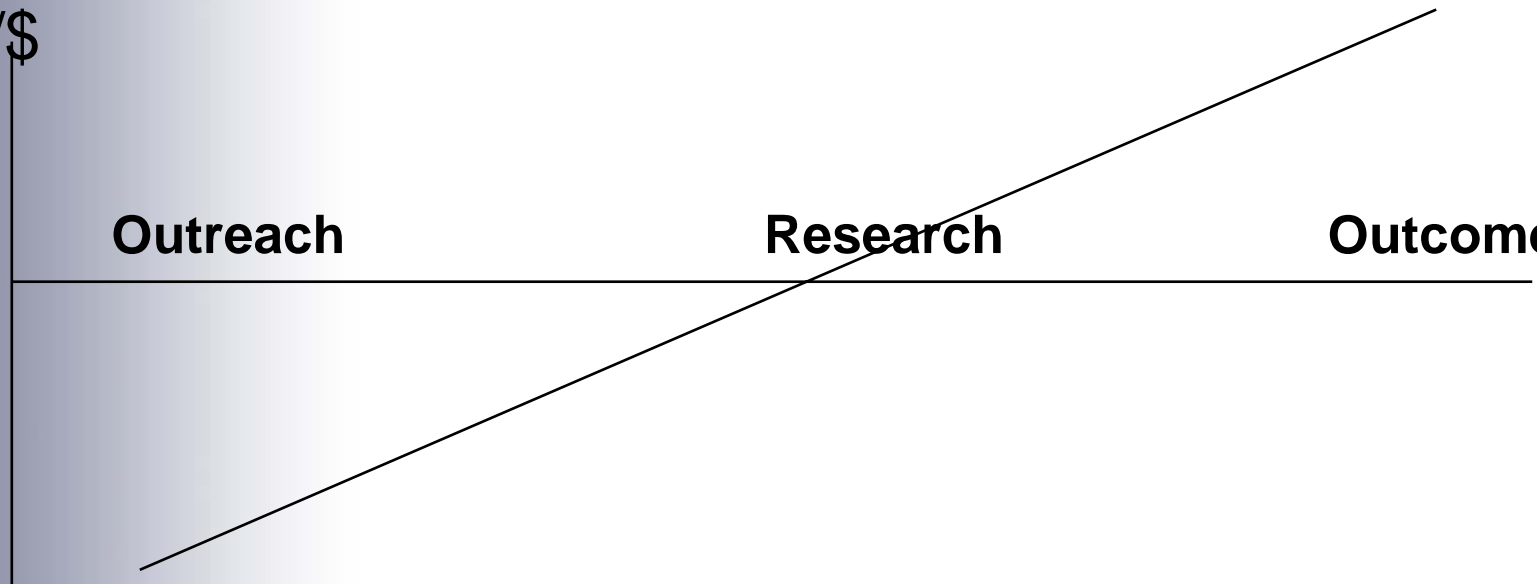
Return to University

£/\$

Outreach

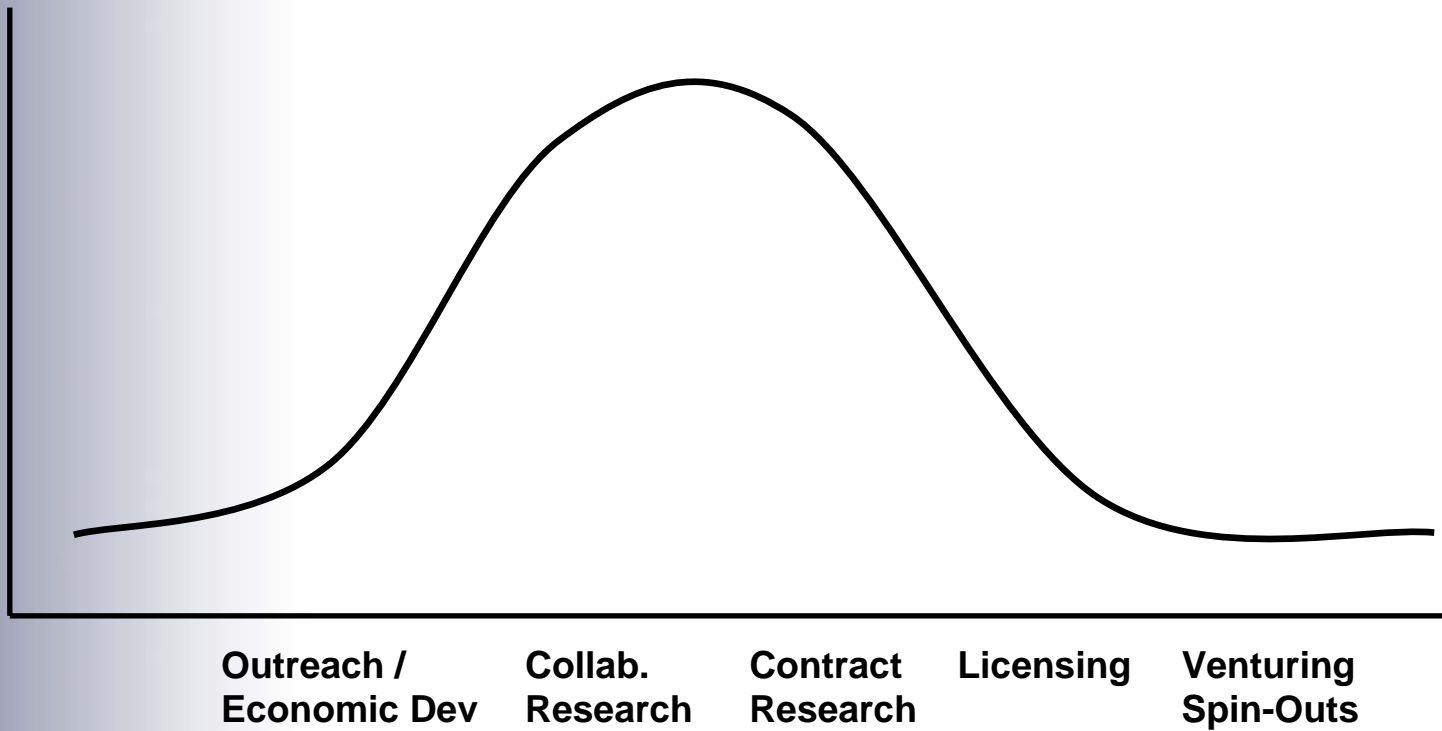
Research

Outcome



**NOTE however – we should also recognise relative importance**

£/\$ revenues



To measure the performance reasonably, need to capture

- Volume of Activity
- Quality
- Impact

# Outreach



# Outcome

	Outreach Activities	Research & Technology Dev., Contract Research	Licensing	Venturing
Activity	No. of: <ul style="list-style-type: none"> <li>• SMEs worked with</li> <li>• Student placements</li> <li>• Companies created</li> <li>• Networking events</li> </ul>	No. of: <ul style="list-style-type: none"> <li>• Research Awards</li> <li>• Consultancy</li> <li>• CPD</li> <li>• Proof of Concept</li> </ul>	No. of: <ul style="list-style-type: none"> <li>• Disclosures</li> <li>• Patent Applications</li> <li>• Patents Granted</li> <li>• Options Granted</li> </ul>	No. of: <ul style="list-style-type: none"> <li>• Business Plans</li> <li>• Joint Ventures</li> <li>• Companies leveraging in external investments</li> </ul>
Quality	Income in support of activities and feedback	Income: <ul style="list-style-type: none"> <li>• Research (HESA)</li> <li>• Consultancy</li> <li>• Etc.</li> </ul>	Income from licensing, cash or equity value upon realisation	Value of equity realisation
Impact	Longitudinal and difficult to track	No. of jobs created in HEIs	Export income, no. of jobs created in HEIs	No of jobs created, turnover and realisation of equity

## In Scotland We Adopted the Income Approach

- Income is the best proxy we have for quality
  - 3<sup>rd</sup> party objectivity
- Income also shows volume => quantity
- Data available in most cases
- Data auditable
- Enabled 'weighting' by Funding Council across the spectrum

## Status

- System has been operating well
- Funding Council Happy
  - can show massive activity
  - demonstrating massive leverage
- TTO Directors and many senior research officers agree no changes to metrics would make sense at this time
- There is still a need to develop the next generation of measures/metrics

- Joint UNICO/AUTM/ACCT project
- Developing impact measures
- Funded by SFC/HEFCE/RCUK/OSI (GU Grantholder)
- Seeking to determine impact measures required by:
  - University Management
  - Research Funders
  - Policy-makers
  - Customers

## Objectives

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- Identify overall picture of metric requirements
- Identify what already exists (and from whom)
- Identify gaps (and responsibilities)
- Collate existing and collect new data
- Benchmark internationally

.....it is not easy, it is a complex system!

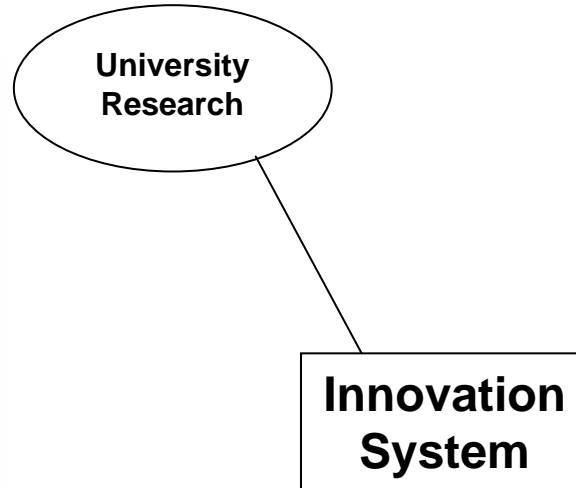
- How big is the KT agenda?
- What is expected?
- Who has responsibility?

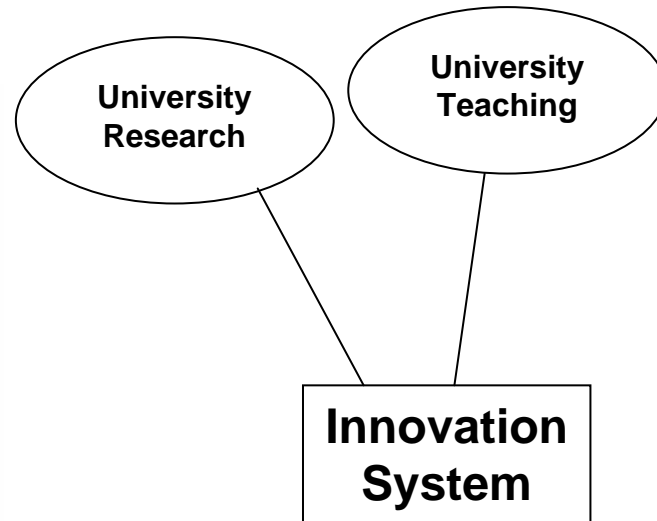
...major topic in the UK since 1995

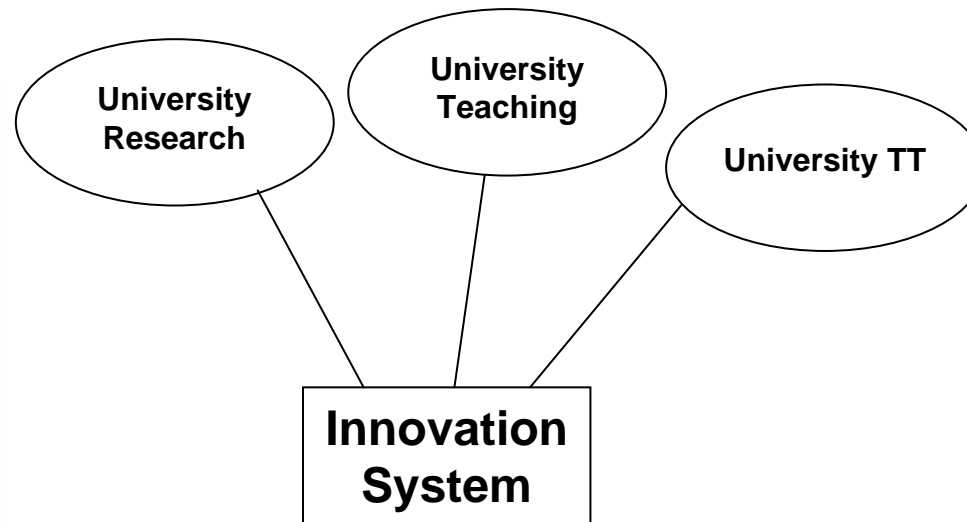
- The University is a key actor in the innovation ecosystem.

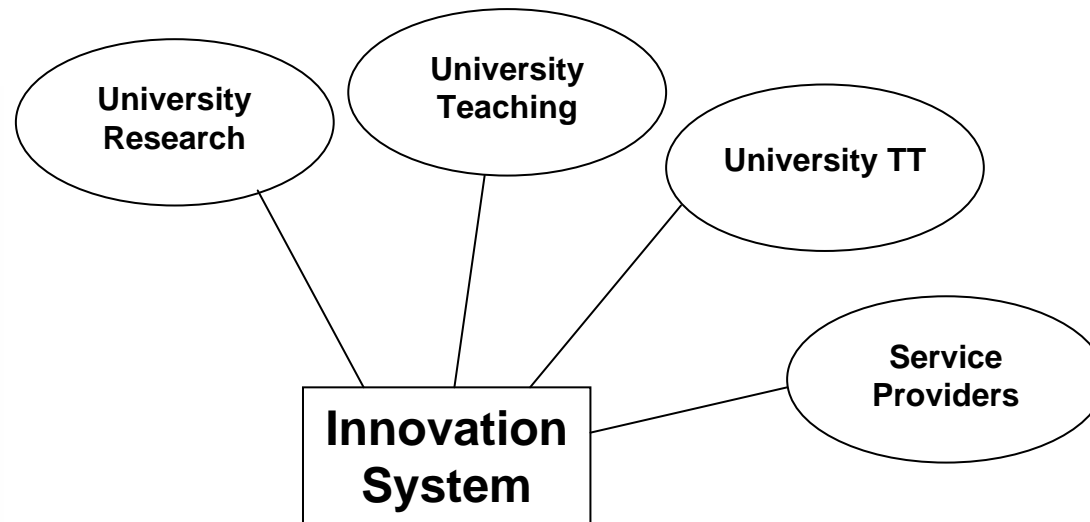
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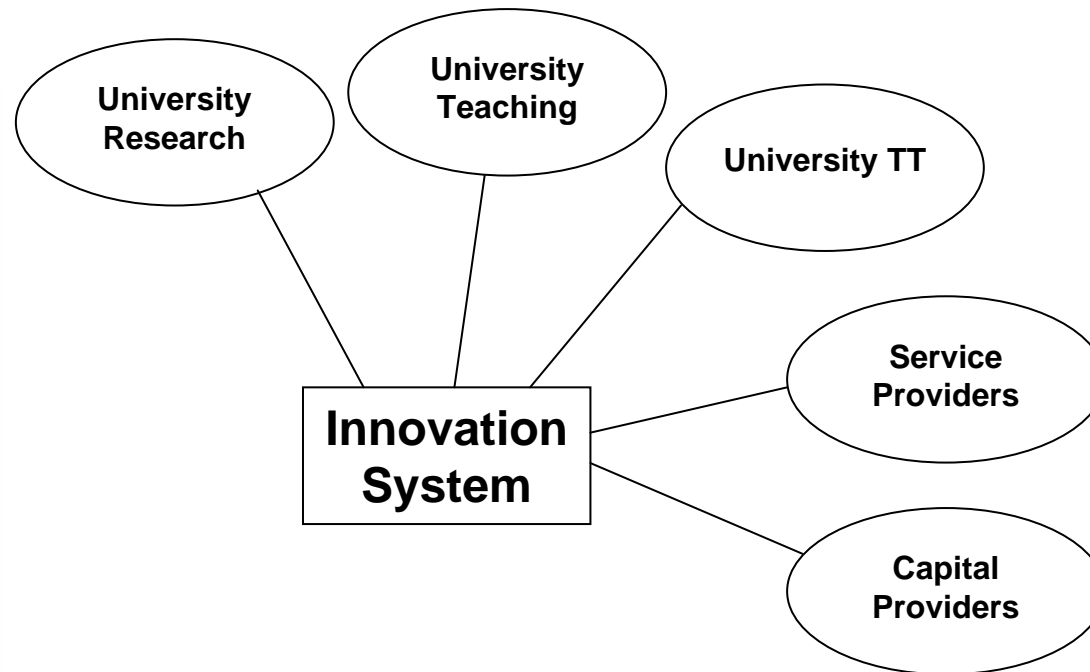
- The University is only part of the system.

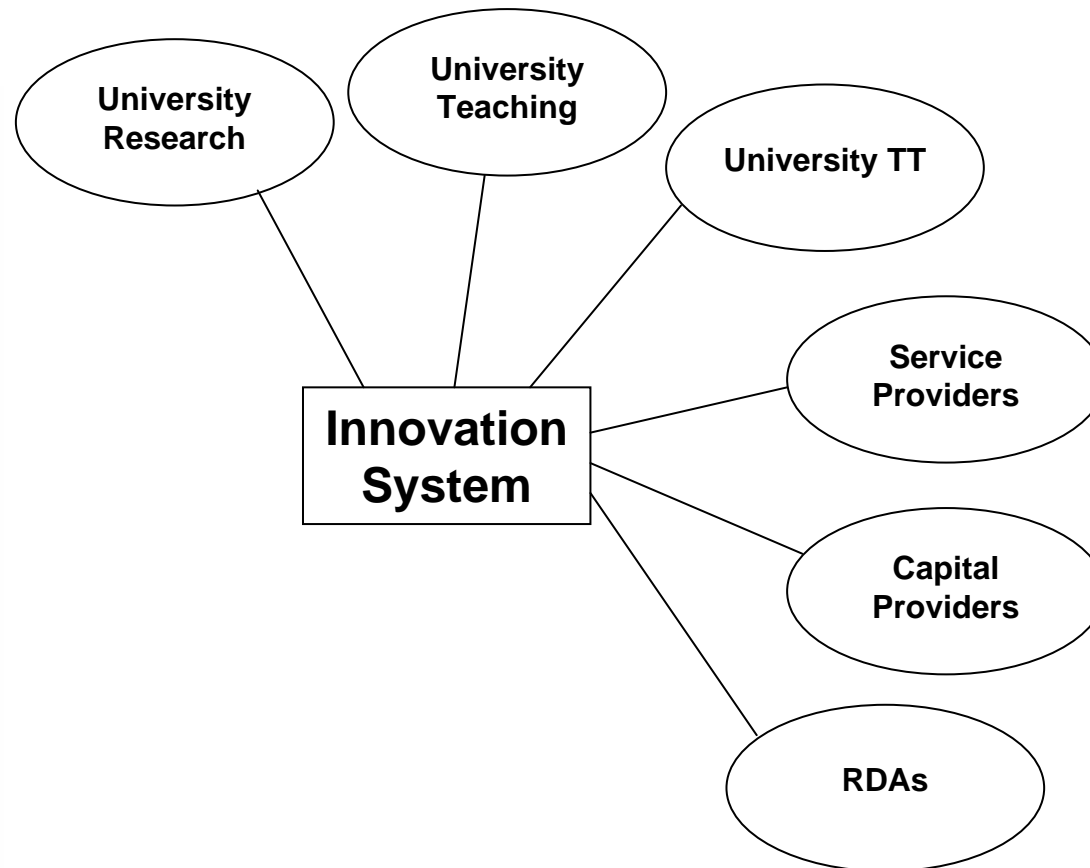


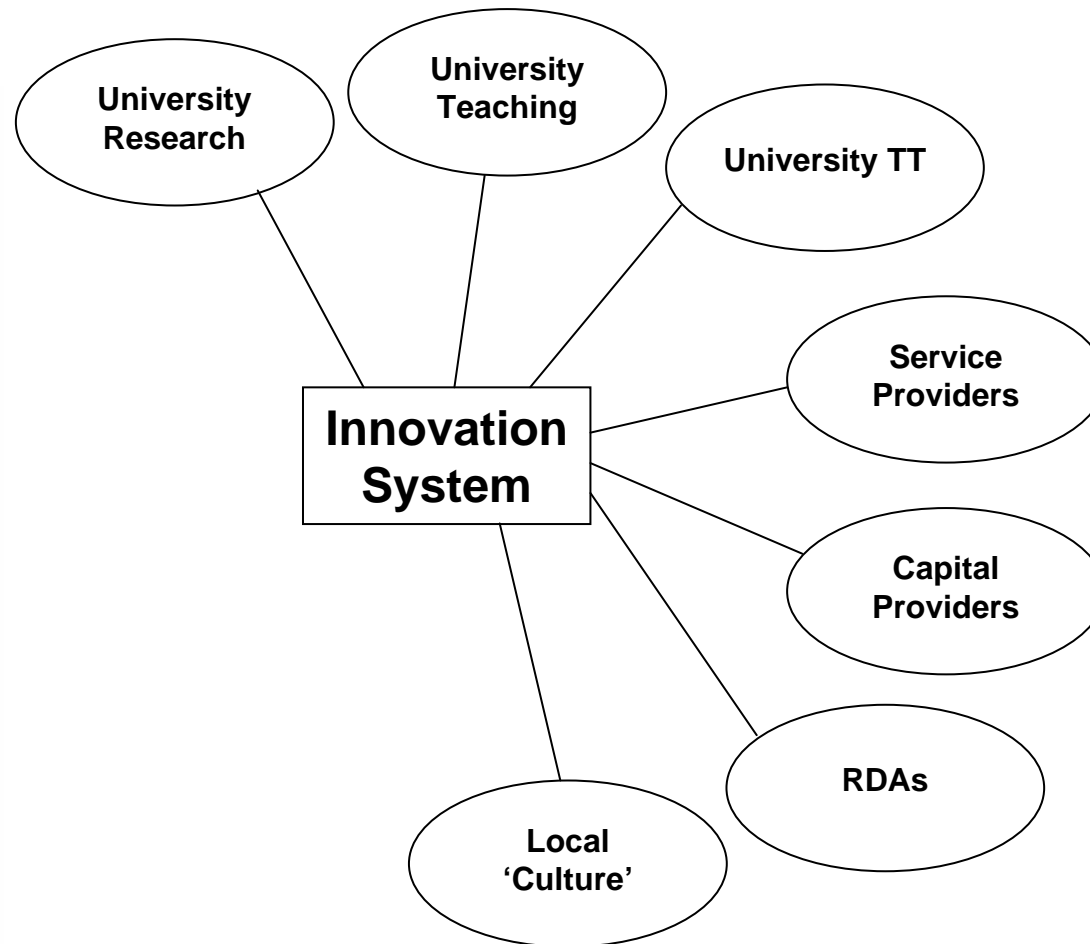


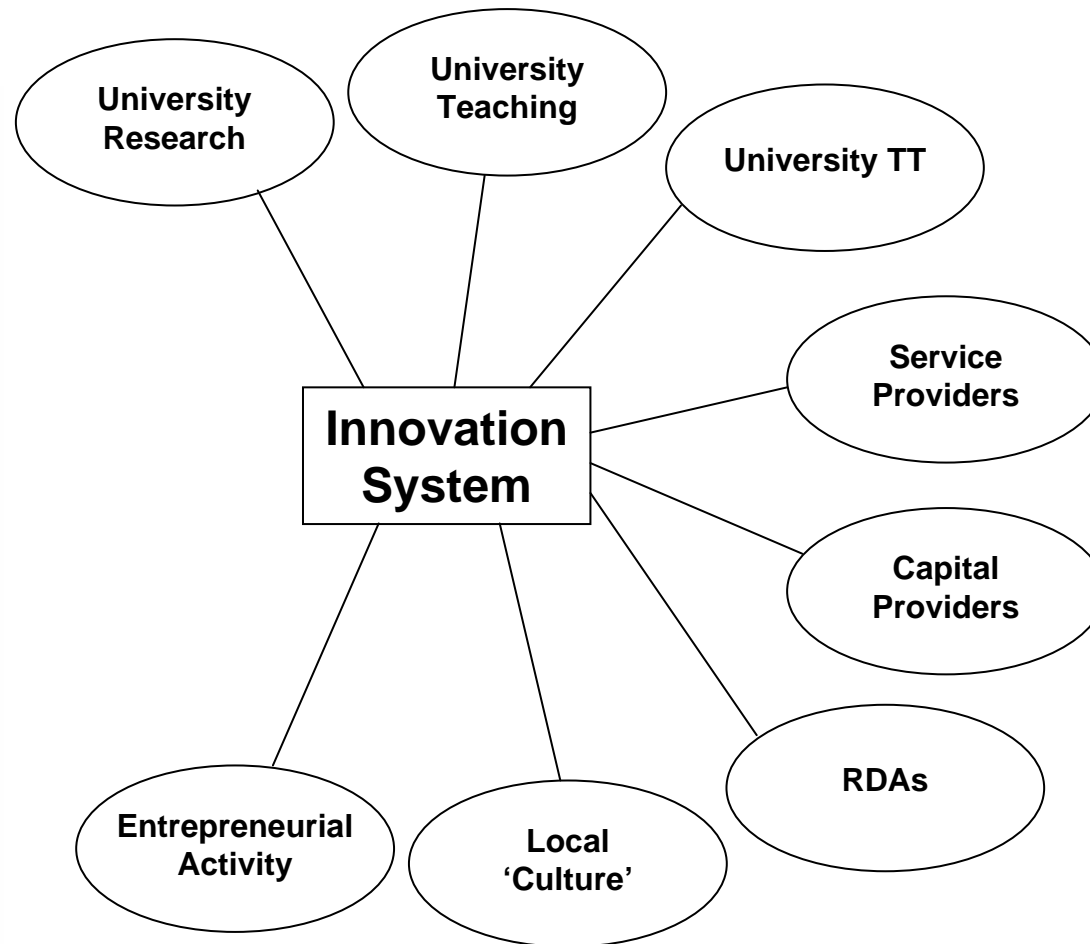


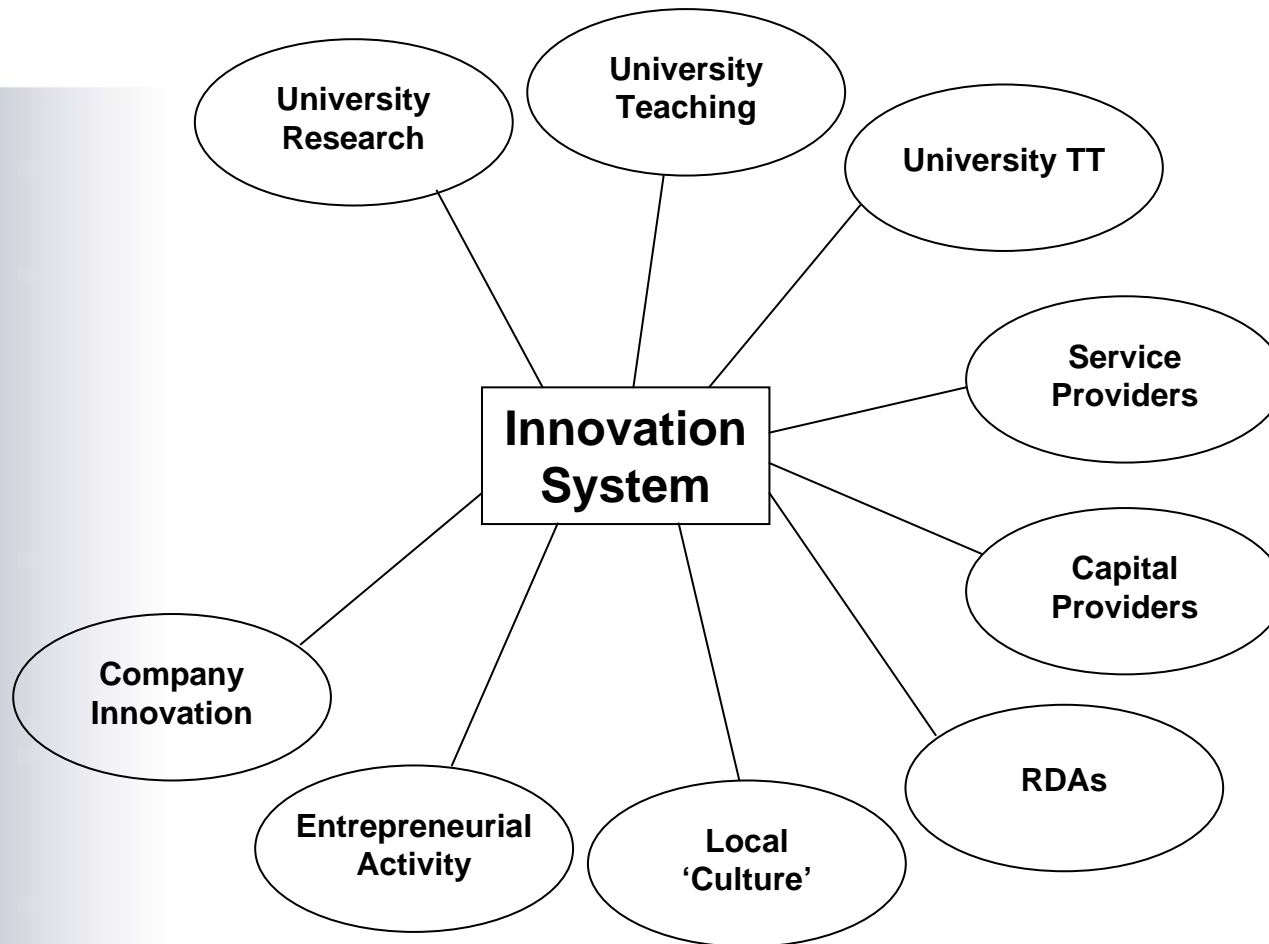


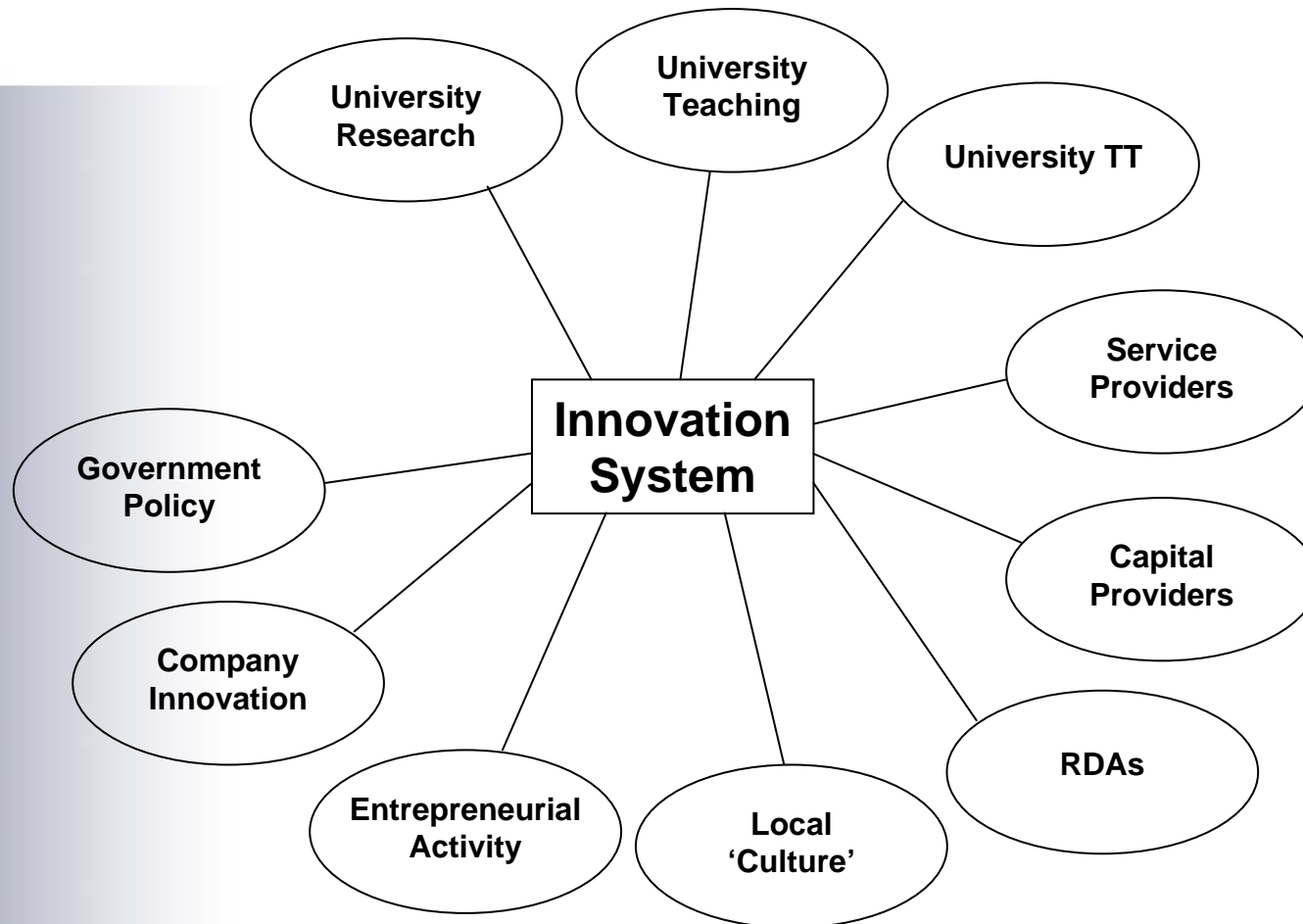


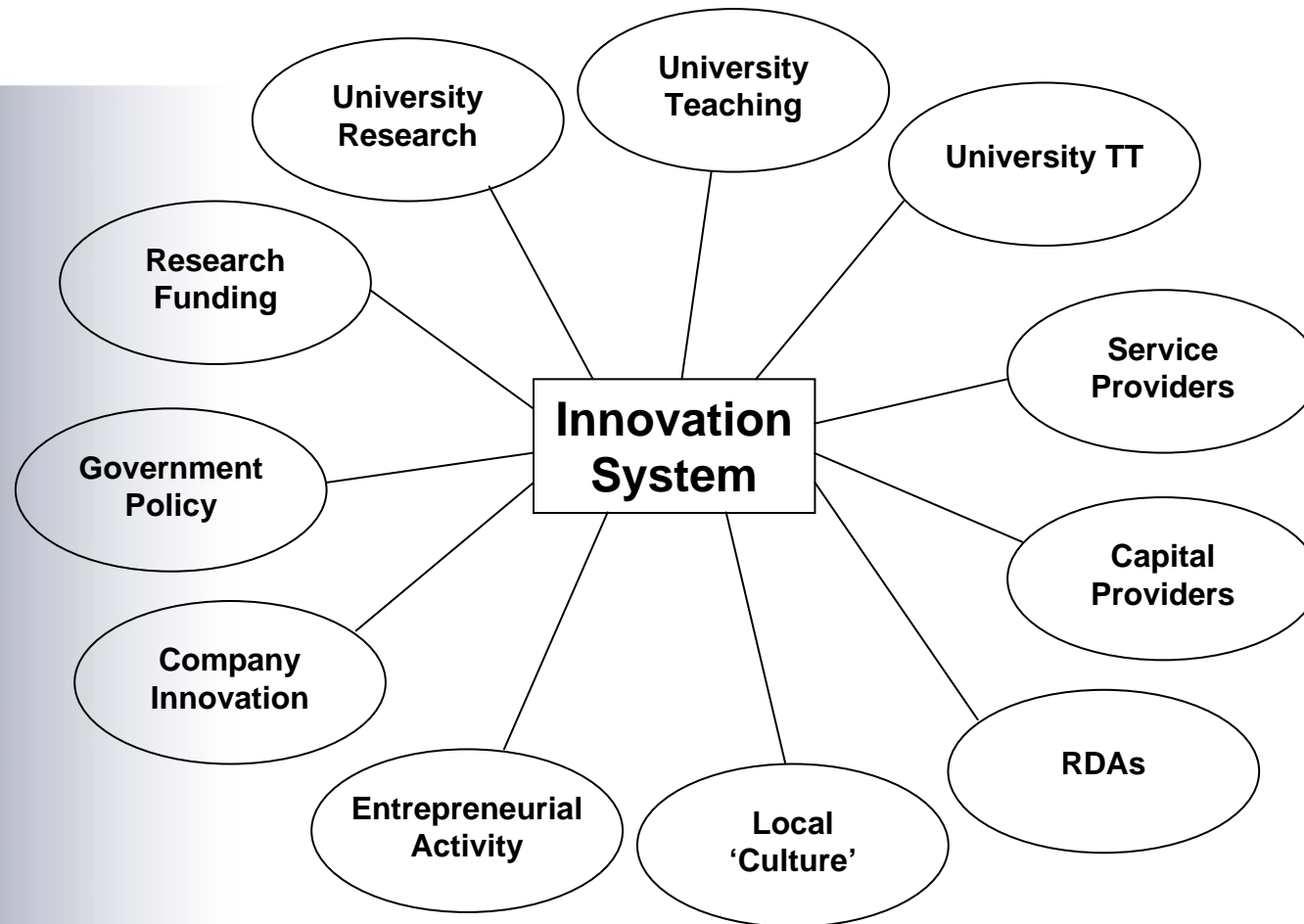






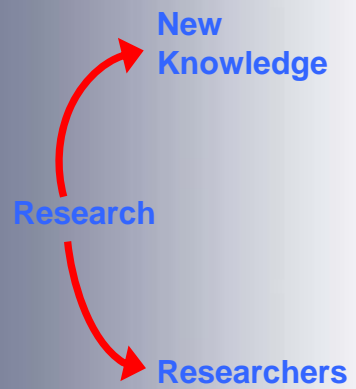




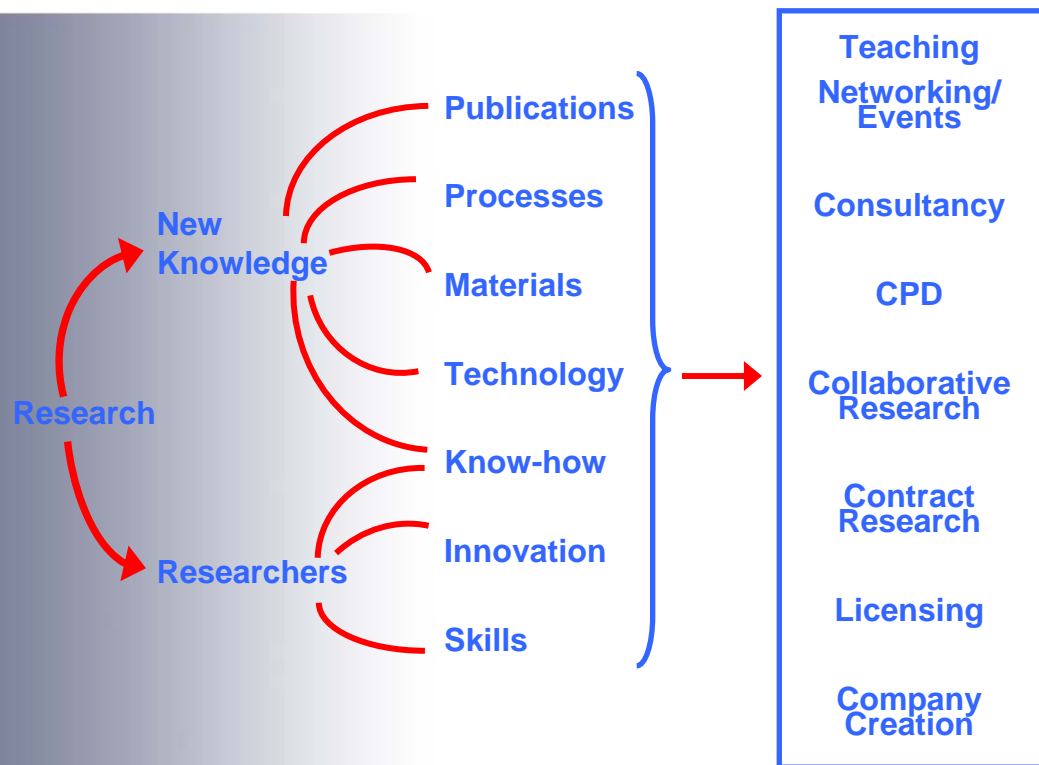


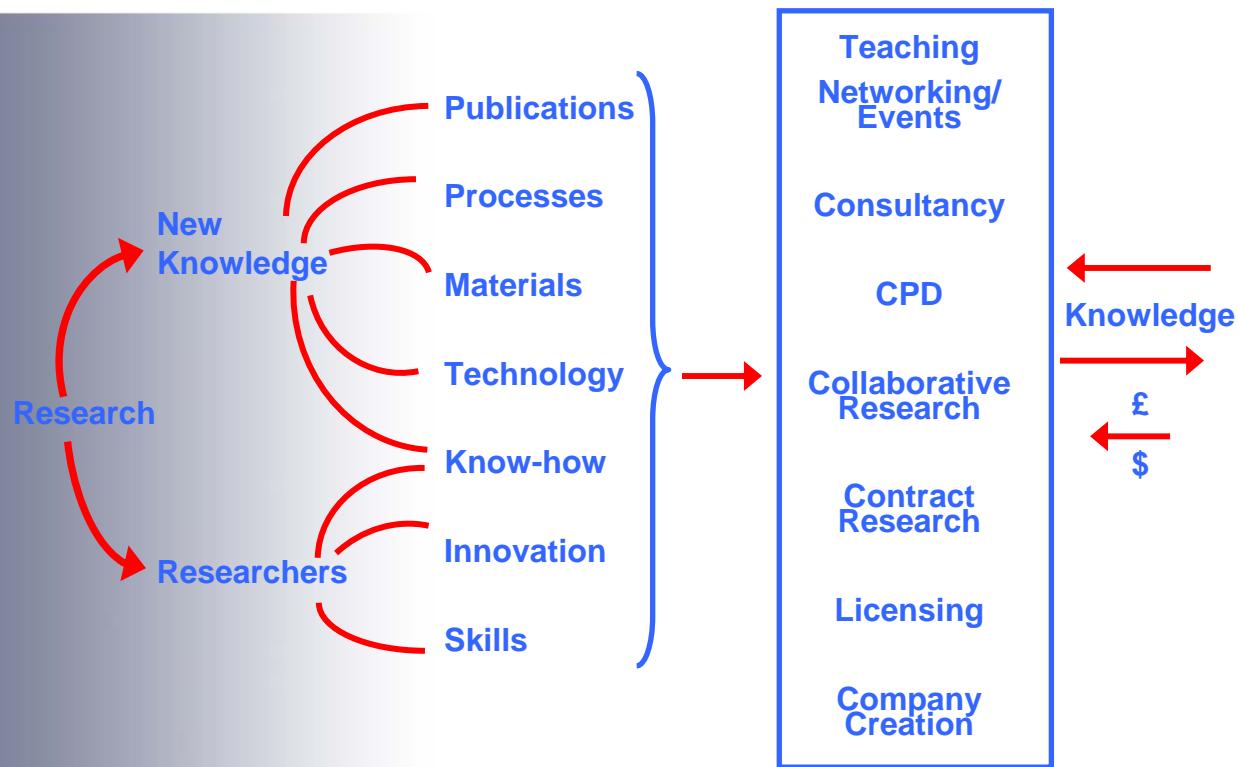
- **The University is a part of the ecosystem, but ONLY a part.**
- **We need partners and other stakeholders to take responsibility for the other parts**
- **We will take responsibility for what the University can contribute.**
- **University Research has been cited as key...**

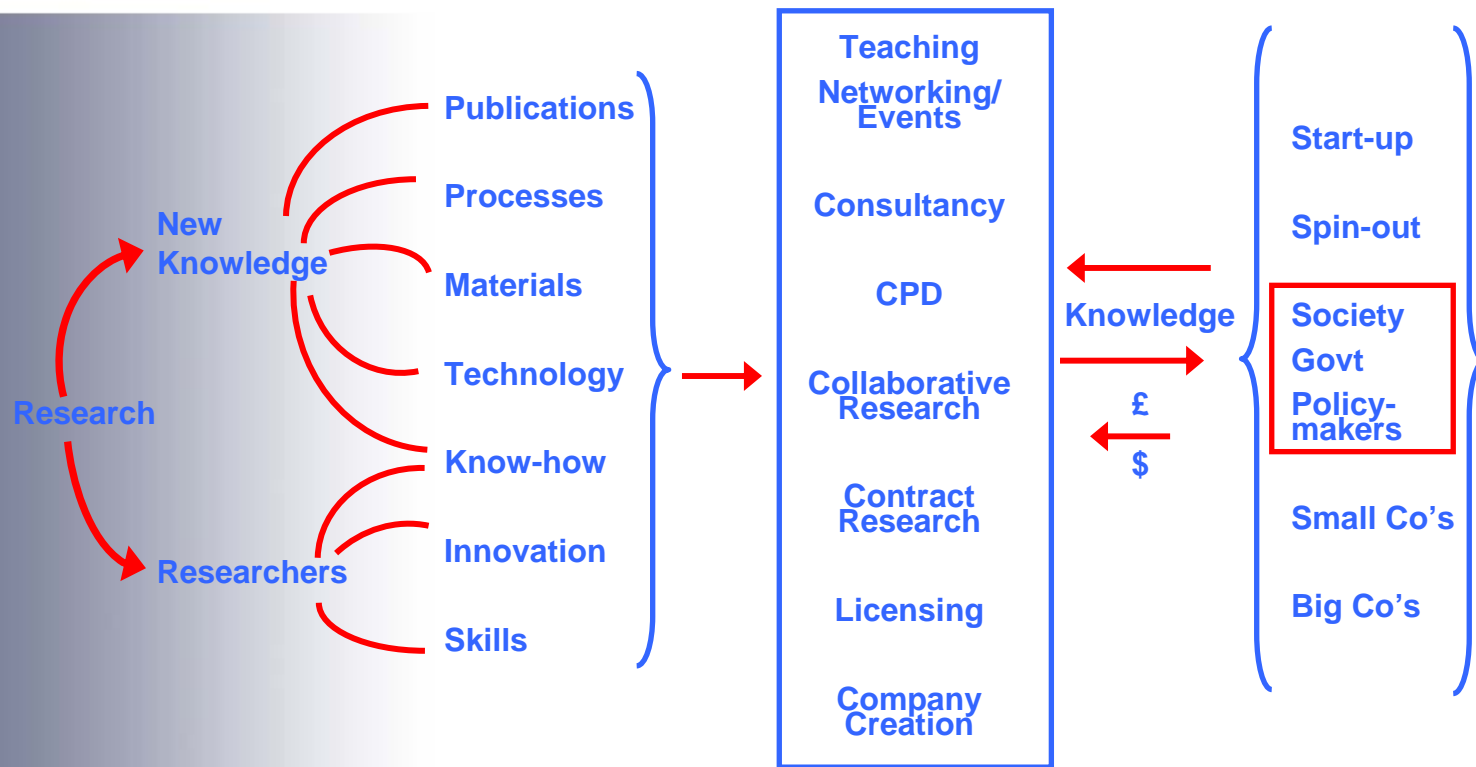
**....we need to be clear on what University research contributes**

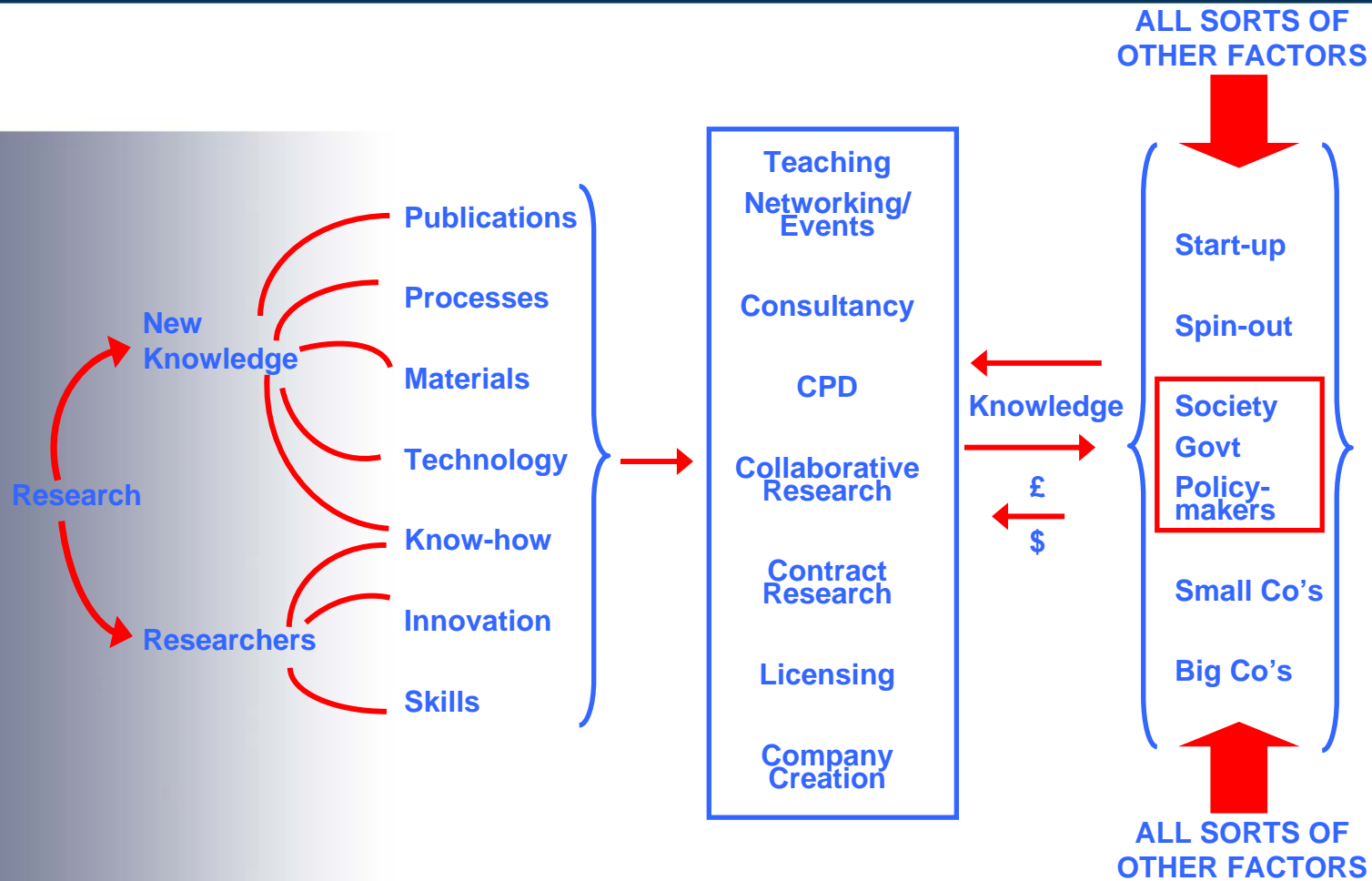


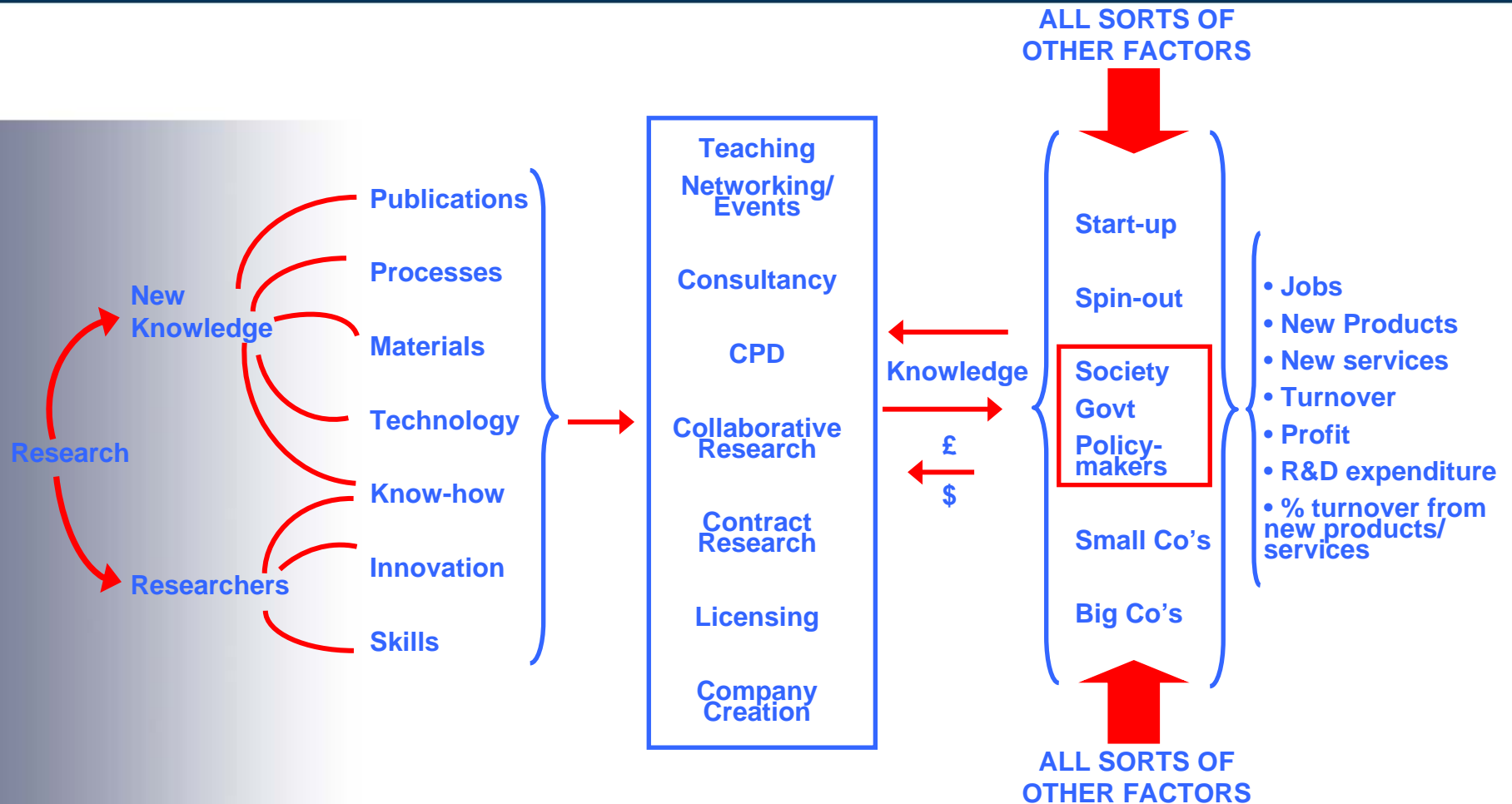


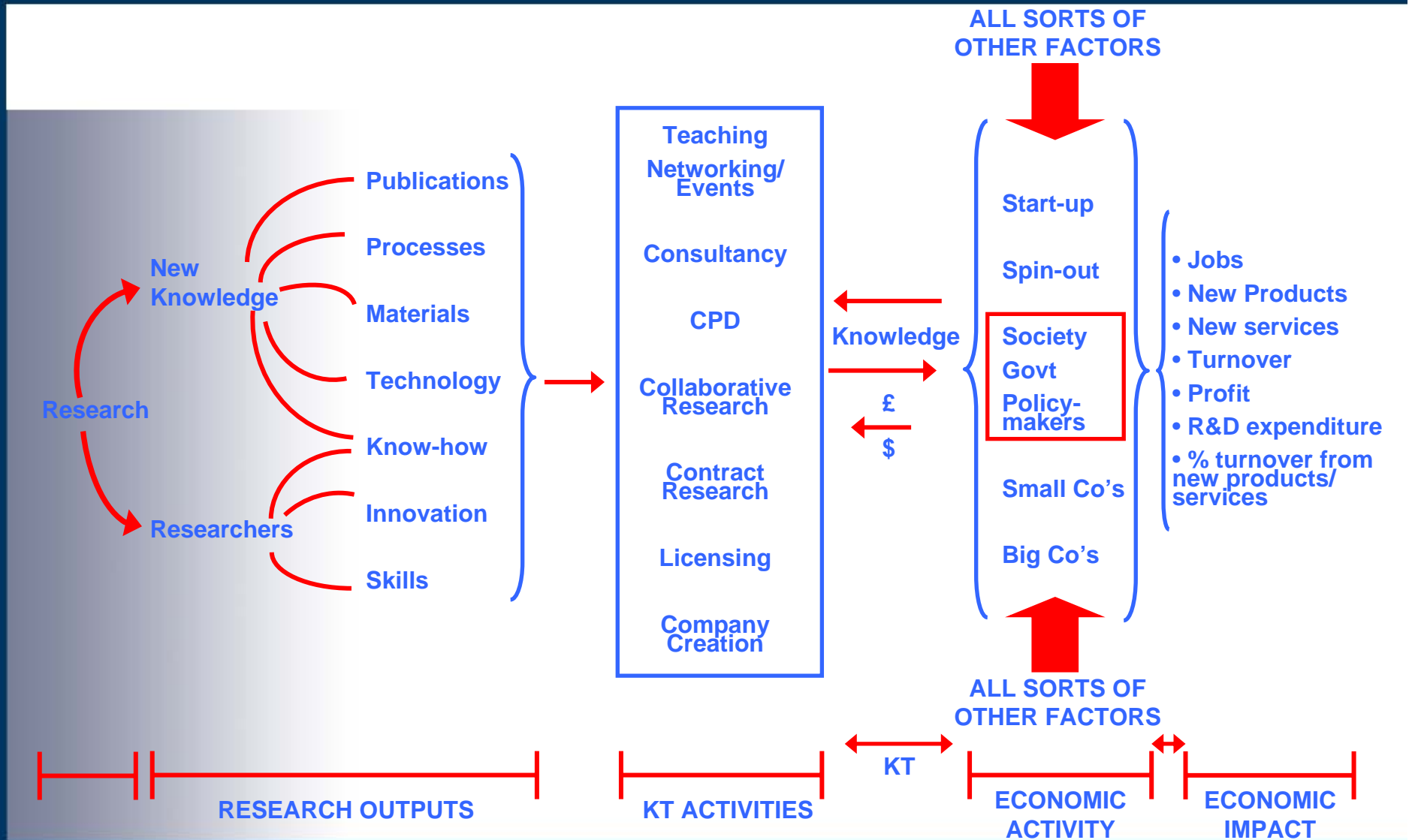












I'm starting to think that.....

- **We should concentrate on outputs (rather than impacts).**
- **We can demonstrate the volume and quality of what we do and that should be our focus.**
- **Since we are only a contributor to the final impact, we can't take all the credit or all of the blame.**
- **We must continue to develop the ways in which we measure what we do...**
- **It's more than measuring licensing income, but it's less than measuring economic impact.**



University  
of Glasgow

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Thank you for listening

[k.cullen@enterprise.gla.ac.uk](mailto:k.cullen@enterprise.gla.ac.uk)