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UNIVERSITY OF KENTUCKY RESEARCH

RESEARCH IMPACT DESIGN

research.uky.edu/ukinnovate

Focus Areas

UK INNOVATE
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The innovation, entrepreneurship and economic enterprise for UK Research

Innovation Training	Innovation Connect	Technology Commercialization	Social Innovation
Programs offering translational research, product development and entrepreneurship training, coaching mentorship.	Supports industry, non-profit and private sector partnerships for research and innovation.	Assess, protect, and license early-stage technologies and co-create new tech startups.	Scale ideas and find solutions to create social impact from research and discovery.

UK INNOVATE MICRO-CERTIFICATION

Launch Blue

UAccel

NDA

Innovation Training And Micro-Certification

- Training programs focused on *research impact design activities*:
    - need validation value proposition measurement
    - partner identification
    - "getting to valuable innovation"
    - proof-of-concept
    - understanding the transfer mechanism options
    - understanding product development
    - entrepreneurship and risk tolerance

INNOVATION TRAINING

- Develop faculty and staff *entrepreneurism* coaching and mentorship

- Support resource identification and incentives-building for *career development* in research impact

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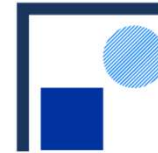
Webinar Objectives

- Explain the evolution of the university researcher
- Introduce Pre-transfer Innovation training
- Provide strategies for your team to consider in effectuating an innovation culture shift across your campus

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Basically…

Issue 1: Students and Faculty May Encounter Technology Transfer Only Indirectly

Issue 2: Entrepreneurial Values May Not Be Broadly Integral to a University's Culture

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Research Barriers

Substantial research with commercial potential never enters the tech transfer process

Why?

Individual choices of the scientist:
- an unwillingness to allocate time to applied R&D activities
- concerns about research publication delays
- negative perception of commercial activities
- negative perceptions of the TTO's capabilities

(Bercovitz & Felman, 2008: Thursby et al., 2001

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Reduce Barriers and Move from Reactive Tech Transfer to Proactive Innovation Development

Downsize the initial burden to enter the tech transfer process
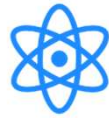
Trigger engagement within the broader ecosystem beyond scientists teaching and research responsibilities

Shift attention from the internal procedures of the TTO to how to increase the supply of research commercialization ideas

Increase the level of activity in the pre-innovation disclosure phase

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Shifting the Research Continuum

Technology Transfer Research is usually addressed well after a research project

As a result, TT may either:

not reach the desired impact or

arrive at the scene when the technology is commercially non-viable or

scientifically obsolete

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Framework

01	02	03
Essential and integrated part of research	Early interactions	One size does not fit all

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Research impact is
REAL
CHANGE
In the
REAL
WORLD
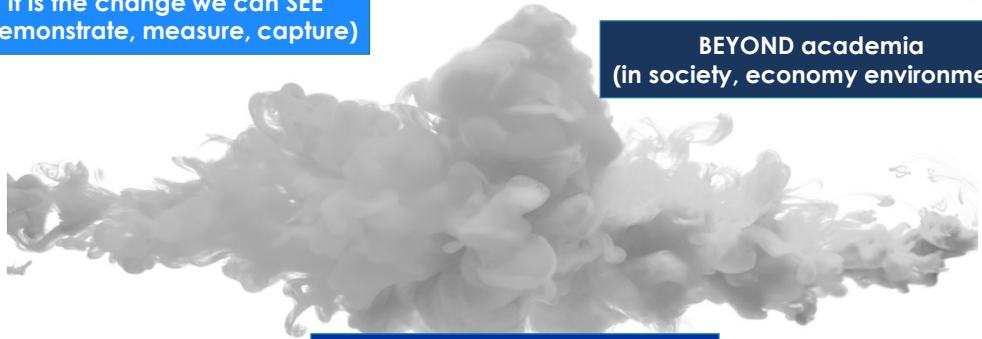
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Impact Implementation is the PROVABLE benefit of Research

It is the change we can SEE (demonstrate, measure, capture)

BEYOND academia (in society, economy environment

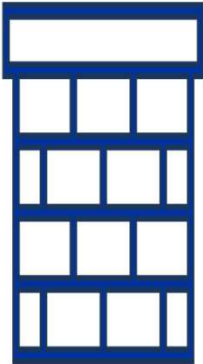Which happen BECAUSE of our research (caused by or contributed to)

Impact is determined by where the effects of research are felt

University

Society

Research Conducted Here

Effects felt here

What is Research Impact?

Definition: The direct and indirect influence of excellent research on individuals, communities or society, including improvements to health and equity, and other social, economic, cultural or environmental benefits

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Why Do We Care?

FUNDER
Show benefit to secure ongoing funding

Show responsibility for taxpayer money

Solve problems

UNIVERSITY
Attract more/new sources of funding

Improve reputation/trust with communities

Attract world class researchers and the best students

Embracing changes in staff/student attitudes to wanting to make a difference in the real world

RESEAERCHER
Attract more/new sources of funding

Address social responsibilities

New research questions on fresh insights

Develops new transferable skills

Potential for improved quality of research

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Types of Impact

Instrumental: Research directly changes or impacts a policy, behavior, or practice.

Conceptual: Research influences or adds to bodies of public or professional knowledge, understanding, or attitudes.

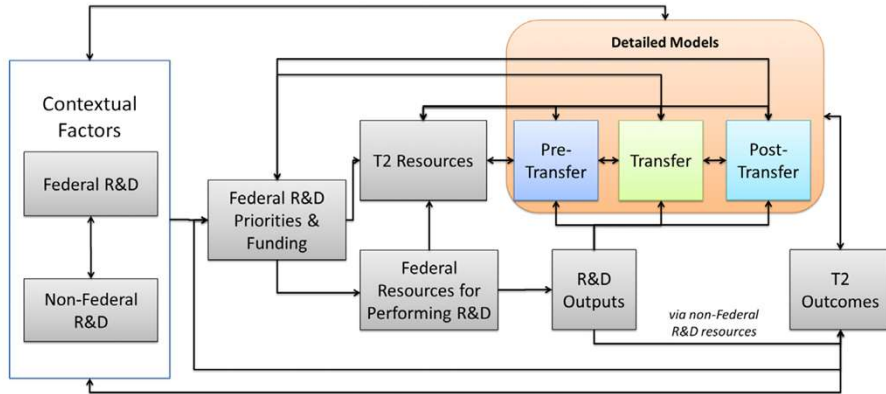**Capacity Building:** Skills development, technical expertise

Connectivity: Setting up new networks, facilitating collaboration etc.

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Pre-Transfer

What's next?

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Pre-Disclosure Knowledge Gain

Note: Pre-transfer is designated by a blue box; transfer is designated by a green box; post-transfer is designated by a teal box; and other model components are designated by grey boxes. Detailed models for pre-transfer, transfer, and post-transfer are described in the subsequent chapter.

Figure 5. Simple Model
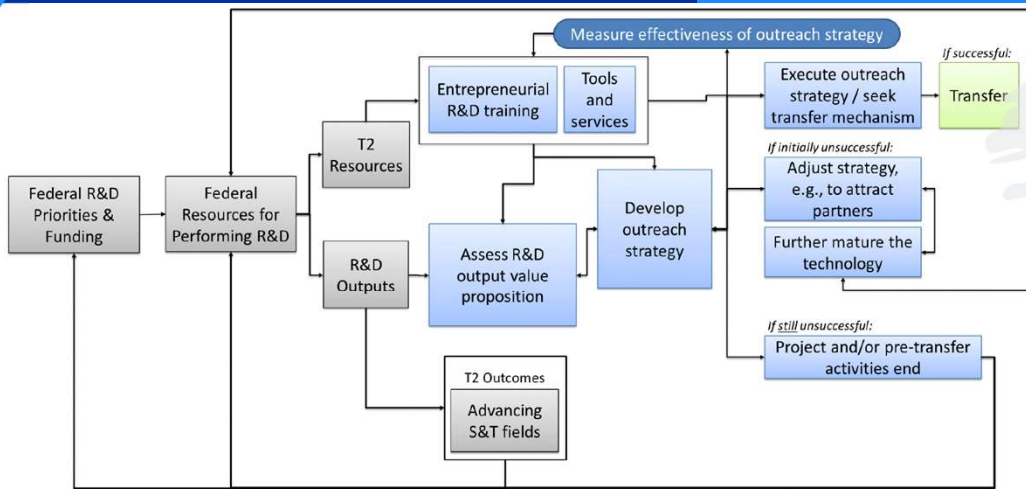
Note: Pre-transfer activities are designated by blue boxes, transfer activities are designated by a green box, and other model components are designated by grey boxes.

Figure 6. Pre-Transfer Detailed Model

Micro-Certification Program

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Impact Literacy

How to connect research to outside work**?   IMPACT LITERACY**

Impact literate means understanding:

1. **WHAT** changes (impacts" happen, for whom, and how can be demonstrated?

2. **HOW** research can be mobilized into action?

3. **WHO** is involved in this, for what purposes, and with what skills?

4. **WHY** impact is being pursued, for what purposes, and with what ethical considerations?

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WHAT IS MICRO-CERTIFICATION?

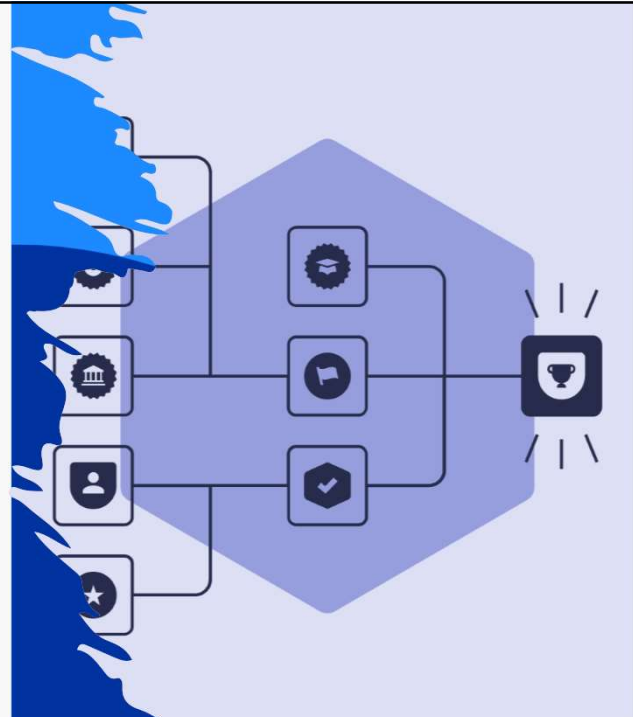**Multi-Modal**   **Inclusive Delivery**
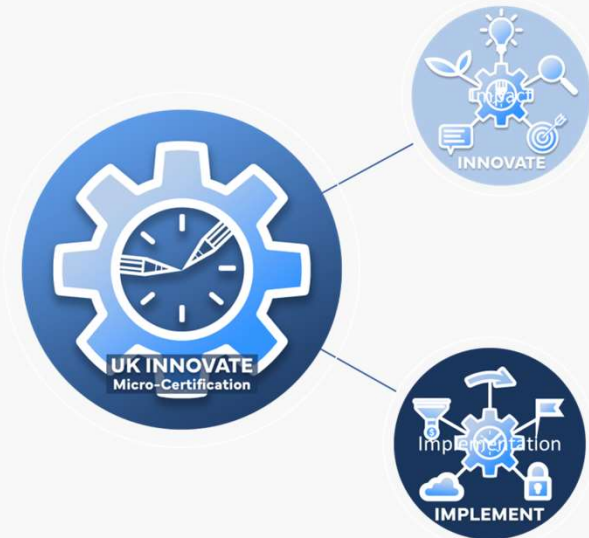
Short-Course Curriculum

Using **experiential design theory** and **mentorship programming** to support researchers' perception of their role in contributing to science, commercialization, and impact on the community.
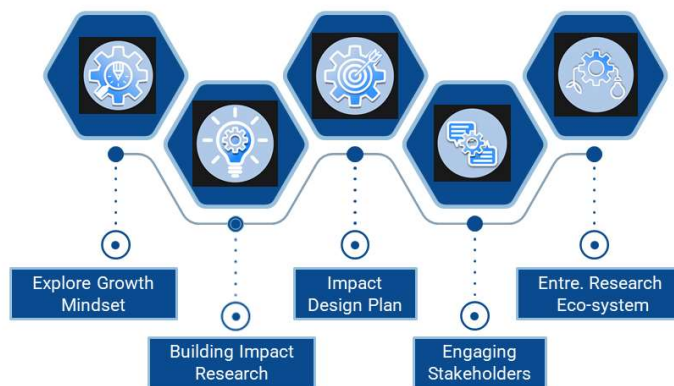
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Learning Pathways

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Impact Workshops

Implementation Workshops

Idea to Enterprise

Protecting Your Idea

Commercialization Social Sciences

Who's Writing the Checks

Data Today & Tomorrow

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Canvas Course

- Welcome Page

- Module Format

- Short Assignments

110-Building Impact Research
110

UKI120-Impact Design Plan
UKI 120

150-Idea to Enterprise Strategy
I-150
-Catalog Courses

Protecting your Idea Before & Afte...
UKI-160
Non-Catalog Courses

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Synchronous

- 30-40 Minute Zoom Session

- Noon – 1:00 pm ET

- Introduction

Asynchronous

- Individual Assignments to be completed within 30 days

- Facilitated by UK Innovate

Resources

- Each course has an additional resources section

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Badges Awarded

- Badgr System

- Connects to Canvas and Salesforce

- Badge awarded automatically upon completion of assignment

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INTRODUCTION TO BADGR

Badgr an easy option for awarding & tracking badges in Canvas

Open Digital Badges are not just images:
- badge name
- description of the badge
- criteria for earning the badge
- issuer
- evidence of the achievement
- date issued
- earner id
- and other custom information

WHO IS THIS

The **experienced researcher/faculty**, who want to pursue a standalone micro-credential micro-certification recognized by the University of Kentucky community to build on their skillsets.

The **future learner**, who doesn't want to fully commit to a full long-term program but will take advantage of stackable elements for future skills.

The **current student (graduate/postdoc)**, who is pursuing their program and wants to pursue a micro-certification as a skill-based program.

Impact & Innovation

Opportunity to **explore & develop** the commercial potential for your research or ideas.

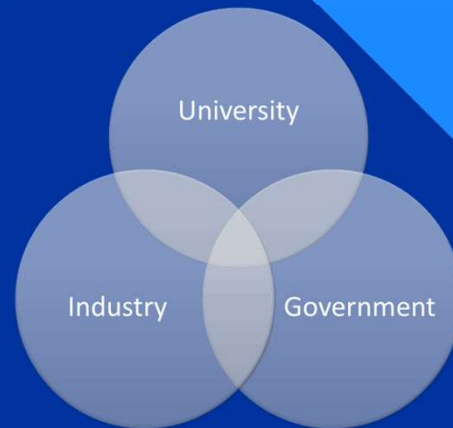Help transform them into **products and processes.**

Benefits:

Innovator

University

Society

University

Industry

Government

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Impact Begins

- We will need to know how to implement new ideas and make them accessible to large populations.

- An entrepreneurial society will not emerge or persist by accident.

- We will have to build and maintain it.

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References

- Bercovitz, J., & Feldman, M. (2008). Academic entrepreneurs: Organizational change at the individual level. Organization Science, 19(1), 69–89. https://doi.org/10.1287/orsc.1070.0295
- Foo, M. D., Knockaert, M., Chan, E. T., & Erikson, T. (2016). The Individual Environment Nexus: Impact of promotion focus and the environment on academic scientists' entrepreneurial intentions. IEEE Transactions on Engineering Management, 63(2), 213–222. https://doi.org/10.1109/TEM.2016.25352 96
- Bahar, M., & Griesbach, R. J. (n.d.). *Technology Transfer A New Strategic Approach To Technology Transfer*. https://ssrn.com/abstract=2961849.
- U.S. Department of Commerce. (2013). The Innovative and Entrepreneur University: Higher Education Innovation & Entrepreneurship in Focus. *October*.

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UK Innovate at the University of Kentucky