The Role of University Knowledge Enterprises in Driving Economic Development

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The University of Tennessee System:
Our Collaborative Foundation:

- 16 Governor’s Chairs
- 215+ joint faculty
- Six joint institutes
- Ph.D. Programs
- Bredesen Center
- Many joint collaborations
- Cherokee Farm Innovation Campus
- In Knoxville
- Significant shared investments in people & infrastructure

- $2.0B annual budget (FY14)
- $435M THEC annual research expenditures (FY15)
- 39,000 undergraduates (FY14)
- 10,442 graduate students (FY14)
- 4,600+ faculty (FY14)

- $1.5B annual budget (FY15)
- $1.0B research expenditures (FY15)
- 4,000+ employees (FY15)
- 1,300+ Ph.D.s (FY15)
- 9 DOE user facilities (e.g., SNS, HFIR, Titan, MDF, CTF)
The Knowledge Economy:

**Economic Flow Down**
- Federal fund flow
- Personnel
- In-state/Out-of-State
- Subcontractors
- Vendors

**R&D Work Force**
- World-ready (all disciplines)
- STEM
- M.S.
- Ph.D.

**Innovation Ecosystems**
- Gov./university/industry partnerships
- Innovation campuses
- Regional innovation corridors

**Discovery Enterprise**
- Ideas
- Collaboration
- Knowledge transfer

**Innovation Driving New Economies**
- IP
- Licensing
- Start ups
- Investment
Economic Flow Down:

- [http://iris.isr.umich.edu](http://iris.isr.umich.edu), [https://www.cic.net/home](https://www.cic.net/home)
- Two year period (Q3 ‘12 to Q2 ’14)
- About $7B in total federal expenditures
- $1.87B in federal funds used to purchase goods and services across the US
- $438M in federal funds used to purchase goods and services in the eight states
- Over 70,000 employees supported across the eight states
Economic Flow Down:

Federal research funds from the nine CIC universities in the study were used to purchase over $1.87B in goods and services from 1,773 counties across the US.
Economic Flow Down:

Geographic distribution of $1.87B in goods and services resulting from federal research awards at the nine CIC universities.
R&D Work Force:

Research workforce on federal awards to nine CIC universities, for eight agencies that supported the most employees.
Innovation Driving New Economies:

In FY15:

- $1,256,542 paid to UT inventors
- $2,905,677 UT research contracts due to licensed IP
- $1,486,365 industry research agreements to handle future IP
- $688,000 patent investment in UT IP
- $177,963 directly back to colleges and departments
- $77,000 in fees to stand up a 501(c)3 to allow UT to compete for IACMI ($259M over five years)
- $54,425,000 in capital raised by UTRF companies in TN(FY15)

Total = $61,016,547
Innovation Driving New Economies:

![License and Option Bar Chart]

- 2009: 16
- 2010: 15
- 2011: 16
- 2012: 22
- 2013: 21
- 2014: 17
- 2015: 43
- YTD 2016: 9
Innovation Driving New Economies:

- $54M in VC investments in Tennessee from UT startups
- $51M in M&A payments in Tennessee from UT startup acquisitions

Bar chart showing startup numbers for fiscal years (FY) 2009 to 2015.
Innovation Ecosystem:
Questions?

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