



Ohio Third Frontier FY 2012 Program Plan and Budget

OTF Future Directions

- A portfolio of activities that emphasizes economic outcomes in the 3-5 year timeframe
- Updated assessment of major Ohio market opportunities and sharper focus on six key industries in which significant growth can be catalyzed with OTF investments, integrated with state's overall economic development strategy
- Identification of some potential large game-changing investments that can be pursued in the next five years
- Explore funding alternatives [to grants] that shift more risk to award recipients and generate some direct return back to OTF for future investments
- Metrics that improve ability to make ROI-based decisions and track success in those terms

Ohio Third Frontier: Outcomes

- Produce a high level of economic return for the state in quality jobs, company growth, and wealth creation
- Attract companies, talent and capital to Ohio
- Create sustainable engines of economic development activity in key areas of technology and industry strengths
- Reduce the risk of pursuing entrepreneurial, innovation and development activities in Ohio
- Sustain best practices and relationships that lead to efficient commercialization
- Increase the visibility and reputation of Ohio as an innovation and entrepreneurial destination

OTF Strategic Factors

Program plan and budget developed considering the following factors:

- Program balance (across commercialization continuum)
- Near-term job creation
- Sustainability (of the Ohio Third Frontier)

OTF Financial Resources

All OTF program funding from a single source,
Third Frontier Research and Development Fund
(voter-approved bonds)

Appropriation Amounts

FY 12	FY 13	FY 14	FY 15
\$225 M*	\$175 M	\$175 M	\$175 M

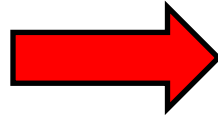
* \$200 M available for new program awards

Technology/Industry Focus

Battelle Summary Findings

Leading Industry Sectors

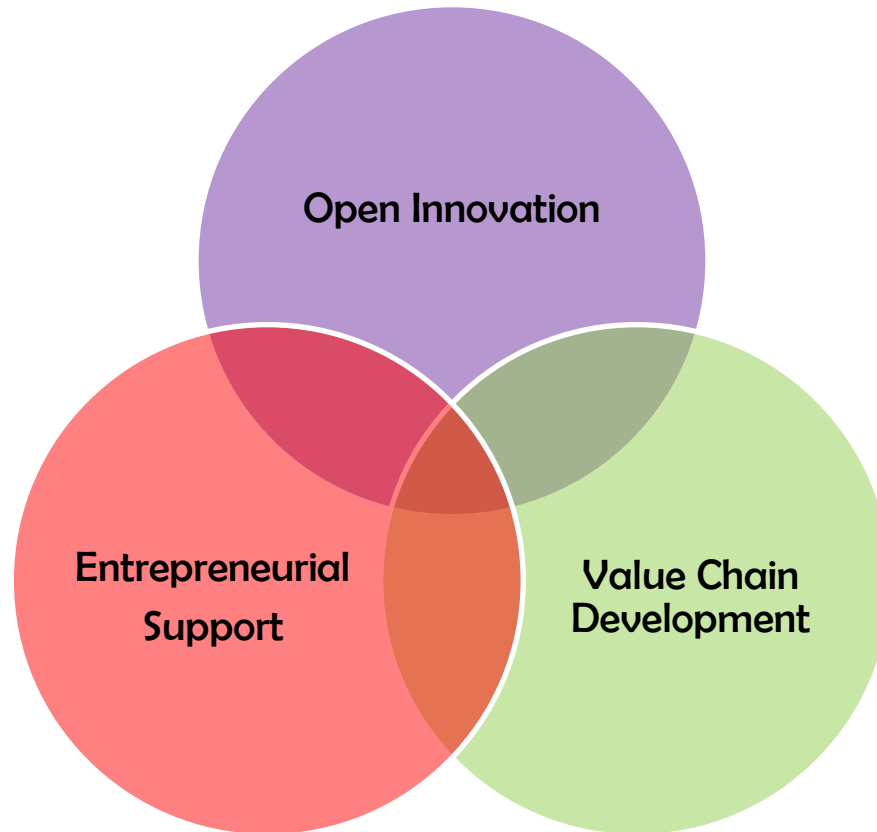
Materials
Aerospace
Biomedical
Energy
Information Technology
Instruments and Controls



Leading and Emerging Areas

Advanced Materials
Business Software and Enterprise Computing
Energy Storage
Fuel Cells
Health Information Technology
Medical Technology
Propulsion Power Management
Sensing & Automation Technologies
Situational Awareness and Surveillance Systems
Solar Photovoltaics

Functional Areas



FY 2012 Budget

Entrepreneurial Support	Value Chain Development	Open Innovation	Talent	Total
\$76 M	\$39.9 M	\$65 M*	\$3 M	\$183.9 M
41%	22%	35%	2%	100%

FY 2012 Unallocated: \$16.1 M

* Includes \$8 M Research Incentive budget item

Entrepreneurial Support

\$76 M - 41% of total budget

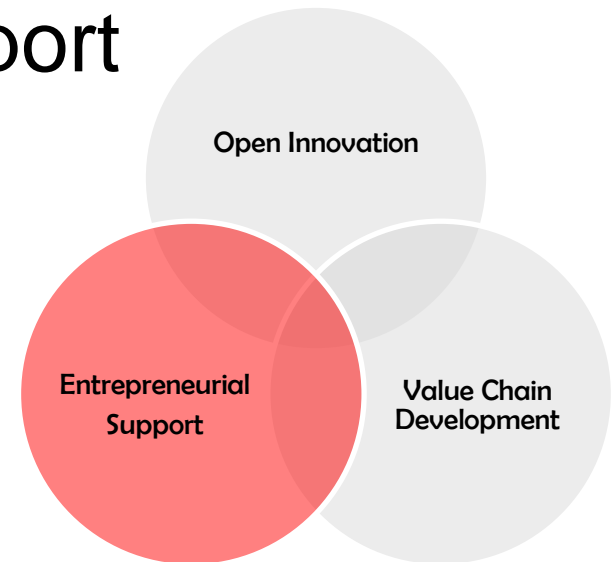
Entrepreneurial Signature Program

Pre-seed Program

Micro Fund *New*

Growth Fund *New*

ONE Fund

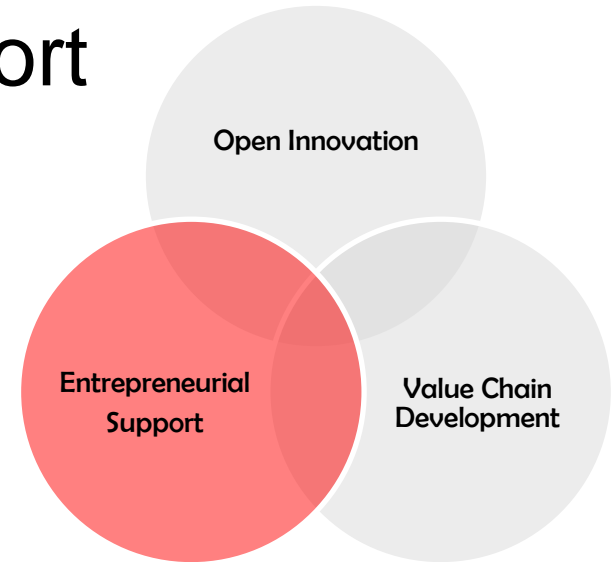


Improve the capacity of Ohio's entrepreneurial ecosystem to deliver services and attract capital necessary to create and grow scalable technology-based enterprises

Entrepreneurial Support

Entrepreneurial Signature Program

- **\$40 M** (two-year funding)
- Continuity plus additional funding for potential new activities
- 1:1 cost share; cost share to support services only
- Six eligible lead applicants

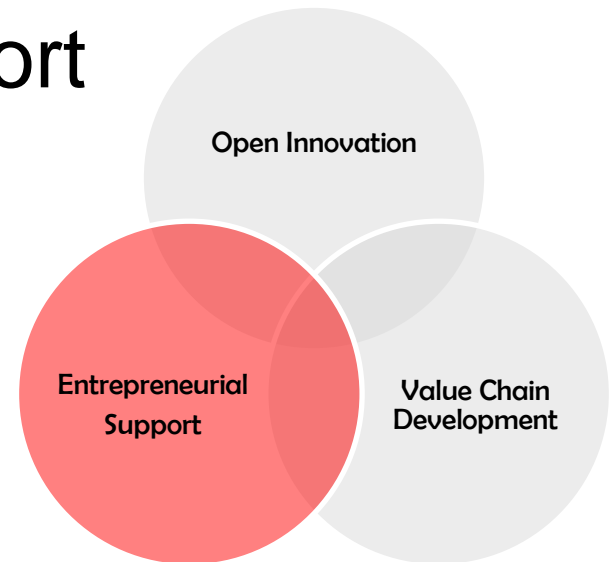


State Funds Awarded	State Funds Expended	Cost Share Expended	Leverage Received	Jobs Created / Retained	Companies Created / Attracted	Leverage Ratio	Cost per Job Created	Average Salary
\$97,227,050	\$65,303,606	\$48,143,889	\$817,888,999	2309.5	241	12.5	\$28,276.08	\$56,946

Entrepreneurial Support

Entrepreneurial Signature Program

- ESP organizations continue to offer both services and access to Funds; support for Funds to be secured separately through Pre-seed Program
- Network established and adequately supported to provide universal services to each region
- Full range of services available to qualified companies that may or may not be on track to receive Fund investment directly from the ESP organization

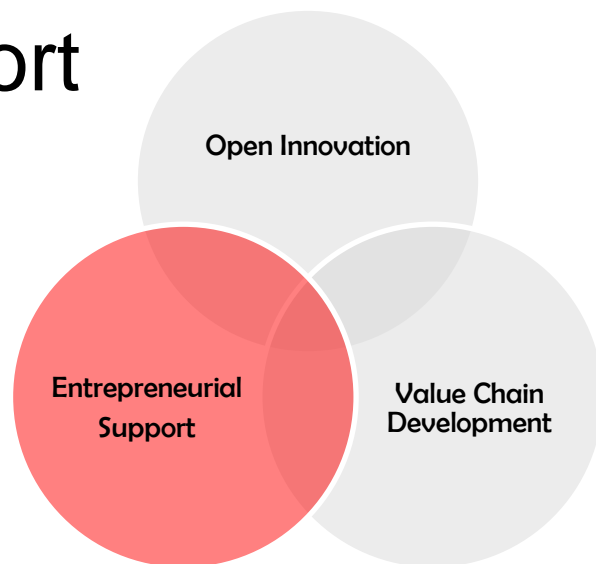


Entrepreneurial Support

Ohio's New Entrepreneurs Fund (ONE Fund)

Collaboration with OSU Center for Entrepreneurship for pilot accelerator

First 10x class wrapping up September 1, 2011
Second 10x class starting in winter



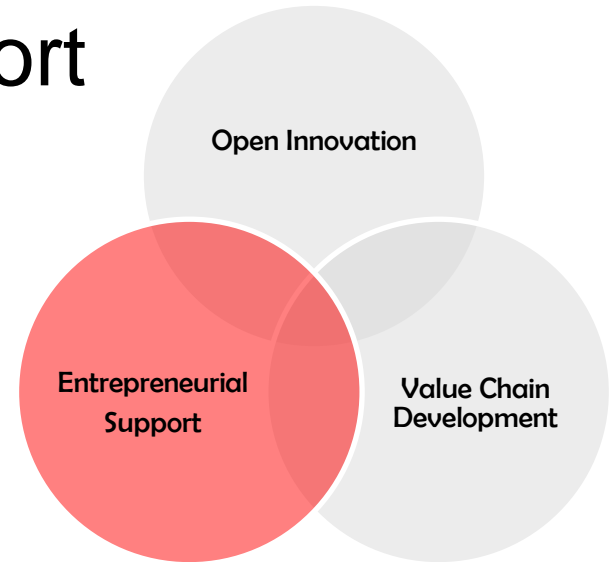
*Staff conducting research and reviewing results.
Recommendations to be delivered in future meeting
for potential expansion of the ONE Fund with
additional partners.*

Entrepreneurial Support

Capitalization Programs

Four Stages of Investment Capitalization

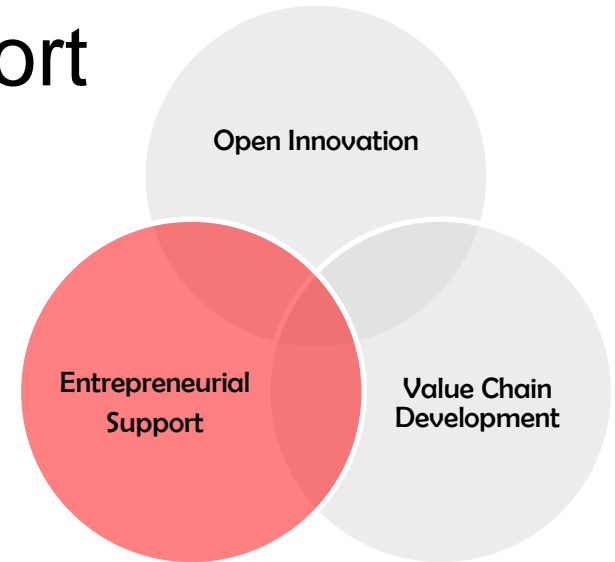
<u>Type</u>	<u>Typical Investment</u>
Micro Funds	\$5k - \$25k
Pre-Seed Funds	\$100k - \$250k
Seed Funds	\$1M - \$4M
Growth Funds	\$4M - \$10M



Entrepreneurial Support

Micro Funds

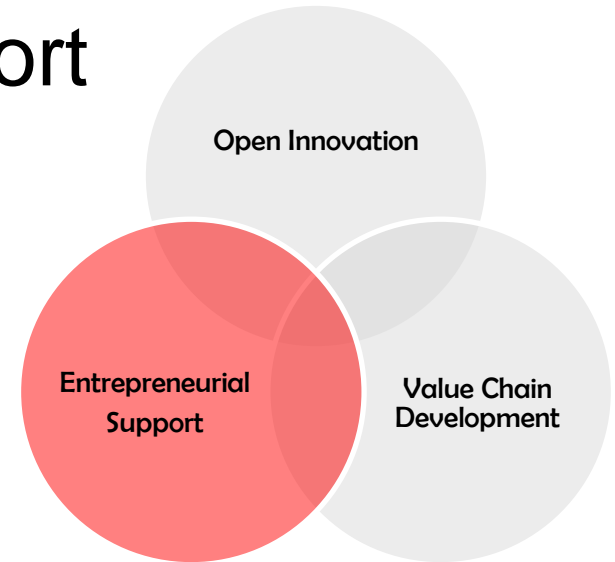
- **\$1 M**
- Up to \$100k per fund (non-profit)
- Investments from \$5k to \$25k
- Non-profit organizations that have not received other state TBED assistance
- Plan for sustainability including objectives and milestones
- Incentive to encourage creative entrepreneurial efforts that are spontaneously arising at the community level



Entrepreneurial Support

Pre-Seed Funds

- **\$25 M**
- \$500k - \$2 M per fund
- Cash match 1:1
- Continue investing in existing fund managers
- Objective to recruit new fund managers

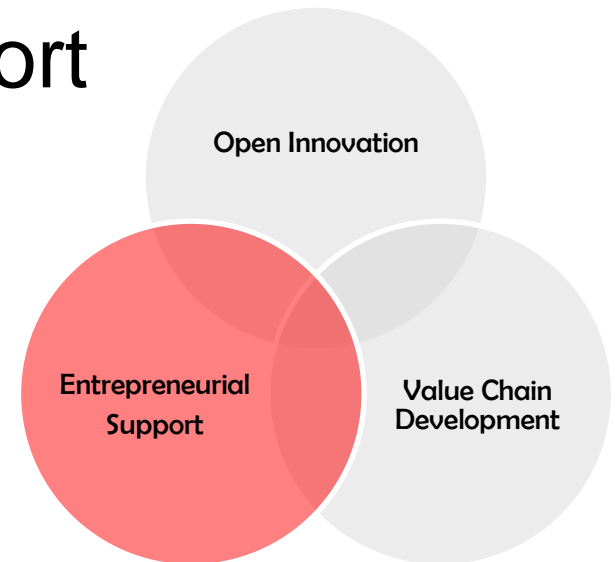


State Funds Awarded	State Funds Expended	Cost Share Expended	Leverage Received	Jobs Created / Retained	Companies Created / Attracted	Leverage Ratio	Cost per Job Created	Average Salary
\$64,286,032	\$39,974,616	\$182,622,321	\$2,002,408,770	3453.5	335	50.1	\$11,575	\$68,362

Entrepreneurial Support

Pre-Seed Funds

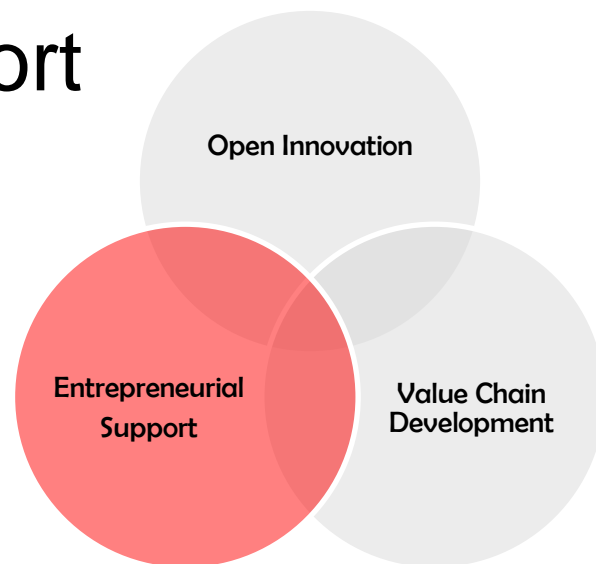
- For-Profit
 - Returns distributed to investors
 - State receives pro-rata distribution; continuing to review approaches that provide appropriate investor incentive and preference
- Not-for-Profit
 - Returns distributed to fund for reinvestment
 - Plan for sustainability including objectives and milestones



Entrepreneurial Support

Seed Funds

- Critical and urgent need for seed capital
- Significant uncertainty in Ohio VC market
- Lack of follow-on capital creates:
 - Investment risk to pre-seed funds
 - Financial stress on new ventures
 - Risk of losing new ventures and entrepreneurs

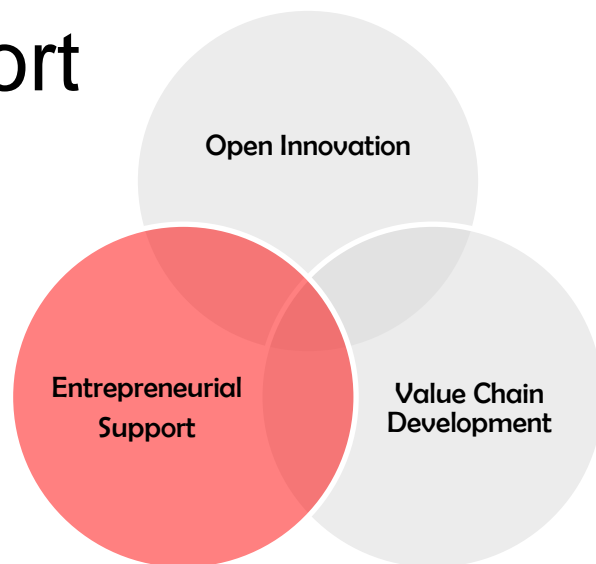


Entrepreneurial Support

Growth Funds

- **\$10 M**
- \$5 M per fund
- Private Cash Match 1:3
- SBA Cash Match 1:8 (2x total fund)

- SBIC Impact Fund opportunity
Invitation by SBA to participate
\$200M per year available as fund leverage
2x leverage for total fund



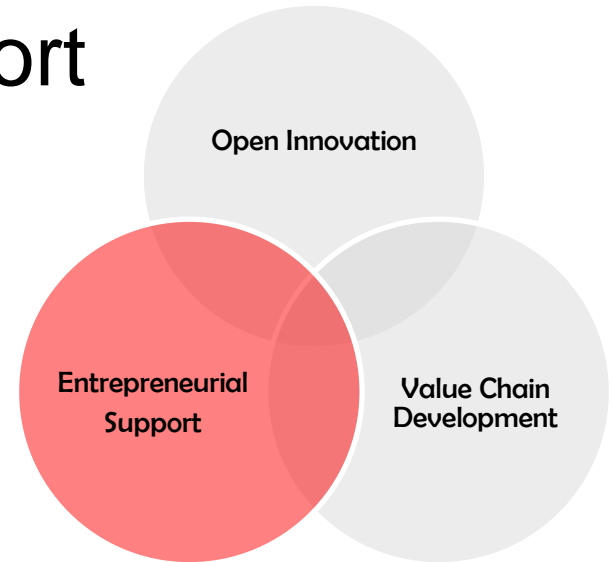
Entrepreneurial Support

Growth Funds

- \$60M Fund
 - **\$5M** State Investment
 - \$15M Private Capital
 - \$40M SBIC Leverage

- \$120M of new capital available to Ohio companies

SBIC Impact Fund targets energy, education and low to moderate income areas. Fund must deploy 50% of capital to these targets

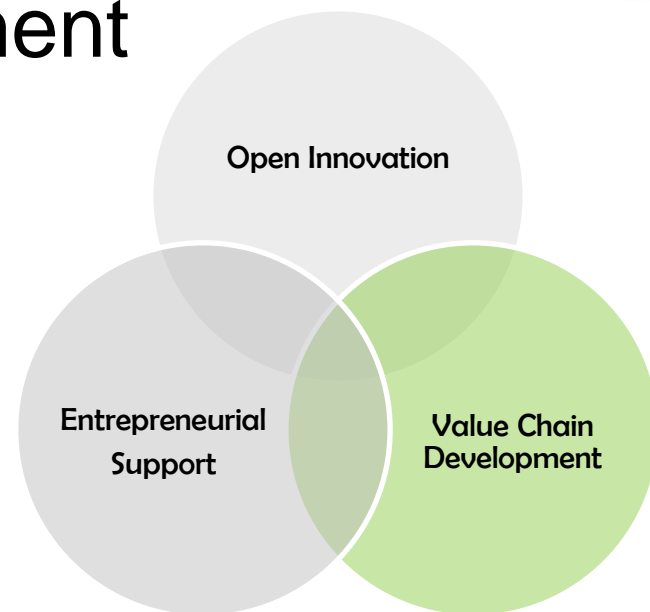


Value Chain Development

\$39.9 M - 22% of budget

JobsOhio Network *New*

Commercial Acceleration
Loan Program *New*



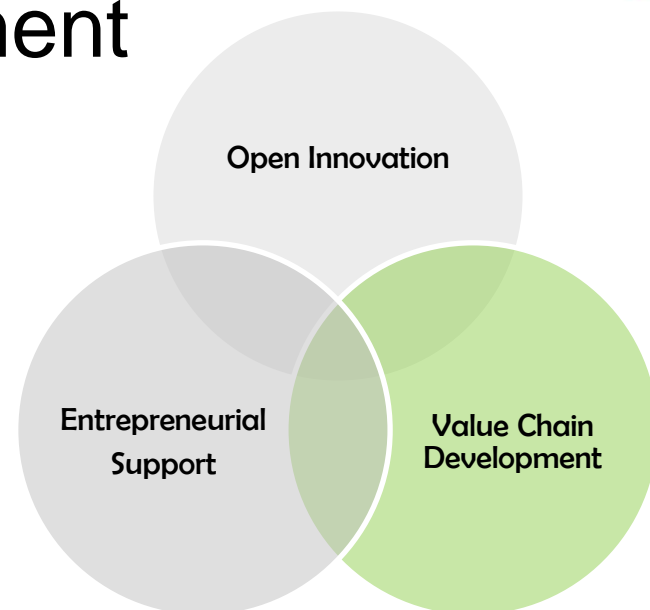
Increase the technical capabilities and business competencies of Ohio value chains within key existing and emerging driver industries and pursue targeted attraction to fill gaps

Value Chain Development

JobsOhio Network

- **\$14.9 M**
- Cost share 1:1
- Six eligible organizations

RFP released July 5, 2011



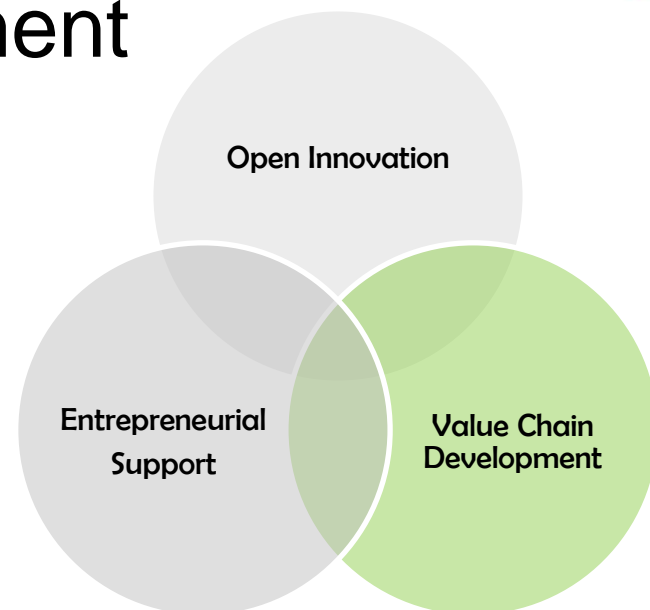
The JobsOhio Network, in partnership with JobsOhio will aggressively pursue the retention, expansion and recruitment of businesses with high potential for job and wealth creation in Ohio as well as the transition of technologies into new companies and products

The Network will leverage statewide and regional strengths, including tight integration with the technology and entrepreneurial assets throughout the state that are the core of Ohio's growing innovation economy

Value Chain Development

Commercial Acceleration Loan Fund

- **\$25.0 M** (principal)
- Up to 50% of project cash costs
- Deferred principal and/or interest options
- Working capital eligible
- For-profit companies in targeted industries
- Different loans/terms for different opportunities
- Validated market demand through IOLF, OTF Investment Forum, Battelle forums, staff survey

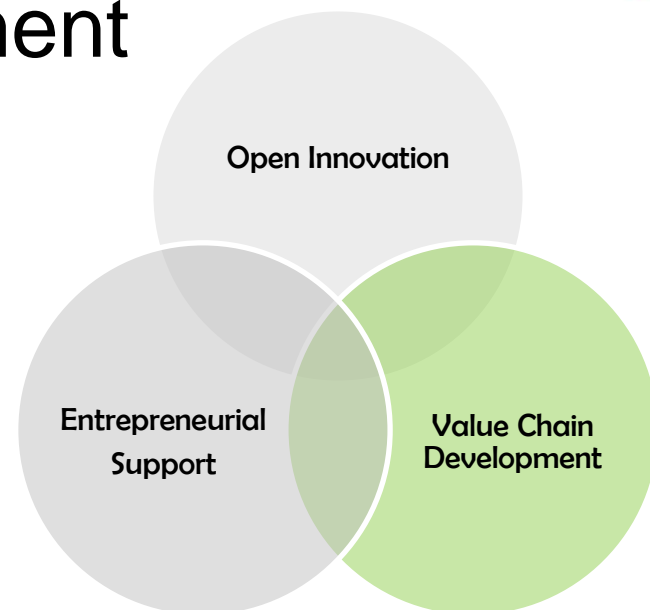


Value Chain Development

Commercial Acceleration Loan Fund

Invest in projects moving products/services into meaningful market entry:

- Commercial scale demonstrations in market use conditions
- Manufacturing scale-up beyond pilot plant
- Final customer validation, product certification, and/or regulatory certification
- Acquisition of exclusive IP rights
- Launch of next generation of an existing product, service, or process
- Design engineering/packaging



Value Chain Development

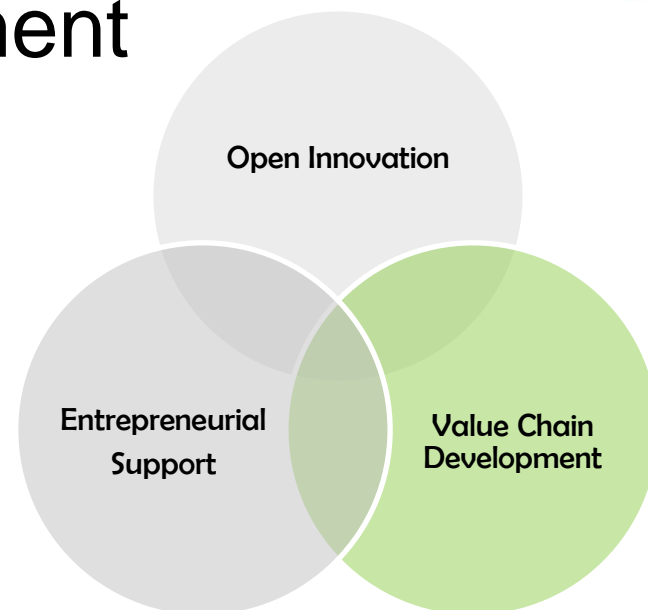
Commercial Acceleration Loan Fund

New Venture Loans - \$500k - \$1 M per loan

- Professional venture/smart money backed co.
- Balloon loan w/ less than market rate interest
- Warrant provision
- 25% forgivable for successful completion and another 25% forgivable w/ sales of \$1 M and significant market entry

Venture/Non-venture Loans - \$500k - \$2 M per loan

- Targeted to small, post revenue co. w/ existing product/service on market
- Near to market project w/ high sales potential
- Revenue participation note, deferred payments w/ min./max. payback
- 25% forgivable w/ sales of \$1 M and another 25% forgivable w/ sales \$2 M+, and significant market entry at each milestone

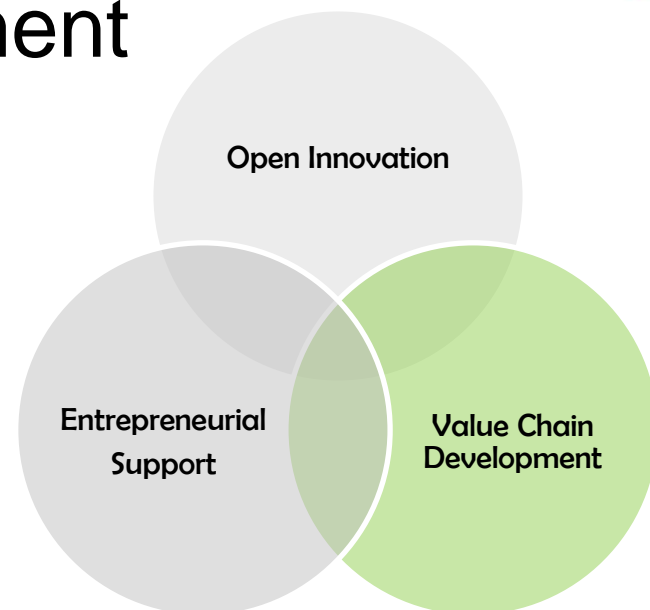


Value Chain Development

Commercial Acceleration Loan Fund

Non-venture Loans - \$500k - \$3 M per loan

- Targeted to small to established company w/ existing product/service on market
- Near to market project w/ strong financial backing
- Loan will support up to 25% of the project
- 5% annual interest, due monthly, principal deferred during project period



Open Innovation

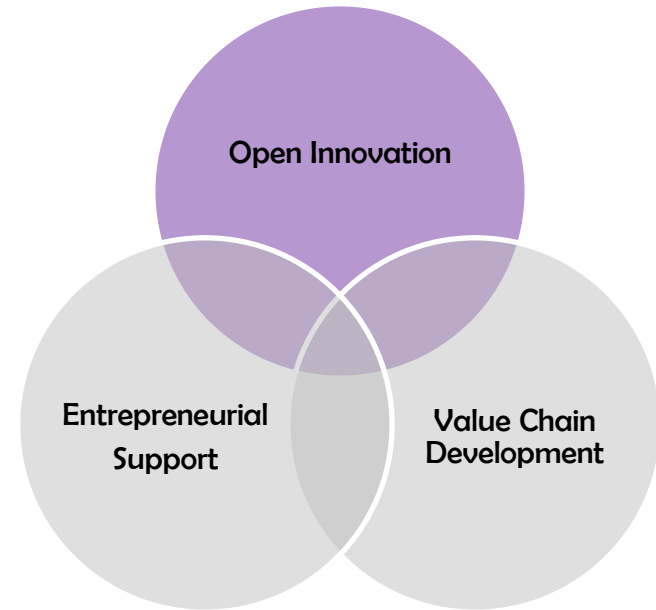
\$65 M* - 35% of budget

Technology Validation & Start-up Fund

Open Innovation Incentive

Innovation Platform Program

Industrial R&D Center Incentive



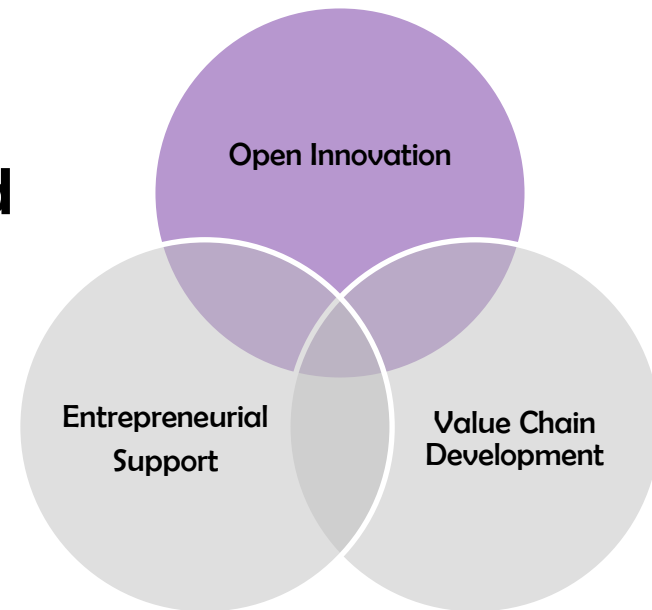
Cultivate a highly collaborative and innovative environment that encourages Ohio's community of technology seekers and solvers to regularly exchange new knowledge in pursuit of targeted market driven commercial opportunities

* Includes \$8 M Research Incentive budget item

Open Innovation

Technology Validation & Start-up Fund

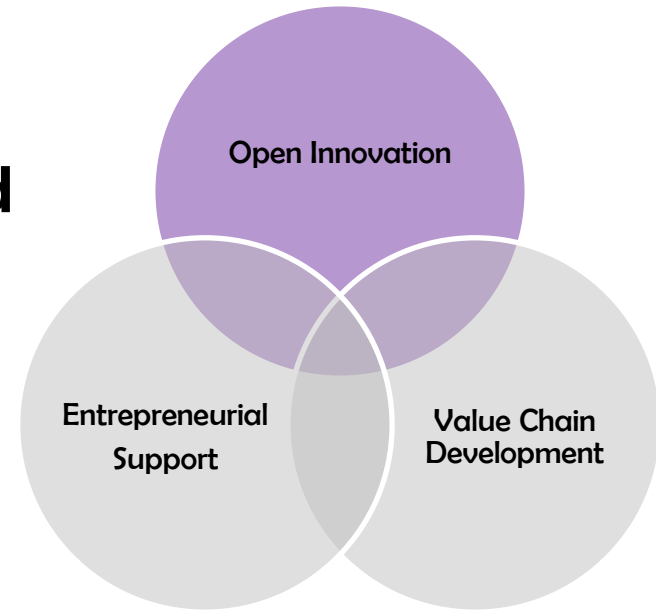
- **\$3.0 M** - Phase 1 - Technology Validation
- Up to \$50k per technology
- 1:1 cash cost share from university/college
- \$100k efforts
- Institutions of higher education as lead applicant
- Targeted to technologies around which a start-up will or has formed



Open Innovation

Technology Validation & Start-up Fund

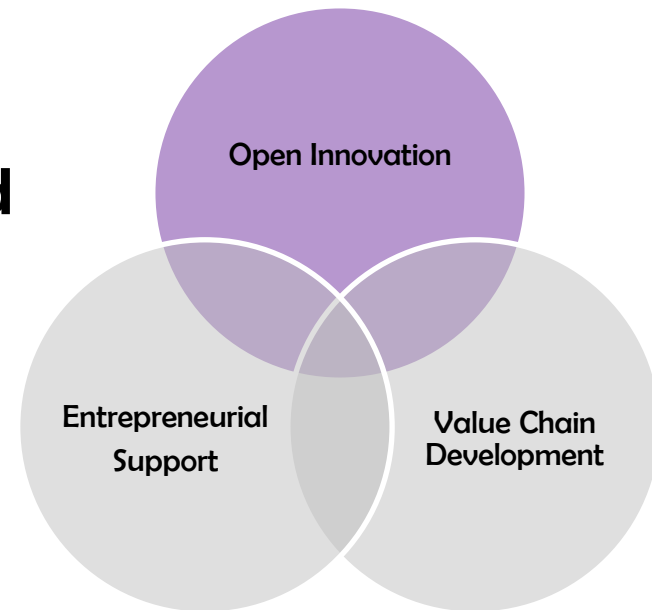
- Phase 1 - Technology Validation
- Technology qualified by Tech Transfer offices
- Qualified opportunities competed by an independent, external review
- Support technology validation, prototyping, demonstrations, or assessment of critical failure points.
Result - go/no go decision
- Preference for technology validation by independent source



Open Innovation

Technology Validation & Start-up Fund

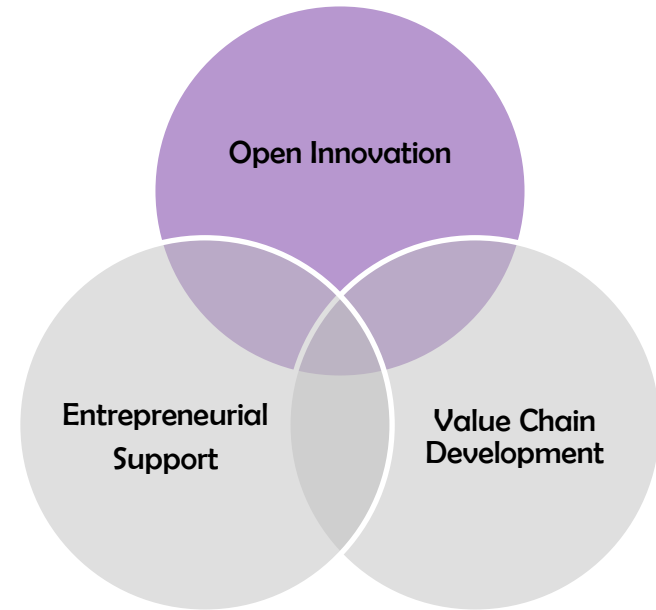
- **\$3.0 M** - Phase 2 - Start-up
- Up to \$100k per technology
- No cost share required
- Increase the number of new or young Ohio companies that license Ohio university technology and are positioned with these funds to commercialize it
- License executed before funds disbursed to company
- Move technology to point where additional equity funds can be raised
- Warrant provision



Open Innovation

Open Innovation Incentive

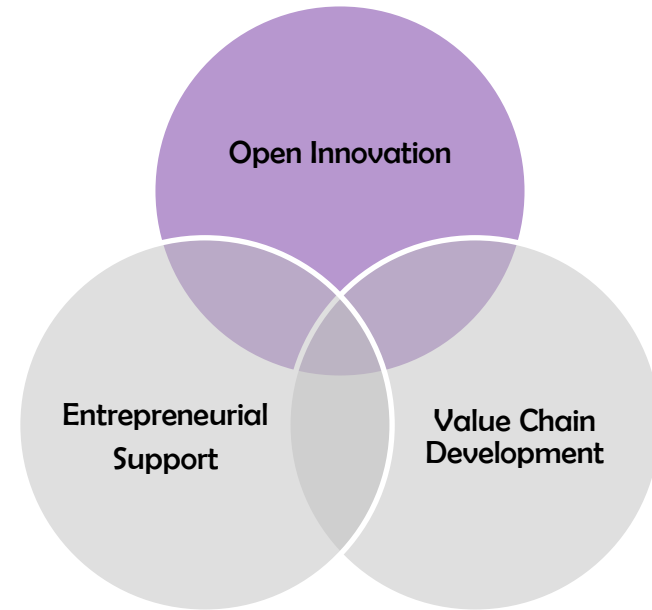
- **\$8.0 M**
- *Seeker* – Ohio for-profit company in need of external assistance with specific technical obstacle(s) encountered with a new or next generation product/service
- *Solver* – Ohio for-profit company or Ohio non-profit research institution able to solve the Seeker's challenge



Open Innovation

Open Innovation Incentive

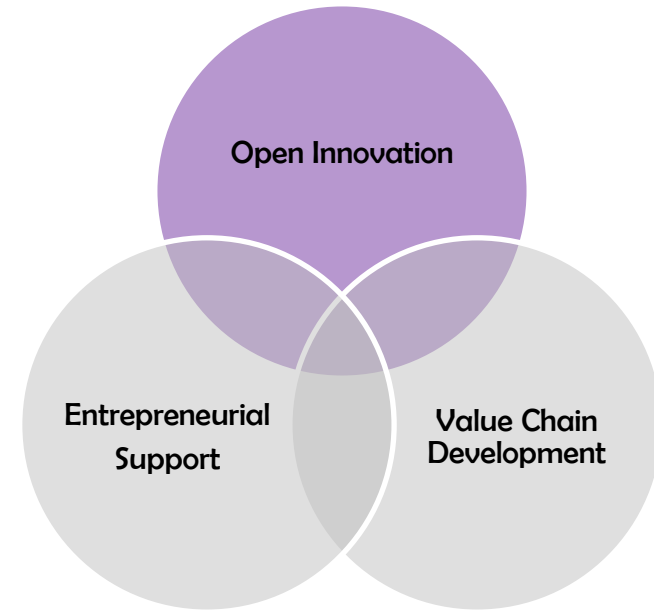
- *Seeker* competes to win \$200k - \$400k OTF voucher
- *Seeker* matches with a minimum of \$2 for every \$1 OTF
- \$600k - \$1.2 M efforts
- *Seeker* selects *Solver(s)* at which to spend OTF voucher and cost share
- *Solver* addresses *Seeker's* challenge/problem within a year
- *Seeker* goes on to launch product



Open Innovation

Innovation Platform Program

- **\$18.0 M**
- \$1 M - \$3 M per award
- 1:1 cash cost share
- \$2 M - \$6 M efforts
- Operations, equipment, and facility costs all eligible w/ an emphasis on long term industrial use/benefit and sustainability
- Higher education and non-profit research institutions eligible as lead applicants
- Two or more Ohio, for-profit industry collaborators required that will validate industrial relevance and use of the platform

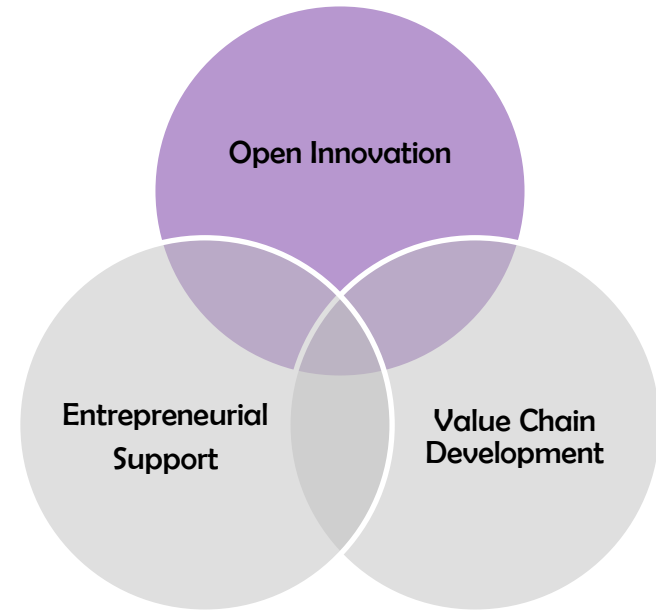


State Funds Awarded	State Funds Expended	Cost Share Expended	Leverage Received	Jobs Created / Retained	Companies Created / Attracted	Leverage Ratio	Cost per Job Created	Average Salary
\$331,282,558	\$231,921,351	\$355,353,271	\$1,303,087,016	2,600	63	5.6	\$89,200	\$69,932

Open Innovation

Innovation Platform Program

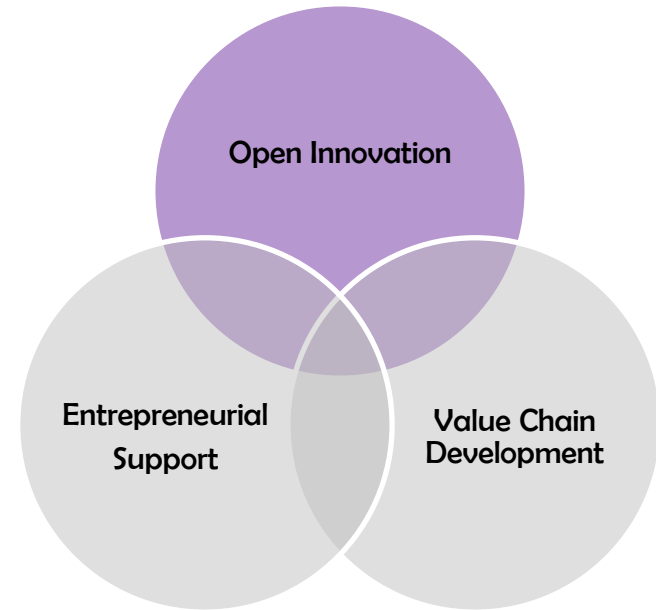
- Link the research capabilities/capacities of an already established technology platform and all its resources at an Ohio university or college or non-profit research institution to specific late stage research and product development needs of Ohio companies
- Two or more Ohio for-profit companies that will use that platform to develop and launch new product/services within 3 years
- Sustainability of the platform and continued industrial use after the expenditure of funds



Open Innovation

Industrial R&D Center Incentive

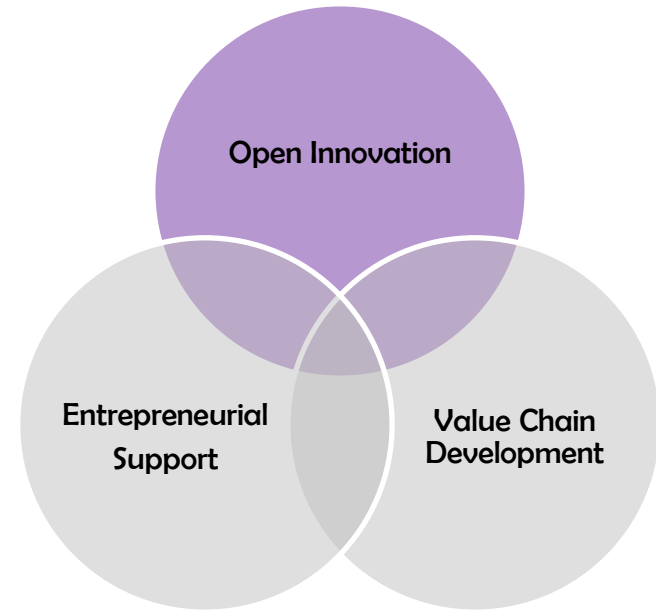
- **\$25.0 M**
- IRDCI contributes an additional 15% of the prime investment, not to exceed \$5 M
- Intended to attract 1) corporate R&D centers or 2) large federal center awards with direct industrial relevance
- Where in both instances, these matching dollars can be known to make a difference in its attraction to Ohio



Open Innovation

Industrial R&D Center Incentive

- Minimum corporate investment of \$15 M or minimum federal center award of \$10 M
- For-profit and non-profit research institutions eligible as lead applicant
- Support for the operational, equipment or facility needs of:
 - conducting value-added applied research in collaboration with Ohio industry
 - performing industry-directed or industry-oriented problem solving
 - developing technologies to be commercialized by an Ohio for-profit company



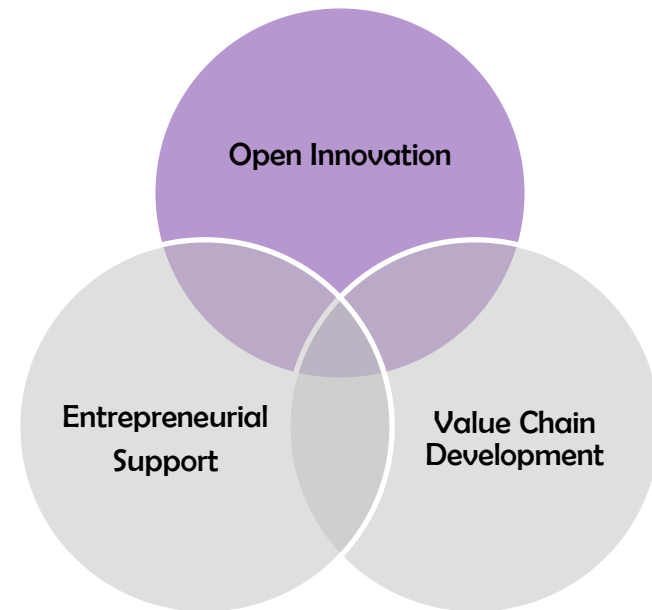
Open Innovation

Industrial R&D Center Incentive

Awards of \$16.4 M to date

Leveraged center investments of \$109.8 M

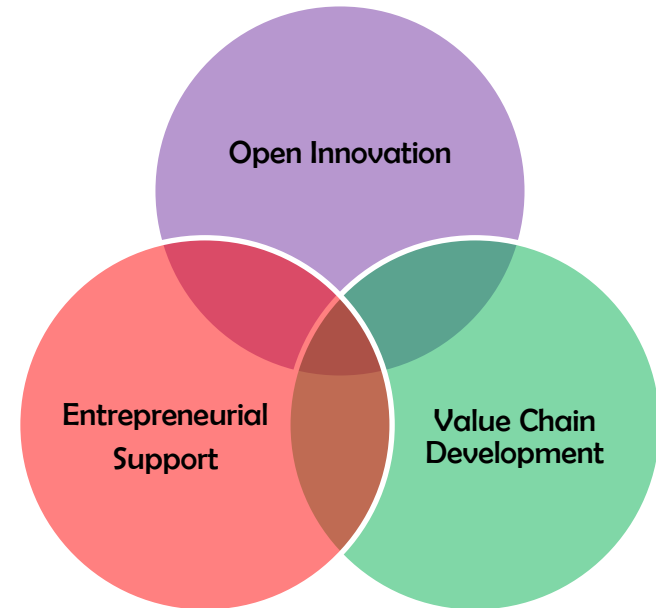
- GE/UDRI – Electrical Power Integrated Systems Center
- Philips/Case/UH – Global Advanced Imaging Innovation Center
- Timken/Stark State – Wind Energy Research & Development Center
- Wornick Foods/OSU – Microwave Assisted Thermal Sterilization Research & Development Center
- Air Force/WSU – Human Performance Consortium Research & Development Center



Talent

Third Frontier Internship Program

- **\$3 M**
- Up to \$3,000 per internship
- For-profit companies
- Deployed through seven regional non-profit partners



Reorganized program began deploying FY 2011 funding of \$2.25 beginning in summer quarter 2011

FY 2012 funding will be awarded for deployment well before the summer internship season 2012

FY 2012 Budget Summary

CATEGORY	PROGRAM	2012
Entrepreneurial		
	Entrepreneurial Signature Program	40.0
	Pre-see Fund Capitalization	25.0
	Micro Fund	1.0
	Growth Fund	10.0
Value Chain		
	Jobs Ohio Network	14.9
	Commercial Acceleration Fund	25.0
Open Innovation		
	Tech Validation & Start-up	6.0
	Open Innovation Incentive	8.0
	Innovation Platform Fund	18.0
	Industrial R&D Center	25.0
	Research Incentive	8.0
Talent	Third Frontier Internship Program	3.0
Total		183.9