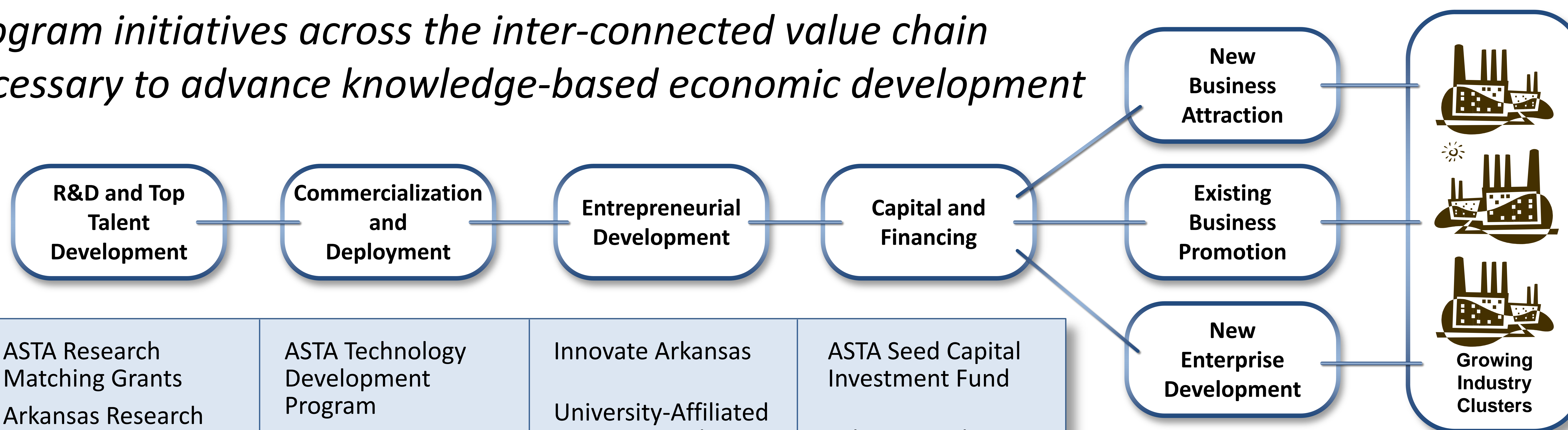


Governor Beebe's 2009 State Economic Development Plan focuses on successfully transitioning Arkansas to a 21st Century Global Knowledge-Based Economy

- In response, Arkansas has now put in place a broad set of program initiatives across the inter-connected value chain necessary to advance knowledge-based economic development



Arkansas Programs	R&D and Top Talent Development	Commercialization and Deployment	Entrepreneurial Development	Capital and Financing
	ASTA Research Matching Grants Arkansas Research Alliance Arkansas Biosciences Institute Targeted Business R&D Incentive R&D Tax Incentives (with universities, in-house, in-house by targeted business, in areas of strategic value) ASTA Centers for Applied Technology Incentives NCTR MOU	ASTA Technology Development Program ASTA Technology Transfer Assistance Grant (SBIR and non-SBIR) Arkansas Risk Capital Matching (Technology Validation) NCTR MOU	Innovate Arkansas University-Affiliated Business Incubators	ASTA Seed Capital Investment Fund Arkansas Risk Capital Matching (Enterprise Growth) Equity Investment Tax Credit Arkansas Institutional Fund (ADFA) ADFA Co-Investment Fund
	New Business Attraction	Existing Business Promotion	New Enterprise Development	Growing Industry Clusters

Key Successes To Date

Program Specific Successes

\$61.2 million in state funding for research from 2008 to 2011

leveraged an additional \$191.8 million in non-state sources

- Leverage Ratio of \$3.14 in non-state to \$1 in state funding
- Total economic impact of \$335 million, supporting 2,820 job years over the 2008-2011 period

135 emerging firms, employing 1,259 workers, participating in

Arkansas Knowledge-Based

Economy programs

- Total multiplier impact of 3,251 jobs
- Average wages double the level found across the private sector

PLUS

Positive developments in statewide performance in the knowledge-based economy:

- Rising Per Capita Income
- Growing Competitive High Wage Industries
- Advances in Innovation and University & Industry Research
- Growing Sciences and Engineering Workforce

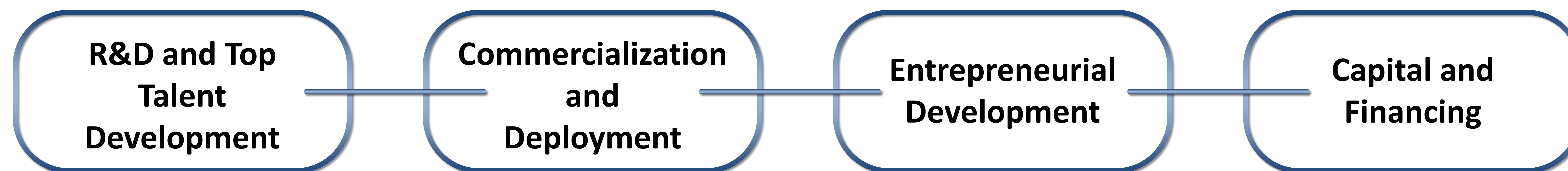
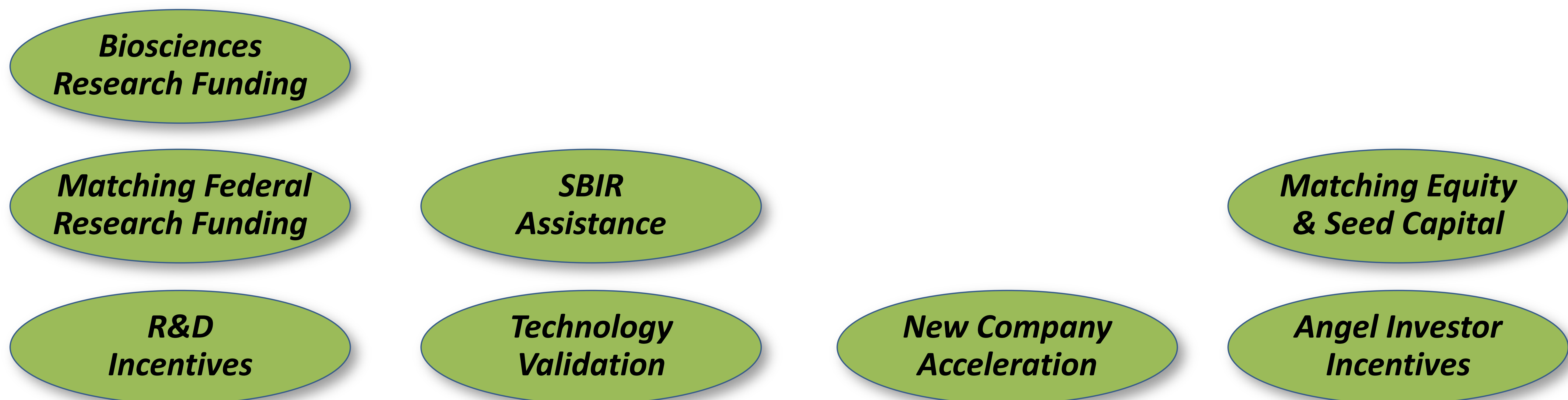
Challenges Ahead ... Critical Next Steps

- **Arkansas missing a sustainable funding mechanism, providing adequate and predictable resources for its knowledge-based economy initiatives.**
- **Despite successes in efforts, still much work to be done:**
 - *Raising the value added and productivity of Arkansas industry*
 - *Lack of formal early stage, venture capital in Arkansas*
 - *Putting the state's growing talent pipeline to work*

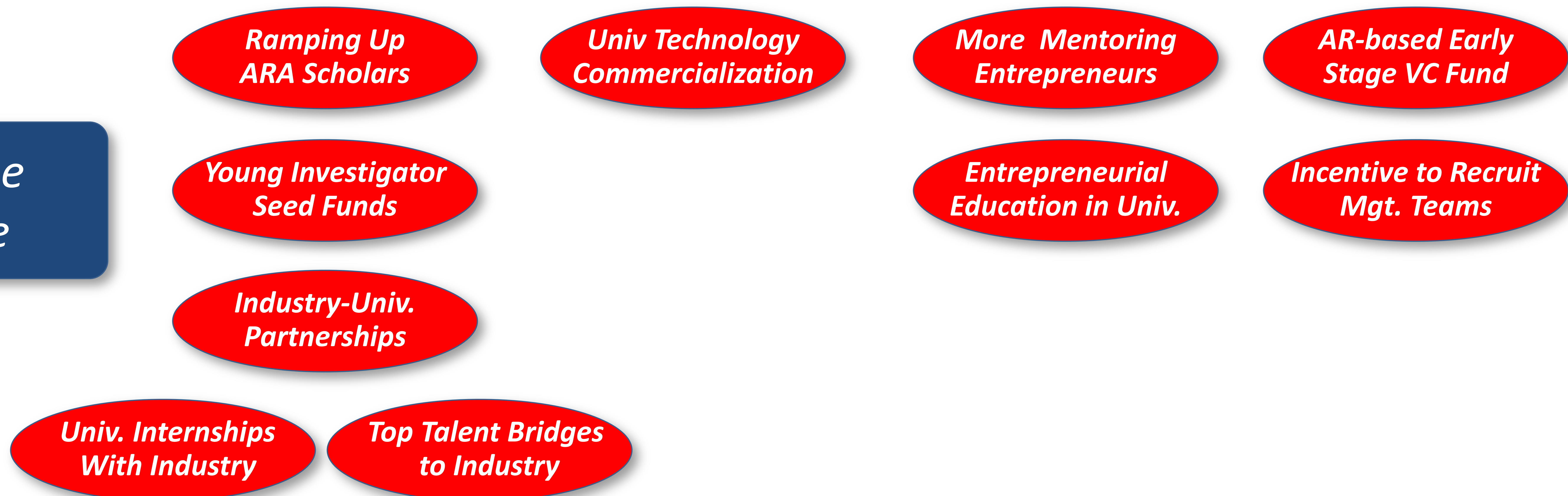
Assessment of Links

in the Knowledge-based Economic Development Chain for Arkansas

What's Working Well



Where the Gaps Are



Proposed Recommendations for Sustainable Funding and Enhancements to Arkansas' Knowledge Economy Initiatives

Goals	Initiatives	Proposed Annual General Revenue Fund Request
<p>Research: Attain a higher level of per capita university research funding</p>	<ul style="list-style-type: none"> • Ramp-up in ARA Scholars • More ASTA funding for young investigators • Continued matching grants for federally funded research centers • Industry-university partnership matching grants • Signature shared use research and applications development facilities 	<p>\$10 M in annual funding</p>
<p>Commercialization: Accelerate the formation of emerging knowledge-based economy companies and position them for success</p>	<ul style="list-style-type: none"> • Continue base support for existing initiatives, including: Innovate Arkansas, Risk Capital Matching Fund, ASTA Tech Development grants, ASTA Tech Transfer Assistance Grants, ASTA Seed Capital Investment • Augment Innovate Arkansas for more intensive mentoring and outreach to funding sources • Establish a university technology commercialization/proof of concept funding 	<p>\$7 M in annual funding</p>
<p>Investment: Realize the growth potential from emerging companies that have participated in the existing knowledge-based economy initiatives</p>	<ul style="list-style-type: none"> • Partial state funding and tax credits towards creation of a \$20 million to \$30 million Arkansas-based, privately managed early stage investment fund • Resources for advancing stronger management teams → consider an Entrepreneur in Residence approach 	<p>\$7 M in annual funding (Note: One time funding for partial support of a privately managed early stage seed investment would also be effective)</p>
<p>Top Talent: Put talent to work in Arkansas</p>	<ul style="list-style-type: none"> • Incentives for post-secondary internships with Arkansas industry • Talent bridges for doctorate and post-doctoral level science and engineering graduates to industry. • Further statewide university entrepreneurial education and training, targeting STEM graduate and undergrads 	<p>\$1 M in annual funding</p>