



# **Midwest Cleantech Venture Finance What's Needed? What's available?**

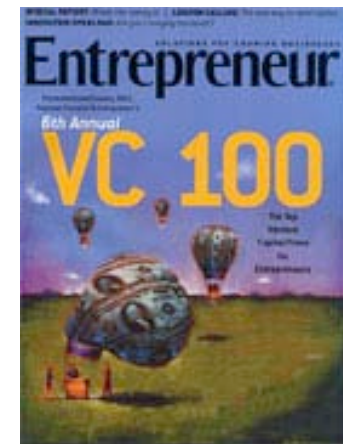
September, 2008



# An Introduction to IllinoisVENTURES, L.L.C

*Seed and early stage, research-derived, Midwest investment*

Assets	\$50 million
Management Team	<b>John Banta</b> CEO, Managing Director <b>John Regan</b> Managing Director <b>Rob Schultz</b> Managing Director <b>Kathryn Hyer</b> Managing Director
Stage	Seed & early-stage venture capital
Industries	Focus on research-derived investment IT, physical and life sciences, cleantech Inter-domain “seams”
Geography	IL and Midwest. opportunistically elsewhere

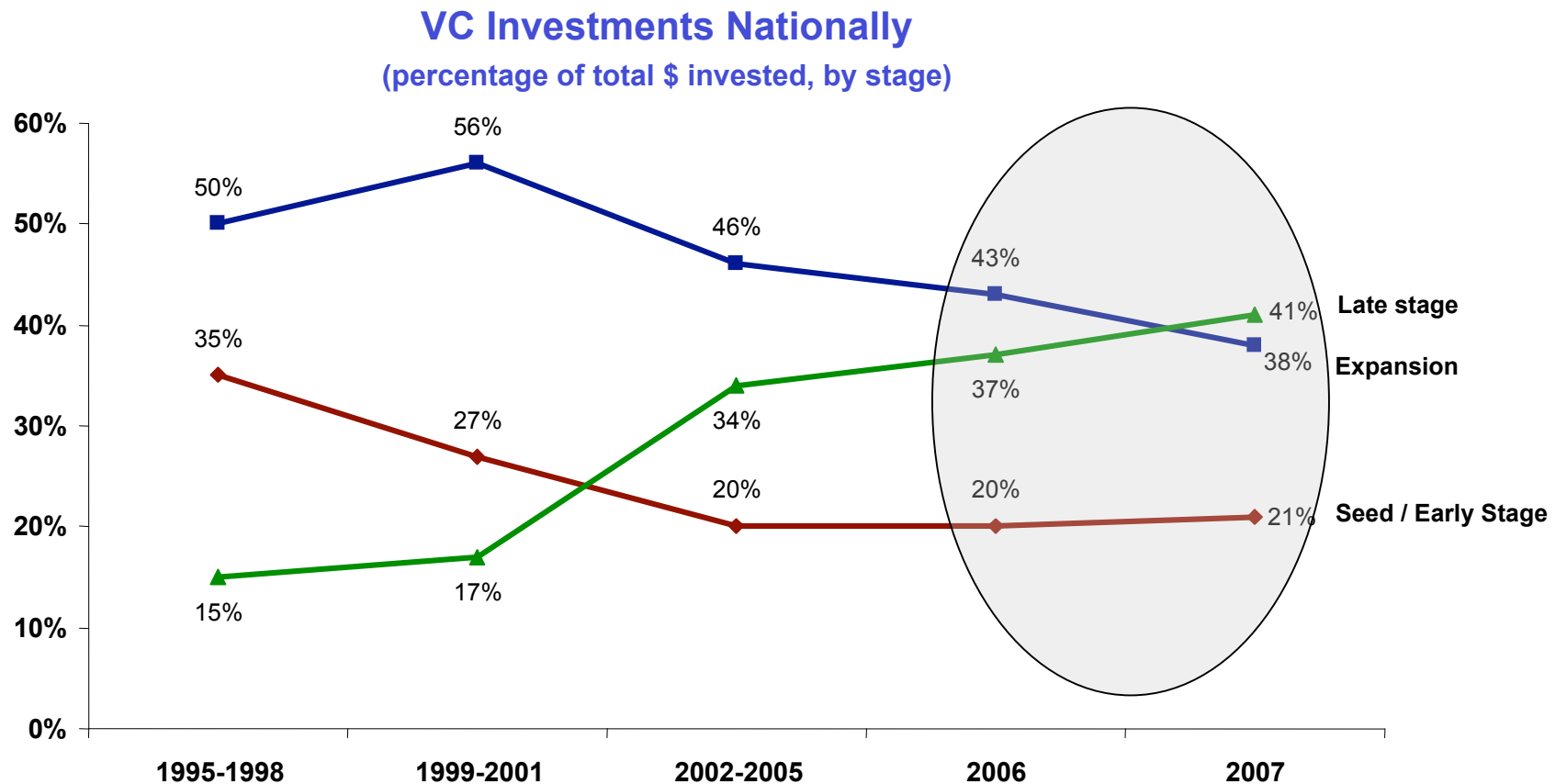


**2005-2007**  
**# 1 regionally**  
**#19 nationally**



# Focused on undercapitalized Midwest

*Seed and early stage attention has declined nationally*

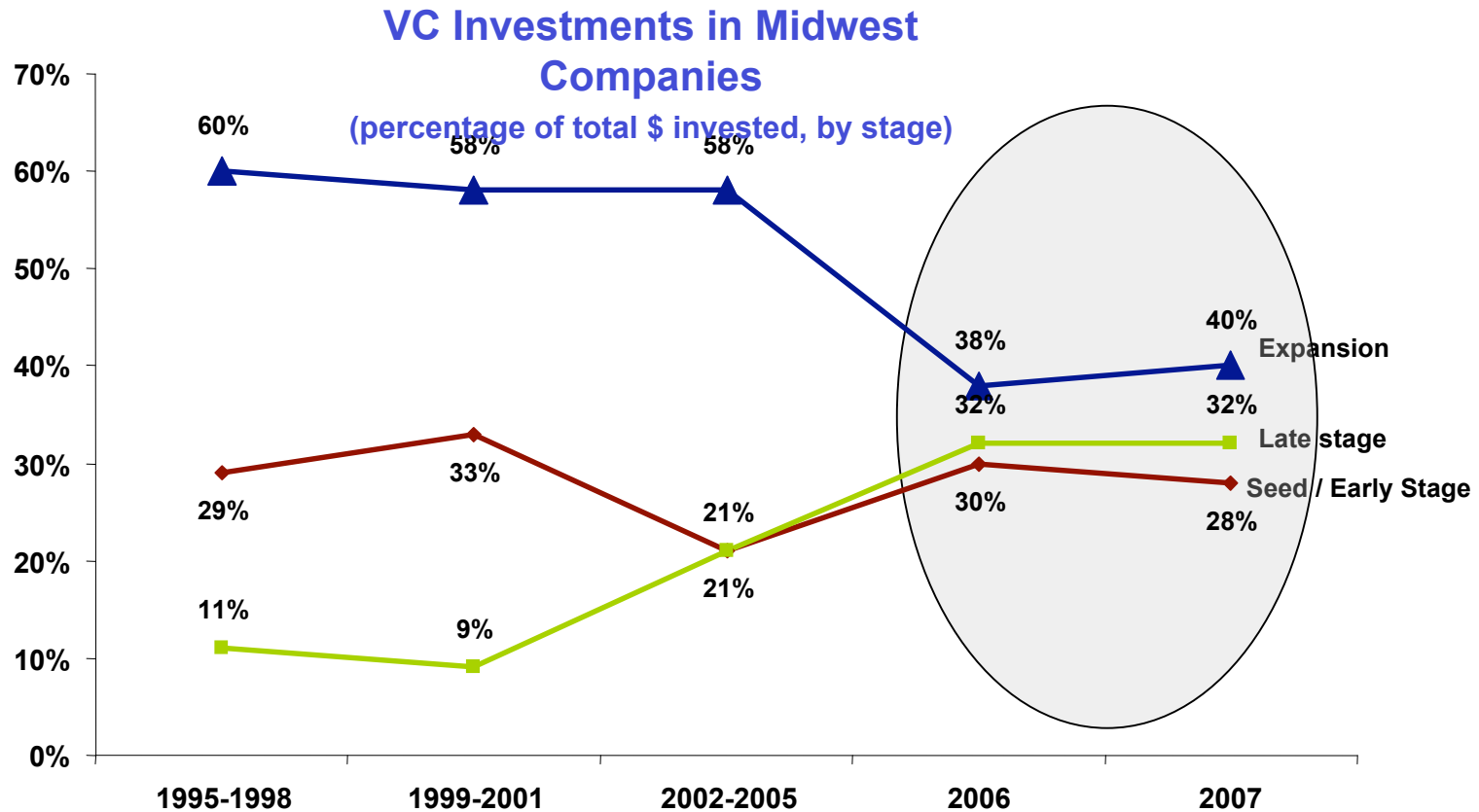


Source: PWC/Venture Economics/NVCA MoneyTree Survey



# Focused on undercapitalized Midwest

*We've worked hard to buck that trend here*

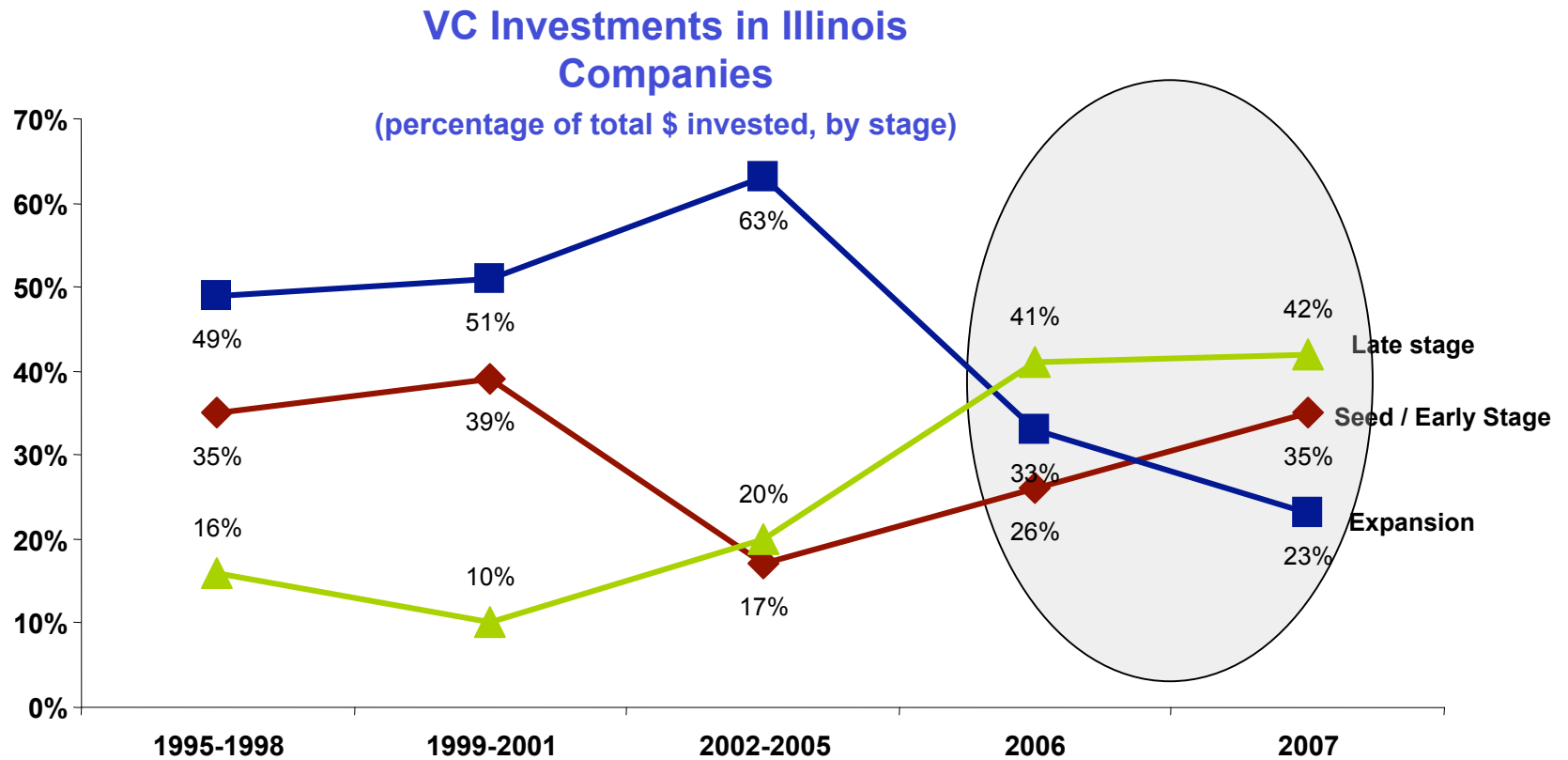


Source: PWC/Venture Economics/NVCA MoneyTree Survey



# Focused on undercapitalized Midwest

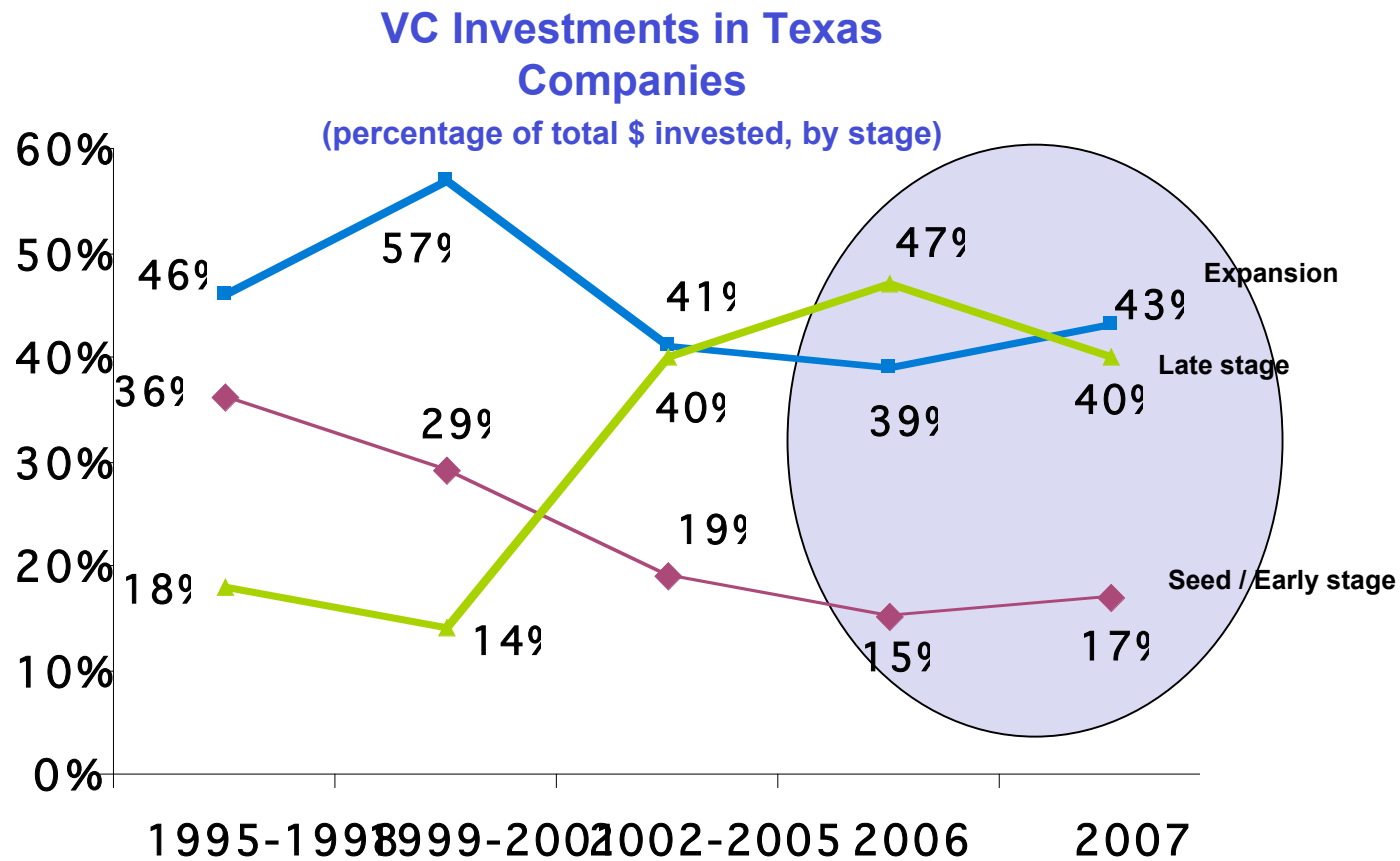
*We've worked hard to buck that trend here*



Source: PWC/Venture Economics/NVCA MoneyTree Survey

# Focused on undercapitalized Midwest

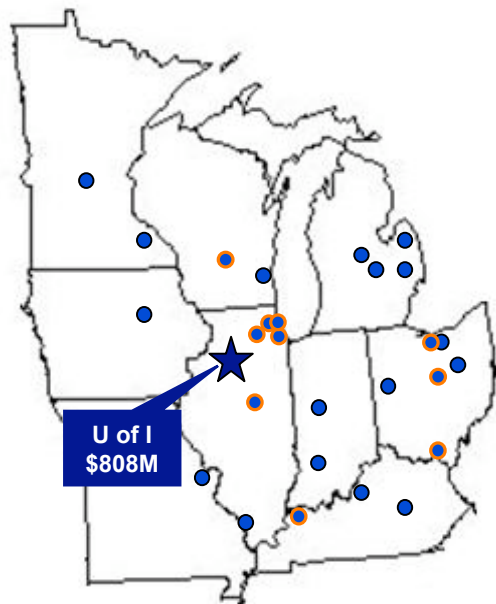
*Other regions have not fared as well*



Source: PWC/Venture Economics/NVCA MoneyTree Survey

# Region is research over-capitalized

*Research base is comparable to/beyond any other region*



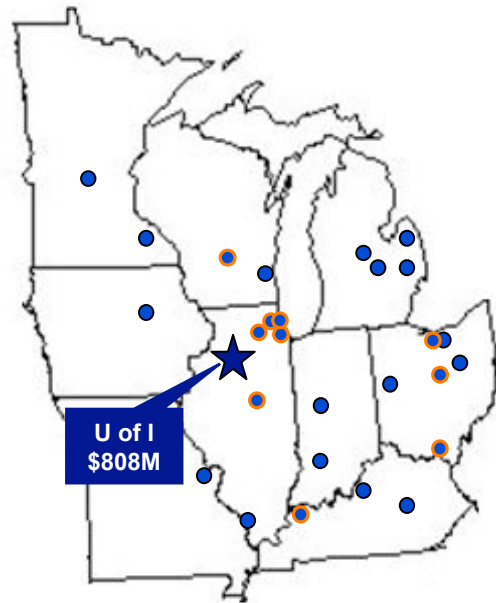
Sources of deal flow: **Blue**  
 Portfolio investments: **Orange/Blue**

State	R&D Expenditures
<b>Illinois</b> (includes University of Illinois, University of Chicago, Northwestern University and others)	\$1.98B
<b>Indiana</b> (includes Indiana University, Purdue University, and others)	\$404M
<b>Iowa</b> (includes University of Iowa, Iowa State University, and others)	\$594M
<b>Michigan</b> (includes Michigan State University, University of Michigan, Wayne State University and others)	\$1.46B
<b>Minnesota</b> (includes Mayo Foundation, University of Minnesota, and others)	\$1.04B
<b>Missouri</b> (includes Washington University, Saint Louis University and others)	\$852M
<b>Ohio</b> (includes the Cleveland Clinic, Ohio State University, University of Akron, University of Cincinnati and others)	\$1.63B
<b>Wisconsin</b> (includes the University of Wisconsin at Madison, the Medical College of Wisconsin and others)	\$936M
<b>Kentucky</b> (Includes University of Louisville, University of Kentucky, others)	\$332M
<b>Total</b>	<b>\$9.3B</b>



# Region is research over-capitalized

*Research base is rich in “cleantech” domains*



Sources of deal flow: Blue  
Portfolio investments: Orange/Blue

- **Advanced Materials/Device Physics**
  - PV
  - Lighting
- **Chemistry/Chemical Engineering**
  - Fuel cells
  - Sensing
  - Chemical production/separations
- **Biology/Microbiology**
  - Industrial bioprocessing
  - Water



# Cleantech Portfolio

*Cleantech practice intersects core domains*

- Illinois Basin coal production and fines reclamation
- Completed \$190M funding to date, TSXV listing
- 100M tons/reserves, 45M under LOI
  
- Printing of semiconductors on any substrate (glass, plastic)
- Primary application – PV micro-concentrators
- \$30M Series B underway
  
- Plasma microdischarge–based advanced lighting platform
- Massive general and specialty lighting market opportunity
- Initial production implementation underway
  
- Formic acid-based microelectronic fuel cells
- Charger, hybrid form factors
- Major OEM collaborations w/Motorola, Nokia



# Cleantech Portfolio

*Cleantech practice intersects core domains*

- Trait stacking technology for ag, bio-fuel applications
- Multi-M \$ agreements w/Monsanto, Syngenta
- Feedstock, pretreatment enzyme applications underway
  
- Integrated biobutanol production platform
- Chemical and fuel applications
- Global class BP/Amoco, ADM-derived team
  
- DNA biosensor detection of heavy metals, etc.
- Initial application – toxic lead in water
- Collaborative development underway with Filtertek, Inc.



# What's Needed, What's Available

- Allot is needed
  - Complete restructuring of energy industry to “low-carbon”
    - \$150bn in 07 is nice, but \$10 trillion needed by 2030 to convert
    - Venture small potatoes versus public markets, asset-financing
  - Capital intensive, need for deep pockets and patience
    - First project risk = more expensive paths
    - Public funding picture only recent/inconsistent policy
- Allot is available
  - Cleantech VC on the rise
    - Increasing % of overall \$, new funds/generalist funds entering (1600!)
    - Increased M&A, deal size; IPO activity, non-traditional sources
  - Regional story is good
    - Resource currency is prevalent here versus other domains like IT
    - Cleantech is often global, not limited to specific geography
    - **Result: easier to attract top-tier co-investment – good environment**





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