

# KANSAS BIOSCIENCE AUTHORITY

## BACKGROUND

The Kansas Bioscience Authority (KBA) was created by the Kansas Economic Growth Act of 2004 with the sole purpose of advancing Kansas to be a global destination for bioscience innovation, commercialization, growth and economic development.

## WHY BIOSCIENCE?

- Kansas has inherent strengths in key bioscience sectors: Agribusiness, Animal Health and Human Health.
- Create bioscience sector jobs valued at \$70k and above.
- Bioscience has global interest, reach and impact.
- Bioscience investments produce the desired returns for KBA's invested capital.

## WHAT WE INVEST IN

### AGRIBUSINESS

- Address global demand for plant-based protein
- Enhance food and crop safety
- Ag-based chemicals and materials
- Ag product supply chain improvements
- Technologies that enable precision agriculture
- Crop traits with novel profiles and development plans
- Data capture and dissemination technologies

### ANIMAL HEALTH

- Alternatives to antibiotics for growth promotion or therapeutic use
- Address growing global demand for animal protein
- Improve pre and post harvest food safety
- Novel drug and vaccine delivery systems
- Improve production efficiency / lower costs
  - Feed conversion
  - Product quality
- Wearable technologies
- Data and mobile platforms

### HUMAN HEALTH

- Medical devices and diagnostics
  - Class I, II, III devices
  - Pursue shortest development path
- Drug discovery, development and delivery for all therapeutic areas
- Strategic stages of development to key value inflection points
- Creative opportunities - repurposed/reformulated drugs, orphan indications
- Technologies that also have an animal health application

## STRATEGIC REPOSITIONING

Recently, the KBA implemented a strategic shift to a market-based, sustainable financial model through investment strategy (versus grants) with matching private capital invested in the state.

## KBA KEY OBJECTIVES

- **Improve Return Of, and On, Invested Dollars.**
  - KBA will focus on investments that create a broad investment platform for Kansas with strong potential to generate a collective 2X return on invested capital.
  - Investment decisions in animal health, agribusiness and human health will be made to diversify KBA portfolio.
- **Attract Private Equity Dollars into Kansas.**
  - KBA will invest equally in two structures that will bring 2–4X multiple of KBA capital:
    - A fund structure that is matched by global and domestic equity;
    - A direct co-investment structure to bring global and domestic capital into Kansas.
- **Attract and Grow Economic-based Jobs.**
  - Increase Kansas' bioscience sector job base of high quality, high wage jobs.
  - Kansas' bioscience sector jobs average wage rate is \$70,000 compared to the state's non-bioscience sector average wage of \$40,000.
- **Increase Intellectual Property Commercialization.**
  - Capitalize on the unique collective position Kansas has in the global bioscience space (*agribusiness, animal health and human health*).
  - Develop national and global partnerships to position Kansas as a global destination attracting IP and bioscience entrepreneurs.
- **Increase Export of Products, Goods and Technology to a Global Market.**
  - Investment creates pathways to long-term markets.
  - KBA will continue to develop relationships with global and domestic investors to invest in the state of Kansas.

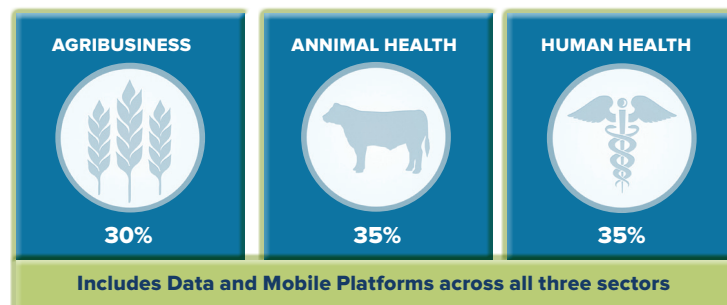
# KBA INVESTMENT SUMMARY

## INVESTMENT STRATEGY

KBA develops investments by:

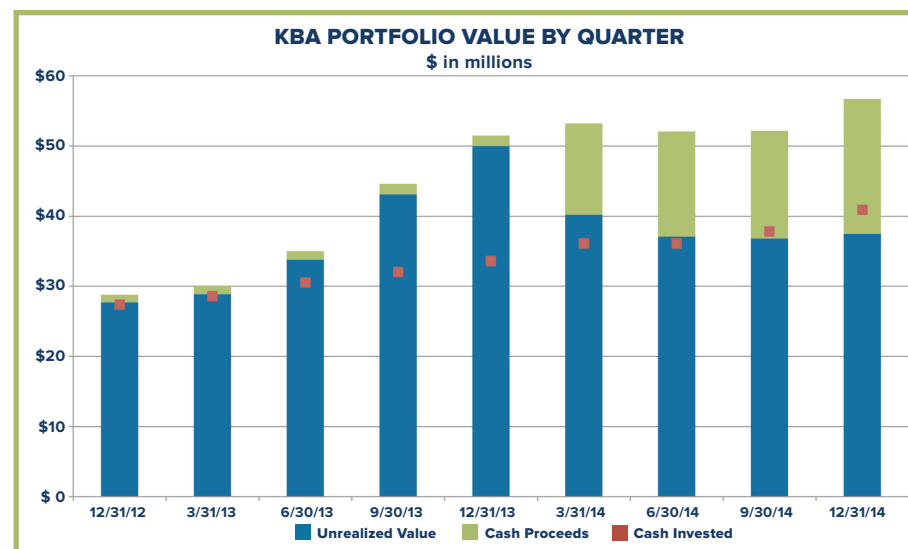
- Evaluating technology, company, management, and market.
- Evaluating risk profile and stage development.
- Balancing portfolio across sectors. Target balances noted below.

## INVESTMENT SECTORS

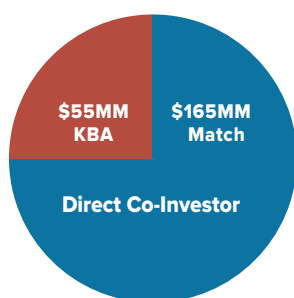


## INVESTMENT PERFORMANCE

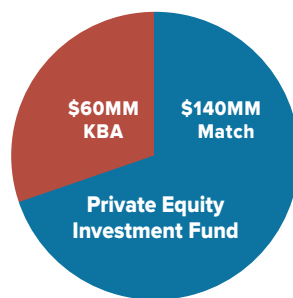
- KBA portfolio value has increased by \$28 million over the last two years.
- Projected 1.85X return on invested capital.



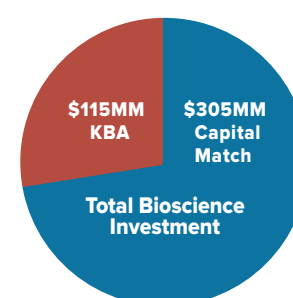
## INVESTMENT VEHICLES



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### DIRECT CO-INVESTOR

- KBA makes direct investment (*early stage*) with other VC external capital.
- KBA committed to \$55 million.
- Will match with 3X external capital.
- 2014 examples:
  - **Health Outcomes Sciences, Inc.**
  - **Advanced Animal Diagnostics**

### PRIVATE EQUITY INVESTMENT FUND

- Fund invests in Mid Stage Bioscience/Ag opportunities.
- Identify and develop critical investment platforms
  - **Animal Health global protein**
  - **Human Health mobile IT**
  - **Agribusiness food safety**
- KBA committed \$60 million.
- Will match with 2.3X external capital.

### TOTAL BIOSCIENCE INVESTMENT

- \$420 MM in venture capital available for Kansas-based bioscience companies over the next 5 years.
- 4X total bioscience investment from 2009 - 2014.

## 2014 IN REVIEW

### 2014 ACHIEVEMENTS

- Reduced operating overhead by 10%.
- Execution of an investment harvest strategy that resulted in \$17.7 million of funds returned to KBA.
- Reduced underperforming KBA commitments by \$3.1 million.
- Established two investment structures that will result in \$420 million of future investment capital for Kansas based bioscience companies.
- Attracted more than \$95 million of outside investment capital to the state of Kansas.
- Increased Venture Accelerator occupancy from 46% to 76%.

### SUCCESS STORY

#### Advanced Animal Diagnostics

**December 2014** - The KBA was one of the lead investors in Advanced Animal Diagnostics' (AAD) closing on a \$15 million Series C round of equity financing -- helping to jumpstart AAD's expansion plans into Kansas and the KC Animal Health Corridor.

Based in the Durham, N.C. area, AAD develops on-farm diagnostic technologies that change the way dairy and livestock producers manage animal health and costly diseases. AAD plans to conduct product development research with the Kansas State Veterinary Diagnostics Lab. It is also working with a Lenexa company to manufacture components for one of its products, and, it plans to open a sales office in western Kansas - creating five jobs with \$100,000+ salaries.

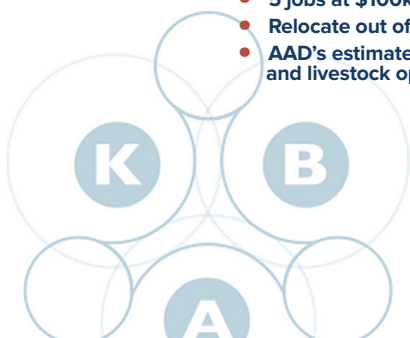
KBA's investment in AAD aligns with Kansas' strategic growth initiatives in the dairy industry and will help to differentiate Kansas as a growing global location for innovative dairy technologies. AAD's technology is well-positioned to address several important trends in the dairy and livestock production industries.

**KBA 2014 Investment: \$2 Million**

**Sector: Animal Health**

**Value to Kansas:**

- 5 jobs at \$100k and above
- Relocate out of state manufacturing to Kansas
- AAD's estimated economic savings to Kansas dairy and livestock operations is \$5.4 to \$6.1 million annually



### SUCCESS STORY

#### Health Outcomes Sciences, Inc.

**March 2014** - Health Outcomes Sciences, Inc. (HOS), a leading healthcare IT company based in Overland Park, Kan., completed its Series A Preferred financing round which was led by the KBA. The funds are being used to grow sales of the company's ePRISM® clinical decision support software, which provides evidence-based individualized risk models to physicians where they need them most, at the point of care.

HOS is among the first to capitalize on a huge, multi-billion dollar market for technologies capable of personalizing patient analytics and applying them in direct clinical care. This initial funding is helping HOS build on their early success in cardiology and extend their reach to other specialties.

KBA's investment will help to accelerate HOS's sales growth and improve patient outcomes - a great example of a Kansas-based, world-class life sciences company doing important work throughout the U.S.

**KBA 2014 Investment: \$1.5 Million**

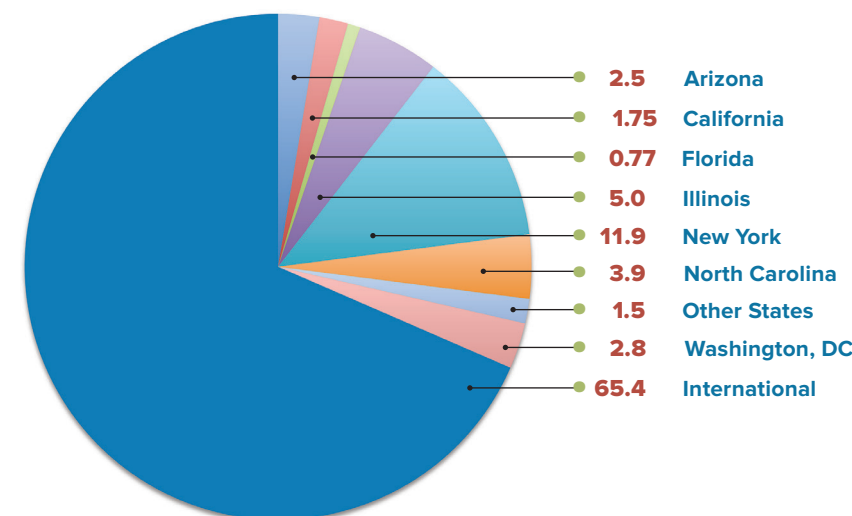
**Sector: Human Health**

**Value to Kansas:**

- Employees have grown from 8 to 22 since March 2014
- Projected 2015 revenue is 4X 2014 revenue
- Active pipeline of sales is projected at \$52 million

### 2014 CAPITAL ATTRACTED TO KANSAS BY KBA = \$95.5 MILLION

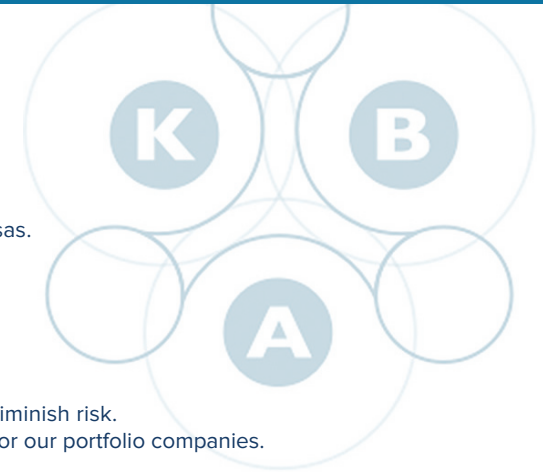
Capital shown in millions per location.



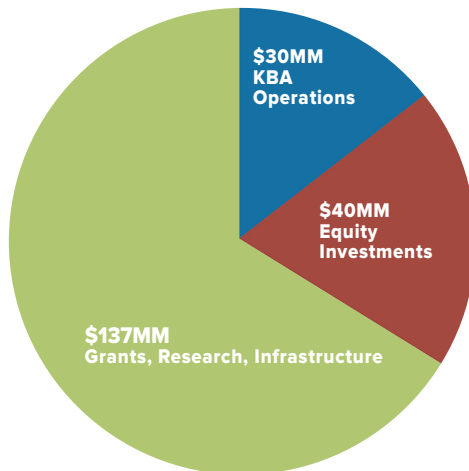
# 2015 AND BEYOND

## 2015 OBJECTIVES

- **Balanced investment structure in place.**
  - Bioscience and Ag Fund established and fully subscribed.
  - Direct co-investor structure developed.
- **Increase external capital invested in Kansas.**
  - Attract another \$70 - \$90 million of external capital for investment in the Kansas bioscience sector.
  - Expand the number of Kansas-based angel and VC bioscience funds.
- **Grow bioscience sector employment.**
  - Attract and invest in high growth companies that create immediate direct and indirect jobs in Kansas.
- **Increase market access for global export.**
  - Use global and domestic investment partners to create market opportunities outside Kansas' borders.
- **Increase KBA Net Asset Value and returns.**
  - Continue to actively manage existing KBA assets.
  - Co-invest with value-added investors to manage or diminish risk.
  - Use existing KBA relationships to expand the market for our portfolio companies.



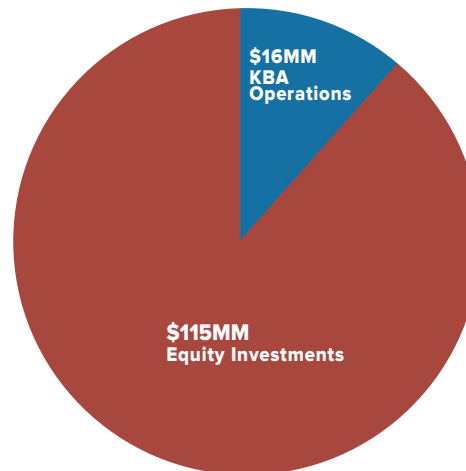
## KANSAS ECONOMIC GROWTH ACT (KEGA) OVERVIEW



### KBA 1.0 YEARS: 2006 - 2014

**\$207 million of state funds received**

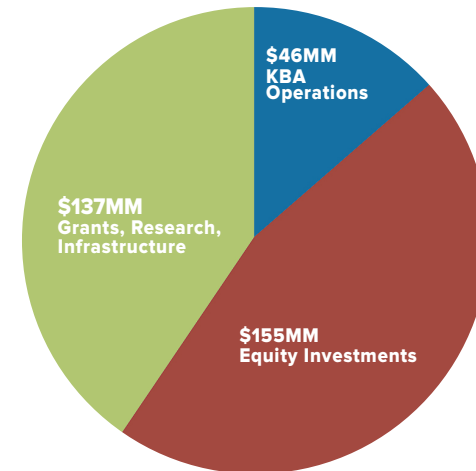
- \$30 million to KBA operations
- \$40 million to equity investments
- \$137 million to grants, research, infrastructure



### KBA 2.0 YEARS: 2015 - 2018

**Full funding @ \$35 million - \$131 million**

- \$60 million to PE fund (equity)
- \$55 million to direct co-investor (equity)
- \$16 million to KBA operations/previous commitments



### RESULTING IN

**\$338 million invested into KS Bioscience**

- \$46 million to KBA operations
- \$137 million to grants, research, infrastructure
- \$155 million to equity investments
  - 2X projected return - \$310MM
  - \$305 million attracted in external capital
- All (nearly) invested dollars returned to state
- Creation of quality jobs (\$70k)
- Increased exports