

## **UILABS: The Future Today**



# Acknowledgements

"Industrial education prepares the way for a millennium of labor."

Jonathan Baldwin Turner (1805-1899)
Illinois advocate for public funding of "industrial" education

- Argonne, IIT, NU and UC
- City of Chicago (M. Angelson, S. Koch)
- Friends (D. Kittlaus, J.J. Murray, & K. Willer)
- Illinois Innovation Council
- ISTC (M. Summy, M. Harris)
- Lewis-Burke Associates, LLC
- State of Illinois (A. Pollett, A. Ross)
- World Business Chicago (M. Sacks, B. Rauner, J.B. Pritzker)

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- Chancellors (P. Allen-Meares,
   S. Koch, P. Wise)
- Friends (J. Duderstadt, R. Ozzie, W. Holtsberg)
- S. Veazie, L. Power and T. Hardy
- UIF (S. Micek, P. Hunt, L. Courson)
- UIUC and UIC Vision Teams
- USC (D. Chambers, M. Wheeler, N. Burbules)
- VCRs (M. Dutta, D. Dutta and P. Schiffer)







Conceptualizing

Visualizing

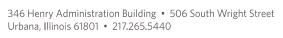
Realizing

"Business and industry have largely dismantled the large corporate research laboratories that drove American industrial leadership in the 20<sup>th</sup> century (e.g., Bell Labs), but have not yet fully partnered with research universities to fill the gap at a time when the *new knowledge and ideas emerging from university research are needed by society more than ever.*"

Excerpted from National Research Council Report, "Research Universities and the Future of America," National Academies Press, June 2012

University of Illinois







## **Conceptualizing The Need**

- Chicago Council on Global Affairs (Spring 2011)
- Illinois Innovation Council (Spring 2011)
- Chairman Kennedy's "Call to Arms" (Spring 2011)
- OVPR BOT "American Research University" (Summer 2011)
- World Business Chicago Strategic Visioning (Spring 2012)
- OECD Tri-State Report (Spring 2012)
- NRC Report on American Research Universities (Spring 2012)
- 150<sup>th</sup> Anniversary of the Morrill Act (Summer 2012)





## Conceptualizing

**HOW** does the UI lead "connecting the dots" between universities, governmental bodies, and the private sector to retain talent, support company formation and community sustainability, and enhance competitiveness through innovation and creativity?





## Why?

#### **Growing need to address BIG IDEAS:**

Unite the best of the University of Illinois, the City of Chicago, and government and industry partners. Encourage collaboration. Give license to get creative.

#### **Creating an EXCITING FUTURE:**

A **PLAN** to drive economic competitiveness.

A **UNION** of the City, the State, the University, Business and Industry.

A **VISION** to solve society's biggest technology challenges.









Research and entrepreneurship experiences for undergrad and grad students



Located in Chicago with urban amenities



In 5 years, 250 faculty, 500 fellows, and 500 grad & undergrad students



Transformative research agenda built on core computational strengths

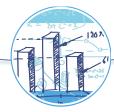
## Visualizing



Commercialization and technology transfer opportunities



Governance and advisory boards of international thought leaders



Interdisciplinary labs and flexible collaboration space



Interim
faculty/student
housing to enable
movement between
institutions and
corporations

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#### **HOW WILL THIS WORK?**

**ONLY THE BEST-** UILABS draws on the best and the brightest—from the UI and other institutions (academic, industry or public sector)—to deliberately and specifically address grand challenges, without the typical constraints of an academic environment.

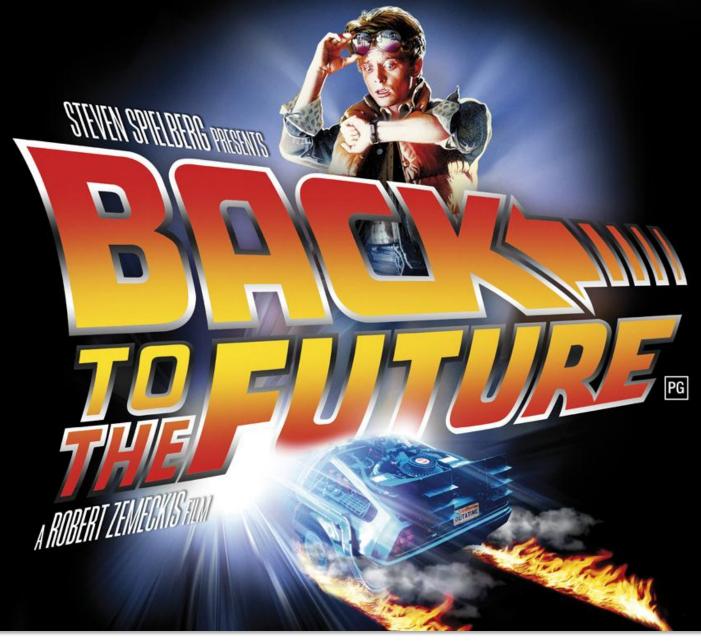
AGILE AND RESPONSIVE PROGRAMS- UILABS programs can be created on short notice to address immediate problems and term-limited to optimize efficiency.

**COOPERATING-** Reduced operating constraints, ensured flexibility and nimble administrative functions will enhance industry partnerships.

**PERMEABLE BOUNDARIES-** Physical and virtual boundaries are permeable, cultivating an environment for industry and academia to cooperate.







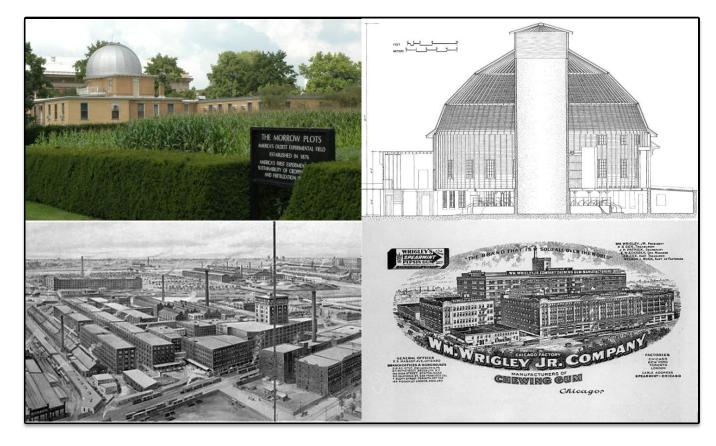
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# UI Experiment Station (1888, 1907) and Engineering Extension (1914)



A shared place where individuals came from all over the state to learn new techniques and returned to their communities. A hub of innovation to support economic development.







## Realizing

- An inclusive VEHICLE empowering people and ideas
- A FUTURE of increased competitiveness
- A global *HUB* of innovation
- A global *COMMUNITY* of creative exchange
- A global **DESTINATION** where grand challenges are addressed
- A PARTNERSHIP of defined missions

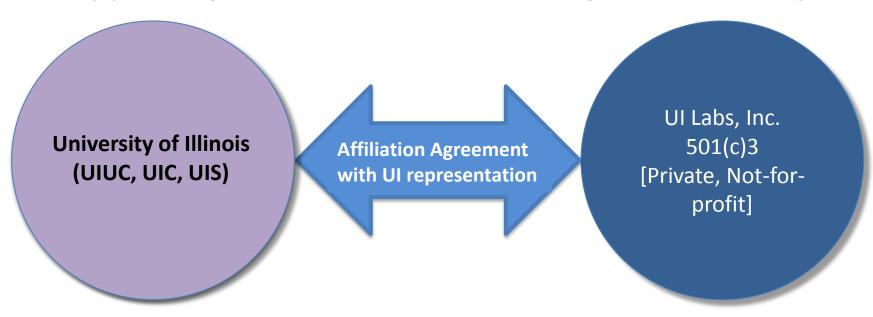
- The SYNERGY of City, State, Federal Governments and UI
- The CROSSROADS of a diverse/dynamic creative community
- The RESEARCH HUB for applied innovations
- The TRAINING GROUND for nextgeneration thinkers
- The **MAGNET** for the world's best talent
- The LEADER in computing and engineering excellence





## Realizing: Providing the "how"

#### **Supporting the Mission - Protecting the Academy**



Attributes- providing empowerment, responsiveness, timeliness, agility and flexibility







## Realizing

Entrepreneurial and technology commercialization ecosystem

Theme-directed research partnerships with industry

Training talent to compete for knowledge-based jobs



IMAGINE THE POSSIBILITIES - New technologies. New industries. Vibrant, thriving new research and learning communities. Entrepreneurship opportunities. Venture capital investment. Workforce development. Innovation and discovery. This is UILABS. This is "What's Next."

#### PUBLIC/PRIVATE PARTNERSHIPS FOR THE NEW

MILLENIUM - UI has been answering "big questions" for nearly 150 years. With UILABS, we're setting our course for generations to come, embracing our responsibility to address the global challenges through innovation and our technological prowess. Partnering with one of the world's most vibrant cities and industry to do so simply makes sense.





Conceptualizing

Visualizing

Realizing

"The future of the Midwest region no longer depends on our factories and farms or a labor force possessing physical strength and determination, but limited skills and education. Nor will our region's remarkable natural resources, our forests and fertile fields, our rivers and inland seas, determine our future. From here on out, our future depends on how well we develop our human resources and how we create and apply new knowledge through innovation and entrepreneurial zeal."

James J. Duderstadt, Director, The Millennium Project, and President Emeritus and Professor, The University of Michigan, excerpted from "A Master Plan for Higher Education in the Midwest", Chicago Council on Global Affairs, 2011





