

Dr. Kenan Sahin
Founder and Chief Executive
TIAX LLC

Biography

Dr. Kenan Sahin is the founder and Chief Executive of TIAX LLC, a leading collaborative product and technology development firm that accelerates innovation to help clients achieve growth and create an impact in the market—and in people's lives. TIAX was formed in April 2002 from the Technology and Innovation business of Arthur D. Little, Inc. and continues to operate at Acorn Park in Cambridge, Mass., with over 50 laboratories and more than 200 engineers and scientists.

Dr. Sahin's role as CEO of TIAX caps an already prolific career as academic, technologist and entrepreneur. Most recently, he was chosen by the World Economic Forum as one of its 40 Technology Pioneers for 2003 and received the New England Business and Technology's first "Circle of Excellence" award in 2004.

Dr. Sahin received his bachelor's degree from MIT in 1963 and his Ph.D. from MIT in 1969 and then served on the faculties of MIT, Harvard and the University of Massachusetts at Amherst until 1985. During his distinguished academic career, he published articles in numerous professional publications. He also received several teaching awards and obtained U.S. and international patents.

In 1982, Dr. Sahin founded Kenan Systems with a \$1,000 personal investment. The company went on to become a world leader in telecommunications software, employing more than 800 people and with offices in a dozen countries. Both Kenan Systems and Dr. Sahin received numerous awards, including the Ernst & Young New England Entrepreneur of the Year in 1998.

In early 1999, Kenan Systems merged into Lucent Technologies and Dr. Sahin became Vice President of Software Technology at Bell Labs and subsequently President of Lucent's Software Products Group, serving in that position through 2000.

During his business career, Dr. Sahin has published numerous articles. Most recently he has addressed the innovation backlog in articles for R&D Magazine and Technology Review. He is also a frequent speaker on the topic of innovation, having recently appeared at the MIT Enterprise Forum, The Nantucket Conference on Innovation, and Brainstorm 2003, hosted by *Fortune* Magazine.

Dr. Sahin serves on numerous non-profit boards, including those of MIT, the Boston Museum of Science, the Boston Museum of Fine Arts, Boston Symphony, and the American Field Service.

He is married to Andrea Sahin and they live in Boston.

Innovation Entrepreneurship or Implementation Entrepreneurship: Opportunities for Industry



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Presented by:

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*Formed out of Arthur D. Little, Inc.'s
Technology and Innovation Business*

Innovation Entrepreneurship or Implementation Entrepreneurship: Opportunities for Industry

Growing Innovation Backlog

The Situation

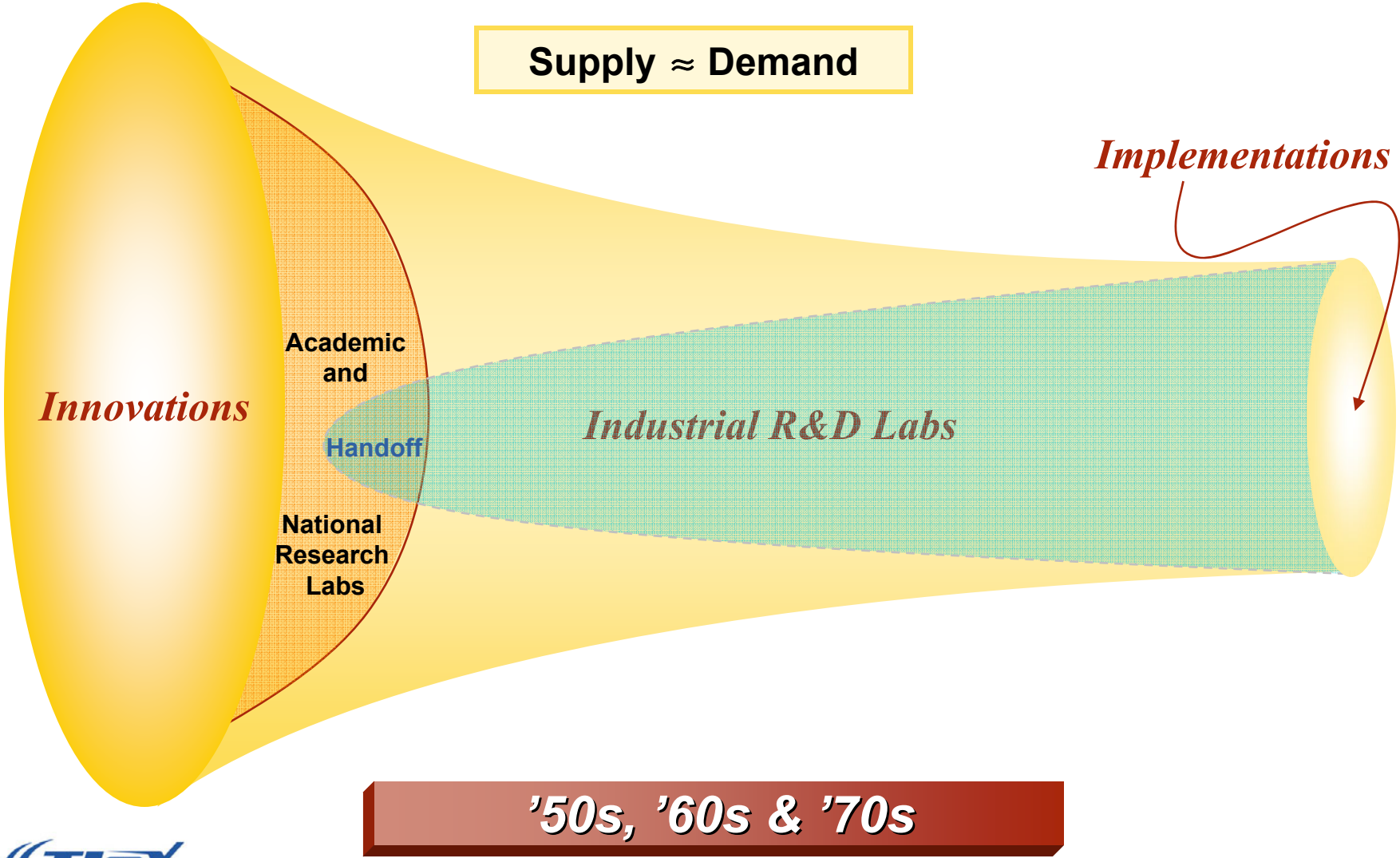
- Large R&D labs inside companies
- Small company era
- Best of breed to be acquired by bigger companies
- Downsized R&D labs
- Small companies dead or dying
- Large company R&D really shrunk
- More R&D being outsourced to overseas
- Companies more risk averse
- Payback horizon much shorter



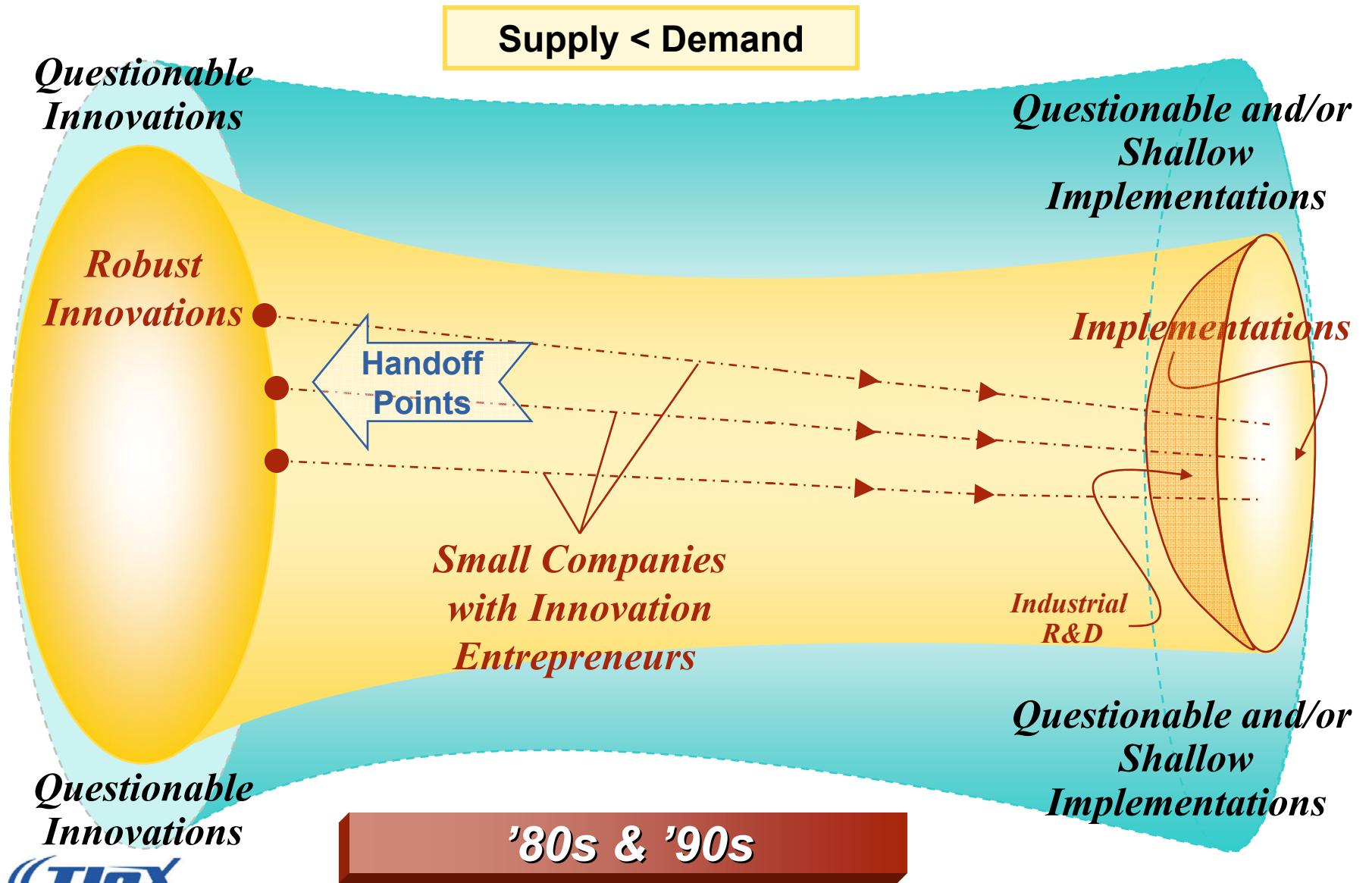
Consequences

- Synchronized development and deployment
- Demand for innovation far greater than supply
- Exploding prices for innovation
- Great stimulation of sources of innovation
- Supply of innovation far greater than demand
- Universities are in hyperdrive generating innovations
- University—industry disconnect growing worse
- Innovations on the shelf are “rotting away”

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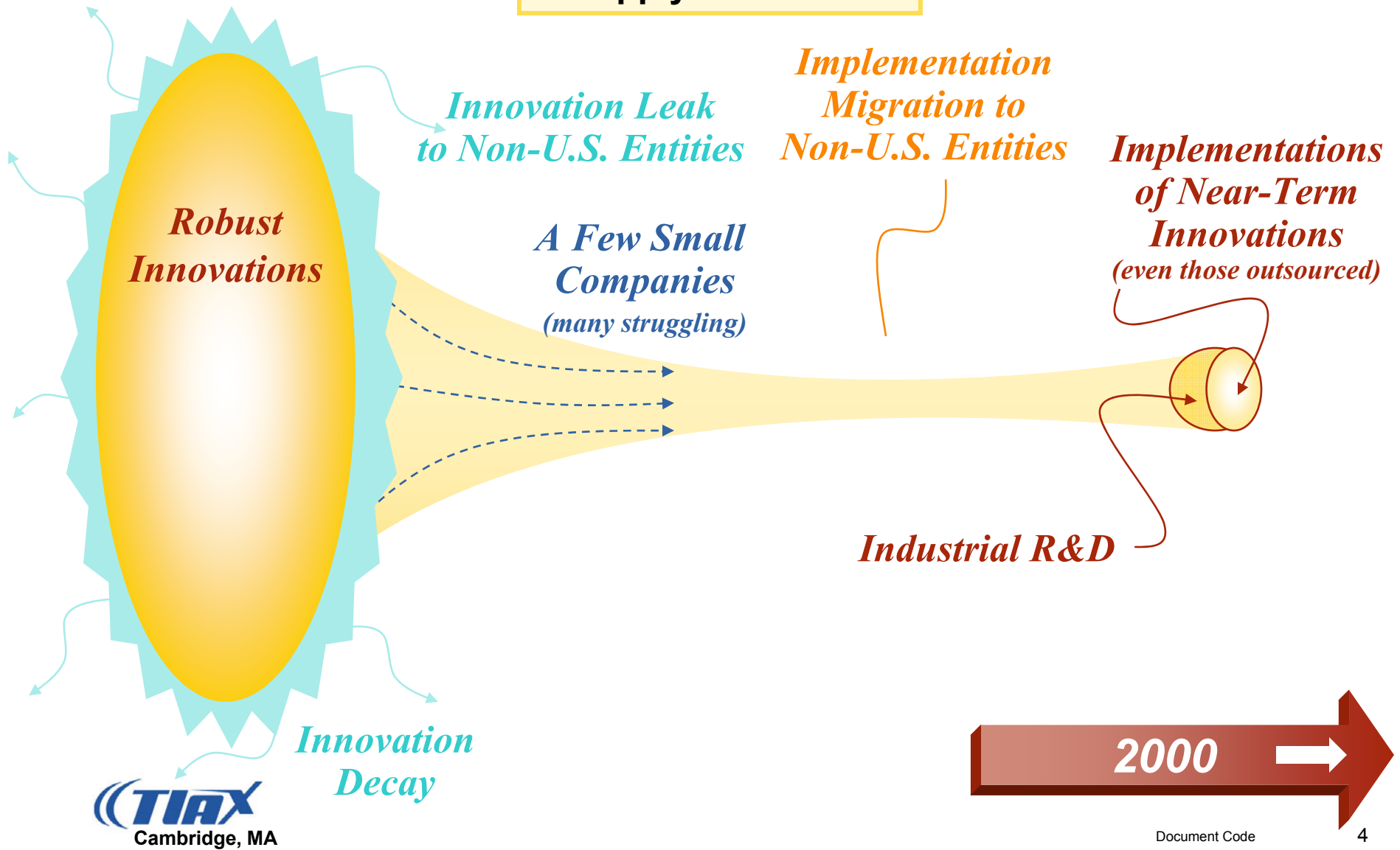


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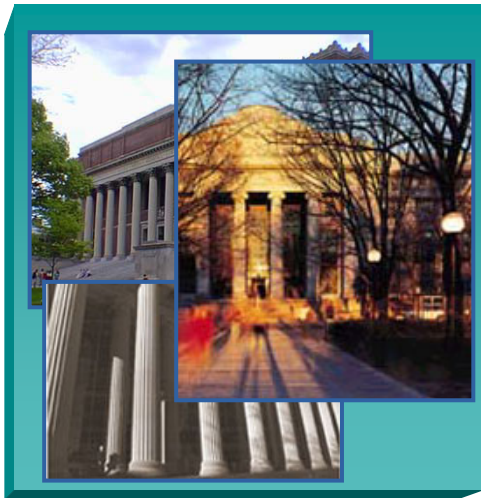
Supply > Demand



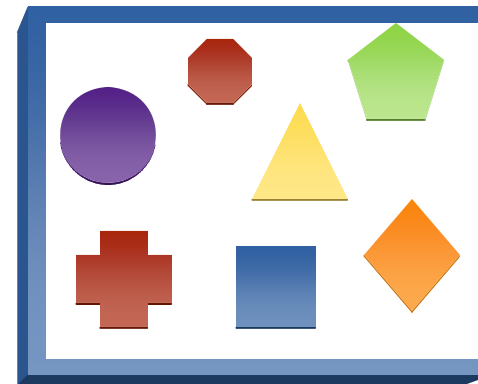
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Growing Disconnect

Universities and Similar Entities



Companies



Reach of Universities

End

*Growing
Gap*

Start

Reach of Industries

Reasons

- Incentives define limits
- “Small scale” entrepreneurship lacks market penetration power
- Funding for commercialization companies formed by academics limited
- Enabling surround technologies not available

Reasons

- Can't start with lab models
- Can't quantify development risks
- Can't easily go back to source for modifications
- Enabling surround technologies not available

Summary

- The real challenges and opportunities for academia and business are in converting the rapidly growing innovation backlog into sustainable and maintainable implementations.

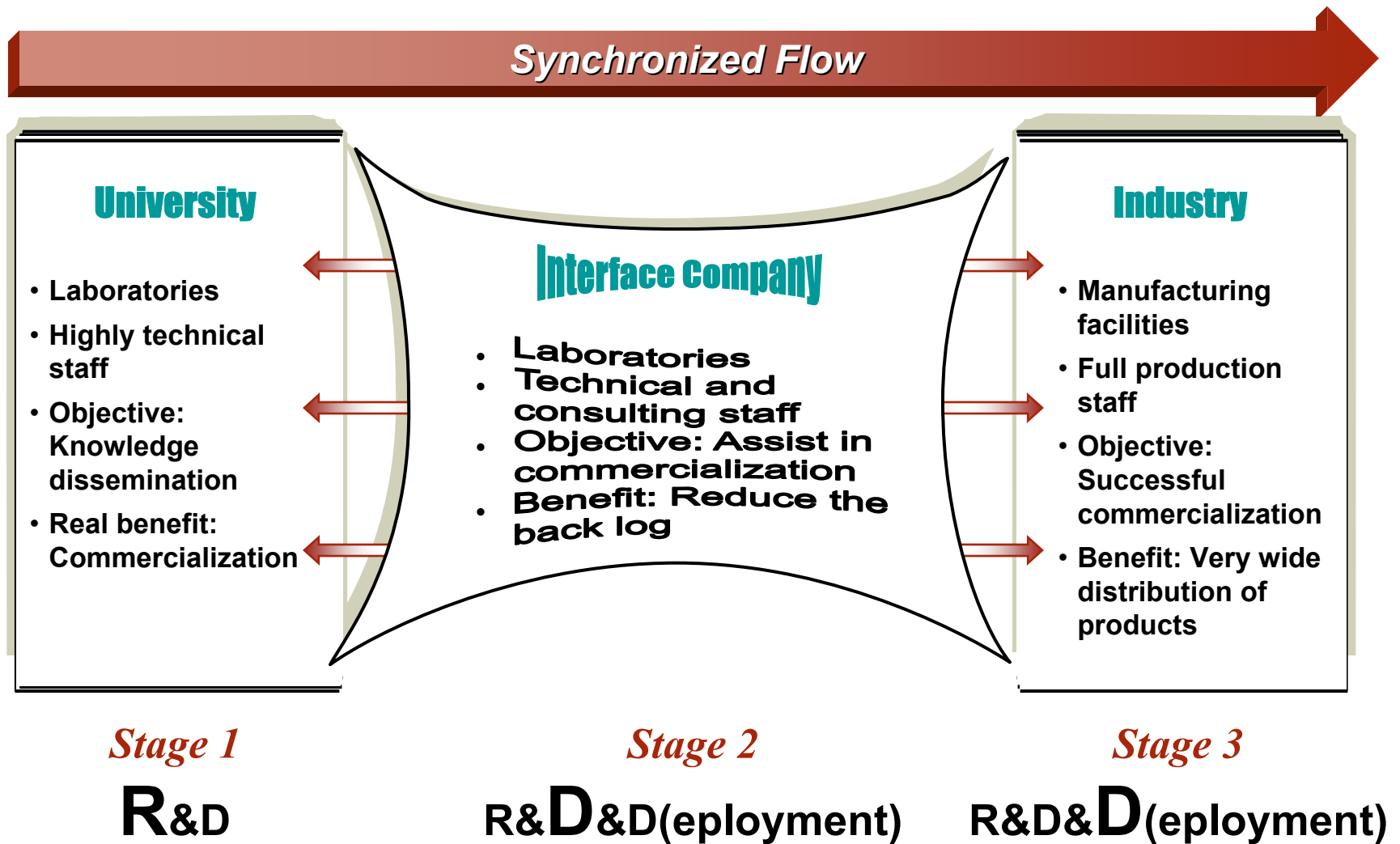
Some Complexities of Implementation...

- Single technology vs. surround technologies
- End points (e.g., maintenance) incorporated into the beginning iteratively
 - Middle out
- IP barriers
- Sustainability
- Costs and problems from the future
- Contracts for IP and terms & conditions

What to do...

- Build up of industrial R&D, but with new models
- Focus on implementation research
- Create implementation capabilities and implementation engineers/entrepreneurs
- Move from late stage to early stage (higher value add) manufacturing
- Be more of a high value add “system integrator”
- More “interface” companies

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Collaboration Innovation...

- What is it?
- What are the benefits?
 - Strengthening/accelerating the innovation process
 - Broadening the technology base
 - Reducing time to commercialization
- What are the challenges?
 - IP Ownership
 - Working across boundaries
 - Sharing knowledge