

# Technology Transfer and Industry Research Alliances



**Berkeley**  
UNIVERSITY OF CALIFORNIA

JIPA –NEDO Visit  
November 12, 2019

# UC Berkeley - A Top Research University

- Leading in research
- Top talent
- Industry-friendly
- Global
- Innovative



# Berkeley Facts



- #1 public university in the U.S.
- #5 in the world in reputation rankings (UK's *Times Higher Education*)
  - The Sweet Six include:  
Harvard, MIT, Cambridge, Stanford, Berkeley and Oxford
- Departments ranked:
  - #3 in Engineering
  - #6 in Public Affairs
  - #7 in Business
  - #7 in Law
  - #13 in Education*(US News and World Reports 2013)*
- **SkyDeck** -- World's premier university-affiliated start-up accelerator

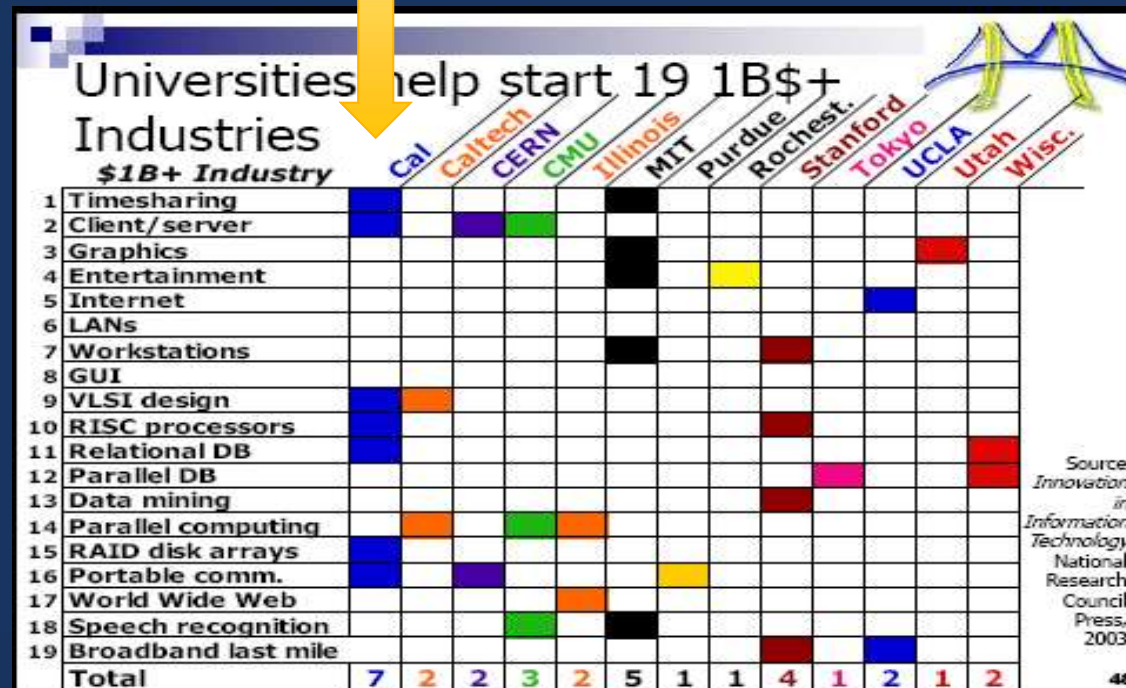
Companies do business with a world leader in research

# Berkeley Collaboration with Japanese Universities

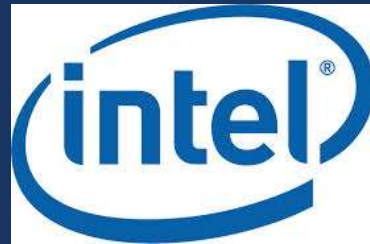
Akita International University  
Chuo University  
Fukui University  
Hiroshima University  
Hiroshima University - Center for Studies in Higher Education  
Hitotsubashi University - UCEAP  
Institute of Physical and Chemical Research (RIKEN)  
International Christian University - UCEAP  
Kanazawa Institute of Technology  
Kanazawa University - Anthropology  
Kobe University  
Kokugakuin University  
Kyoto University  
Kyoto University  
Kyushu University  
Meiji University - UCEAP  
Mitsui Research Institute  
Nagasaki University  
Nagoya University  
Nagoya University - City and Regional Planning

Okayama University of Sciences  
Okinawa Institute of Science and Technology Graduate University  
Osaka University  
Osaka University - UCEAP  
Osaka University of Foreign Studies  
Research Institute for Humanity and Nature (RIHN)  
Shimane University  
Shizuoka University  
Sophia University  
Sophia University - East Asian Languages and Cultures  
The University of Tokyo  
The University of Tokyo - UCEAP  
The University of Tokyo - Architecture  
The University of Tokyo - Chemistry  
The University of Tokyo - History  
The University of Tokyo - Mechanical Engineering  
The University of Tokyo - Psychology  
Tohoku University  
Tohoku University - UCEAP  
Tokyo Institute of Technology  
Tokyo Institute of Technology  
University of Electro-Communications  
Waseda University  
Waseda University - UCEAP

# Berkeley Creates Industries

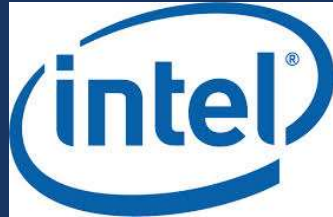


# Berkeley Creates Leaders





# Berkeley Creates Founders



Berkeley  
UNIVERSITY OF CALIFORNIA



# Berkeley Starts Companies

- 146 companies were founded to commercialize IP licensed from Berkeley
- Berkeley startups raised \$1.3B between 2007 and 2011
- Some Professors start many companies



Work with a top university

Find acquisition targets



# Industry Funding at Berkeley

- More than 500 companies have sponsored research at Berkeley and/or joined an industry affiliates program since 2004
- Repeat business: ~40% of sponsoring companies sponsor research more than once



# Berkeley collaboration with Japanese Companies

Daiichi Pharmaceutical Co, Ltd  
Denso Corporation  
Fanuc Ltd  
Fuji Electric Co, Ltd  
Hitachi, Ltd  
Honda (Honda R&D Americas, Inc.)  
IHI Corporation  
Ishikawajima-Harima Heavy Industries Co., Ltd.  
Marubeni Utility Services, Ltd.  
Ministry of the Environment  
Nagoya University

NEC Corporation (NEC Electronics)  
Nissan Motor Company, Ltd  
Nuclear Regulation Authority  
Panasonic Corporation  
Sandex Corporation  
Sekisui Chemical Co., Ltd.  
Sony Corporation  
Sumitomo Industries, Ltd  
Tokyo Metropolitan Inst for Medical Research  
Toshiba Corporation  
Toyota Motor Corporation  
Toyota Engineer & Mfg North America

# Industry Sponsored Research

- Companies seek university research expertise to supplement in house R&D, do risky research, feed pipeline
- Berkeley has an office dedicated to *industry sponsored research*  
→ *The Industry Alliances Office of IPIRA*



# Industry Sponsored Research

## The Process

- Company identifies Berkeley research program & PI
- Company contacts PI, discusses research plan
- Company or PI contact IPIRA on collaboration model
- Company negotiates sponsored research agreement
- Company provides funds for university research
- Berkeley conducts research, reports results to company, discloses inventions to company



# Successful History of Berkeley Membership Programs



- Berkeley Wireless Research Center (BWRC)



- Berkeley Sensor and Actuator Center (BSAC)



- Algorithms, Machines, People (AMP)



- Center for the Built Environment (CBE)



- Berkeley Institute of Data Science (BIDS)



- Berkeley Vision and Learning Center (BVLC)

# Membership Programs with Japanese Members

- [Berkeley Sensor and Actuator Center](#),(NSF I/UCRC)
- Center for Hybrid Embedded Software and Systems (NSF I/UCRC)
- Berkeley Deep Drive
- SWARM Lab



# Membership Programs



- Many Berkeley centers have industry members
- Companies co-fund research projects
- Attend meetings research reviews
- Learn research directions, network, meet students
- Benefits companies get:
  - Access to students as interns and new-hires
  - Affiliation, networking
  - Early look at publications, research results
  - First Right to negotiate commercial IP license

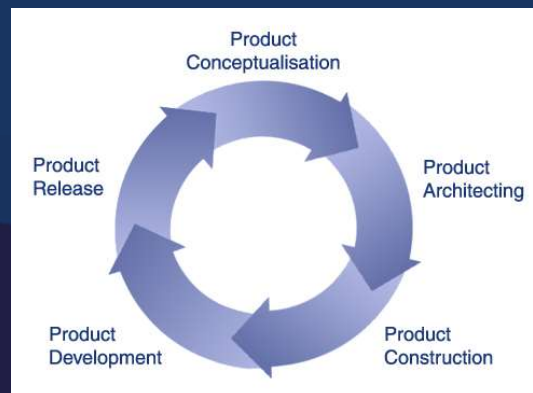
# IP at Universities

- Researchers create IP in sponsored research
- Universities protect and license IP
- Companies funding research have an interest in resulting IP
- Companies have a first right to negotiate for resulting IP



# How to License Berkeley IP

1. Identify Berkeley Technologies
2. Contact Licensing Officer
3. Sign License
4. Develop technology in-house, or at Berkeley



# Search Berkeley Technologies

UNIVERSITY OF CALIFORNIA, BERKELEY



**IPIRA** OFFICE OF INTELLECTUAL PROPERTY & INDUSTRY RESEARCH ALLIANCES

OFFICE OF TECHNOLOGY LICENSING    AVAILABLE TECHNOLOGIES    CONTACT US

## AVAILABLE TECHNOLOGIES

Find technologies available for licensing from UC Berkeley.

Containing these terms...  Search for...  [Search Tips](#)

All terms

..and NOT these terms

Licensing  Online Licensing

or browse by [Technology Category](#)

# Bring Us In Early

- What kind of collaboration framework?
  - Or how to structure the deal
  - We draft to the situation
- Have your IP folks at the table
  - We're your advocates, part of your team
  - We're industry friendly
  - IP & legal questions answered

→ *The Industry Alliances  
Office of IPIRA*



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UNIVERSITY OF CALIFORNIA, BERKELEY



**IPIRA**

OFFICE OF INTELLECTUAL PROPERTY  
& INDUSTRY RESEARCH ALLIANCES

# Questions



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