Creating a Culture of Entrepreneurship

Richard B. Brown
The University of Utah
College of Engineering Spin-offs
Notable Entrepreneurial Alumni

Simon Ramo, TRW

John Warnock, Adobe

Alan Ashton, Word Perfect

Ed Catmull, Pixar

Mark Fuller, WET Technologies

Jim Clark, Netscape, Silicon Graphics
Re-Creating the Culture

- Advisory Board Task Force
- Engineering Resolution on IP
- Inaugural Symposium
  - University as an Economic Engine
  - President’s Mantra
- New TCO Director
- Invited TCO to Faculty Meetings
- VP for Technology Venture Development
- New Promotion/Tenure Policy
CEOs of Fortune 500 Companies

- Engineering: 20%
- Business Admin.: 15%
- Economics: 10%
- Liberal Arts: 8%
- Accounting: 6%
Broad Engineering Education

- CLEAR
- Engineering: Emerging Technologies
  - semiconductor, telecom, software, biomedical, pharmaceutical, biotech, nano and energy topics
  - evaluate markets and develop business plans
- Law: IP and Business Law for Engineers
- Business: 3-hr MBA for Engineers
- MS-MBA
Commercialization Support System

- Sorenson Center for Discovery and Innovation
- Lassonde New Venture Development
- BioInnovation MS Program
- Accelerator, Foundry, Venture Bench
- Software Development Center
- Energy Commercialization Center
- Western Innovation Network
- Student Venture Fund
- Entrepreneurial Faculty Scholars
- Tech Tuesdays
Competitions

• Distinguished Innovation and Impact Award
• Utah Entrepreneurial Challenge
• Student Entrepreneur Conference
• Bench to Bedside
• Opportunity Quest
• Bioengineering Invent
• Tech Titans
• Green Titans
• MadSkills
Interdisciplinary Research

- Medical School, ARUP
- Science
- Industry
University of Utah Startups

Year vs. Start-ups

- X-axis: Year (1970 to 2011)
- Y-axis: Start-ups (0 to 25)

The chart illustrates the number of startups from 1970 to 2011.
Recent Start-up Activity

Fiscal Year
Invention Disclosures

Fiscal Year

07 08 09 10 11

75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235
Number of New Inventors
Number of Repeat Inventors

Fiscal Year

06 07 08 09 10 11

0 20 40 60 80 100 120 140 160
Start-ups by College FY ’06 - ’11

- **School of Medicine**: 36%
- **Engineering**: 41%
- **Pharma**: 10%
- **Science**: 5%
- **Education**: 1%
- **Mines**: 4%
- **Fine Arts**: 2%
- **Health**: 1%
- **Law**: 1%
- **School of Medicine**: 36%
Start-up Funding Status (FY 06-11)

- Development: 18%
- Sales: 13%
- SBIR/STTR: 5%
- Seed: 16%
- VC: 16%
- Angel: 5%
- Acquired: 4%
- Corp: 2%
- Dead: 22%
Potential Pitfalls

- Conflict of Commitment
- Conflict of Interest
- Loss of Faculty
### Real Metrics

- **Quality of Life**
- **Long-Term Financial Benefits to University**
- **Economic Impact on State**

<table>
<thead>
<tr>
<th>2010</th>
<th>Total External Research Funds Spent in Utah</th>
<th>Operating Spinoff Companies</th>
<th>Total Employment([1])</th>
<th>Total Annual Payroll</th>
<th>Total Tax Contribution([2])</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Research Funding (total = $451 million)</td>
<td>$388 million</td>
<td>8,906</td>
<td>$378 million</td>
<td>$33.4 million</td>
<td></td>
</tr>
<tr>
<td>Technology Commercialization (19 new in FY10)</td>
<td>150</td>
<td>19,818</td>
<td>$947 million</td>
<td>$96.2 million</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$388 million</strong></td>
<td><strong>150</strong></td>
<td><strong>28,724</strong></td>
<td><strong>$1.3 billion</strong></td>
<td><strong>$129.6 million</strong></td>
</tr>
</tbody>
</table>

\([1]\) Bureau of Economic and Business Research, 2010 and 2011. Includes direct, indirect, and induced employment.

\([2]\) State and local taxes.
Rewards

- Self-Confident Engineering Graduates
- Support of Governor and Legislators
- Attract Faculty and Students