• College plan: Engineering 2020
  engineering.colorado.edu/engineering2020

• Campus plan: Flagship 2030
  www.colorado.edu/flagship2030

• Four basic questions:
  1. Where are we now?
  2. Where would we like to be?
  3. How will we get there?
  4. How will we know if we arrive?

Presentation to the CU Engineering Advisory Council on 9/26/08 by
Robert H. Davis, Dean
Jessica Wright Bowen, Sr. Director of Development
**Where are we now?**

<table>
<thead>
<tr>
<th></th>
<th>Fac</th>
<th>BS</th>
<th>MS/ME</th>
<th>PhD</th>
<th>Res Exp</th>
<th>Stud Fac</th>
<th>PhD Fac</th>
<th>Res Fac</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU-Boulder</td>
<td>156</td>
<td>2914</td>
<td>713</td>
<td>493</td>
<td>$51M</td>
<td>26.4</td>
<td>3.2</td>
<td>$327K</td>
</tr>
<tr>
<td>Peer Average</td>
<td>239</td>
<td>4055</td>
<td>650</td>
<td>872</td>
<td>$92M</td>
<td>23.3</td>
<td>3.6</td>
<td>$386K</td>
</tr>
</tbody>
</table>

**Other facts:**
- State funding per student is 36% of AAU average
- In-state tuition is 85% of AAU average
- Building dates to 1966 – students & faculty have doubled
- Assignable sq. ft. per faculty is 10% less than peers
- 7.5% underrepresented minority ugrad vs. 25% CO population
- 18% female ugrad vs. 50% CO population
- 28% projected growth in CO HS grads 2005-2022, vs. 9% US
**Where would we like to be in 2020?**

**People:**
- Enrollment growth of 15% ugrad, 20% grad
- PhD enrollment growth of 35%
- Faculty and staff growth of 30%
- Enhancement in quality, diversity, access, retention

**Places:**
- Addition of 175K gsf within five years
- First phase of new engineering complex by 2020
- Improved quality & use of current facilities

**Programs:**
- Doubling of annual research funding to $80M
- Interdisciplinary programs and engineering institute
- Personalized learning and team-based design

**Integrated & Discovery Learning Engineering for Global Society**
People: How will we get there?

**Students**
- Partnerships with key schools
- Engineering GoldShirt Program
- Engineering Honors Program
- Engineering Leadership Programs
- Community building & retention
- Marketing & financial support
- New degree programs

**Faculty & Staff**
- Cluster hires in targeted areas
- Alternative career paths
- Faculty Excellence Program
- Staff Excellence Program
- >1 new staff per 2 new faculty
- Financial support
Places: How will we get there?

New Construction
- Systems Biotechnology Building
- Aerospace & Energy Systems Building
- Geosciences Building
- ITL Laboratory Expansion
- New Engineering Complex

Improved Utilization
- Summer session & evenings
- Annual renovation program
- Specialized research facilities
- Teaching laboratories
Programs: How will we get there?

Engineering for Global Society
- Materials science & engineering
- Bioengineering & biotechnology
- Aerospace systems sci & eng
- Energy systems & environ sustainability
- Computational science & engineering
- Engineering educ research & assessment
- Engineering research institute

Integ. & Disc. Learning
- Discovery learning
- Professional learning
- Service learning
- Global experiences
## Campus Funding Needs

<table>
<thead>
<tr>
<th></th>
<th>Current amount</th>
<th>Additional required</th>
<th>New total (2008 dollars)</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty salary</td>
<td>$18.7M</td>
<td>$4.0M</td>
<td>$22.7M</td>
<td>47 @ $85,000</td>
</tr>
<tr>
<td>Staff salary</td>
<td>$3.5M</td>
<td>$1.1M</td>
<td>$4.6M</td>
<td>28 @ $40,000</td>
</tr>
<tr>
<td>Graduate stipend</td>
<td>$2.0M</td>
<td>$2.0M</td>
<td>$4.0M</td>
<td>100 @ $20,000</td>
</tr>
<tr>
<td>Graduate tuition</td>
<td>$0.8M</td>
<td>$0.9M</td>
<td>$1.7M</td>
<td>100 @ $9,000</td>
</tr>
<tr>
<td>Operating &amp; other</td>
<td>$5.4</td>
<td>$1.1M</td>
<td>$6.5M</td>
<td>20% growth</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$30.4</strong></td>
<td><strong>$9.1M</strong></td>
<td><strong>$39.5M</strong></td>
<td></td>
</tr>
</tbody>
</table>

**New buildings: $210M for 325,000 gsf**
### Private Funding Needs

<table>
<thead>
<tr>
<th></th>
<th>Current endowment</th>
<th>Additional required</th>
<th>New total (2008 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>$35M</td>
<td>$28M</td>
<td>$63M</td>
</tr>
<tr>
<td>Students</td>
<td>$31M</td>
<td>$45M</td>
<td>$76M</td>
</tr>
<tr>
<td>Programs</td>
<td>$24M</td>
<td>$7M</td>
<td>$31M</td>
</tr>
<tr>
<td>Total</td>
<td>$90M</td>
<td>$80M</td>
<td>$170M</td>
</tr>
</tbody>
</table>

*Current gifts: $3-4M/yr for students & programs
Buildings: 1/3\textsuperscript{rd} private = $70M*
**Campaign Goals**

**Purpose:** Private funding to support
- Flagship 2030
- Engineering 2020

**People:** $47 million goal

**Places:** $53 million goal

**Programs:** $30 million goal

**Total:** $130 million goal

**Timing:**
- 2006 = start of silent phase
- 2009 = start of public phase (?)
Goals for People

Students (endowments)

200 undergrad scholarships @ $75K: $15M
40 graduate fellowships @ $125K: $5M
120 earn-learn apprenticeships @ $25K: $3M
40 disc. learning apprenticeships @ $50K: $2M

Faculty (endowments)

10 professorships @ $500K: $5M
8 chairs @ $2M: $16M
10 fellowships @ $100K: $1M

Total for People: $47 million
Goals for Places

New Buildings

- Systems Biotechnology (goal outside engineering)
- Aerospace & Energy Systems $14M
- Geosciences (goal outside engineering)
- Integ. Teaching & Learning Lab (Phase 2) $6M
- New Engineering Complex (Phase 1) $30M

Improved Utilization

- Specialized research facilities $1.5M
- Modern educational laboratories $1.5M

Total for Places: $53 million
Goals for Programs

Engineering for Global Society: $10M
• Materials Science & Engineering
• Bioengineering & Biotechnology
• Aerospace Systems Science & Engineering
• Energy Systems & Environmental Sustainability
• Computational Science & Engineering

Integrated & Discovery Learning: $15M
• Discovery, professional & service learning
• Integrated hands-on learning & design experiences
• International projects & experiences
• Honors, leadership & entrepreneurship programs
• Student support & community building
• K-16 engineering partnerships

College & Department Excellence Funds: $5M