Innovative Ideas From Innovative Managing Directors

Dr. Steve Midson, Managing Director
Center for Advanced Non-Ferrous Structural Alloys (CANFSA)
Colorado School of Mines
About Our Center

CANFSA currently has 2 sites:
• Lead Site – Colorado School of Mines
• Additional Site – University of North Texas
  – CANFSA was formed in 2011

CANFSA’s vision:
Become the premier place for research in the area of non-ferrous structural alloys
### IMD Targets

<table>
<thead>
<tr>
<th>Metric</th>
<th>Initial Status</th>
<th>Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>End of Year 1</td>
</tr>
<tr>
<td><strong>Membership</strong></td>
<td>9 members</td>
<td>12 members</td>
</tr>
<tr>
<td><strong>Funding from Membership</strong></td>
<td>$335,000</td>
<td>--</td>
</tr>
<tr>
<td><strong>Outside Research Funding (Grants)</strong></td>
<td>None</td>
<td>$200,000 for 3-year project</td>
</tr>
<tr>
<td><strong>Employment of Graduating Students by Members</strong></td>
<td>--</td>
<td>33% of graduating students will be hired by CANFSA members</td>
</tr>
<tr>
<td><strong>Outcome of Survey to Quantify Value of Center to Members</strong></td>
<td>N/A</td>
<td>10% improvement in satisfaction over baseline survey</td>
</tr>
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IMD Vision

• Hired two researchers as co-managing directors
  – Researchers have international reputations in the field of non-ferrous alloys
  – Dr. Steve Midson – Managing Director
  – Dr. Bob Field – Assistant Managing Director

• Managing directors are capable of holding in-depth technical discussions with potential members
  – Identify their research needs
  – Construct research efforts that meet these needs

• Each managing director works about 33% time
Background of IMDs

Dr. Steve Midson
• Ph.D. in metallurgical engineering
• More than 30 years industrial experience
  • Small businesses, large corporations, trade association
• Currently runs a consulting company

Dr. Bob Field
• Ph.D. in metallurgical engineering
• More than 30 years industrial and laboratory experience
  • National Lab, large corporations
• Recently retired from Los Alamos National Lab
# IMD Status – After 16 Months

<table>
<thead>
<tr>
<th>Metric</th>
<th>Initial Status</th>
<th>Target - End of Year 1</th>
<th>Actual Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership</td>
<td>9 members</td>
<td>12 members</td>
<td>13 members (6 new members)</td>
</tr>
<tr>
<td>Funding from Membership</td>
<td>$335,000</td>
<td>--</td>
<td>$399,000 (20% increase)</td>
</tr>
<tr>
<td>Outside Research Funding (Grants)</td>
<td>None</td>
<td>$200,000 for 3-year project</td>
<td>$453,000</td>
</tr>
<tr>
<td>Employment of Graduating Students by Members</td>
<td>--</td>
<td>33% of graduating students will be hired by CANFSA members</td>
<td>1 of 4 graduating students has been hired by a CANFSA member</td>
</tr>
<tr>
<td>Outcome of Survey to Quantify Value of Center to Members</td>
<td>N/A</td>
<td>10% improvement in satisfaction over baseline survey</td>
<td>13% improvement in satisfaction over baseline survey</td>
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Managing Directors’ Focus

• Identify new members
• Retain current members
• Increase level of contact between students and members
• Improve members’ satisfaction in Center
Identify New Members

• *Potential members are not aware of CANFSA*

• Identified a list of potential members
  
  – Networking
    
    • Site directors & faculty
    
    • Managing directors
    
    • Members
      
      – Utilized a trade association database containing contact information of about 20,000 metallurgists

• Directly contacted at least 50 companies
  
  – Hold videoconference sales presentations with potential members
Identification of New Members

• Timing is important
  – Large corporations
    • Need to put funding into next years’ budget
    • Be aware of budgeting schedule for target companies
  – Small businesses
    • Can make decision any time
  – Government Labs
    • Often have funds left over at end of financial year
    • August/September
Retain Current Members

- *Increase level of involvement of members in center activities*

- In between the 6-monthly IAB face-to-face meetings
  - Initially held monthly videoconferences on each project
  - Students present recent results
    - Found that monthly was too often
  - Currently have student videoconference presentations about 3 months after IAB meetings
    - Encourage people other than just IAB members to participate
Retain Current Members

- Need to perform projects of interest to members
  - Initial Center projects were suggested by faculty
- Just finished a 6-month process to identify new projects
  - Collected project ideas from members and faculty
  - Received 31 separate ideas
- Via voting and videoconference discussion
  - Reduced to 11
- Identified industrial & academic champions for each project
  - Presented proposals at fall IAB meeting
- IAB voted to define priority

Top 7 projects were all suggested by members
Retain Current Members

• *Increase level of contact between students and members*

• Established an industrial mentor for each project
  – Mentor’s role described in written instructions
    • Assist faculty members in advising students
    • Communicate with their students on a monthly basis
    • Assist students in establishing project goals
    • Help students learn program management practices

• Encouraging internships at members’ facilities
Logic Model

• Establishing a logic model was an arduous experience
  • Time consuming
  • Painstaking

BUT

• Forced directors to think about how to achieve goals
  • Made detailed analysis of resources & activities
  • Identified innovative tactics to meet objectives
  • Determined appropriate progression of tactics in out-years
“Final Words of Wisdom”

• Treat I/UCRC like a business
  – Sales is most important
  – Once you have obtained members
    • Exceed their expectations
Summary

• Managing director’s focus
  – Identify new members
  – Increase members’ participation and satisfaction in the Center
    • Videoconferences
    • Solicit ideas from members regarding improvements in the Center
    • Student mentoring
    • Student visits and internships
    • Leveraged projects
    • Hiring of students