Community Engagement as Means of Ensuring Sustainability of Minerals Education

BY
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SDIMI 2015 CONFERENCE, VANCOUVER, 12-15 JULY 2015
Presentation Outline

- Community Engagement
- Triple Helix Approach
- Strategies for Community Engagement
- Conclusion
Triple Helix Approach

- For any country to develop technologically and economically there must be a strong link between its industry, government & academic institutions.

- All courses & programmes offered by such institutions derive their relevance from the needs of the nations they serve, and hence should promote development of existing and also new industries.
Universities should become increasingly valued by their local communities and less
  ◦ intimidating,
  ◦ elitist and
  ◦ impenetrable.
By looking ‘beyond the ivory tower’, universities can help to build a learning and knowledge based society for the many not just the few
The term “community” is sometimes used to refer to
  ◦ a geographical community
  OR
  ◦ it may refer to a “community of interest”.
Community Engagement

- Service learning: Already incorporated (Work integrated learning)

- Skills based volunteering
  1. What skills do we have---what are the needs of communities near us
     - Taking university to the people
     - People coming to the University
  2. How can we best serve them
     1. Mentorships---mentee formats
     2. Respect each other
Factors affecting the sustainability of minerals education

1. Funding covering the essential needs
2. Quality and quantity of academic staff
3. Quality and quantity of students enrolling
4. Alliances and partnerships
5. Well developed and dynamic curricula.
6. Sound infrastructure
7. Number of graduates matching the needs of the mining and related industries
1. Enhancing research capacity and develop wider expertise in the niche areas
2. Enhancing departmental visibility
3. Expanding resource base
4. Enhancing teaching & learning
5. Human capital development
6. Community service
7. Promoting interpersonal relations
8. Internationalisation
Strategies for Community Engagement

- Symposia and Workshops
- Government
- Career Guidance
- Final Years Project
- Advisory Board
- Teaching and Learning
Mineral Education Strategies being used by the DMPE

- Long and short term secondment of professors
- Secondment of industry staff to teaching & vice versa
- Internships & excursions

- Engaging industry
- Conferences
- Promotional material and branding
- Carry out social outreach programmes

- Industrial related projects
- Student projects
- Joint research
- PhD research work

- Funding from industry
- Funding from government
- Raising funds through short courses for industry
## Goal: Enhancing Departmental Visibility

<table>
<thead>
<tr>
<th>Strategic Objectives</th>
<th>Strategic Actions</th>
<th>Outcomes</th>
<th>Performance Indicators</th>
<th>Responsibility</th>
<th>Target</th>
<th>Budget N$/ year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement with the mining industry</td>
<td>Invite mining industry captains when students are presenting their final year projects</td>
<td>Increased participation of industry in the departmental activities</td>
<td>Percentage of Industry leaders present at presentations</td>
<td>HOD &amp; Staff</td>
<td>2014--40%</td>
<td>60 000</td>
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<td></td>
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<td></td>
<td>2016--50%</td>
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<td></td>
<td>2018--60%</td>
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<tr>
<td>Host conferences or symposia involving industry and partners</td>
<td></td>
<td>Increased visibility and exposure</td>
<td>Frequency of the conferences/symposiums held</td>
<td>HOD &amp; Staff</td>
<td>Once per year</td>
<td></td>
</tr>
<tr>
<td>Form a PoN Mining and Metallurgy Alumni Society</td>
<td></td>
<td>Improved networking</td>
<td>Percentage of graduates subscribing to the society</td>
<td>Staff</td>
<td>2014--100%</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>2016--100%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2018--100%</td>
<td></td>
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<tr>
<td>High schools outreach</td>
<td>Conduct career guidance sessions in high schools</td>
<td>Increased awareness of the department's existence</td>
<td>Number of schools visited</td>
<td>Staff</td>
<td>10 schools per year</td>
<td>30 000</td>
</tr>
</tbody>
</table>
### Expanding the Financial Resource Base

**Strategic Objective: Sourcing of Funds for the Department.**

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<th>Responsible</th>
<th>Target</th>
<th>Budget (N$)/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seek corporate sponsorship and support</td>
<td>Financial support from industry</td>
<td>Number of donations from corporates</td>
<td>HOD, Dean, Marketing</td>
<td>N$500 000</td>
<td>60 000</td>
</tr>
<tr>
<td>Generate additional income through short courses</td>
<td>Financial stability course packages</td>
<td>Amount of money generated through: Short courses</td>
<td>Senior Staff</td>
<td>2014— N$ 200 000, 2016— N$ 300 000, 2017— N$ 400 000, 2018— N$ 500 000</td>
<td>80 000</td>
</tr>
<tr>
<td>Obtain funding for appointment of professorial chairs</td>
<td>Financial sustainability and staff retention</td>
<td>Professorial chairs in: Minerals Processing /Hydrometallurgy Mining Operations</td>
<td>HOD &amp; Staff</td>
<td>2016— 1 Professorial chair, 2018— 2 Professorial chairs</td>
<td>100 000</td>
</tr>
<tr>
<td>Generate additional income through short term consulting, testing and analytical services</td>
<td>Meeting private and public needs</td>
<td>Amount of money generated through consultancy, testing &amp; analytical services</td>
<td>Senior Staff</td>
<td>2015— N$ 300 000, 2016— N$ 500 000, 2017— N$ 800 000, 2018— N$1 500 000</td>
<td>70 000</td>
</tr>
</tbody>
</table>
# Positive Social Contribution

## Community Service:
**Strategic Objectives: Positive Social Contribution**

<table>
<thead>
<tr>
<th>Strategic Action</th>
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<th>Responsibility</th>
<th>Target</th>
<th>Budget (N$)/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop and implement small scale and trades improvement programmes</td>
<td>Improved skills</td>
<td>Number of programmes developed and implemented</td>
<td>HOD, Staff</td>
<td>1 every two years</td>
<td>100 000</td>
</tr>
<tr>
<td>Carry out social outreach programmes</td>
<td>Increased awareness</td>
<td>Number of interactions with society.</td>
<td>HOD, Staff &amp; Students</td>
<td>1 per year</td>
<td>50 000</td>
</tr>
</tbody>
</table>

### Strategic Objective: Mathematics and Science improvement Programme

<table>
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<th>Strategic Action</th>
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<th>Responsibility</th>
<th>Target</th>
<th>Budget (N$)/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct mathematics and science competitions</td>
<td>Improved mathematics and science performance</td>
<td>Number of competitions</td>
<td>HOD, Staff &amp; Students</td>
<td>1 per year</td>
<td>25 000</td>
</tr>
</tbody>
</table>
The Student & Staff Experience

Building the Road as we Walk it

The Enriching Journey so Far
Research niche areas identified after discussion with the industry
Student Experience (Berg Aukas)

Helping the community
Short Course: Ministry of Environment & Tourism

Participants

Start of the course

Active Learning

Active Auditing
Student Experience

Excursions

Guest Lecturer
School Outreach & Quiz
Teaching Alliances

- Namibians: 14%
- Local Industry: 14%
- SADC: 27%
- Australia: 9%
- Europe: 36%
Student Experience
Internationalisation
Final year student projects

- Presentations to the outside community: Part of a drive to interact with key industry partners
- Creates an enabling environment for the Department to market the students to industry leaders.
- Industry Related projects have become an important part of the DMPE community’s engagement.
Final Year Project Presentations
Industrial Advisory Board

- Oversight role in curriculum development and ensuring a strong interaction between the department and the mineral industry.

- Industry being involved in the value chain for producing “mineral industry ready” graduates.

- The involvement of the minerals industry as advisors will also allow the timeous provision of feedback to the university for improvement.
We need each other

“If I have seen further it is by standing on the shoulders of giants”

Sir Isaac Newton, in a letter to Robert Hooke, 5 Feb. 1675/6

CONCLUSIONS

➢ For any country to develop technologically there must be a strong link between its industry, government and academic institutions.

➢ Community engagement can bring lasting solutions to the various problems plaguing the communities.

➢ Win-Win Outcomes

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Musiyarira S, 2007. *Shape Zimbabwe report*
