

# Industry-Focused Research

**Science Community of Practice**

March 5<sup>th</sup> 2014

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# Yukon College - Yukon Producers Group

## A joined venture...

Trigger: **Producers recognized the need to advance environmental practices**

- Joint funding application
- Jan 2013: Industrial Research Chair
- Research on environmental remediation technologies



ALEXCO



ACCESS



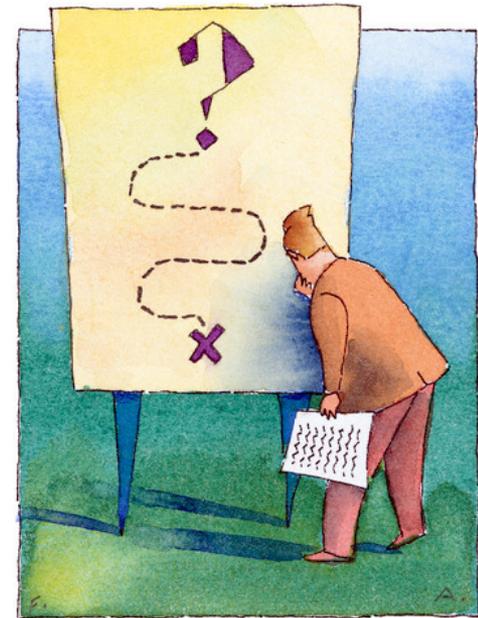
# Industry-Focused Research

## Industry-focused research: collaborative, applied approach

- Industrial commitment: funding and time
- Academia commitment: listen!

Applied research:

**“do not look for problems, look for solutions”**



# Industry-Focused Research

- Industry-academia commonalities
- Industry-academia differences
- Collaboration tips and tricks
- Benefits



# Academia-Industry commonalities



- **Shared goals:** Advancing Yukon environmental practices
  - Collective determination
- **Identical background:** Environmental science
  - Easy communication
- **Dedicated individuals**
  - Work gets done



# Academia-Industry differences

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	<b>Industry</b>	<b>Academia</b>
<b>Results timelines</b>	Short-term	Long-term
<b>Report to</b>	<ul style="list-style-type: none"><li>- Investors</li><li>- Regulators</li><li>- Local community</li></ul>	<ul style="list-style-type: none"><li>- Research funders (NSERC)</li><li>- Industry</li><li>- Researcher community</li></ul>
<b>Budget</b>	Variable, driven by metal commodity prices	Fixed, no freedom of budget allocations
<b>Perception</b>	Challenging	The good stories...

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# Academia-Industry differences

## Public perception

### Mining industry

Bad stories gets the attention from  
Media:

“Faro environmental disaster”  
“dam failure”  
“miners trapped underground for days,  
rescued”

### Researchers

Media release only the **good stories**:

New discoveries  
Interesting facts  
Researchers accountability

A green chalkboard with the text "Lessons Learned" written in white chalk. The text is centered and written in a casual, hand-drawn font. The chalkboard has a white border and a slight shadow.

Lessons  
Learned



# Lessons learned: Respect differences

- Lesson #1: Be aware...
  - Example: huge difference in public perception
- Lesson #2: Teach each other...
  - Business/investors
  - Research funders
- Lesson #3: Respect
  - Public perception example: communicate with partners before information is going out to the public scene
  - Help researcher fulfill engagements toward the funders



# Lessons learned: Communicate

- Lesson #4: Busy people, busy schedules
  - Researcher: limit the amount of ‘research’ details
  - Industry: pay attention to the ‘non-urgent’ research
- IRCC/partners communication:
  - Quarterly meetings (scheduled in Outlook calendar!)
  - Present clear objectives (“value proposition”, “hypothesis”)
    - Research plan
    - Project proposals
  - 1-page updates, monthly.
  - Results sharing (not yet found the perfect system...)



# Lessons learned: Adapt

- Lesson #5: risk management
  - Industry = result-based
    - Needs specific results at specific times, etc...
  - Research uncertainty, “unknown” paths
    - Some research objectives are more “risky” than others
    - Results from the “risky” research are hard to plan

→ Find a balance between the “risky” research and the “safe” research to satisfy both, industry and researcher
- Lesson #6: scheduling
  - Researcher: risk management helps with research planning and overall timelines
  - Industry: be patient



## Lessons learned: Be flexible

- Lesson #7: be flexible
  - Research = slow, long planning process
  - Industry = fast-paced environment

→ Changes in priorities happens - Being flexible is key.

Note. Instead of tightly-focused, tightly-planned research, be prepared for changes.

Experimental designs covering a wider array of testing helps.



# Collaborative research benefits For the researcher

- Practical benefits: funding
- And many other benefits...
  - Much better understanding of the context
  - Keep on track
  - Access to expertise and equipment (and nice playground!)
  - Applicability of the research findings
  - As an environmentalist: the feeling of “making a difference”
  - Career satisfaction



# Collaborative research benefits For the industrial partner

- Solutions to industry related problems and/or project specific problems
- Solutions that can increase companies profitability (e.g. increased efficiencies, cost reduction)
- Allow for permitting of a project to advance
- Establishing relationships and contacts in the scientific community
- Improve company image in community
- Increase profile of company with its clients/ potential clients
- Increase companies cachet with respect to its employees or prospective employees (i.e. recruitment and retainment benefits (i.e. interesting research projects, opportunity to learn and be mentored)

## Industry-Focused Research

*“Be forward thinking in areas of  
research to the expertise the world needs ”*

*(Yukon College strategic plan)*

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