

# Proposal for Evaluation of the



## MITACS ACCELERATE PROGRAM

PEAK  
EVALUATION



# THE PEAK TEAM

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# OUTLINE

1. Overview of Mitacs Accelerate
2. Evaluation Approach
3. Data Collection and Analysis
4. Challenges & Risks
5. The Peak Promise



# PROGRAM NEED

## Problem

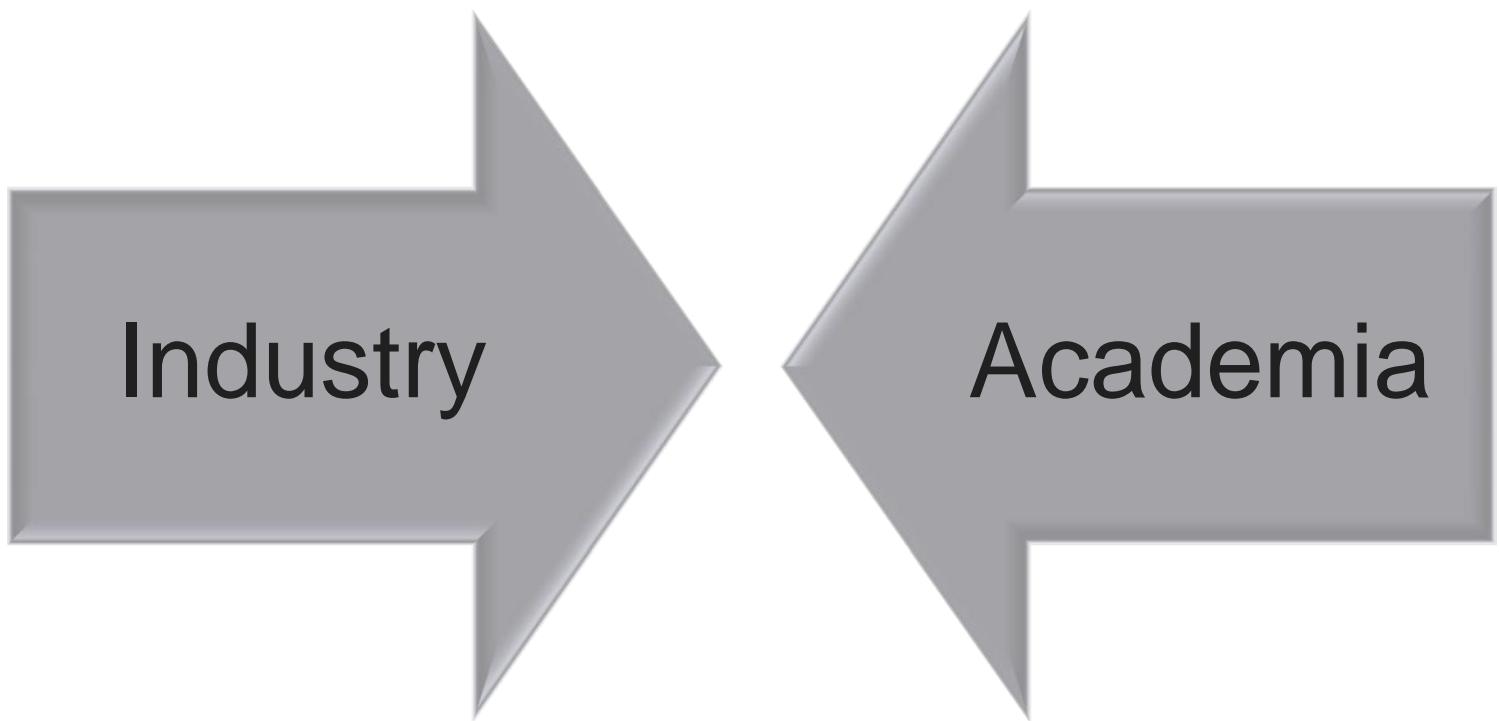
- Canada lagging behind in innovation and labour productivity
- R&D not transferred into commercial applications

## Importance

Innovation → Productivity → Standard of Living



# MITACS ACCELERATE

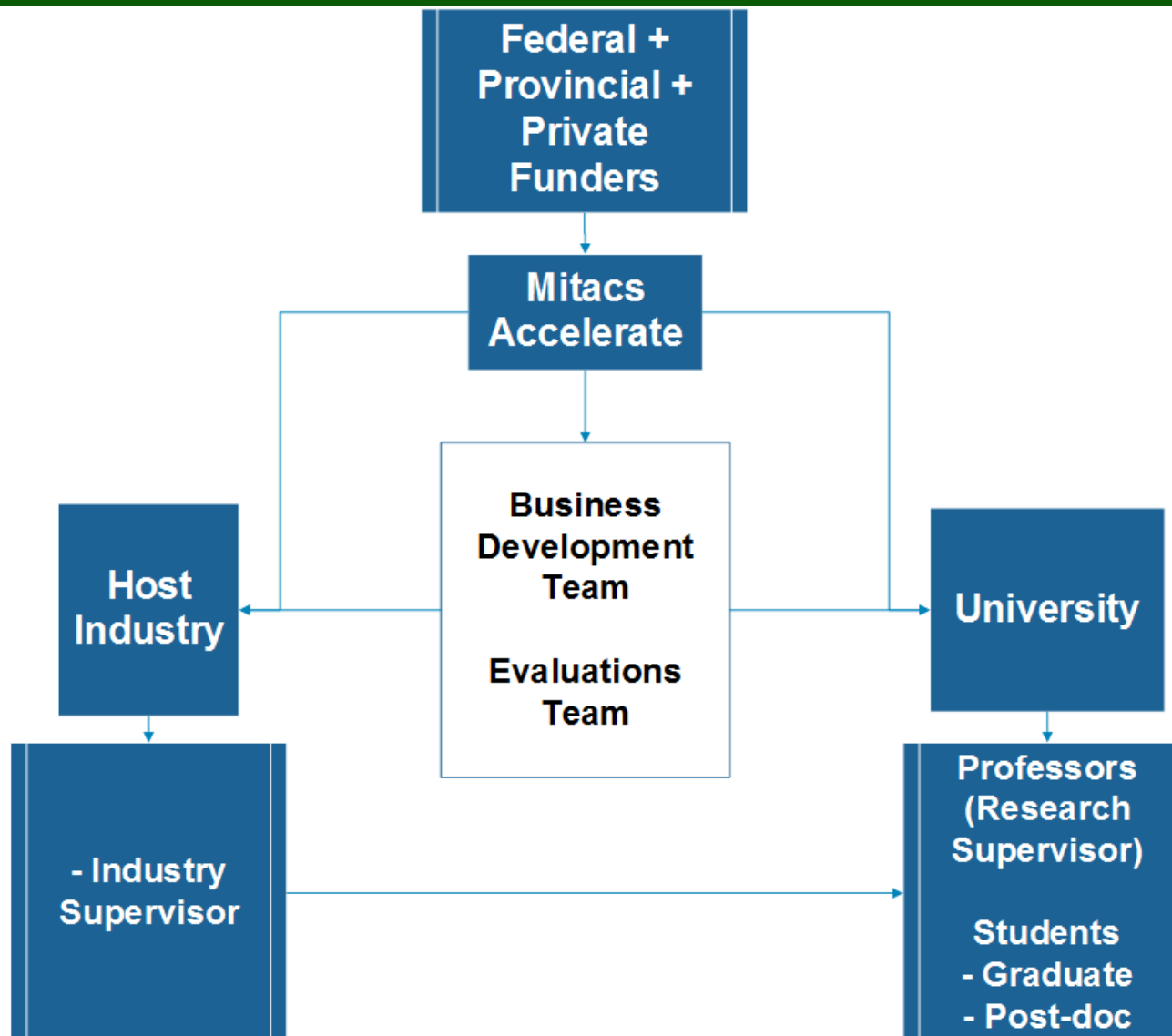




# MITACS ACCELERATE: OBJECTIVES

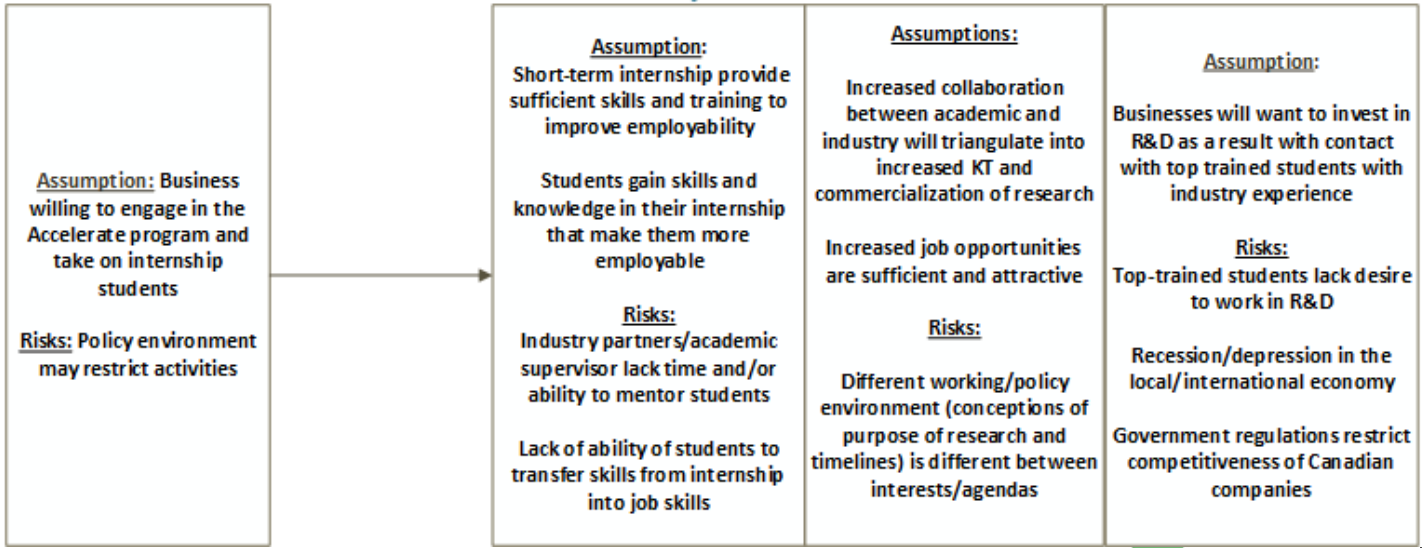
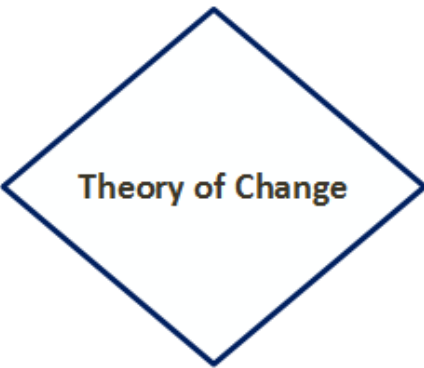
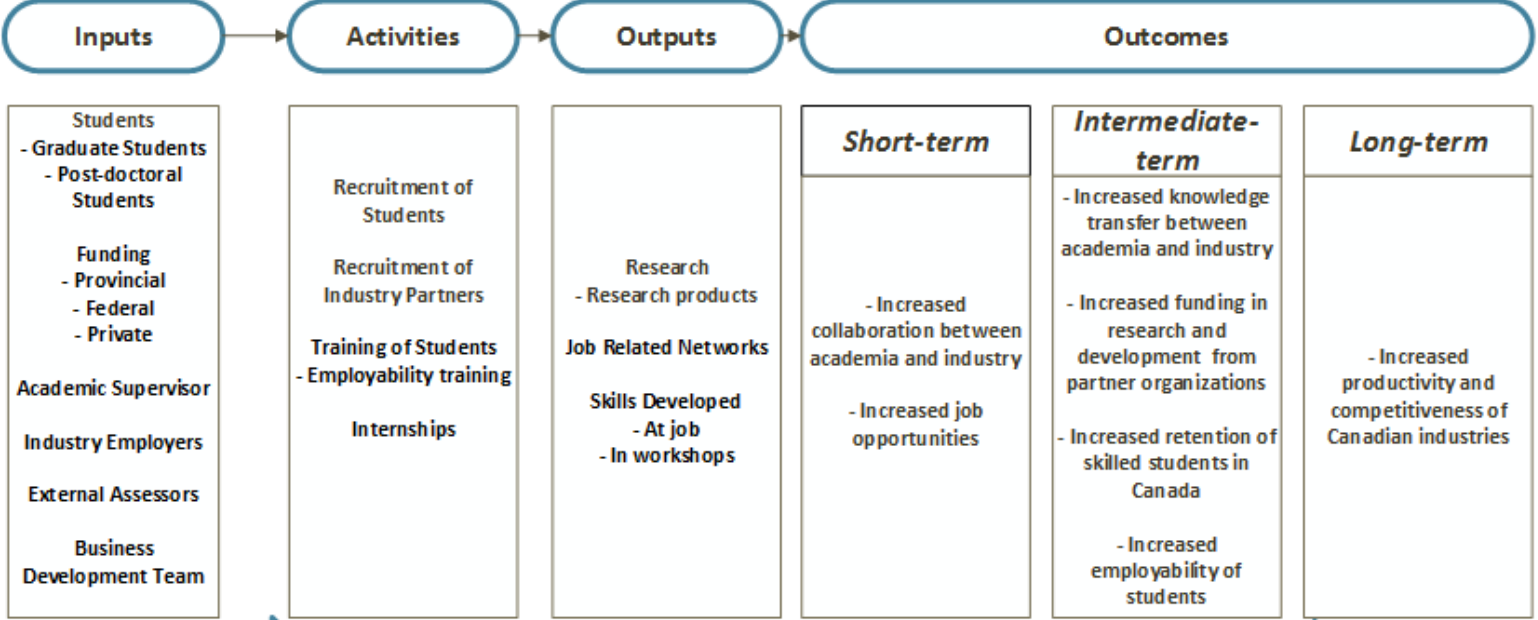
- Increase collaboration between academia and industry
- Improve interns' employability in their field
- Increase retention in Canada of interns after studies
- Increase industry's investment in innovation, R&D
- Contribute to Canadian productivity and competitiveness in global economy

# STAKEHOLDERS



# PROGRAM LOGIC MODEL

- ASSUMPTIONS**
- Funding from external sources remain
  - Program participants (industry, academia, students) remain engaged
- EXTERNAL FACTORS**
- Government policies
  - Regional/Provincial/ Sector specific job availability
  - Economic stability







# LOGIC MODEL

## ASSUMPTIONS

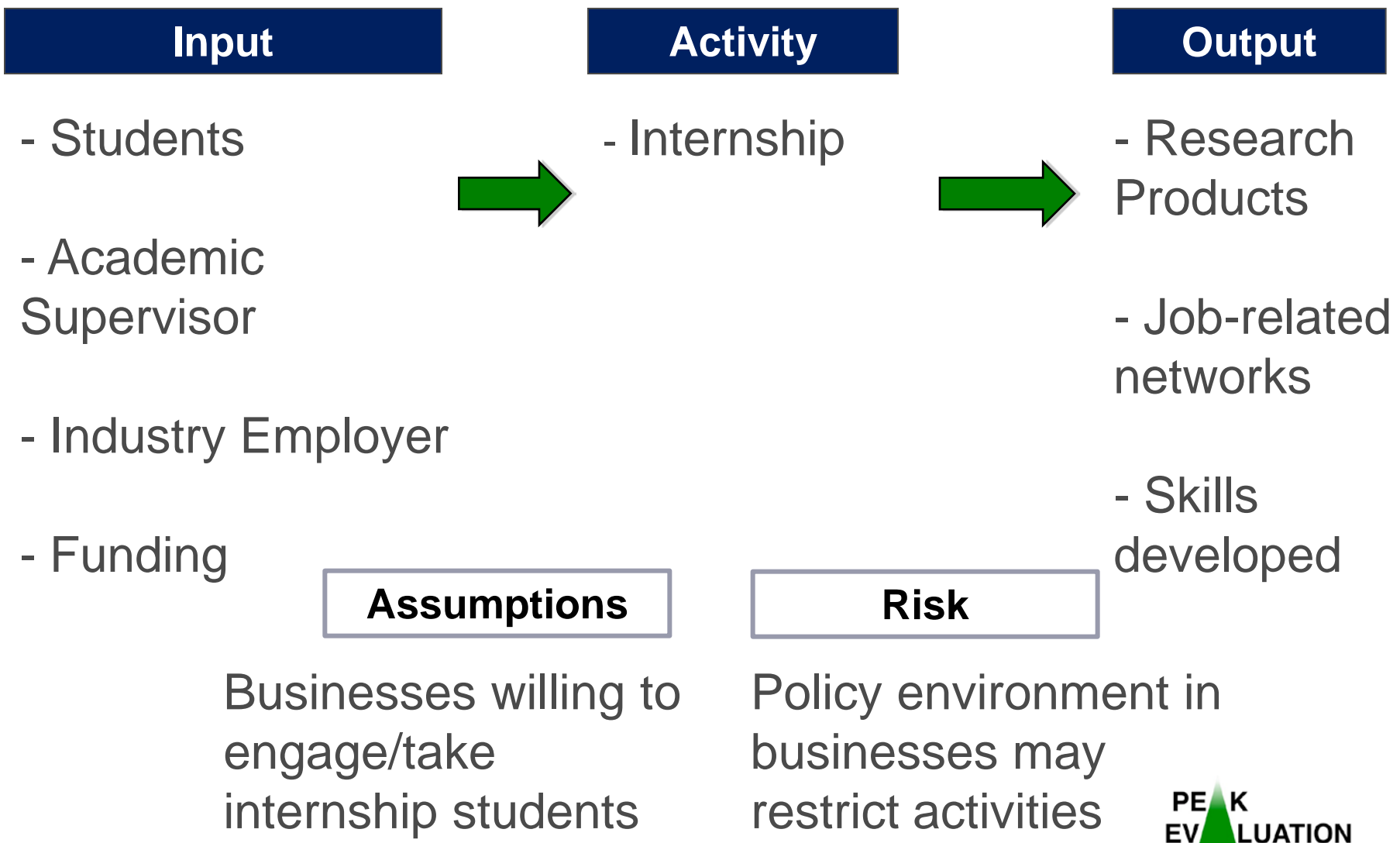
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## EXTERNAL FACTORS

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# LOGIC MODEL



# LOGIC MODEL

## Outcomes

### Short-term

- Increased collaboration between academia and industry
- Increased job opportunities

### Assumptions

- Short-term internship provide sufficient skills and training to improve employability
- Increased collaboration between academic and industry will triangulate into increased KT and commercialization of research

### Intermediate

- Increased retention of skilled students in Canada
- Increased employability of students

### Risk

- Industry/academic supervisors lack time/abilities to mentor students
- Top trained students lack desire to work in R&D

### Long-term

- Increased productivity and competitiveness of Canadian industries



# EVALUATION OBJECTIVES

**Goal:** to determine the effectiveness of the Mitacs Accelerate Program.

1. Whether there is increased collaboration and knowledge transfer between industry partners and academia
2. Whether the Accelerate program is increasing employment and/or employability amongst graduate and post-graduate students in Canada
3. Whether the Accelerate program is increasing the productivity and competitiveness of Canadian industries



# APPROACH

- **Outcome evaluation**
- **Utilization-focused**
- **Equity focused**





# EVALUATION QUESTIONS

## Collaboration

- Did Accelerate increase collaboration and knowledge transfer between academia and industry?

## Job Opportunities

- Did Accelerate create job opportunities?

## Employability

- Did Accelerate improve employability?

## Retention

- Does Accelerate increase retention of domestic and international students?

## Investments

- Does Accelerate increase participation of organizations in research, development and innovation?

# EVALUATION MATRIX

**Q1: Did Accelerate increase collaboration and knowledge transfer between academia and industry?**

Indicators	Data Sources	Methods	Sample
# companies hosting internships # academic supervisors	Stakeholders – industry and academia	Interviews	Industry
# publications # patents # new spin-outs		Surveys	Academia

# EVALUATION MATRIX

## Q2: Did Accelerate create job opportunities?

Indicators	Data Sources	Methods	Sample
% interns hired by sponsor company	Stakeholders – interns	Interviews	Representative sample of interns
Employment within 6 months		Surveys	
Average salary			



# EVALUATION MATRIX

## Q3: Did Accelerate improve employability?

Indicators	Data Sources	Methods	Sample
Professional competencies gained  Skills alignment	Stakeholders – interns and industry	Surveys  Interviews  Focus groups	Representative sample of interns and organizations

# EVALUATION MATRIX

## Q4: Did Accelerate increase retention of domestic and international students?

Indicators	Data Sources	Methods	Sample
# Canadian/International grads working in Canada	Stakeholders – interns	Surveys	Representative sample of interns
# new contacts/networks			

# EVALUATION MATRIX

**Q5: Did Accelerate increase participation of organizations in research, development and innovation?**

Indicators	Data Sources	Methods	Sample
% organizations using project results	Stakeholders – industry	Surveys	Representative sample of organizations
% organizations that increase R&D investment		Interviews	



# DATA COLLECTION METHODS

Methods	Strengths	Limitations
Surveys	Easy to administer Can be anonymous	Social desirability bias Response rate
Focus Groups	Quickly generate a large quantity of data Interactive quality Rich data - on social norms, behaviours, opinions and attitudes	Highly subject to the composition of the group and facilitator's ability to moderate discussion Generalizability should be made with caution



# DATA COLLECTION METHODS

Methods	Strengths	Limitations
Key Informant Interviews	Very detailed information  Additional questions can improve responses	Time consuming  Social desirability bias  Small sample size
Document Review	Quick and cost-effective	Quality and comprehensiveness of the data may not be ideal



# ANALYSIS PLAN

**Focus  
groups**

**Interviews**

**Surveys &  
Document  
Review**

Grounded  
theory  
approach/NVivo

Thematic  
analysis/NVivo

Descriptive &  
inferential  
statistics/  
R software



# ANALYSIS PLAN

1. Thematic analysis

2. Grounded theory approach

Example. Anxiety regarding interviews

→ Create theme



# ANALYSIS PLAN

3. Descriptive statistics

4. Inferential statistics

Example. Employment within 6 months

→ Logistic regression





# SAMPLING STRATEGY

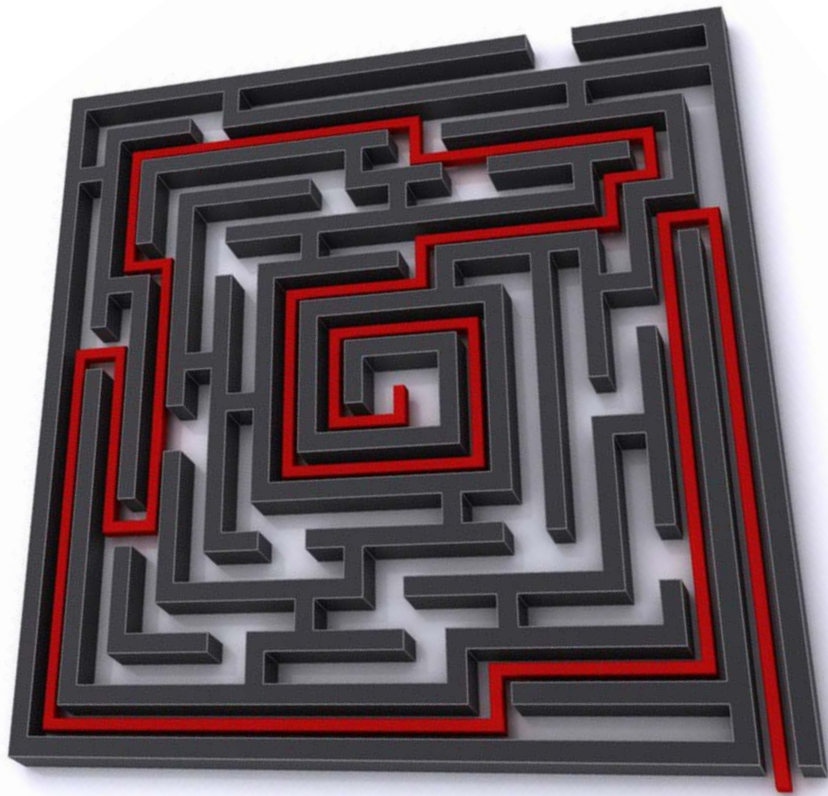
Stratified random sampling

→ Until saturation is reached

Matching

→ Through Universities

# CHALLENGES AND RISKS



- Buy In from Universities
- Dissonance of expectations
- Cross-national Validity



# THE PEAK PROMISE

- 3.2 Examines organizational, political, community and social contexts<sup>1</sup>
  
- 4.2 Attends to issues of evaluation feasibility<sup>1</sup>

<sup>1</sup>Competencies for Canadian Evaluation Practice



# THE PEAK PROMISE

1. Utilization focused
2. Attention to diversity of internal and external factors
3. Mitigating main challenges to measuring program outcome



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- Canadian Evaluation Society and Case Competition Funders
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