

# Implications of the Canadian Engineering Grand Challenges on Engineering Education

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The Canadian  
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Engineering



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# Implications on Education: Student Competencies



- The ability to design and create
- The ability to integrate and solve
- The value of business and innovation
- The practice of being multicultural and diverse
- Commitment to community
- Championing environmental stewardship

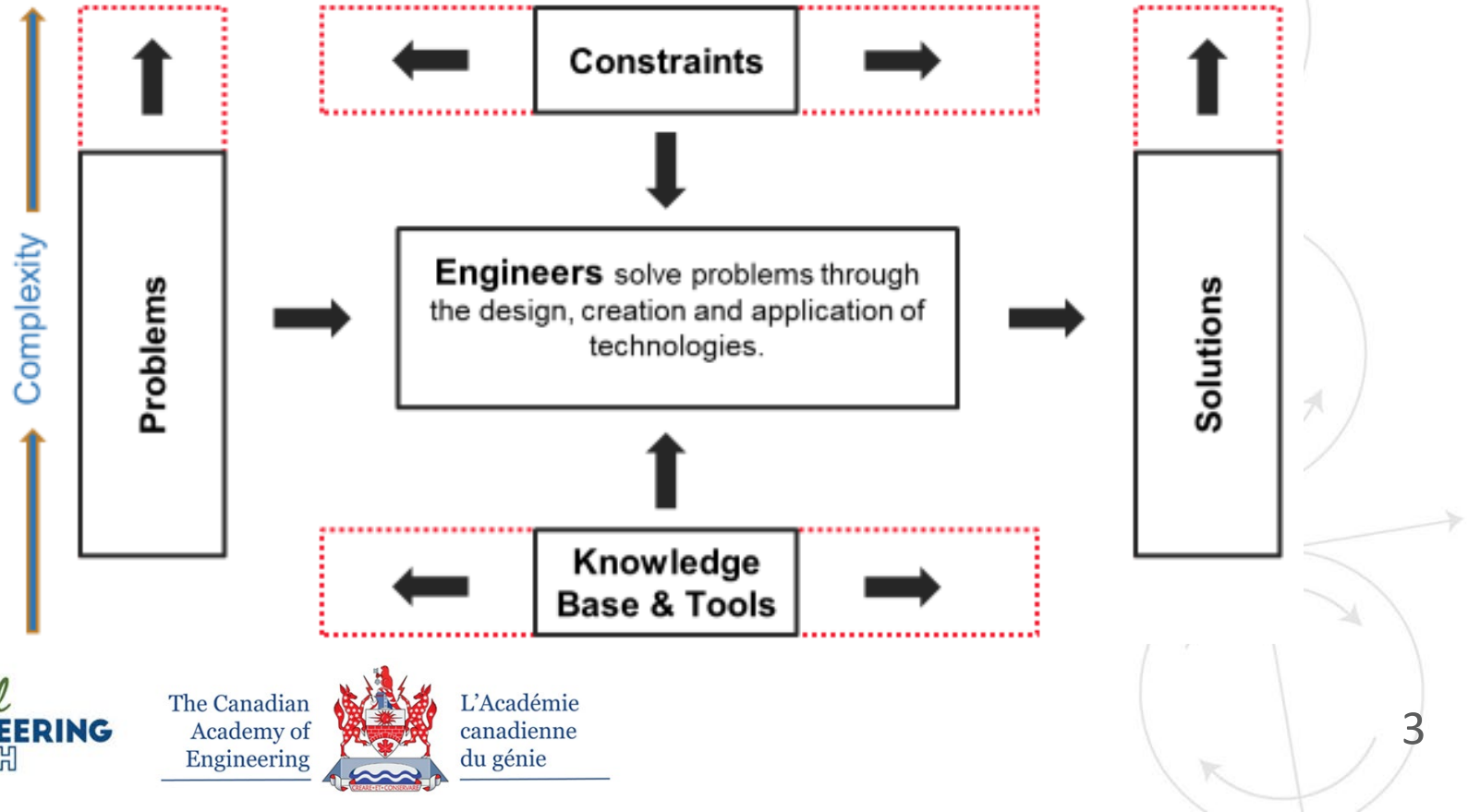


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# Implications on Education: Complex Problems



# Implications on Education: Knowledge Base



...this  
or this...

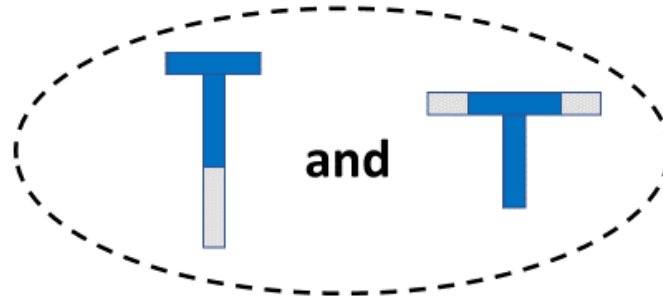


# Implications on Education: Interdisciplinarity

**Not:**



**But:**



# Implications on Education: Curricula & Programs



- Problem-based and project-based learning
- Cross-disciplinary teamwork with EDI focus
- B.Eng. programs: Reduced core with flexibility
- M.Eng. programs: Deeper or broader
- Ph.D. programs – Ad hoc, extra-disciplinary
- Inter-faculty & inter-institutional collaboration