



TRI-ASSOCIATION MANUFACTURING CONFERENCE

Changing education is like trying to move a
cemetery!

Belleville, Ontario
2013

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Post Secondary and Industry Relations History – Q 1

- Purpose for ACAATO 1967
- Disjointed and Disconnected
- Multi-mandated
- Ministry Migration – Strengthening OCCIK
- Productivity
- Lean and Quality
- Fluidity between us
- Innovation and Nimble
- Economic and Technology Realities
- Evolution not Revolution

The Revolution Continuum



Evolution

Revolution

Learning Institutions
Survival Not An Issue

Industry and Business
Survival is Everything

Impact of Technology on Delivery and Relations – Q2

- Private vs Public Sector
- Just in Time Technology = Learning?
- Forms of Simulations
- Integration (industry with learning – ownership)
- **Use Applied Projects – Out of lab and classroom**
- **Industrial and Manufacturing Relations Councils at College (IMRC)**
- Sponsorships

'Industry Need' Changing TED for PS Members – Q3

- Industry delivery to us for a change
- Integration of learning with industry
- **Understanding profitability/Accept Commercialization**
- **PS sector to accept influence by industry and business**
- Increased *Job Polarization* in Canada

TD Economic Jobs Study 2013 (Jobs in Canada
by DCE Burleton et al)

Trends in Education - Q4

- Blurring of Further vs Higher Education Divide
- **Youth Outmigration in Rural/Regional Settings**
- David Foot, population pyramid
- International students/credentials
- **Declining Tech Thinking in Feeder System**
- Declining Competence in Science and Math
- Declining Competence in Literacy
- **Innovation with Hierarchy**
 - *Can Industry fill these needs?*

Layering Impact of Communications Technology - Q5

- **Social Media and Digital Generation /vs Industrial Technology – Does it Mean the Same?**
- **Action based learning for technology**
- **Gen ‘Y’s – What is technology to Gen ‘Y’s**
- **Their Impact on Industry**
- **Over emphasized Tech Communications and under emphasized human inter – relational communications skill**



Why is Q6 Critical? Global Issues Driving Us! SME!

- **Academic Infrastructures in Decline**
- **STEM is downsizing when it needs to grow**
- **Hands on skills training is in decline in many sectors**
- **Students growing in adverse view of STEM**
- **Lack of modern equipment = resource shortages**
- **Outdated manufacturing curricula/not keeping pace with change**
- **Lack of hiring of tech and manufacturing educators**
- **2011 Deloitte 'The Manufacturing Institute 'At the Boiling Point?' – The Skills Gap in U.S. Manufacturing!**

Global Issues for Educational and Manufacturing Organizations – Q6

SME 2012 'Workforce Imperative – A Manufacturing Education Strategy' (SME)

- 1. Attract students to Tech & Manufacturing**
- 2. Strong STEM foundation (Science, Technology, Engineering and Math)**
- 3. Standard Manufacturing Accreditation/Certification**
- 4. Rebuild Manufacturing Curricula (OMREC - Create an 'Ontario Manufacturing Relations and Education Council')**
- 5. Introduce Key 'Manufacturing' Elements into STEM**
- 6. Secondments to Industry for Faculty**
- 7. Treat STEM + Manufacturing as a priority**

What We Are Doing?

- *College emphasis on Trades and Technology Education*
- *Proliferation of new T&T facilities at Ontario Colleges including Fleming and Loyalist*
- *Upgrading of existing equipment and training for faculty and staff*
- *Close relationships with School Boards and Stakeholders*
- *Partnership approaches to serving the sector better*
- ***MANUFACTURING ON THE RADAR SCREEN***

REFERENCES/RESOURCES

- **Conference Presenter's Topic Format and Questions**
- **People Without Jobs - Jobs Without People, Ontario's Labour Market Future, Miner Mgt Consultants**
- **Technology Enhanced Learning LivingLab for Manufacturing Environments**
- **Software & Information Industry Association - Innovation Awards**
- **Colleges Ontario - Focus on Priorities - 2013**
- **'Strengthening Ontario's Centres of Creativity, Innovation and Knowledge' MTCU - 2012**
- **Jobs in Canada, Where, What and For Whom?, TD Economics - Oct 2013**
- **Workforce Imperative: A Manufacturing Education Strategy, SME 2012**
- **A Report on the Financial Sustainability of Local Government in Eastern Ontario, The Eastern Ontario Financial Sustainability Update Project, EOWC, February 2012**