Canadian Society of Value Analysis

www.scav-csva.org

Overview

- About the CSVA
  - Objectives
- About Value Analysis
- VA Examples
- Opportunities

Meeting Objectives

- Inform Government of Benefits of Value Analysis to Ontario
- Suggest Opportunities for Ontario to expand use of Value Analysis

CSVA Mission

To promote the application of the value methodologies for the benefit of governments, industry, practitioners and society.

Hon David Caplan, Minister of Public Infrastructure, with Alain LeBlanc, CSVA President, 2004 Conference

History of CSVA

- Society founded in Quebec in 1993
- Founding members included Bombardier and other manufacturers, Hydro Quebec, the City of Montreal, local consultants and the provincial government.
- Blend of American and European approaches to value management.

Canadian VE/VA

- GE Hydro sponsored VE course at McGill c. 1973
- Professional Quantity Surveyors started using VE on building projects ~ mid seventies.
- Automotive and some manufacturing industries in Ontario ~ mid seventies
- Government use not wide spread until James Bay project ~ mid seventies and sewage and water treatment upgrade program in Quebec ~ 1980.
- Vancouver Island Highway ~ 1990
- Some Ontario municipalities start using VE on sewer and water projects ~ 1993
- MTO initiates VE program 1998.

Outreach

- Conferences
- Website
- VA Information and Assistance to Canadians
- Post-Secondary Institutions

Value Analysis is:

- A structured and systematic problem solving methodology
- A process designed to generate alternative solutions
- Applied in a workshop environment by a multidisciplinary team
- Value Engineering, Value Analysis, Value Management use same recipe

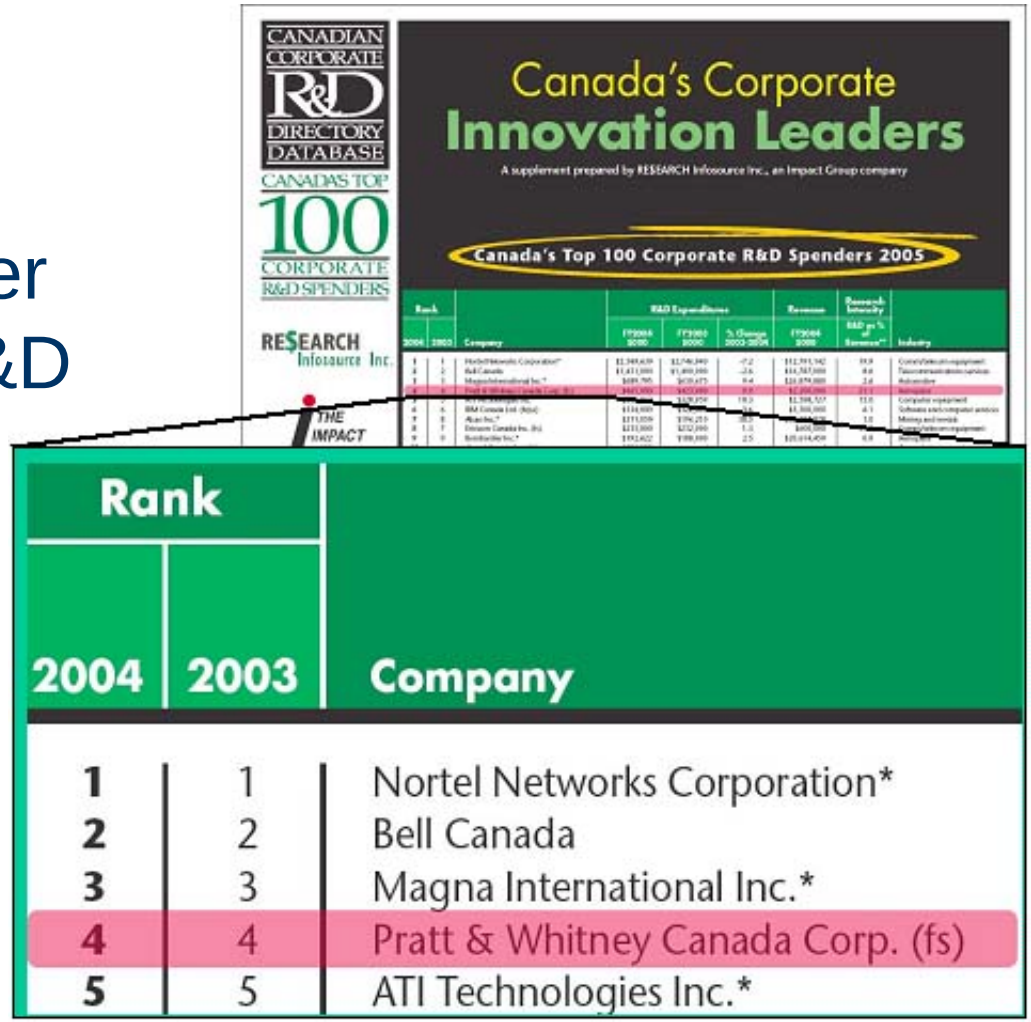
Who Uses VA?

Value Analysis is used in many sectors:

- Purchasing
- Construction,
- Manufacturing
- Engineering
- Service Industry/Health Care
- US Government
  - Department of Energy
  - State Department
  - Transportation
  - ….

Who Uses VA?

- Pratt&Whitney Canada
- Recognized Leader in Innovation & R&D Investments
- Invests in VE and help found CSVA



CANADIAN CORPORATE R&D DIRECTORY DATABASE
CANADA'S TOP 100 CORPORATE R&D SPENDERS
RESEARCH Infosource Inc.
THE IMPACT

Canada's Corporate **Innovation Leaders**

A supplement prepared by RESEARCH Infosource Inc., an Impact Group company

Canada's Top 100 Corporate R&D Spenders 2005

Rank 2004	Rank 2003	Company
1	1	Nortel Networks Corporation*
2	2	Bell Canada
3	3	Magna International Inc.*
4	4	Pratt & Whitney Canada Corp. (fs)
5	5	ATI Technologies Inc.*

(Image acquired from www.researchinfosource.com)

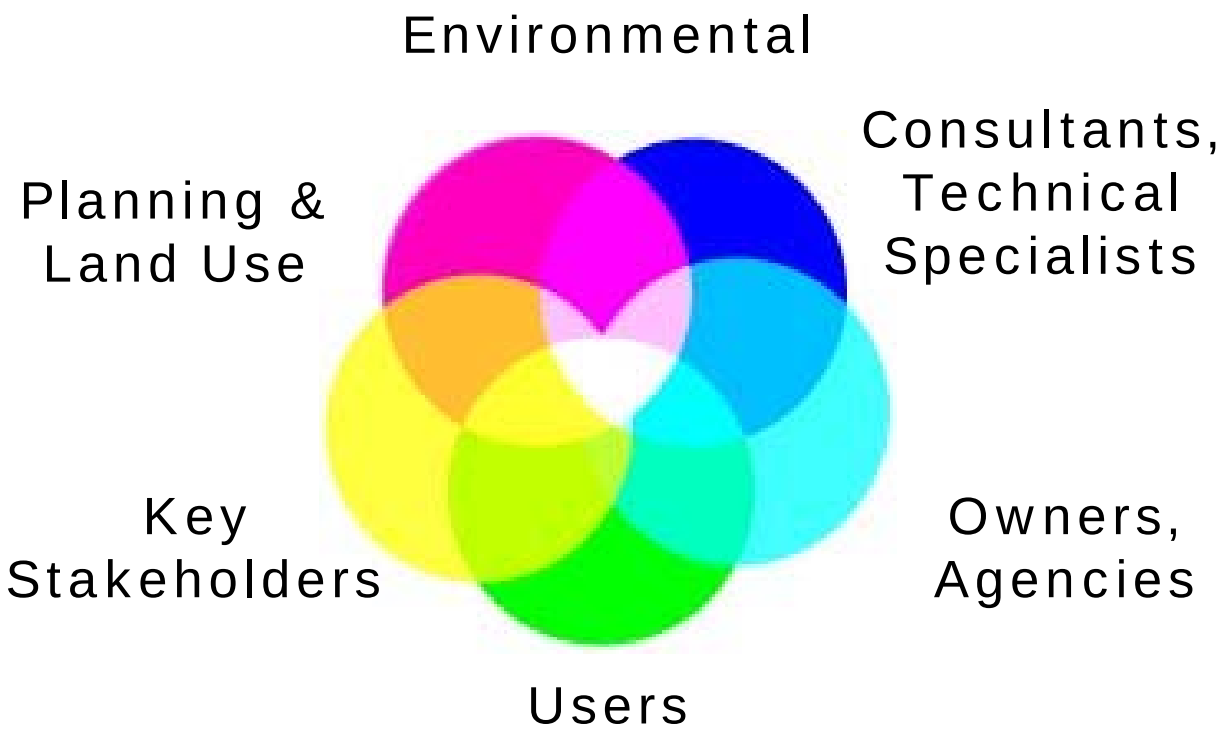
Jan 15, 2007

Benefits of VA

- Maximizes value for money
- Confirms that a project will achieve the right objectives in the most effective way
- Can reduce project cost
- Encourages a focus on life cycle costs
- Can be an additional opportunity for stakeholders to participate in the design process
- Improved communication
- Creates environment for innovation

Benefits – Building Consensus

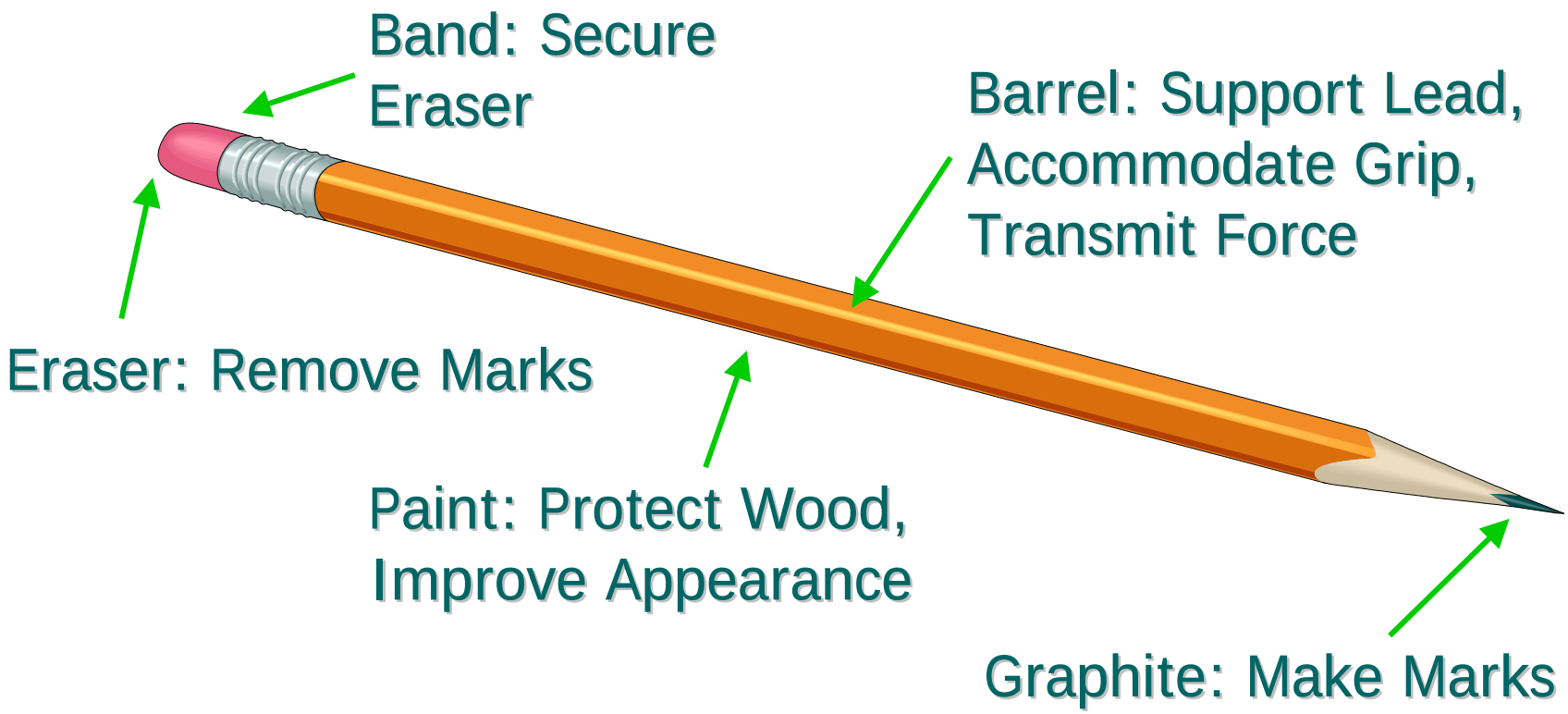
VA harnesses the creative powers of a group of people in harmony to achieve more than the sum total.



Workshop Job Plan

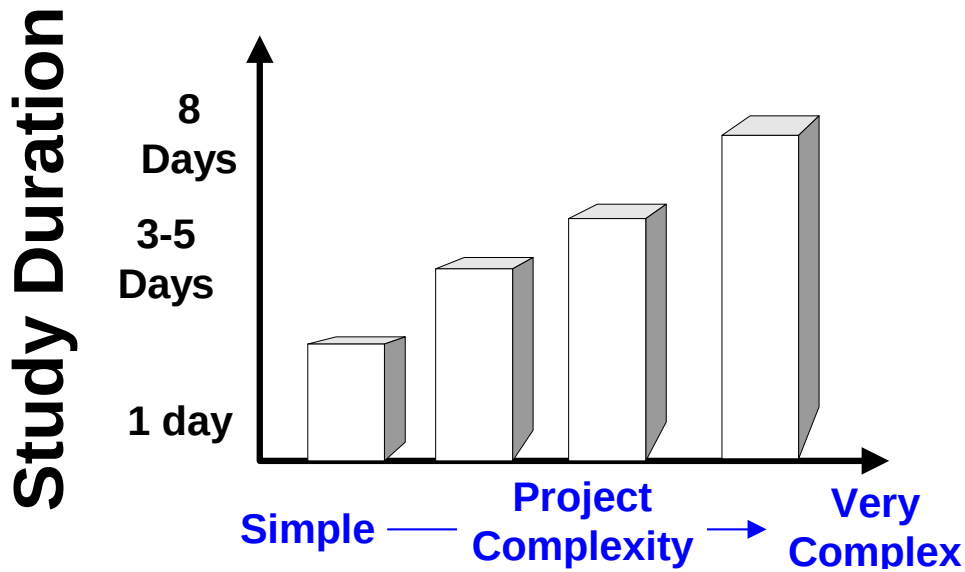
Heart of VA – Functions

Pencil: Makes Marks



What Does it Cost?

- Typical Study 3 -5 days
- Study costs depend on team size & preparation requirements but range from $40,000 to $100,000
- Easily Recover Costs



Results of VA Program

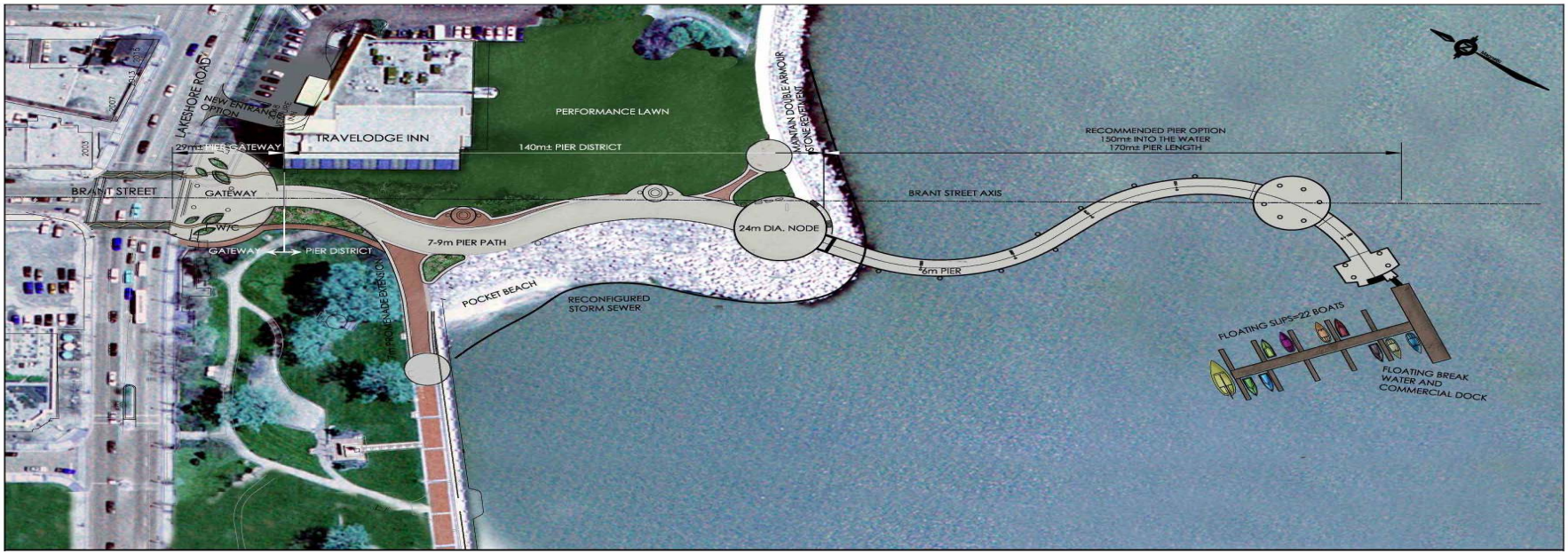
- Cost Savings
- Creativity, Innovation, Acceptance
- Competitive Tool

Success Story – Nuclear Power Plant

Pickering & Western Power Generation Waste Management Facilities

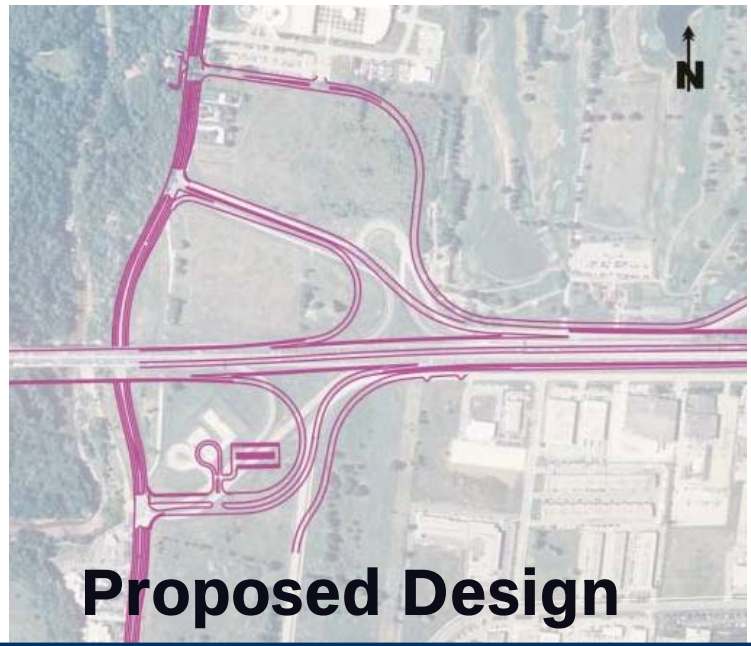
Project/Cost	Two Used Fuel Cell Dry Storage Cell Buildings $36M CDN (Add'l $144M for future buildings)
VE Target(s)	Thermal dissipation design criteria, operations, DSC storage pattern, building type
VE Benefit(s)	Increased inter-department cooperation/communications, reduced operational costs, improved RFP scope for Design/Build project

Success Story - Burlington Pier

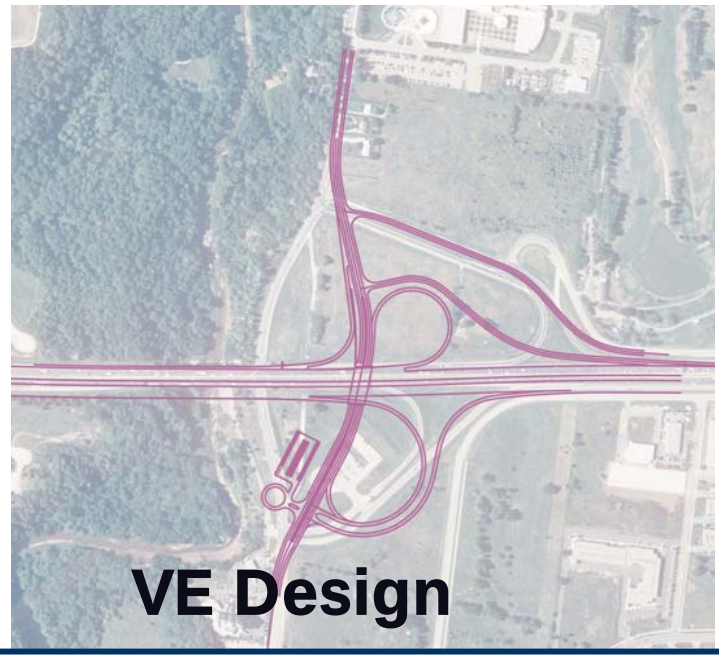


Project/Cost	Project tender ~ 100% over budget, project would not be built unless costs could be reduced.
VE Target(s)	Identify most valuable elements, reduce costs non critical elements (skewed pier supports)
VE Benefit(s)	Retained key elements and reduced the cost so that project would fit within funding element.

Success Story
QEW at Bronte Road



Proposed Design



VE Design

Project/Cost	Widen QEW by Twinning Bronte Creek Bridge Rehab Existing Heritage Bridge, Upgrade IC, $32 M
VE Target(s)	Bridge Costs, Ramp Terminals
VE Benefit(s)	Improved Performance with New IC Design, MTO, Halton agreement, better traffic flow, $ 200,000 cost increase.

Mid-Halton Wastewater Treatment Plan VE Results

- 11 major VE alternatives implemented
- 8 major design suggestions implemented
- Savings of over $2.8 million
- Review allowed for improvements related to:
  - Process alternatives; both capital and conversion of facility
  - Dewatering technology
  - Biosolids Building location

Benefit of Halton Water and Wastewater Value Engineering

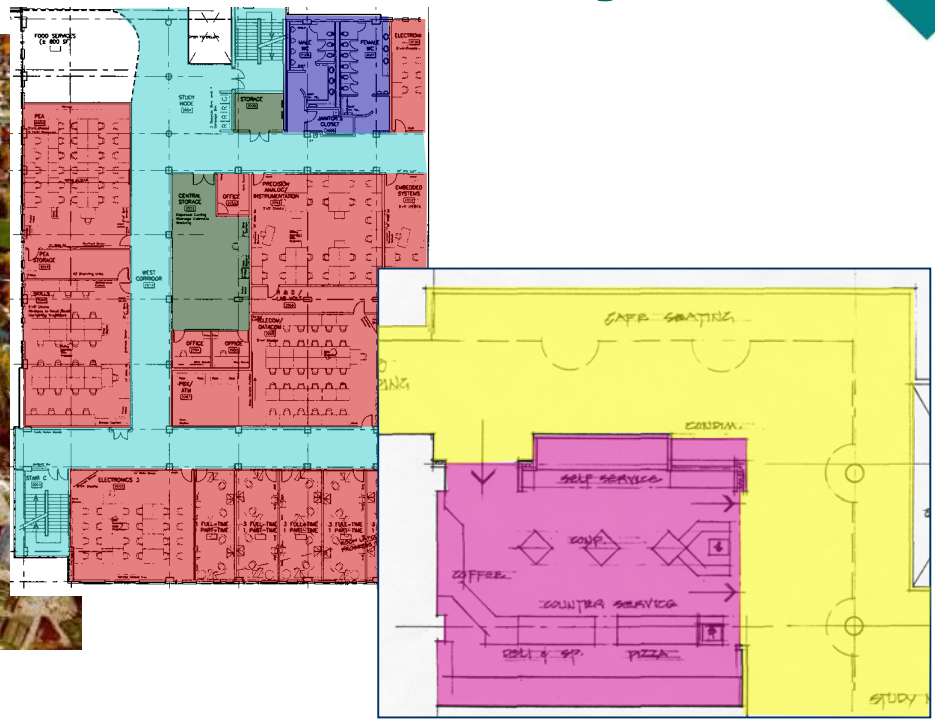
Optimization of Design with respect to Operation and Maintenance needs

Consideration and Incorporation of Community values.

Promote project “Buy-in” at all levels

Payback on investment 10 – 15 times

Success Story – Education Facility

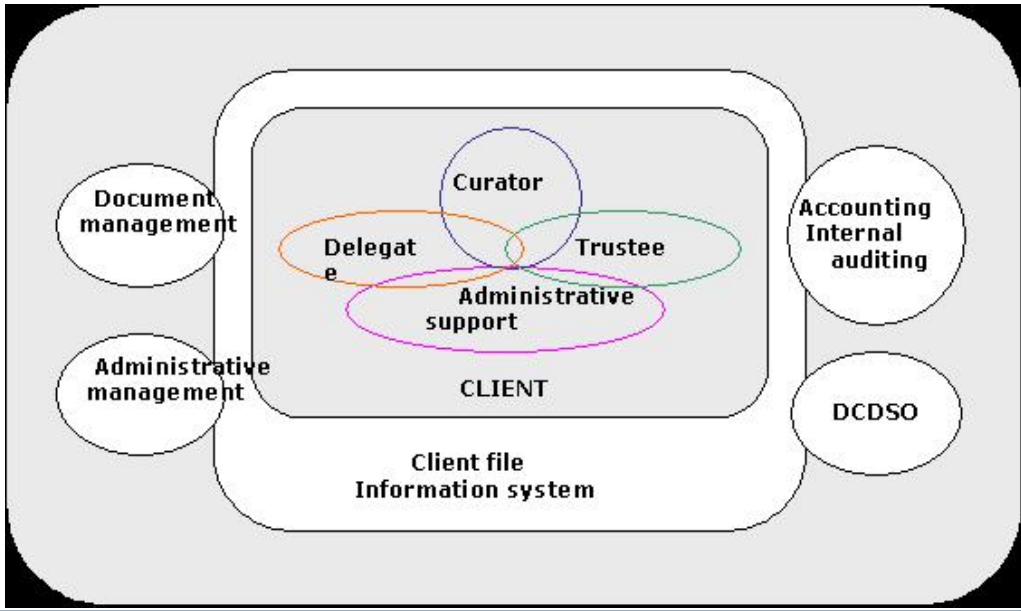


Algonquin College
Advanced Technology Centre – Food Services

Project/Cost	Revise the ATC design to include Food Services $100,000 CDN (excluding finishes)
VE Target(s)	Building program revisions required to accommodate Food Services; functional layout of Food Services
VE Benefit(s)	Increased space allocated to Food Services by relocation, improved patron flow within facility, improved adjacency to other patron areas

Success Story
Reform of the Public Curator of Quebec

Curateur public Québec



Project/Cost	Unfavourable reports by the Auditor General and Ombudsman, ministry in crisis
VA Target(s)	Developing an optimal organization, client needs, service levels, short term improvements,
VA Benefit(s)	Identified client needs, strategic functions, service levels, plan for an optimal organization, defined business processes and selected computer solution

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Value Improving Government Facilities

- Increase awareness of Value Analysis potential contribution in project delivery
  - Senior staff
  - Program level staff
- Develop training strategy
- Develop inter-agency & industry linkages
  - Knowledge/technology transfer
  - Education synergy
  - Experience benchmarking

Value Improvements for Ontario

- Increase awareness of Value Analysis to industry through:
  - Ontario Research and Innovation Council
  - …
- Increase awareness and encourage use through funding agencies
  - Public Infrastructure Renewal
  - Health, Education, Energy
  - Infrastructure Ontario
  - Ontario Clean Water Agency
  - ….
- Increase awareness and use of Value Analysis in business processes
  - Information Technology etc