

MANAGING PROJECTS BETTER

EVEN COMPLEX ONES



YVAN LAUZON, MBA

ISBN : 978-1999461461

FIRST EDITION published by YLA Formation inc. March 2019, via: www.share.institute

Soft copy: FREE & Hard Copy: 29.95 \$ CDN (24 \$ USD / 24 euros / 29.95 \$ AUD)

Cataloguing in publication.

**Bibliothèque et Archives nationales du Québec
and Library and Archives Canada.**

Lauzon, Yvan, author

Managing projects better, even complex ones / Yvan Lauzon, MBA.

Includes bibliographical references and index.

ISBN 978-1-9994614-6-1

1. Project management. 2. Leadership. I. Title.

LCC HD69.P75L384 2019

CDD 658.4'04

C2018-942299-8

PLEASE NOTE

The book format used herewith does not lend itself to footnotes, therefore the notes for each author contribution are found at the end of each document.

COPYRIGHT: All rights reserved. No part of this production may be reproduced, stored in a retrieval system or database, or transmitted, in any form or by any means, electronic, mechanical photocopying, recording or otherwise, without the written permission of:

Yvan Lauzon MBA, via: newmanagement2.0@gmail.com

* * *

This book was not designed for continuous reading; rather it can be used much as a reference document where various sections are pertinent to a situation. The sections are unique therefore skipping sections and/or coming back to anyone of them is just fine.



Yvan Lauzon MBA is an International advisor and a Contractual Professor (Lecturer)

Teaching actually various courses in Change Management (CM); Human Resources Management in Technological Environments (eHRM) and Project Management (PM) at the School of Public Administration, University of Quebec (ENAP-UQ).

Since 1987, he has been teaching part time in master's degree Programs in both Canadian and foreign based universities. Such programs would include: Master's in public administration (MPA); Master's in business administration (MBA) and Master's in project management (MPM). The main emphasis in recent years has been with respect to Change Management such as; eHRM; Project Management; IT Management; IT/IS Governance; Knowledge Management (KM).

Since 1981, he has also held various positions in both public and private organizations, including as; Assistant to the Chief Information Officer (CIO) of the Government of Quebec from 2006 to 2008; Coordinator of Training Programs in Project Management; IT Management; and Information Security from 2008 to 2012 (CSPQ-CLDC).

Yvan served as Consultant for international organizations; 1993-1996, United Nations: UN-CEFACT-WP4; 2006-2008, OECD. He was also quite active on Boards of directors of Professional Associations like; AAPI (Privacy) and PMI-Lévis Québec-GP-Québec (Project Management).

In terms of research, in 2009 he conducted a qualitative study on the success of public projects by interviewing 125 PM practitioners and 25 professors and researchers in PM. Complementary initiatives in 2012-2013, along with the assistance of Francophone Associations of practitioners the required skills for Project Managers were identified applicable to various types of projects. In 2013, Yvan was invited as keynote speaker at the Annual Forum, PMI France. He highlighted the important issues regarding non-technical skills (soft skills) with respect to Project Managers.

Recently, he co-authored three recent books in French relating to: Smart City; Collaboration in Project & Public bodies; Innovation in Governments. Abstracts and Articles are available in English, French and Spanish via: (www.smartconference.ca).

He created and financed different initiatives (Free Conferences & Web sites freely available worldwide) related to Innovation in Public Sector, as: (www.share.institute), (www.smartconference.ca), (www.climb.express), (www.smartconference.world). Finally, an international Tour is in progress (2018-2019) about the ***Required skills in 2020 for Project Managers Leader and their Managers***.

ABSTRACT

Projects can be classified as: Simple; Complicated; Complex and Disruptive Innovation project.

Projects referred to as complex are mostly those in various business sectors such as: Infrastructure constructions; Public buildings, road systems and interchanges, bridges; large scale Information System (IS or IT) projects and of course the Military and Health care projects.

Despite various opinions expressed about specific Public projects and further flashed and boosted ministerial press releases, a lot of these projects are not Simple or even Complicated, they are factually Complex, and they should be treated as such...

This collective work addressing the Best practices and Leadership applicable to Project Management represents the contribution of nine well-known authors in their respective domain of expertise from Belgium, Canada and France. Eleven sections cover the following topics:

- Types of Projects According to Degree of Complexity.
- Required Competencies for the Project Manager Leader.
- Learning in the Course of Project Development.
- Special Features Applicable to Public Organizations Versus Private Relating to Project Management.
- Communications & Relations Between Politicians & the Higher Levels of the Public Service Impacting Project Development.
- Evolution of Roles & Responsibilities of Public Administration Managers Facing an Increasingly More Complex Environment.
- Re-designing the Public Service in the Digital Age a Gigantic Task.
- Issues & Challenges Integrating Public Services.
- Ethical Issues Involved in Public Sector Complex Projects.
- Legal Issues Regarding Managing Complex Projects.
- Classify the Tools to Develop & Apply Collective Intelligence to Projects.
- Implementing Convergent Vision to Projects & Change Management.

Printed Copies of this eBook are available from **PUBLISHER DISTRIBUTOR:**
YLA FORMATION Inc. P.O. Box 24006, CSP POINTES, MONTREAL, CANADA, H1A 4Z2
newmanagement2.0@gmail.com

* * *

NOTE: The *Second edition* of this collective work will be published in June 2019 (ISBN: 978-1989364147), including supplementary documents, two INDEXES with over 300 keywords for fast retrieval. Also included references, articles and books.

Briefly, it is an updated version by over 30%.

Table of CONTENT

INTRODUCTION	7
1.. COMPLEXITY OF PROJECTS	9
2.. PROJECT MANAGER LEADER.....	17
3.. INDIVIDUAL, COLLECTIVE & ORGANIZATIONAL LEARNING	22
4.. PRIVATE & PUBLIC ORGANIZATIONS	26
5.. COMMUNICATION & RELATIONS BETWEEN POLITICIAN AND EXECUTIVE ADMINISTRATION	29
6.. EVOLUTION OF THE ROLES & RESPONSABILITIES OF MANAGERS FACING COMPLEXITY	36
7.. INTEGRATING PUBLIC SERVICES IN THE DIGITAL AGE: ISSUES & MANAGEMENT CHALLENGES	49
8.. ETHICAL MANAGEMENT OF COMPLEX PUBLIC PROJECTS.....	57
9.. LEGAL ISSUES IN COMPLEX PROJECT MANAGEMENT	67
10.. CATEGORIZING TOOLS TO DEVELOP COLLECTIVE INTELLIGENCE IN PROJECTS	96
11.. MANAGING CHANGE & PROJECT MANAGEMENT: THE KEY ISSUES RELATED THERETO	100
CONCLUSION & OUTLOOK.....	102
REFERENCES	104
FIRST READER REVIEW (POV)	105
INDEX.....	108
NUMERICAL INDEX OF THEMES COVERED	108
ALPHABETICAL INDEX OF THEMES COVERED.....	109

LIST of ADDENDUMS

- A. Terminology (Definitions).
- B. Typology of Projects: Simple / Complicated / Complex / Disruptive innovation.
- C. Frequent Asked Questions (FAQ) about Complex project.

References

Other Publications – YLA

LIST of CONTRIBUTORS

Here is the list of contributors (co-authors) of this collective book, by country of origin:

BELGIUM

- **Frank Leyman**, former President of International Council for Information Technology in Government Administration. (<http://www.ica-it.org...>) *(See Section # 5)*

CANADA

- **Christian Boudreau**, Ph. D., Professor, ENAP-UQ. *(Section 7)*
- **Stéphanie Fissette**, CRHA, Lecturer, UQAR. *(Section 10)*
- **Gabriel Jobidon**, L.L.B., MBA, M. Env. Ph. D. candidate. *(Section 9)*
- **Yvan Lauzon**, MBA, Contractual Professor (Senior Lecturer) ENAP-UQ. *(Sections 1 to 4 and 10-11)*
- **Andrea Migone, Ph.D.** Director of Research and Outreach, IPAC (www.ipac.ca) *(Section 6)*
- **Jacques A. Plamondon**, Ph. D., Associate Professor, ENAP-UQ. *(Section 8)*

FRANCE

- **Thierry Piette-Coudol**, former Professor Law Faculty, former Lawyer Barreau de Paris *(Section 9)*
- **Yves Négro**, Professor Emeritus at University Jean Moulins, Lyon 3 (France)
& former President of *Conseil National des Universités en Sciences de Gestion* *(Section 6)*

* * *

Managing projects better, even complex ones

INTRODUCTION

Modern organizational environments are multivariate in nature and consequently they can be volatile, uncertain, complex and ambiguous (VUCA) [*], evolving within a competitive globalized world. This gives rise to the need for enhanced Leadership to deploy new ways to accomplish results applicable to project management yielding greater performance.

Challenges are numerous and can be overwhelming. Mobilizing four or five distinct generations of employees, better coordination of work activities relating to the project at hand and then optimizing delivery of appreciated products and services indeed becomes a difficult overall task. Add to that the need for organizational flexibility, quick learning and constant innovating, clearly requires skilled management.

This work was first introduced in Nantes (France) during a workshop, where I presented to an international audience on Quality & Metrology the different facets associated with complex projects as well as making a strong point regarding the forever-increasing complexity of large multinational postmodern organizations.

* * *

The present book does not pretend to be exhaustive, where the topics addressed hereto cover a wide spectrum of the necessary components for effective management of complex projects for the field practitioner. There is sufficient scope and depth to provide the management of such projects enough material to be supportive as well as innovative.

* * *

The first section introduces the different types of projects as well as the complexity involved.

The second section deals with the various competencies required of project managers, where the distinguishing factor is the leadership component. Those with more of that attribute have greater success rates. The topic of competencies is critical as it is the driving force underlying successful project realizations, given that it is fundamentally a human factor.

The third section reviews individual, collective and organizational learning a lifelong commitment with a strong trend in our society.

Section four focuses on the distinctions between public versus private organizations, associations and non-profit community groups, the utilities, which is a factor carrying a great influence on projects. The section also pays great attention to public administrations.

Section five addresses communications and relations between politicians and ministers with the senior civil service. As a case in point, currently in the media there is the case of the most senior civil servant in Ottawa, who resigned as fallout of the *SNC Lavalin file* (search Google™ for details).

Section six reviews the evolution of the roles and responsibilities of the managers in the public administrations in the face of increasing complexity in public projects as well as the case of reviewing the whole aspect of the mission of the public sector services.

Section seven deals with the issues and challenges of integrating the various public services, which has been the object of studies and research at ENAP-UQ (University of Quebec).

Section eight demonstrates eloquently the questions associated with the ethics in complex public projects.

Section nine addresses the legal issues involved in complex projects.

Section ten presents an original classification of practical tools to develop and implement collective intelligence within project team.

Section eleven underlines the importance of having a convergent vision regarding project management and change management flowing from thereto.

* * *

Section five to ten represents the contribution of various authors producing each a document on a pertinent topic useful for undertaking complex projects. They come from three different countries of the French-speaking world and you can read about them at the end of the present collective work. I would like to seize this opportunity to sincerely thank them for their contribution promulgating their thoughts on the topics developed in this work.

In the Appendix section of the book, find: (A) Terminology Definitions; (B) Descriptive slides showing four types of projects; Simple; Complicated; Complex; Disruptive innovation (C) Questions Q&A on the subject of Complex Project.

Professor Yvan Lauzon MBA

[*] VUCA: Of course, the business environment is very important in Project Management.

Characteristics usually associated with the VUCA Elements are:

- Volatility: Rate of Change of the environment.
- Uncertainty: More Foggy Future. Difficult to predict.
- Complexity: Multivariate environments addressing problems, responding to needs and wants of markets, customers and clients, associates and suppliers. According to Edgar Morin *“Complexity, primarily imposes itself as an impossibility to simplify.”*
- Ambiguity: Inadequate information and related assessment regarding newly emerging phenomena, the real significance of events or ideas, fads and trends impacting possible choices of responses and decision-making. Conversely, there might not be any optimal solutions or any possibility whatsoever.

1.. COMPLEXITY of PROJECTS

Basics of Project management

- First and foremost, let's accept the ISO 21500 definition for Project Management:

"Project Management is the application of methods, tools, techniques and competences to a project. Project management includes the integration of various phases of the project life cycle. Project management is accomplished through processes".

- Then the principal roles interplayed within a project are:

- The Project Sponsor acts as the principal continuous link between the funding organization and the project and is responsible to define the business case (5W2H questions: Why should we be doing this project?).
- When the project is approved, the Project Manager takes on the Responsibility for delivery of the defined project objective. Key elements in this role are stakeholder management and guiding the project team and the appropriate stakeholders in applying *"the right project management processes at the right time"*.
- The Project Team Member is responsible for delivering the expertise and work needed.

- As well as the Finality of the Project:

It stands to reason that the finality of the project is the object, giving rise to its existence in the first place. Generally, this would be along the following lines: Solve a problem; Build infrastructures; Accomplish a particular event; therefore, a concerted number of activities, with some under the watchful public eye, media reporting and so on.

Complexity of Project

- The complexity level of the project must be considered and addressed:

SIMPLE / COMPLICATED / COMPLEX / DISRUPTIVE INNOVATION / CHAOTIC

Only the first four are treated in this book, given that Chaotic is simply indicative of a project, which for all intents and purposes is out of control.

SIMPLE: The overall predictability level is high in simple projects. The study giving rise to the project, the various associated issues, impacts and probable consequences are clear. Also, the

procedures, policies and activities are nicely predetermined and easy to follow. For example, painting your four-room office premises.

COMPLICATED: Obviously not as simple. Then certain expertise should be considered, with the right specialists for the targeted objective, to assess and understand the situation, fragmenting the proposed project into manageable component parts, for instance designing a new plane.

COMPLEX: Here again, such projects are significantly more complex than the first two above and are not nearly as evident to the watchful eye.

- Those projects are the ones, where not all aspects are yet known, and decisions are made with incomplete data giving rise to higher risk factors given the nature of the desired results in the early stages.
- As alluded to above, those projects are difficult to assess and evaluate properly at the inception of the project.
- Behavioral patterns are also difficult to predict.
- The required level of individual knowledge and collective knowledge does not provide an easy assessment of the needed data and information to conduct successfully the said project.
- Those items of information are not always separable into neatly delimited components.
- Many times, it is difficult if not impossible to anticipate the end result completely. Rather, modeling and simulating are the only approach to guide the selected course of action.
- Experts have a hard time reaching consensus on issues and solutions.
- Certain authors suggest the concept, that there might not be a best answer and sooner or later contradictory elements can and will emerge.
- Low acquiescence facing the real situation: commonly shared visions, reaching consensus among varying stakeholders.
- Many times, those projects do not evolve as predicted.
- Procedures and early detailed planning rarely work for those projects.
- In such contexts, collaborative work might be better than cooperation, for independently constructed deliverables.
- Those projects tend to be creative and innovative.

- Complex projects require pragmatism, a heightened degree of managerial expertise and stronger leadership paying attention to several complementary facets.

* * *

Those projects need a certain number of winning conditions as pre-requisite, being in place or existence before even being considered and sometimes simply early in the project.

- The largest possible value-added must be sought, when considering the various stakeholders.
- Holistic view, as early as possible to get the right BIG picture.
- A systemic view is significant because many elements are intertwined, and many times are modified becoming like a moving target.
- An iterative approach might represent a flexible agile methodology.
- Distributed action with multi-team systems.
- A watchful eye, sensitive to weak signals to stay the course keeping focus.
- Managing complex projects imply, calling upon seasoned and performing teams and sometimes, even teams of teams independently interactive towards the collective attainment of objectives.

* * *

Many times, what gives rise to a complex project is the fact that we are now living in a forever more complex world anyway, meaning the following must be considered:

- Looking beyond the mere financial criteria to address other important elements like expectations, results, impacts affecting the stakeholders and communities.
- Internal environment, that is interactions make it difficult to lead to actions but sometimes represent opportunities to introduce novelty features.
- Everything is continually changing. In a way we are undergoing a change dictatorship.
- Gradually we are moving from hard knowledge from the past to uncertainties of the future, where we cannot predict the impacts of newly emerging knowledge.
- New information technology allows far more possibilities, while imparting accelerated societal change, raising issues of trace ability and ownership.
- Paradoxically, information is simultaneously an overload, deficient, subjective and qualitative, diversified and constantly changing in a state of flux.

This raises the question: How can we make sense of all that?

To be successful, it is important to pay close attention to the attendant factors, calling upon internal and external resources to come to bear on such projects. Creating a workable synergy is preferable to parties opposing one another.

Disruptive Innovation Project

- This type of project requires creativity and an adventurous attitude. Radical changes are risky and usually perilous.

- Wikipedia Reports the Following:

Disruptive innovation creates a new market by providing a different set of values, which ultimately and unexpectedly overtakes an existing market (e.g., the lower-priced, affordable Ford Model T, which displaced horse-drawn carriages) The term disruptive technologies was coined by Clayton M. Christensen and introduced in his 1995 article Disruptive Technologies: Catching the Wave...

Problems

- By definition a problem represents an undesired situation emerging from several existing or potential factors, whose cause is unknown at this moment.
- Here is a partial list of such problems having existed in public or private organizations:
 - Fear of conflicts. Snuffed in the bud not knowing how to manage it.
 - Ducking the responsibility.
 - Low commitment of team members.
 - Social laziness “*Ringelmann Effect*” deadweight, significant reduction of productivity from certain individuals in collective work situations.
 - Loss of focus in activities and tasks associated with the project.
 - Loss of confidence among team members and key interested parties.
 - Inadequate briefing of allocated responsibilities to each member as well as the expectations of team and sub-team members.
 - Malaises and unexpressed emotions.
 - Modes of operations never reviewed or questioned during meetings.
 - Conformism of team members, groupthink, paradox & other pathologies.
 - Diverse problems associated to consensus and so on.
- Specific to meetings:
 - Many absentees to meetings.
 - Excessive meeting frequencies low time optimization more or less useful.
 - Poor meeting management, not well announced and scheduled, poorly led, documentation unprepared, low feedback documentation, follow-ups and decisions in action and more.
- There are several pertinent means to resolve problems including two options to address strategic choices in terms of the situation presented:
 - Do nothing to resolve the problem.
 - Create a diversion. Many times, in management, this represents the only solution, given any other approach is losing even more and there are no good alternatives.

- There are other means to resolve problems, such as proposed by Edmond Bourque (2001):
 - Problem detection.
 - Pertinent data collection.
 - Critical analysis of information.
 - Examine exhaustive list of alternative solutions.
 - Choose optimal solution and deployment strategy.
 - Plan the required resources.
 - Evaluate the effectiveness of the solution and allocated resources.

Problems in Complicated or Complex Projects

- Complicated projects and Complex projects may face situations like conflicts, challenges or issues, which can be either complicated or complex.
- Hence, it normally follows that a complicated problem requires sound, rational decision-making, as it could be a unique event with several possible ways to be resolved. Selecting the optimal solution represents a good analysis of alternatives in terms of cost and all other constraints, while trying to rally all the experts to it.
- Furthermore, a complex problem is characterized by uncertainty and the absence of any good easy solution. Sometimes unorthodox solutions, creative and innovative can be applied, something equivalent to a paradigm shift, generating a new trend a source of socio-economic development. Historically, breaking new grounds is where true societal development takes place.

Evaluating Projects

- Evaluating public and private organizational projects have traditionally been in respect to three success indicators, commonly referred to by Project Management Institute (PMI) as the “Iron Triangle” of project management namely: Quality, Cost, and Delays (QCD).
- However, new schools of thought have emerged, leading towards new perspectives or dimensions to yield a much more accurate global understanding of the environment of the project and giving us five components of evaluation:
 1. Evaluating the project management according to framework (*e.g. PMBoK— Project Management Body of Knowledge*).
 2. Evaluating the business solution resulting from the project.
 3. Evaluating the Project Team performance.
 4. Evaluating the Project Leader performance.
 5. Other dimension subject to evaluation, requested by Stakeholders and/or third parties.
- Typically, those are the criteria over and beyond QCD to assess the performance of a project. They are to be found in the French National Standard setting (AFNOR) for example. Also, both

international associations grouping Project Management practitioners namely: *IPMA International Project Management Association* & *PMI* recommending the following criteria:

- Project Coherence.
- Efficiency.
- Effectiveness.
- Pertinence.
- Utility; ratio between pre-set objective of project and the needs prior to the project.

The table below faithfully depicts how Michel Rocca (2014) perceives four of those criteria:

Figure 1.1 Four Pertinent Questions to Enhance Evaluation

How Pertinent is the Project? Assess linkage between the expressed NEED And the ASSIGNED OBJECTIVES.	How Coherent is the Project? Assess the realism between the OBJECTIVES And the ASSIGNED RESOURCES.
How Efficient is the Project? Assess the RESULTS against the DEPLOYED RESOURCES.	How Effective is the Project? Assess the RESULTS against the EARLY OBJECTIVES.

- The first and foremost finality of project teams is to deliver a successful project with a variance of less than 10% with respect to projected numbers at the inception of the project, according to Quality, Cost and Delays (QCD) and the other criteria identified above.

Contribution from Research

- Research applied to Complex Projects or Complex Project Programs in the last decade has delivered many new complementary facets as follows:
 - Typology & characteristics of complex projects.
 - Success indicators & predictors of performance - Key Success Factors (KSF); Key Performance Indicators (KPI); Weak signals to important variances.
 - Relations & Cohesion of work teams.
 - Risk management.
 - Change management applicable to complex project.
 - Halting a complex project with low negative impacts on personnel, unions, public opinion and more.

Managing Change

- As will be reviewed in section eleven below, there is no unique process or magic wand with an instant recipe, as regards the management of change and applicable to all complicated or

complex projects. There are wide varieties of situations requiring tailoring to the specific case in the field.

THE BIG PICTURE

- In such a context there is a need to try and perceive all the underlying aspects of a given situation surrounding a particular project and the need to perform a strategic analysis in terms of PESTELOD. [1]
- Furthermore, attention must be paid to the criteria listed above, which are the characteristics to be dealt with as winning conditions applicable to complex projects. This is further enhanced, placing both internal and external resources to shore up the delivery of the desired results. Those would be in the nature of consultants, partners and workers in synergy with the effort as opposed to inner bickering and counter-productive behavioral patterns.
- Be watchful of the bragging know-it-all, the under educated and the incompetent. [2]
- Pay close attention to organizational pathologies, impacting negatively on projects notably the complicated and complex ones. [3]

Learning from the Best

- Jack Welch, mythical CEO at General Electric used to say; “The organizational capacity to learn quickly and translate into action represents the ultimate market advantage.” Jack wasn’t afraid of change or of his management team as shown by his own style, firing a minimum of 10% of his staff every year entirely based on his heightened sense of meritocracy.

Anecdotally, a story was reported about a persistently overheating jet engine under development. Jack past the project to the GE Refrigeration & Cooling Department where in no time flat they resolved the problem. The engineering associated with the Avionics Department would likely have resolved the problem given the time. Efficiency, avoiding redesigning the wheel is the real issue here.

This was a wise move emerging from the top, since the refrigeration department was invested in solving cooling issues and problems their very specific mission.

Hail to *Jack the problem solver*. (;-)

- Along the same lines, Gene Kranz, project manager of Mission Apollo 13 was saying: “*I don't care what anything was designed to do, I care about what it can do*” and also, “*Failure is not an option.*” These quotes evoke a great deal of wisdom and I keep them precious in my Top-250.
- These quotes apply and fit like a glove to complex project management, despite various opinions expressed about them and further flashed and boosted ministerial press releases. Such

projects are not simple or even complicated; they are factually declared complex, what they really are without playing with words.

* * *

NOTES

[1] The acronym PESTELOD comes from Strategic analysis and covering the following dimensions: Politics; Economics; Social issues; Technological issues; Environmental issues; Legal & Ethical issues; Organizational issues & Demographic issues.

[2] It is best to avoid popular catch phrases like:

"It'll get it done, don't worry."

'It's easy to do, don't worry.'

"Everybody wants this project."

Vigilance is required whenever special requests are brought forward.

Be wary of the **flamboyant staff** suggesting that it is easy, while having never done it by itself, in the first place. Here, can you recollect such a colleague?

Avoid like the plague those "pseudo-intellectuals" and other boasters, many times under-educated, pretending that everything is just simple; bragging that we can do anything; everyone wants that project;

*Another good example : **When we want something, we can do it.***

Testing: Simply tell this to a sociologist and watch the reaction.

He might blush or simply jumped to the door. (-)

Simply, because most often this is wrong...

If you have never participated in an activity, just remain silent and low key about its complexity and feasibility.

As a case in point, imagine a male speaker talking eloquently about childbearing and childbirth sensations and pains. Okay mothers --do it please-- show him the door... (-)

[3] Organizational pathologies must be avoided, such as: Ambidextrous management style; Averse to new ideas; Social laziness; Conformism & Groupthink; and Paradoxes (e.g. Abilene Paradox) & Dilemmas (e.g. Prisoner Dilemma).

* * *

2.. PROJECT MANAGER LEADER

- Work teams, whether involved in projects or other are clearly impacted by the organizational environment they are active in. The characteristics are multiple, such as staff skills mix, interdependent tasks, the underlying cognitive power all evolving within an organizational context at a moment in time and space.
- For over 100 years research has been trying to pin down what makes an effective team leader, by examining closely, personality traits and other attributes such as intelligence, behavioral patterns, relationships, task focus and orientation. Other features such as quick adaptation to situations at hand and capacity to create an atmosphere of trust as well as being a model and mentor rallying his people to the task and common objective, can perhaps best be a description fit for a *Superman*™ or a *Superwoman*™.
- The influence of the leader to obtain the commitment, allegiance and contributions of his staff in times of crisis and rapid changes is significant.
- Effective team leaders also have significant political savvy, which they can bring to bear when times call for it. Their influence can be used to establish networks and generate social allies. They also know how to empower the team members through working conditions and a sense of accomplishment and belonging, allowing for some degree of autonomy and reliance within a sound control system. Such leaders know how to gather a winning team working well together. This is especially true whenever the collective intelligence is called upon to resolve difficult problems and daunting difficulties arising along the way. Team learning and exploration, educated risk taking applicable to conceptual alternatives can be remarkable. Such leaders are a perfect fit to tackle complex projects.

2.1.. Skill Attributes of Project Leaders

- According to Prof. Harvey (HEC Montreal) and Amy C. Edmondson (Harvard Business School), there are four functions of Leadership required in EXTREME situations:

- I Create a Credible Engaging Vision.
- II Develop a Psychologically Secure Environment.
- III. Develop Shared Mental Models.
- IV Enable Agile Action in Delivery.

Usually in management, **EXTREME** refers to situations with:

Rapid Changing Environments (VUCA); Riskier and often more Complex.

- The literature provides plenty of documentation on qualities frequently present in Leaders.

Attributes Mostly Referred to:

Courage; Self-Confidence; Excellent at task at hand; Sense of Accomplishment; Enthusiasm; Flexibility in Action; Honesty; Intellectual Integrity; Intelligence in terms of Intellectual Quotient & Emotional Quotient; Good Common Sense; Focus on People; Emotional Maturity; Perseverance & Tenacity; Team Player; Well Balanced Life; Avid Visionary; Good Stress Manager.

- As far as I am concerned, a GOOD MANAGER must first and foremost be an excellent planner and decision maker and be a convincing speaker.

- Good Planning: Listening to people & environment, avoiding the tree hiding the forest.
- Sound Decision Making: Understanding perceptions and tolerance to risk-taking.
- To Be Convincing: Implies being convinced ourselves in the first place.

Leadership is at the Core of a Performing Project Team.

- For a project in compliance with QCD (Quality, Cost, Delays) with less than 10% variance on each criterion, means the project manager is in fact behaving as a resource manager and expert coordinator. That is doing well the things to do and as a leader be doing the things that should be done.

Peter Drucker, guru in management, asserts:

“Nothing can be more useless than doing efficiently something that shouldn’t be done”.

Manager –versus-- Leader

<u>MANAGER</u>	<u>LEADER</u>
• Action Based on Plan & business Objective. • Seeks to Obtain Consensus. • He Does the Right Thing. • Ways & Means. • He Explains & Communicates well. • Manages correctly the Current Situation. • Drives Matters & Follows-up. • Rational Mind. • <u>Structuring (Process) is more Important.</u>	• Action Based on Vision. • Ready to Innovate. • He Does the Right Thing. • Long Term Perspective. • Sets Himself as Example. • Questions the Current Situation. • Has Confidence in Others. • Intuitive Mind. • <u>Human factor is more Important.</u>

* * *

2.2. Skill Attributes of a Project Manager Leader

- In 2009, I conducted a research project “*Qualitative Study on Success of Public Projects in Information Technology*”. 125 practitioners were interviewed and 25 research professors in Project Management and/or IT Management. That study came on the heels of an internal government study, which identified the strong and weak points of public projects and the needed improvements to be made. The report was formerly delivered to government authorities.

- Starting in 2012-2013, complementary research initiatives, in collaboration with professional associations in project management within the francophone world, including a PMI Community of practice called **GP-Quebec** with over 2200 members and including *AFITEP* now under the name *SMAP* in France; I provided significant key competencies and other skill attributes required for project managers, applicable to different types of projects, not just IT.

- In France, in January 2010 the firm *GEGOS* published a milestone document titled “*Current Project Managers Competencies & Soon to Come; Project Management & Human Resources Contributors.*” This hybrid approach to PM & HR proved successful, grouping competencies according to four perspectives or axes:

- 1.. Organization & Managing Projects.
- 2.. Relations with Stakeholders.
- 3.. Personal Competencies.
- 4.. Managing the Project Team.

- In fact, since the early days, the research was aimed at concrete results and applications towards three complementary goals:

(i) Help organizations to, better predict the success of their projects, with Project Managers being competent in action.

(ii) Hire the most competent Project Manager, specific to a project and a real situation.

(iii) Maintaining Pool of Talent, with potential candidates for project team jobs according to specific characteristics such as: Project type; more Certification (ACP, CAPM, PgMP, PMP & more in PMI world), status of contributor, either an internal resource or an external consultant and established level that is junior to senior. Such pools of talent are generally the concern of the Project Management Office (PMO), whether it is a public or private organization.

- During presentations I made in Australia, in Melbourne, Sydney and Brisbane in February 2018, I stressed the following:

“By 2020, Project Leaders and associated Managers will be able to rapidly appreciate the issues and dynamics within their specific contextual environments, giving rise to self-confidence as well as in others; adequate tolerance to uncertainties and risk factors from various sources. Further, the ability to adapt to changing conditions and shifting objectives with superior capacity to learn quickly accompanied with flexibility in delivery associated with emerging technologies are to be understood to be the attributes expected from such professionals”.

- During my lectures, I discuss freely with the audience about the notion of required attributes defining the competencies expected of project managers and higher management and executives, as well as colleagues, project team members including rookies.

- In my work titled: *Project Manager Roles & Main Skill Attributes: Competence Breakdown Structure (CBS) Model* – (ISBN: 978-1999410629), I identified more than 100 skill attributes supporting the competencies modelled according to the three levels of management within organizations. Those levels are: Project Manager; General Line Management and Senior Executives. Those levels concurrently are responsible for the success of projects. Another forty attributes are presented characterizing Negotiators. I interviewed *Labor contracts Negotiators* and *Commercial lease contracts Negotiators* to ascertain the needed attributes necessary to accomplish those tasks successfully. One must keep in mind that: Project managers continually negotiate with the stakeholders throughout the course of the project. Sometimes it even applies having to deal with various communities.

- Of 100 competencies identified for project managers, 31 are included in my short list, another 100 skill attributes applying to colleagues and 75 applying mostly to rookies. Setting up the project team requires a great deal of insight, attempting to proactively avoid sometimes, predictable conflicts as best it can be done. For instance, on the part of a rookie: *“Move aside uncle I’ll show you”* does not make for good relationships.

- One time during a lecture I was conducting and in answering a question from an attendee gave his own selection of key attributes for topnotch Project manager Leader as follows:

Adaptability; Agreeability, Sympathetic & Helpful; Insight; Convincing; Courage in Decision-Making; Empathy; Discernment; Stress Resistant; Shared Leadership; Political Savvy; Strategic and Tolerant.

* * *

2.3. Skill Attributes of Project Team Members

• Marjolaine Bergeron in 2004, in a work on communications in organizations identified twelve commandments defining the ideal colleague that could also be applied to Project Team members:

1. Be well informed about the mandate assigned to the team.
2. Commit fully to accomplish the project.
3. Apply knowledge and skills to communications.
4. Be aware of your strengths & lean on them.
5. Accept your limitations & errors along the way.
6. Be happy working with someone different from you.
7. Resolve your conflicts effectively.
8. Active participation in decision-making.
9. Be creative & stimulating for others.
10. Be proud of your team & organization.
11. Reassess your work & team regularly.
12. Reach balance between professional life & personal life.

• In my book untitled *Let the Collective Intelligence of Your Work Team Break Out* (ISBN: 978-1989364079) I identified over 100 Skill Attributes applying to Project Team members and over 75 applying to Rookie.

* * *

3.. INDIVIDUAL, COLLECTIVE & ORGANIZATIONAL LEARNING

The Need to Learn Has a Long History

- In terms of Learning, let's refer to Peter Senge, who said in 1991:

"Team learning is fundamental today, given it is work teams not individuals forming the basis of modern organizations."

- Individual and team learning are a non-negotiable *sine qua non* condition to accomplish complex projects. That also applies to complex programs and their respective component parts namely: Project Launching, Planning, Controlled Delivery and Signoff.
- In order to be effective managing complex projects, even complicated ones, there is a fundamental need to create a work atmosphere of trust and respect to achieve co-development considering divergent points of view, opinions and diversified appreciation of problems and in such an atmosphere co-development of team learning can come to exist leading to optimal solutions.
- In a postmodern society, lifelong learning and development as a trend is simply a given, otherwise one can lose his/her economic value fairly quickly. It stands to reason that it also applies equally to organizations just as well as to individuals. It is interesting to point out that only 1% of organizations have longer life spans than individuals. This is indeed quite remarkable.

Individual Learning

- Beyond the cliché question *"What's in it for me?"* a colleague must come to realize, that commitment to the objectives and accomplishments of the various tasks are central to a feeling of belonging, giving the individual an opportunity to contribute with his/her talent to the success of a project. The objectives must be clearly defined and communicated and present somewhat difficult goal to achieve to make the process attractive and interesting. However, it is readily agreed that if the tasks are too complex it might lead to a loss of motivation.
- Fortunately, however, there is an opportunity for learning. During the learning period the employee is stimulated learning something, which provides a good feeling.
- Among the various factors influencing performance; there is this feeling of confidence with respect to the task to be carried out and also a chance to partake in the process of establishing the objectives. Usually, the employee is open to express ideas regarding the objectives, especially if he is directly involved.

Team Learning

- As for me I have a strong notion that it is possible to improve significantly the individual performance as well as the team performance, using different means. For instance, reading, which is something you do already; new working methodology; even individual or collective professional development, ideally conducted off premises.
- Over nine years ago already, Charrette (2010) identified the training useful for work teams:
 - Understanding the value of cooperation and collaboration.
 - Learning competencies & group processes. (e.g. *Conflict resolution; managing meetings*).
 - Appreciating the value of differences within the team.
 - Communications & confidence.
 - How to be a team player.
 - The importance of objective definition.
 - Team Leadership.
 - What makes a team truly functional.

Organizational Learning

- Find Herewith an Excerpt of Wikipedia's File on Organizational Learning:

"Organizational learning is the process of creating, retaining, and transferring knowledge within an organization. An organization improves over time as it gains experience. From this experience, it is able to create knowledge. This knowledge is broad, covering any topic that could better an organization. Examples may include ways to increase production efficiency or to develop beneficial investor relations. Knowledge is created at four different units: individual, group, organizational, and inter organizational.

The most common way to measure organizational learning is a learning curve. Learning curves are a relationship showing how as an organization produces more of a product or service; it increases its productivity, efficiency, reliability and/or quality of production with diminishing returns. Learning curves vary due to organizational learning rates. Organizational learning rates are affected by individual proficiency, improvements in an organization's technology, and improvements in the structures, routines and methods of coordination

Organizational learning is an aspect of organizations and a subfield of organizational studies. As an aspect of an organization, organizational learning is the process of creating, retaining, and transferring knowledge. Knowledge creation, knowledge retention, and knowledge transfer can be seen as adaptive processes that are functions of experience. Experience is the knowledge that contributes to the procedural understanding of a subject through involvement or exposure. Research within organizational learning specifically applies to the attributes and behavior of this

knowledge and how it can produce changes in the cognition, routines, and behaviors of an organization and its individuals.

Individuals are predominantly seen as the functional mechanisms for organizational learning by creating knowledge through experience. However, individuals' knowledge only facilitates learning within the organization as a whole if it is transferred. Individuals may withhold their knowledge or exit the organization. Knowledge that is embedded into the organization, in addition to its individuals, can be retained. Organizations can retain knowledge in other ways than just retaining individuals, including using knowledge repositories such as communication tools, processes, learning agendas, routines, networks, and transactive memory systems.

As a subfield, organizational learning is the study of experience, knowledge, and the effects of knowledge within an organizational context. The study of organizational learning directly contributes to the applied science of knowledge management (KM) and the concept of the learning organization. Organizational learning is related to the studies of organizational theory, organizational communication, organizational behavior, organizational psychology, and organizational development. Organizational learning has received contributions from the fields of educational psychology, sociology, economics, anthropology, political science, and management science”.

Effective Learning During Field Training

- What follows is an excerpt taken from the HEC, the International Management Journal called *Revue internationale de Gestion*, published March 7, 2019:

“Experts are unanimous in pointing out that numerous failures in the course of developments are the result of the incapacity of the learners to transfer ongoing their knowledge, behavioral patterns and skills learned in training.

What About Learning Online?

Learning online has shown its limited capacity to transfer skills and general learning. The only real rationale supporting that mode would generally be, where there is a need to train a group in a minimum time period for minimal cost. However, the key drawback is the absence of pedagogical interaction between instructor and trainees, making them totally passive. They absorb knowledge and concepts, which will be difficult to transfer in the field as they go. This is further aggravated, when you consider the absence of interaction between the trainees, which is a key factor to reduce operational islands in organizations.” (Free translation)

SOURCE:https://www.revuegestion.ca/optimiser-et-transformer-le-developpement-des-competences-c-est-possible?utm_source=G%C3%A9n%C3%A9ral&utm_campaign=0e94e9658d-EMAIL_CAMPAIGN_2019_03_19_03_24&utm_medium=email&utm_term=0_2e82f3dd4e-0e94e9658d-185492097#utm_source=newsletter&utm_medium=email&utm_campaign=gestion1903...

* * *

NOTES

[1] Restricting off premises training for personnel, for academic, professional development or continuing education, may represent short term savings, where the time is directly allocated to specific projects, however in the longer run it may adversely affect the organizational capacity to innovate and sustain the morale of the troops.

Well, that's exactly what the Quebec government did in May 2010, under the leadership of Premier Jean Charest, where following abrasive articles in some Quebec papers, hammering on doubtful cases, led to a moratorium being placed on training and off premises sessions.

Oddly enough, five months later another person, also named Jean Charest, Professor in Industrial Relations at University of Montreal, who published a paper (*) where he was showing a frequency increase of clauses for training in collective labor-contracts in Quebec.

Well done! Jean Charest #2 ;-))

(*) <https://oce.uqam.ca/article/la-place-de-la-formation-dans-les-negociations-patronales-syndicales-au-quebec-et-en-europe/...>

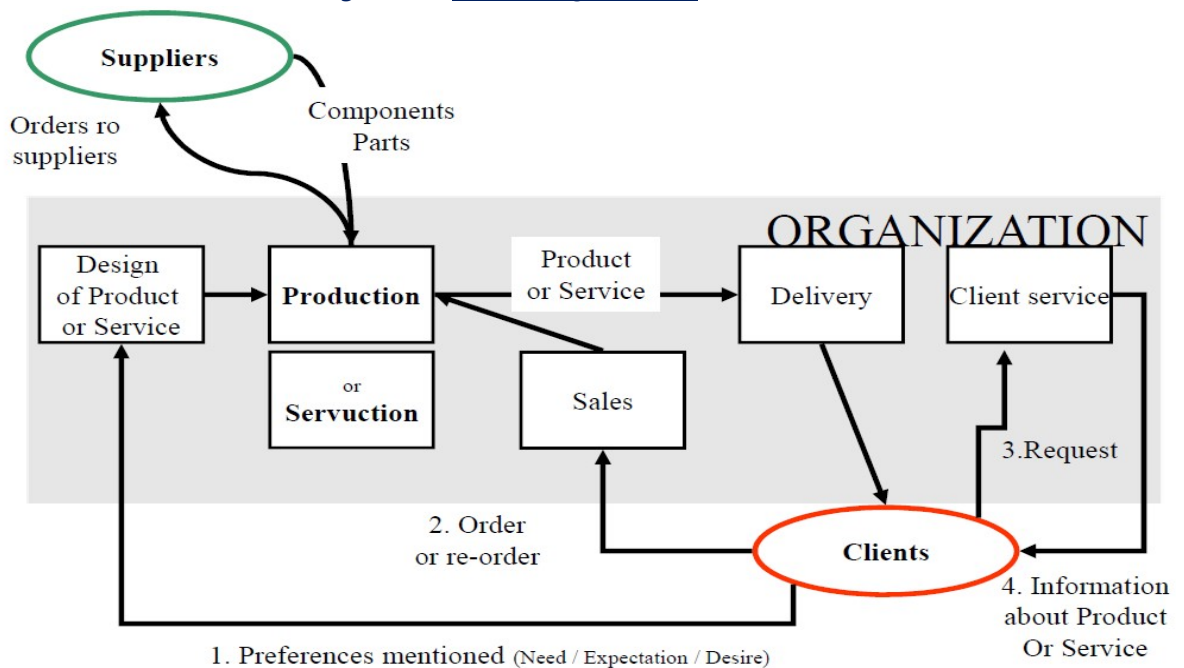
* * *

4.. PRIVATE & PUBLIC ORGANIZATIONS

Organization Defined

- According to Steven Alter, University of San Francisco:
The organization is primarily a collection of interrelated processes using resources to offer goods and services to internal or external customers.
- This has to be the most general and simple definition applicable to a private organization:

Figure 8.1 Private Organization



Source : UQAM-ESG-MET8320 (St-Amant, 2010)

Organizational Similarities

- Generally, organizations whether private or public, as well as associations, not-for-profit ones and utilities must all come up with the following:
 - A business vision, mission definition, values statement, objectives & strategic plan SMART (search Google ™ for details).
 - Managing for effective results.
 - Production of goods & services.
 - Interests, power, expectations, customers, suppliers, employees, unions.
 - Business processes.
 - Work policies.
 - Human resources management.

- Physical plant planning.
- Intellectual property management.
- Corporate ethics.
- Public goodwill.
- And sometimes, Unions...

Organizational Differentiation

- Bégin (1998) wrote an article in the HEC Montreal, *Revue internationale de Gestion*, where she laid out the main differentiating features between private, public organizations, community groups, associations, not-for-profit and utilities.
- During the course of a conference presentation under the auspices of *GP-Quebec*, my friend and colleague Bob McCollough, then Vice President, National Bank of Canada, encapsulated well the features proposed by Bégin, relating to private and public sector organizations.

Figure 8.2 Private -versus- Public Organization

Sector	Private	Public
Organization type	For-profit business	Government Organization
Product / Service offered	Private & Individual	Service & Universal audiences
Distribution Principe	Exclusivity (to the buyer)	Universality (to all citizens)
Goal	Shareholder Profit	Equity & redistribution
Source of funding	Private capital	Sales taxes & Income taxes
Tax status	Taxable	Mostly no taxable
Board of Directors	Elected & Paid administrators	Appointed directors, often paid
Defended interests	Shareholders	Public
Dominant logic	Market	Technocratic

(Free translation)

Private Business Organizations

- Must be profitable.
- Sensitive to time value of money.
- Cash flow management linked to operations.
- Financing & capital expenditure programs.
- Business economic environment in its industry and wider economy.
- Power is internal.

- Relatively stable annual budgets.
- Selected client base.
- Legal corporate structure private versus publicly traded.

Public Sector Organizations

- Various types: A straight ministry is different from one where a network is involved. e.g. Health with many possible types of health care delivery points (CLSC, Hospital, ...)
- Hyper sensitive to public opinion and the socio-economic political environment; local, regional, provincial, national and sometimes even international.
- Many times, power is external to the organization.
- Budget control and freezes thereto are centralized outside the organization.
- Special clients often imposed by "*Central command*", whose characteristics are:
 - No alternative exists outside the service.
 - Usually not pre-selected given the universality of programs.
 - Difficulty to personalize services in a heavily socialized environment when particular attention is needed.
- In sovereign countries the military receives differentiated services from public sectors. In governments normally, there are two highly differentiated services compared to the others and that is Health and Public safety.

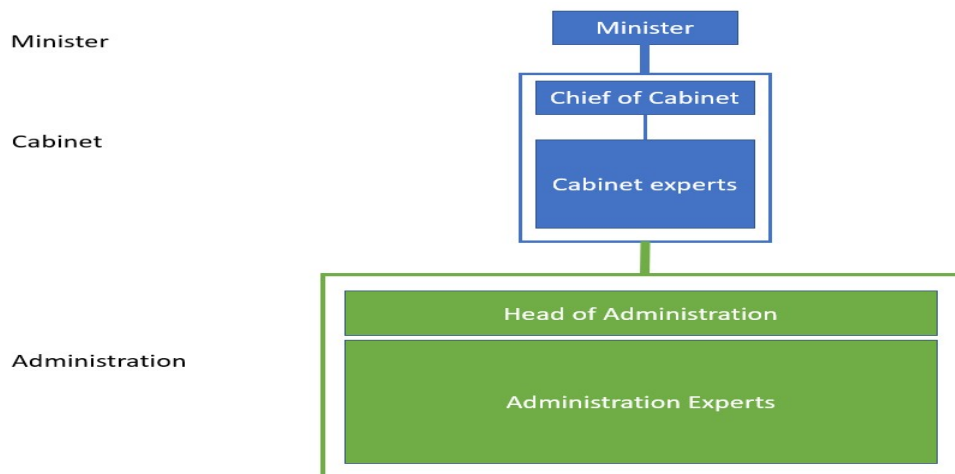
* * *

5.. COMMUNICATION & RELATIONS BETWEEN POLITICIAN AND EXECUTIVE ADMINISTRATION

Written by **Mr. Frank Leyman**, former President of International Council for Information Technology in Government Administration, ICA. (<http://www.ica-it.org>)

The relationship between a politician and his Administration (in this case the executive level) is one of first line management; The minister being the hierarchical superior of the executive. In that context the executive responds to the demands of the Minister and executes what is requested from this person (him or her).

The orders that are given are political objectives. It is up to the executive level to translate those objectives in technical / practical / administrative objectives in view of better services.



5.1.. Levels of power

Between the minister and the Expert (e.g. Technical-Expert) you may find several levels of power:

- **Minister:** He defines the political direction to take.
- **Chief of cabinet:** He translates the political direction of the Minister and converts it into general tasks/services to build or follow.
- **Cabinet experts:** They are in charge of part of the political objectives. They prepare dossiers for the Minister (upon request of the Chief of cabinet) and also make sure that administration can deliver (correctly and always on time).
- **Head of Administration:** He receives the directions from the Chief of cabinet and appoints experts within his team to take up the task and/or build the service.

- **Expert:** He translates the requested task into functional specifications and technical specifications. Based on those specs he builds the service (or has it built by an external partner under his supervision).

It is safe to say that each of these levels of power (may) generate a filter and make a personal interpretation of the demand. De facto this also means that passing a message/task from one level to another, generates a potential shift in the message/task due to mis-communication.

5.2.. Behaviors and drivers

Politician:

Brutally spoken one could say that the only thing that drives a politician is to take those actions that will re-elect him at the next elections. Luckily, one can say that they do more than that. Within the mandate that they have (and the time still available) they can define political guidelines and define strategies to reach their goals.

Chief of Cabinet:

The Chief of Cabinet is there to run the cabinet and the cabinet experts, and make sure that all that the minister requested is being taken care of and delivered in due time. He is a COO (Chief Operating Officer). A lot of attention goes to the communication aspects, allowing the Minister to be visible and to show he can deliver to his promises. He can be a good buffer, influencer, a filter, a blocker. Of course, this goes in both directions.

Cabinet experts:

The cabinet experts are there to assist the chief of cabinet in realizing (on time) the objectives that the Minister has defined. They are the interface between politics and administration for certain topics/projects and also interact with other stakeholders like private sector, associations, etc.

Head of Administration:

The head of administration manages a team of technical experts (e.g. Project managers, also called Project Leader), Programme managers, Service managers, ...) that is in charge of advising and/or building a technical solution or a service. He also needs to manage time, budget and headcount.

Technical expert:

The technical expert is in charge of building a service, running a project and/or be the technical expert in a certain domain. He is supposed to master a topic or technology and consequently be available to advice the Minister on his expertise. Most of the time he is capable of understanding the market and market tendencies, in order to build a solution (or write a public tender requesting the market to build a solution upon the defined requirements).

5.3.. Difference in horizon between the Administration and the Political level

The fact that a politician is not too much interested in what will happen after he has left (end of mandate), with the risk of building something that will potentially benefit a successor that might not be of the same party, makes it difficult to work long-term with the administration.

The Administration, on the other hand, is there to stay. They are more interested in building sound foundations for the long term, and do not want to limit their scope to just one legislation (e.g. 4- or 5-years term). This is a constant struggle and basis for tension between the political department and the Administration. They are condemned to work together though as the one is the boss of the other, and also needs to listen and execute what is requested.

Some politicians have the courage to work beyond their mandate (for the sake of the country), but experience shows that that species tends to die out rapidly.

What I just described is the difference between a “Politician” and a “States person”. The latter dares to think long-term. The first one is too much subject to political party drives and/or own short-term profiling.

There are situations known where a minister was so focused on short-term profiling that it became too dangerous for his administration to talk to him. As soon as they spoke to him about an idea of a service to build, he immediately spoke about it in public and to the press. This had a double effect:

- At the end of the day he could never deliver.
- The press stopped taking him seriously.

5.4.. ICT needs packaging

ICT as such is not appealing enough for the average citizen to convince him/her to start using it. This is why some marketing efforts are needed before launching a service. This means thinking about how to offer the service to the market; making sure it is user-friendly, safe, easy to install, ... and above all, that it shows a clear added value for Citizens and other Stakeholders. All of this becomes a task for the Administration. One will notice that appropriate communication, education and dissemination is needed. This kind of communication may differ from the kind of communication that a Minister is seeking.

Looking at the politician side, I would like to quote Mr. José Manuel Durão Barroso (former President of the European Commission). After a difficult negotiation with the Heads of State about dividing the budget to different sectors/projects. They didn't want to allocate money to digitalization Programmes, even after the launch of the “Digital Europe” Programme. After discussion they finally approved to put a 1billion euros (1bln €) on it. When press asked him for an explanation why this amount was so low, he responded by saying “ICT doesn't generate votes”. This says it all.

Starting from this “fact”, the Administration has taken this in as “a given” when defining a strategy. So, when they need the attention of their Minister for a certain project, they will now make sure that that project can have a link with is constituency, or make sure that the project can make an impact on his potential voters. At the end of the day, the Administration will have a green light to execute the project and the Minister will have another opportunity to be visible and to show what he can realize for his voters. (win-win situation).

5.5.. Political influence of politics on Administration management

It gets really complex when you know that the management of the administration are all mandated nominations. This means that all Director-Generals of the administration get appointed by political parties. After having passed exams, assessed and interviews they are ranked according to their results. In theory the first in line is supposed to be appointed, but in practice there may be a political negotiation around it. In order to be appointed, one has to seek for political support. The consequence is that this Director-General loses when doing so his complete independency. He may become a puppet of a political party or “the eye of Moscow” when that person is from another party than the one of his Minister.

Communication between Minister and Administration can be smoothly or, on the contrary, blocked based on the above.

5.6.. Link between technical competence and communication

Politicians do not have to pass an exam before being appointed as minister in charge of ICT / Digital Transformation. When a Minister, a chief of Cabinet or a Cabinet expert does not have a technical background, it has an immediate impact on the communication with its Administration.

- Communication between both parties tends to be more difficult.
- A lot of time is lost due to basic education.
- Politician tends to minimize his need for technical education and will focus more on “window dressing”.

It really gets dangerous when politicians start pretending that they know. With ICT this is equal to performing “hara-kiri”. He may convince an average citizen a few times, but for sure not specialized press. The same goes for his administration. Trust in a Minister is easily lost when a Minister starts pretending to know about technology. It rapidly paralyses running projects and generates huge delays in execution.

If, on the other hand, an Administration has to deal with a technically competent Minister and cabinet, then the communication is more smoothly, and better & faster progress can be made.

5.7.. Window of opportunity

For an Administration to be productive, it cannot rely of the full period of a mandate of his Minister. The window of opportunity is much smaller.

1.. In the beginning a newly appointed minister needs some time to get familiar with his administration and its functioning. He also needs some time to master the topics for which he is responsible and to start getting to know the important stakeholders. In this first period focus of communication is concentrated on “education”; assisting your Minister to absorb and understand the context and technical aspects.

2.. In a second phase, the Minister will define his “political strategy”. He will define the main lines of his mandate and set out the goals within his legislation. In this phase the Administration will assist his Minister in defining his strategy. Most of the time this is a very productive moment where communication between cabinet and administration is very productive.

3.. In a third phase, which is the longest, the Administration is supposed to execute the strategy and to build services. This is the “window of opportunity”. This phase can be stable or turbulent, depending on the degree of execution of the Administration, upon potential new political hurdles along the way, external factors out of control of cabinet nor administration (e.g. banking crisis).

When there are digital projects that impact the whole country (all Regions, all Communities, all Ministries), one can be sure that all political parties will want to have they say in decision taking. This has as a consequence that a technical project becomes a political project. This means that a political agreement needs to be reached first before Administration can start building the solution. Communication at that moment becomes broader than just with your own Minister or cabinet. No miracles here, all concerned parties need to sit around the table and agree on scope, timing, budget and expected outcomes.

Good practice of Belgium: In order to avoid that this situation occurs on every single project, the Federal Public Service for ICT negotiates “collaboration agreements” with all political parties from the start. They agree beforehand on what the ICT Administration will build (and how and by when) for the benefit of all stakeholders. This is in generally done for a period of 3 years. Once there is agreement on what, how and by when, then they can start building it all, without being bothered along the way by any political interference.

4.. In a fourth phase, we fall into a period of pre-election. In this period politicians expect that the Administration focusses on delivering. The politician needs to be actively present in the media. He needs to show that he has kept his political promises and that he has had an impact on the topics he was responsible for. This is a hectic period, where communication between cabinet and administration is not easy. Cabinet is under a lot of pressure to come up with “the good news show” in a constructive way. Knowing that the Administration functions with a scope on long-term, this may generate communication problems. Add to this that Administration

Management is also politically mandated, then it is very well possible that the political game between different camps can be played in a very subtle way.

5.. In a fifth phase, the election phase (and communication freezing period before), the Minister is in control. Administration just keeps on working on existing projects.

6.. One could add a sixth phase, which is just after the elections, when a new government needs to be constituted. In Belgium they know that this period can last quite long (550 days). During this period Administrations are in “*affaires courantes*”. This means that they keep on working on existing projects, but new projects cannot be started. During this period there is not much interaction with the Minister. Either because he is in phase out because not re-elected; or he is part of the negotiators and then the role phase one and two could be applicable.

Belgian Administration has enjoyed the 550 days of “no government” for most of the period, because it allowed them to use that time to:

- Finalize / stabilize certain projects that were setup maybe a bit too quickly.
- Document all up-and-running projects.
- Focus on enhancing internal procedures.

If the period of “no government” becomes too long, then there is a risk of slowing down of efficiency and productivity; experts start to leave the department; irritation amongst colleagues sees the day ... On the communication side this is not ideal, because this is not what a politician wants to hear while he is focusing on his potentially new job and responsibility.

5.8.. It's a cultural thing

The communication between a politician and its administration is culturally driven. I give you some examples to state my quote:

- In Africa politicians tend to be “untouchable”. Administration tends not to discuss very much statements from Ministers. They just execute.
- In Scandinavian countries there is more a culture of saying openly what you think, with a strong notion of efficiency. Administration management and Minister are closer to each other and dare to discuss and argument.
- In Japan the Minister of cybersecurity has never used a PC. Administration just accepts this as a given and makes sure that this minister can do his job. They are at his service. No-one has ever made a remark on this aspect.

5.9.. Respect

A good and efficient communication between politician and his Administration starts with a healthy mutual respect and sound comprehension of each other's situation, talents, responsibilities, etc.

If this aspect is not present, then communication starts with a heavy handicap.

If the above is respected, then it will probably be easier to empower administration by giving them the tools to function in optimal conditions and with the powers that are needed for the job. E.g.: decision taking power, overruling power, power to stop ICT projects or to cut of the financing.

Empowerment of Administration enhances the communication and vise-versa, a better communication will make the Administration more efficient.

5.10.. We are not alone anymore...

Nowadays, we see that interaction between Politician and Administration is no more binary. With the introduction of internet and more specifically with social networks, a third party has invited himself to the table, whether we like it or not. Citizen and non-public sector stakeholders have decided that they wanted to participate to the discussions and decision-making process of eServices. This all of a sudden change the equation. Administrations are not used to have citizens tell them what to do, nor does the politician. There is no option not to take that into account. So, the politician and the administration are going through a learning curve and are starting to be giving it a place. Depending from country to country this has been done with success. The game of power between these three entities around the e-Table is ongoing. One may expect that the newly joined party may win the power game over time and will manage to dictate to Minister and Administration on what to do.

* * *

Public Sector Managers in the Age of Complexity

Written by **Mr. Andrea Migone, Ph.D.**

Director of Research and Outreach, IPAC – IAPC (www.ipac.ca)

Public sector managers have traditionally played a central if at times under-recognized role in maintaining and running the machinery of government. In the public administration, they are fundamental to processes that range from ensuring that organizational knowledge is retained, to managing individual projects, to providing HR evaluations for their staff. In other words, often managers provide an enabling interface between the design and the implementation phases of a program. This is not about to change. In fact, in the future of public organizations, managers will play an increasingly central role (van der Wal 2017; Wu, Ramesh, and Howlett 2015). In particular, they will be critical in supporting public sector goals like citizen-centered programming, agile approaches, and innovation.

We should note that public sector managers are not, and should not be considered, a homogenous category. In fact, various metaphors may apply to the idea of public sector managers, especially as their role changes in the 21st century (Althaus 2016). van der Wal (2017) proposes a very useful tripartite categorization that separates managers in traditional, business-like, and networking. The first category is focused on bureaucratic rules, the second is performance oriented and the last tends to focus on relations. Not only are these different categories likely to co-exist within individual units, but behaviours aligning with each are likely to coexist within the approach of the same individual. In fact, the modern public sector manager will need to be able to blend dynamically these characteristics so to enable an agile and effective outcome-oriented approach, shaped by the ability to develop innovation, and that is not destructive of the basic principles and values of the public service. This will demand both personal and organizational excellence, which in turn will require a strategic approach from public sector organizations.

Managers have always been under pressure to perform multiple tasks, and generally they have been measured on their capacity to achieve predefined targets (Coats and Passmore 2008) and ‘making things happen’ (Huxham and Vangen 2000). However, for at least the last twenty years they have been confronted with two very specific sets of demands. The first relates to the increased complexity they have had to confront, both within their organizations and outside of them. The second is the much-increased push for innovative solutions within the public sector. These two trends, especially when coupled with demographic shifts and consistent fiscal restraint, will have a critical impact on the role of public sector managers. The latter will also operate within a context which they will share with an increasingly Millennial workforce and with a much broader and diverse set of internal and external stakeholders. This will pose cultural, organizational, and practical challenges to the whole public service organization of course, and – we believe – it will reflect upon the way in which managers’ leadership will need

to be applied. In this sense, we argue that leadership styles fostering engagement, empowerment and exploration will fare better in the 21st century than those that highlight control, command and a closed approach. While this might seem a straightforward prescription, we believe that not enough attention is being paid to how to ensure that public sector managers are equipped with the tools they require and are given the opportunity to develop and apply this type of leadership within their area of work.

Below we briefly highlight some of the challenges that managers face and suggest some ideas as to how this fundamental group can reshape its contribution to public sector.

While we have not achieved a state of governance without government (Peters and Pierre 1998), the role of public sector managers has certainly evolved in the past two decades. How public sector managers respond to complex, shifting dynamics has been an ongoing focus in the literature. From the description of managing networked organizations (Jackson and Stainsby 2000), to how to deal with Volatility, Uncertainty, Complexity and Ambiguity (van der Wal 2017), to triggering innovation in government (Taylor 2018), managers have been connected consistently to complexity in the public service.

Complexity exists both in terms of the world in which public administrations operate and in terms of how this reflects on the policy and delivery challenges they need to work with. The emergence of so-called ‘wicked problems’ (Rittel and Webber 1973) has dramatically modified the nature of administrative challenges (Allen 2012) and has increasingly shifted the focus towards collaborative leadership in the public sector (Connelly 2007; Crosby and Bryson 2010; O’Leary and Vij 2012). Mostly because collaborative and integrative approaches (Page 2010), with their multiple focuses on bridge building (Ospina and Foldy 2010) and boundary spanning techniques for example (Williams 2013), can help tackling this type of challenges.

However, as anyone who has experience with organizational management can attest to, a critical paradox lies at the core of collaborative approaches. While collaboration among diverse units and people who share common goals embodies the potential for great advantages, that very same difference and diversity carry the potential for inertia as they may result in conflict and challenges (Huxham and Vangen 2005). In this sense, collaborative approaches cannot overlook the need to manage proactively these dynamics (Taylor 2018).

It remains difficult to answer the question of which leadership approach to utilize just in terms of authority structures (Taylor 2018; Crosby and Bryson 2005). In this sense, collaborative approaches require an almost syncretic understanding of leadership where sponsors, champions, managers, stakeholders and clients come together. If, as we noted above, one of the key expectations we have of public sector managers is that they will solve problems and shepherd projects to completion (Huxham and Vangen 2000; Coats and Passmore 2008), then they should be an integral part in any collaborative leadership initiative.

The question then hinges on what type of leadership should be in place in the public service and how we should utilize the skills and capacities of public sector managers to promote innovative

responses to complex problems. There seems to be a fair alignment within the literature on the notion that a new model of public sector leadership is needed. It also seems relatively established that this model will likely need to be based on leadership principles that prioritize transformational approaches, are value-based and engage stakeholders – both internal and external – in a distributed fashion (Althaus 2016; Crosby and Bryson 2010; Kellis and Ran 2013; Taylor 2018).

We believe that in the 21st century public sector managers will represent a key leadership cadre. If it is true that transformational leaders foster strategic change, by sitting at the core of broad networks but by being separate from those who execute the strategy (Ljungholm 2014), public sector managers to be effective will need to be plugged into those networks and to have sufficient capacity and latitude to implement the strategic directions of transformational leaders.

What this will mean in practice? On the one hand, managers or at least a part of that cadre, will need the latitude and capacity to design and implement innovative change. Managers have a potentially critical comparative advantage in this field because they are immersed in the ‘machinery’ and know the ins and outs better than most. That same immersion can also be – ironically – a shackle upon against change. We believe that the public service on the 21st century will need to modify its approach to be innovative, responsive and keep working within the boundaries of fiscal prudence. These steps do not need to be massive ones to bring important changes.

In this sense, the Government of Canada’s Free Agents program is a good example of the type of changes that will be needed. Free Agents are tasked with helping administrative units to innovate their practice. Where traditional change management approaches in government often rely on reactive approaches and the creation of new units, the Free Agents one was inspired by Deloitte’s GovCloud: The Future of Government Work [1] model and relied instead on the principles of workforce mobility and agility. Their members are selected privileging traits like creativity, innovation, the capacity to thrive on change, and problem-solving skills as opposed to specific competences. They possess specific top-end talent in the tools of change and innovation and are able to provide to managers in organizations that are looking to take on that journey a temporary but much needed injection of those skills.

Since their inception as a small project within Natural Resources Canada, the Free Agents have expanded to various Departments within the Government of Canada, have attracted the attention of multiple jurisdictions and organizations domestically and internationally, and have been showcased in an OECD case study [2].

Over the past three years, the Free Agents program has shown considerable success and it has begun to scale. The idea itself of a talent cloud has been met with a mix of elation and resistance as one would expect, but there are evident signs that it has built traction. For example, it has moved from its original home in Natural Resources Canada to the Treasury Board Secretariat, from where it could exert a much stronger influence across departments. It should be noted

that the program does not simply produce excellent results in terms of implementing innovative processes. Free Agents report much higher levels job satisfaction and enjoyment than the rest of Public Service employees. This is a fundamental result because one of the goals of the program was to support, develop and retain talented public servants.

A project like the Free Agents can provide managers within the public service with much needed support in designing, developing and implementing the type of change that will be increasingly required in their organizations. It can also provide an important spark in terms of how innovative mindsets can be fostered within the public administration.

A model like this will not satisfy all of the needs of the manager cadre. At a minimum, public service renewal strategies should incorporate better training opportunities, more capacity for autonomous decision making, and a focus on building strong, functional networks both within the community and with outside groups. However, the type of support envisioned in the Free Agent approach can help as catalyst for larger shifts in the approach and vision among managers and can be a powerful example on how managers themselves can reshape their role within the boundaries of the organization.

NOTES

[1]: <https://www2.deloitte.com/insights/us/en/industry/public-sector/the-future-of-the-federal-workforce.html>

[2]: <https://www.oecd.org/gov/innovative-government/Canada-case-study-UAE-report-2018.pdf>

REFERENCES

Allen, T. W. 2012. "Confronting Complexity and Creating Unity of Effort: The Leadership Challenge for Public Administrators." *Public Administration Review* 72(3): 320-321.

Althaus, C. 2016. "The Administrative Sherpa and the Journey of Public Service Leadership." *Administration and Society* 48(4): 395-420.

Coats D., and Passmore E., 2008. *Public Value: The next steps in public service reform*. London: The Work Foundation.

Connelly, D. R. 2007. "Leadership in the Collaborative Interorganizational Domain." *International Journal of Public Administration* 30(11): 1231-1262.

Crosby, B. C., and Bryson, J. M. 2005. "A Leadership Framework for Cross-Sector Collaboration." *Public Management Review* 7(2): 177-201.

Crosby, B. C. 2010. "Leading in the Shared-Power World of 2020." *Public Administration Review* 70(S1): s69-s77.

Crosby, B. C., and Bryson, J. M. 2010. "Special Issue on Public Integrative Leadership: Multiple Turns of the Kaleidoscope." *The Leadership Quarterly* 21(2): 205-208.

Huxham, C., and Vangen, S. 2000. "Leadership in the Shaping and Implementation of Collaboration Agendas: How Things Happen in a (Not Quite) Joined-Up World." *Academy of Management Journal* 43(6): 1159-1175.

Huxham, C., and Vangen, S. 2005. *Managing to Collaborate: The Theory and Practice of Collaborative Advantage*. Abingdon, UK: Routledge.

Jackson, P. M., and Stainsby, L. 2000. "The Public Manager in 2010: Managing Public Sector Networked Organizations." *Public Money and Management* 20(1): 11-16.

Kellis, D. S., and Ran, B. 2013. "Modern Leadership Principles for Public Administration: Time to Move Forward." *Journal of Public Affairs* 13(1): 130-141.

Ljungholm D. P. 2014. "Transformational Leadership Behavior in Public Sector Organizations." *Contemporary Readings in Law and Social Justice* 6(1): 76-81.

O'Leary, R., and Vij, N. 2012. "Collaborative Public Management: Where Have we Been and Where are we Going?" *American Review of Public Administration* 42(5): 507-522.

Ospina, S., and Foldy, E. 2010. "Building Bridges from the Margins: The Work of Leadership in Social Change Organizations." *Leadership Quarterly* 21(2): 292-307.

Page, S. 2010. "Integrative Leadership for Collaborative Governance: Civic Engagement in Seattle." *Leadership Quarterly* 21(2): 246-263.

Peters B. G., and Pierre J. 1998. "Governance Without Government? Rethinking Public Administration." *Journal of Public Administration Research and Theory* 8(2): 223-243.

Rittel, H., and Webber, M. 1973. "Dilemmas in a General Theory of Planning." *Policy Sciences* 4(2): 155-169.

Taylor, S. P. 2018. "Innovation in the Public Sector: Dimensions, Processes, Barriers and Developing a Fostering Framework." *International Journal of Research Science and Management* 5 (1): 28-37.

Van der Wal, Z. 2017. *The 21st Century Public Manager*. London: Palgrave.

Williams, P. 2013. "We are all Boundary Spanners now?" *International Journal of Public Sector Management* 26(1): 17-32.

Wu, X., Ramesh, M., and Howlett, M. 2015. "Policy capacity: A Conceptual Framework for Understanding Policy Competences and Capabilities." *Policy and Society* 34(3-4): 165-171.

Achieve a Renewed Public Service

*Written by Pr. Yves Negro, Professor Emeritus at Jean Moulins University, Lyon (France)
and Honorary President of the French Association of University Professors
(Conseil National des Universités en Sciences de Gestion – Section 06).*

- The public service is not working well and accordingly is heavily criticized; what should be done?
 - Are we to wait for those who are directly concerned?
 - Are we to simply give up the public service and delegate to the private sector as proposed by adventurous partners, forgetting about the constraints of living together?
- The answer is NO. Let us be constructive and move towards tomorrow in earnest.

- Clearly in a world where **VUCA** (Volatility, Uncertainty, Complexity and Ambiguity) [1] is clearly dominant, trying to anticipate events and things to come indeed becomes a tall order for managers of all stripes, in order to manage effectively and constructively. Nowadays, very little is predictable. The environment has shaken older values and the established order, leading to the obvious charms of technologies such as Artificial Intelligence (AI) Expert Systems (ES) associated with communications through Internet, which elevates the difficulty to a much higher level. Many times, the degree of volatility is almost equivalent to walking on quick sands.

- Therefore, given the environment any change project requires a great deal of pragmatism and superior methodology with best practices. Building the future cannot be designed on wishful thinking and untested ideas.

- The Public Services Offer (PSO) can no longer be strictly limited to a basic delivery of services. It must be a far superior fit to what the ordinary citizens represent in their daily living mode. The services must match their identity and be allowed to co-participate as will be seen below in this paper.

- Public Services Delivery (PSD) must be heightened towards more modern formats, perhaps even post-modern. Simple goodwill or the general interest can no longer be sufficient rationale to be convincing to the average lambda citizen (JOHN DOE). Hence, it has become necessary to review the process and move in earnest towards a new approach.

- Public Services Delivery should be a function of superior professionalism, which tends to be the purview of the private sector. That can be accomplished through Professional Development, Coaching and Mentoring. The learning dimension is fundamental and as in all walks of life, learning by doing is to be expected. This concept is made more pressing, when you consider that civil servants with predictable, secured status must now try to assess a moving social economic environment in a state of flux.

- This renewed process cannot be the result of improvisation or “spontaneous response”, it must be properly planned, and the various partners rallied to a common cause with focus and determination.

The objectives have to be defined and broken down into realistic sub-goals; be effectively well communicated to all interested parties and with respect to what follows:

- **General Objective:** What is to be accomplished? Is it the redesign of public services format to deliver a better service to the public, expected in a post-modern society?
 - **Targeted Goal:** The general public should come to recognize that the public service is capable to delivering and perform with actual real accomplishments.
 - **Finality Sought:** The citizenry should be recognized as the owners of public services, which can be accomplished by a healthy well understood competition between the public versus the private sectors.
- That of course implies improved professionalism according to three concurrent dimensions:
 1. Insuring each participant is well aware through adequate communications, what a quality delivery represents in a citizen-client centric orientation. This should be understood as a basic condition for any meaningful evolution.
 2. Preparing the framework necessary to ensure that skill deficiencies be compensated for through development applicable to the staff ongoing with the delivery, as part of a learning process and professional development, which is a fundamental requirement
 3. Being close to a proximity management where the action takes place, represents a significant success factor, insuring public service performance enhancements ongoing. The personnel must have the feeling they are well supported, where errors, weaknesses and failures will be addressed in a human manner as part of a learning curve expected in any project
 - From our perspective, those three points form the **tripod supporting change towards a project for actualizing the Public Service Offer**, which must be launched as soon as possible.

To accomplish this plan, the input by specialists in project management (PM) is required, given that I think rehabilitating the public service offer can only be done in project mode in order to jolt the sector with a new impulse to energize the required action.

What follows will only address the first dimension of the tripod pointed out above.

* * *

Any services related to Public Services Delivery --just like it is in the private sector-- represents activating a production protocol of values under constraints.

6.1.. A Well-Planned Undertaking

- In recent years, many public complaints have been leveled against the public service. This has shown the need to urgently address the issues head on and initiate the necessary cures, which surely promises to be a tall order to achieve; however, we need to believe that it can be done.
- Nowadays, knowledge is the premium asset. Having a university degree is useful (and sometimes essential) for a career in the public service. Reflection and analysis are the key ingredients prior to action expected done fairly well.
- Now however, there is a pressing need to move over to the action side of the issues to change with a focus on objectives and results. So, the time has come where enough meditation on knowledge should serve to deliver the results through action, which is a pragmatic approach...
- We are also well aware that many times perception is the reality, causing the citizens, who are the clients to recoil given the level timeliness and quality of the services. Citizens rightly consider they should be treated as effective clients in respect of their expectations [2] and not in terms of general interest or other societal dimensions.

6.2.. Methodical Protocol is an Obligation

- Whatever the terminology used; protocol, processes, and so on; experience has shown that to be efficient, one must be methodical for oneself and others including the ultimate clients of public services.
- Pertinent guidance from the actual methodology in use, will serve the user clients in action, whom step by step move with the delivery in a comprehensive sequence with respect to the intention of the actual client.

The Proper Method to Deliver Services is Imperative to Rehabilitate the Public Service.

- Choosing the right method is mandatory, given that it serves to appreciate the work of intervening parties as well as follow the building up of the solution emerging from the process. Furthermore, it provides comforting reassurance in a period of time, where uncertainty and suspicion abound, troubling the minds in a world where people seek security, attempting to explain everything to make things predictable as a dominant response.
- The best response is designing the right interactive protocols, guiding step by step towards the satisfaction of the expectations of the citizens users of the services. That is to say it must be flexible and adaptable to each situation as it develops, which would necessarily be an impartial assessment of the quality of such a system. The need to address those issues is pressing, that is

the sooner the better. That accomplishment would yield the right professional image sought by all parties involved and adapted to today's VICA world.

6.3.. Producing & Delivering Services

- Basically, the desired protocol consists in proceeding in a gradual manner transforming the various factors of production using the right resources in terms of competencies and means to accomplish the solution results.
- The actual user of the proposed service becomes highly interactive with the interfacing party. On the basis of the input inquiry the servant or mechanized system must address the situation at hand in a comprehensive manner. It is important the communication be quite clear regarding the inquiry. Therefore, the civil servant may have to successfully define, exactly the needed service sought and expected and have the user agree to that prior to following suit. Then, the civil servant comes up with the proposed answer in response to the inquiry.
- The user and the civil servant go through an interactive process, where the information interchange between them targets towards the actual service or services needed to be delivered. Which intellectually or conceptually if you will, might be described as a satisfactory co-produced solution.
- The above is in radical contrast to what can be found currently in the public sector for most industrialized countries, where the user is brought into an incredibly dysfunctional web of intertwined administrative ramifications and dictatorship. Sometimes Civil servants have the attitude: *"This is how things are and that's it, applying to everyone"*. Well, it shouldn't be that way, especially in a Citizen-Client Centric Approach. It is urgent to intervene constructively and change the approach to comply far better with the values of a modern world, especially as applies to the younger generations (X Gen; Y Gen; Millennium Gen).
- At the risk of sounding trivial, from here on in "doing together" might just be the way to proceed in order to accomplish a win-win situation for everyone.
- This approach, joining *Citizen-Client Centric for satisfactory co-produced solution*, represents now a supplementary alternative for significant progress regarding services rendered by the public sector. Given the historical development of the sector, we must conclude that a new avenue is needed. To obtain the desired change and rise to a modern mode of delivering services. .

6.4.. The Importance of Producing Value

- In just about everything, quality is a fundamental concept. Many features apply to quality and it is largely a function of contextual application. There is value-added in quality and users of public services will find satisfaction and the concept of value for money applies without any doubt, for public hard-earned dollars are buying an asset lasting in time. Consequently, there

has to be value-added for the client user in his/her quest to obtain information and/or actual services from the public sector.

- Nowadays, it is well established that time has been significantly shrunk through the use of technologies accelerating the transaction cycle, suggesting that if the protocol is designed right, then downtime will be reduced if not eliminated, which is a greatly appreciated feature by the user client.
- Interactive dealings between client and civil servant represents a situation, where both take benefit from a quality system driven by a properly designed protocol, which is the method needed as stated above. The attitude and manner of the servant can bear heavily on the perception of the user client, where a face-to-face relationship has to be established. Creating a workable effective environment for both during an encounter is critical. It is here that we must bring to bear a certain number of policies, knowing that a protocol is behaviorally driven. The perception in terms of satisfaction will be largely a function how well the interaction that took place...
- Those civil servants operating without method, find often themselves accused of being incompetent, overpaid, and having little usefulness, by users forever more demanding. Many allude to the time when this could be privatized.
- An adequate method would be one, where the user-client derives satisfaction from the rendered services meeting his/her expectations. For example, the client has the feeling that someone took charge with diligence to resolve the intended request, politely in a courteous manner and with competence delivering the intended solution.
- Those are the few steps along the way, we are proposing should be done in order to rehabilitate the public image of services in the public sector, having for several years been the object of many requests for changes, which it had severe difficulties to achieve. This has been so, in the face of the “Law Rolland” in France stipulating the imperative concept of operational “Mutability” such laws points to the public sector demanding adaptation to the present and behave as innovative model for everyone to follow.
- Even though there seems to be quite some time delays yet, before it is accomplished from straight observation in the field, there is no reason to be pessimistic about it. To the contrary the winds of change is here, and no time should be wasted in sterile discussions and argumentation. Now it is time for action.
- With respect to the features identified in item 6.4 above, it becomes a situation where a representation is made for an offer of services to reshape the sector with an approach beyond a simple utility adjustment, introducing post-modern values prevalent nowadays, within a polymorphic solution, whose goal is to generate functional relationships.

- The representation takes on the following characteristics:
 - Offer based on expertise and know-how, mobilized to create value-added production from a Citizen-Client point of view.
 - Extended offer inclusive of related knowledge specific to achieve valuable co-production with Methods & Techniques for co-production.
 - The actual meeting face-to-face requiring knowing how to be and an adequate relationship conveying a message of consideration right from the point of contact.
- In the context of the new way of handling the relationship the initial contact is of extreme importance in the manner that it is done, and dealings carried out.

6.5.. There are Constraints to Deal with Therefore Realism & Humility Apply

- In order to rehabilitate the Public Service with a viable project insuring a post-modern future, realism has to be the underlying understanding. To achieve this, paying close attention to the constraints causing resistance to change must be addressed with great care otherwise the project could be at significant risk of failure. The constraints are of various natures. The first one and surely not the least, is financial.
- Redesigning the Public Service to bring it up to standards in a modern world is going to be an expensive undertaking. In a pragmatic way, the cost could be a function of the degree of change needed to impart to the sector by the state and interested parties, those being municipalities, villages, and other communities.
- Financing is always a key variable for any project and this one does not escape that reality. Consequently, to alleviate the difficulty a helping dimension is sourcing the needed funds in both the public and private sectors. In respect of various statute laws and responsibilities of the state, judicious decisions will have to be made regarding what segments can be allocated to the private sector, simply because the state cannot finance such a huge project all by itself.
- Clearly whenever an organization undergoes process re-engineering, the ultimate objective is a more competitive presence in the market place and lesser operational cost, meaning a substantially improved bottom line. For the public sector that represents an improved services delivery at lesser cost, making full advantage of what performing technologies has to offer.
- Such a project is quite extensive given the objectives. For instance, recruiting new personnel and training the current personnel to bring it up to the required skills needed in the renewed environment; including the acquisition of the computing material and operational systems, represents large sums of money to be invested. Allocating those enormous expenditure sums within the state budget programs is not a simple task.

- The above implies a sound commitment of senior state policy and executive management, inclusive of their expressed determination to accomplish the preset objectives. That, by itself is not a done deal; we can sense the hard reality of this passage. Obtaining consensus is probably equivalent to wishful thinking.
- There are multiple constraints to consider, not just financial., which are the results of historical development and various pressure points having caused a mixed-bag of situations in a multivariate political environment, which might prove to be more difficult to straighten out than anticipated. It is well known that people resistance to change is always the biggest factor. A project of this size and importance needs strong allies and must be properly managed given the level of risk involved. One helping approach is introducing key personnel whose interpersonal skills are such that they can influence positively, rallying the colleagues to the objectives.
- Such a project requires risk reducers under various forms, especially geared to change mentalities and obtain commitment and determination to achieve the objectives. Focusing on the WHY, avoiding general and theoretical argumentation, making concrete realistic presentations on what to expect and do, which is the WHAT to do, can serve through well prepared communications to alleviate fear of change and negative scenarios. Of course, this is where skilled management moves in as key players to move forward as change agents, otherwise such an undertaking is simply too risky, facing costly failures.
- For such an endeavor, public opinion can be a supportive ally as alluded to above. After all this would be undertaken for superior services to the users at lesser public cost, just imagine. Creditability is the main currency in these matters. Hence, communications to the public is not to be neglected, in fact be an integral part of the effort along the way. Managers have to be the change agents required in this process; otherwise the insertion of better-qualified managers may be considered. Evidently, recruiting will be carried out on the basis of the competencies needed. A very strong emphasis must be placed on interpersonal skills.

Conclusion

- Redesigning Public Services Offer is not an option; it must be considered seriously, or the future might be not so rosy as we would like it to be. Given the size, complexity and risk of such an undertaking, it stands to reason that no improvisation is allowed. Only the seasoned professionals can reduce such risks. The costs are exorbitant, making the financial side of the project somewhat chancy. The state does not have access to unlimited funds, pointing to the need to look for new sources of financing. Furthermore, project cost control will need to be tight fisted, avoiding losses and useless expenditures. .
- Given the forerunning issues presented, there is a need to be creative and innovative with originality and professionalism by the various intervening parties within the set protocol producing value for both sides of a transaction, that is the user and the servant.

- There is a strong need to install a bottom up process as opposed to a historical top down process to deliver services. This must be accomplished where the action creates value.
- Unquestionably, the determinant pointing to the need to re-engineer the Public Service resides in the value-added satisfaction of users and other stakeholders. This is a collective endeavor.

* * *

NOTES

[1] VUCA: Volatility refers to the high rate of change; Uncertainty is the difficulty to predict with tolerable accuracy; Complexity refers to multivariate situations where the interdependency between the variables leads to a probable result difficult to ascertain ahead of time. Ambiguity is the uncertain ability to assess correctly the significance and consequences of events, given the mixed signals that can emerge.

[2] Immediacy and uniqueness are post-modern characteristics linked to attitudes and behavioral patterns of today's youth. "For me now rather than later and for all" as opposed to what was before...

* * *

7.. INTEGRATING PUBLIC SERVICES in the DIGITAL AGE: ISSUES & MANAGEMENT CHALLENGES

Integrating Public Services in The Digital Age: Management Issues & Challenges

Written by Pr. Christian Boudreau, Ph. D., professor at ENAP-UQ (University of Quebec).

Introduction

Integrating public services and sharing its resources such as human, material, financial and information bases, are at the center of government digital development strategies, which have been taking place over the last fifteen years, more specifically in the developed and emerging nations of the world. (United Nations, 2014; 2016) The rate (pace and magnitude) of the implementation of shared and integrated services have been quite intense and are showing no sign of relenting.

Many governments around the world perceive this as a significant leverage to enhance the efficiency of their infrastructures delivering quality services. The attributes are many, for instance: certain economies of scale; harmonized administrative processes; ongoing free flowing services; sharing limited expertise are but a few of the great advantages generated by services integration. (Boudreau, 2019)

Understood as the pooling of resources and services offered continuously by several organizations (Kernaghan, 2005), the integration of public services appears as an obvious way for the government to simplify public service access and to rationalize the use of its resources. (Borins, 2007, Boudreau, 2011)

Integration may represent an adequate response to the many existing government Websites and to the online services diversification, a trend peeking in early 2000's. (United Nations, 2012) Adopting recently the integrated services approach, governments have tried to reverse the trend of services and programs fragmentation and the "Agentification" of public organizations. (Bouckaert & al. 2010)

Some statistics in Quebec reveal the extend of this fragmentation. In the early 1960's, there were less than 20 public organizations in existence in Quebec. The number rose dramatically to more than 180 by 2013-2014, covering more than 400 public services distributed across 80 ministries and departments, a gigantic puzzle for the average citizen and enterprise to probing their way across such a web of government services.

7.1.. The Main Forms of Integration for Public Services

In general terms, integration rests on the principle that it is preferable to “do together” or “let it be done by others” instead of “doing it each for oneself”. Hence, in a collaborative spirit, public organizations are called upon to yield their collective effort, sharing their resources, including the associated expertise in order to achieve delivery of the best quality services at minimal cost. The various technological infrastructures and supportive platforms provide an interesting avenue for public organizations to draw significant benefits from the joint resources and expertise right where it is located, offering material support for simultaneous cooperation between those various organizations.

Among the strategic options available regarding the development of digital government, four forms of integration come out, namely: (1) Internal integrated services; (2) Portal; (3) One stop shop; (4) Shared services.

Integrated services are a grouping of common or related services offered by more than one organization to non-governmental clientele. By offering integrated services the state tries to simplify the life of citizens and enterprises by inserting common and closely related services into a continuous process which minimize useless delaying formalities for users, or such things as data re-entry for different business units. For several years now, the Quebec public administration has been offering several integrated digital based services, like change of address; business startups; calls for tenders’ electronic systems (SEAO); citizens individual dossier; government authentication (ClicSÉCUR); individual health dossier (DSQ) and more recently the personal health record (Carnet de santé).

Portal is grouping information and services in one web site in order to provide the citizenry and business enterprises – and to a lesser degree for foreign users, whom might be tourists, immigrants, investors or other parties - with the required information and services they seek for their own use and. Services offered on the portal are pretty much on an intuitive basis. The portal itself could have several layers and be of various order, like international, national, provincial; regional; municipal or other. Nowadays, most countries and most large cities of the world have implemented such portals, which can vary widely in terms of maturity levels, especially where transactions are carried out. It is easy to appreciate the underlying rationale for such portal facilities, which is making the life of citizens and organizations simpler while seeking information and/or services. The portal can fully support the client with his information and services as it can act as a relay and refer the client to the appropriate provider.

One Stop Shop represents the grouping of a variety of services offered according to various channel of delivery, which can be: in person; online; by telephone or postal services. Much like portals, one-stop-shop is aimed at delivering services, which used to be provided by other departments, and can further be used to relay the user towards the appropriate service provider. In the past, one stop shop was mostly in the form of relay to the right provider as opposed to nowadays, where first line services are provided. Such systems as “Services Canada” and the majority of provincial governments like “Services Quebec”, “Services New Brunswick”,

“Services Ontario”, “Services Alberta” and more, have respectively developed and implemented such facilities, combining portals, call centers, and service counters.

Shared Services. Contrary to the preceding types of integration, shared integrated services is designed to serve public organizations themselves instead of citizens and business enterprises to. The underlying rationale is to mutualize the infrastructures and related operations of the government back office in order to reduce government operational costs by reducing redundant duplicated information and administrative services. Several governments have favored the creation of shared service centers as a model of back office integration. Those entities may regroup common administrative services or infrastructures and specific expertise to make it available to public bodies so that they can focus on their mission.

Integrating services of government organizations of the same level is referred to as horizontal, which is the most common type at the core of the state. For example, the Quebec service for changes of addresses (SQCA) is a horizontal integration service. Whenever the integration involves public organizations of different levels of government, then the integration is said to be vertical. The system called PerLe, handling the issuance of different permits for the business creation in Quebec or in Canada is an example of that, given that all three levels are involved, that is Federal, Provincial and Municipal. Integrating public services is also a vector of support by non-government organizations, inclusive of private organizations and community non-profit organizations as well. The “Federal integrated system Secure Key”, is an excellent example of a successful extra governmental integration, where several other outside parties play an important role, such as banks serving to authenticate user citizens and associated data with respect to government transactions.

7.2.. Issues Regarding Projects for Services Integration

The current economic, political and technological environments are conducive to additional integration. While the majority of industrialized and emerging countries have given priority to the integration of digital based services, it however has been superficial so far, leaving citizens and enterprises to cope with multiple formalities and administrative hassles, many times repetitive and painstaking. The feeling is akin to buck passing, where the service is not delivered simply and promptly. This happens whenever a particular portal only provides the user with a charted course of action across various organizations and linked redirection towards other websites. Integrating services gives rise to complex projects to be managed, relating to administrative, technological and information infrastructures and inter-government relations, which of course explains the reason why the overall success is greatly mitigated.

The integration of services goes well beyond a simple automated exchange of information between partners. It involves a prior interconnection of the administrative and technological systems of those mandated partners. (Pardo et al. 2012; Boudreau & Bernier 2012) The underlying rationale is allowing the interoperability of the government back-office. The interconnection between the partners must go through a certain harmonization or even standardization of their technological systems, their administrative processes and their data. In

a way, administrative and technological systems must be able to communicate and understand one another.

To accomplish the intended objective is not simple given the mix of technologies involved, the result of historical development in isolated islands, and where navigating towards a common goal can be replete with all kinds of stumbling blocks, pitfalls and costly difficulties. It is a key control feature, keeping maintenance in mind by systems management.

In Quebec as elsewhere, public organizations have long tended to diversify their operating rules and to multiply their systems as they deploy their services or business lines, without worrying about interoperability. (Boudreau & Bernier, 2017)

Both the administrative staff and information systems together are really one system. Trying to incite change is probably easier to move an iceberg. Today's state of affairs is the historical sum of long-established policies, administrative routines, documentation and information retrieval in public organizations. (Fountains 2001; Gray & Purdy 2018) Therefore, becoming aware of such stumbling blocks, managing change requires dedicated finesse and enlightened skills, a rare ingredient. For example, changing the upstream procedures leading to authentication, automatic validated data capture, secured environments and universal access remains a tall order, slow and costly to achieve.

As a case in point, let's refer to the Quebec database system for the management of changes of addresses. (SQCA) Following two years of discussion and intense negotiation the partners to the system agreed to the needed parameters to make effective the implementation of SQCA. [1] The operational system is designed in such a way that it follows each individual department's protocol for data prompting and entry.

Lack of historical common administrative policies and procedures along with island management of the various government units, ministries, departments, agencies and other related organizations, each with its own terminology, makes the merging and integrating of systems, slow to implement with elevated risk of costly failures and restarts. This is something we have stood witness to, as in the case of the individual health dossier for instance. The report of the Quebec Auditor General (QAG) makes that explicit and paraphrasing: "The health system through the years has produced a large number of data and information assets, without a synthetic overview for a common perspective applying to data structure." (QAG Annual Report 2009-10, Ch. 6 & 13)

The Justice Department is also targeted as a problem area. Many proprietary systems implemented in the early 70's and 80's are locked solid into position and little has been done to move the technology forward ever since. (Boudreau & Bernier 2004) [2]

Historically most public organizations, especially the service ones, have been operating through time as autonomous bureaucracies, having developed their own separate rules and routines to optimize their own responsibilities, accomplishing the mandate for which they came into existence in the first place. Bureaucratic behavioral patterns appear to be the main currency of

public administration. (Fountains, 2001, 2009) It must however be recognized, that the bureaucratic mode of operation is an effective and efficient manner to deliver services, where everything is predictable and easily managed on a routine basis, handling large volumes of transactions across the various programs. (Boudreau, 2006) Neither the new public management nor the whole-of-government have had any effect to change this. Bureaucracy and related vertical management [3] of the invested resources have shown their ineffective capacity to resolve complex and unforeseen problems. (Milward & Provan, 2000, O'Toole, 1997; U.N. 2014)

Vertical Integration has Limitations Whenever Project Management Is at Stake. Furthermore, vertical management has demonstrated its limits with respect to multi-partner projects. This is a basic requirement whenever a project for integration of public services emerges, leading to a situation where all associated partners must come to terms regarding the needed parameters applying to the project. This causes unexpected delays, given the various partners must seek, approval by the respective authorities in strict compliance with the different hierarchical levels, whose ownership of the resources cannot be alienated. This phenomenon gives rise to the island concepts, which by its very nature represents resistance to change and consequently slows down the process of integration. The obsessive idea vertical management entertains, is the loss of control over their resources. This is made worse if the managers have the feeling that they are deprived of certain resources that they consider strategic.

Furthermore, integration has the effect of reducing the autonomy of management in favor of tight interrelationships with the partners. Then, it follows that resistance to change is generated by the slower partners, slowing down the progress for the others and becoming an irritant to say the least. Hence, there is no surprise, observing the lukewarm participation of certain partners, apprehensive and doubtful, especially in the early days of the inception of the project. A point to highlight is sometimes organizational barriers within an organization is a great deal more severe than it would be encountered between different organizations.

It is easy to assume that an organization with tight internal authority barriers will bring the same behavioral island pattern in relation with others.

7. 3.. Challenges Associated with Collaborative Management

While vertical management is effective managing programs and specific services however, the various management policies, rules and procedures are inadequate for the efficient management of multi-partner projects, more particularly projects aiming at integrating services.

Given the high level of complexity, it is impossible to plan and coordinate such projects centrally with very detailed elements, especially when there is a large number of partners and no evident line of authority.

Successful services integration is also based on horizontal management and inter-organizational collaboration, rather than hierarchical power. Here the term “collaboration” is defined as a “collective learning that is acquired as the organizations and their representatives get to know

each other and agree on a common framework of interpretations and actions.” (In Boudreau & Bernier, 2007; see also Keast & Mandell, 2018; Ansell & Gash, 2008; Gray & Purdy, 2018).

Collaboration, therefore, flows from the asserted capacity to operate together to implement common projects in the best interest of all partners or collectivity. (Boudreau, 2019)

Contrary to compliance with formal orders, collaboration cannot be decreed. Rather, it is based on reciprocal relationships of trust, largely based on prior experience linked to “trust is established gradually after repeated interactions between people who act in good faith and tend to put aside opportunist calculations.” (Boudreau & Bernier, 2017; Gulati, 1995; Podolny & Page, 1998) The Quebec experience in this context has shown that, integration projects have tended to be traumatic, fraught with many stumbling blocks, achieved with pain, risky and costly. Trust is difficult to obtain and can be easily lost. (Boudreau et Bernier, 2017)

One of the most critical challenges regarding horizontal management, is the development of a climate of trust between the partners, so they collaborate and innovate voluntarily to the successful implementation of a common project.

In order to build up an adequate climate of trust and confidence, the managers of the project have to approach this with the concept of “soft management” whose less intrusive approach makes for less oppressive control and associated sanctions.

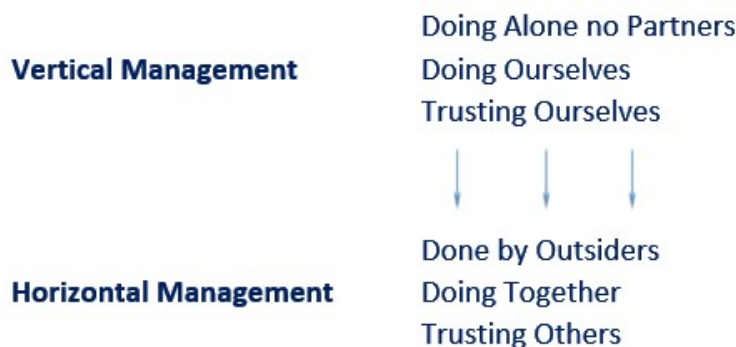
This new style of management is along the lines prescribed by, Keast & Mandell (2018) concept “catalyst type of leadership”, as opposed to directive and coercive, which is placing the partners at the center of deep organizational transformations.

A serious, greatly dysfunctional risk with such projects is the eventual pulling out of the project of one or more key partners acting on their own individually, thereby putting the collaborative capital in severe predicaments. (Agranoff & McGuire, 2001)

Another major challenge is getting the partners working together in goal congruence. They have to try and reduce focusing on their own respective corporate or individual interest and rally to a common objective oriented to a wider global government strategy. (Boudreau & Bernier, 2017)

Historically, the partners have been self-starting, doing their own thing with confidence in some degree of isolation. Now, they must learn to do together, also letting others to do, and trust them in the process to achieve the desired integration of services. (Ref. Figure 7.1)

Figure 7.1 *Management Standards According to Organizational Modes*



If multi-partner project collaboration cannot be decreed, it can be managed. More precisely, whenever projects have a large number of partners and delays are unreasonable, then a centralized management for adequate coordination can be more appropriate.

Indeed, having a credible centralized approach may be an efficient means to yield to a higher degree of stability, while enhancing the decision-making process and the coherence of the integration process. (Provan & Millward, 1995; Milward & Provan, 2000; Provan & Kenis, 2008; Provan & Lemaire, 2012; Koliba 2018). Formalizing and centralizing certain decisions suggest that not all the parameters of a project need to be discussed and negotiated thereby avoiding long unnecessary delays. It also becomes useful to arbiter in cases of litigation and deadlock. Further, such a governing entity may propose specific inter-operational standards to mutualize resources between the partners, whether they are systems, data or processes.

Finally, whenever coordinating interorganizational relations is at stake in order to accomplish common and complex government projects, it is quite clear that vertical versus horizontal management is not mutually exclusive. In this collaborative context, where resources are mutualized, competent management will be the one who take advantage of a stable decision-making process flowing from the hierarchy, inclusive of the needed flexibility and innovative power of the partnership network.

* * *

NOTES

[1] Widely accepted by the Quebec population.

[2] Boudreau, Christian, Bernier, Luc et al. Étude de cas: Système intégré d'information de justice (SIJ). Québec, ENAP, 2004, 29 p.

[3] Vertical Management refers to a hierarchical structure according to the formal policies expressed by the center.

REFERENCES

Agranoff, R. et McGuire, M. (2001). "Big questions in public network management Research", in *Journal of Public Administration and Research Theory*, vol. 11, n° 3, pp. 295-326.

Ansell, C. et Gash, A. (2008). "Collaborative governance in theory and practice", in *Journal of Public Administration and Research Theory*, vol. 18, n° 4, pp. 543-71.

Bouckaert, G., Peters, G. B. et Verhoest, K. (2010). *The Coordination of Public Sector Organizations: Shifting Patterns of Public Management*, Palgrave Macmillan.

Boudreau, C. (2006). "Multipolarité de la surveillance et gestion des médicaments au Québec", *Recherches sociographiques*, vol. 47, no 2, pp. 299-320.

Boudreau, C. et L. Bernier (2017). "The implementation of integrated electronic service delivery in Quebec: The conditions of collaboration and lessons", in *International Review of Administrative Sciences*, vol 83, no 3 pp. 602-620. (Also published in french).

Fountains, J. E. (2001). *Building the Virtual State. Information Technology and Institutional Change*, Washington (D.C.), Brookings Institution Press.

Fountains, J. E. (2009). "Bureaucratic reform and e-government in the United States: An institutional perspective" In Chadwick, A. et Howard, P. N (dir.) *The Handbook of Internet Politics*, New York, Routledge, pp. 99-113.

Gray, B. et J. Purdy. (2018). *Collaborating for our Future. Multi-stakeholder partnerships for Solving Complex Problems*, Oxford University Press.

Kernaghan, K. (2005.) "Moving towards the virtual state: Integrating services and service channels for citizen-centred delivery", in *Int. Review of Adm. Sciences*, vol. 71, n° 1, pp. 119-31.

Milward, H. B. et Provan, K. G. (2000). "Governing the hollow state", in *Journal of Public Administration Research and Theory*, vol. 10, n° 2, pp. 359–380.

Nations-Unies (2012). *United Nations e-Government Survey. E-government for the People*, N.Y.

Nations-Unies (2014). *United Nations e-Government Survey 2014. E-government for the Future We Want*, New York.

Pardo, T. A., Nam, T. & Burke, G. B. (2012). "E-government interoperability: Interaction of policy, management, and technology dimensions", in *Social Science Computer Review*, vol. 30, n° 1, pp. 7-23.

Podolny, J. M. et K. L. Page (1998). "Network forms of organization", in *Annual Review of Sociology* vol. 24, pp. 57-76.

8.. ETHICAL MANAGEMENT of COMPLEX PUBLIC PROJECTS

Written by **Jacques A. Plamondon**, Ph. D. Associate Professor ENAP-UQ (University of Quebec).
(Text delivered February 2, 2019)

***“I have striven not to laugh at human actions,
not to weep at them, nor to hate them, but to understand them”***
(Baruch Spinoza, Tractatus Politicus, I, 4).

To characterize the current state of science, Ilya Prigogine, *Nobel Prize laureat for chemistry*, published a book entitled “La fin des certitudes” [1]. It is fair to extrapolate this idea to a wide variety of situations in the present state of the world, where professional managers face the need to adapt their organizations, their techniques, their processes, etc. to a fast-changing environment. Administrative literature has branded these occurrences transformational changes.

The intent here is to develop an administrative approach that is ethically sound capable to mobilize a team to achieve a major change project. The underlying conceptual philosophy supporting my concrete proposals is purely Spinozist and the reader shouldn’t be disturbed by arguments being construed to operationalize certain principles developed by Spinoza. [2]

8.1.. Definitions [3]

Primarily, it is important to propose the following definitions to the readers explaining the meaning of words used henceforth to explain the characteristics of a change project launched to improve a public organization, be it an institution, a ministry, a department or an agency, etc.

Change is a process, whereby an individual or a collectivity undertakes, striving to survive, to better adapt to a new situation in a given environment. Why pursues change? Milton Erikson, an American psychiatrist, said: “Whenever a subject senses dissatisfaction about the present, while he longs for a better future, change is necessary.” This simple fact should be kept in mind whenever tackling such a task because this may contribute to avoid many pitfalls along the road.

Complexity is a situation whereby several interconnecting variables come into play, variables such as human relationships, professional competencies, technological tools, shared experiences and cultural components, etc.

Managers or leaders are members of a given collectivity who hold a certain degree of hierarchical authority, or even a moral one, over subordinates, coordinating actions to bring about the success of a particular project. In the administrative literature, the concept of leader is often used to refer to these persons.

Ethics is a field of study concerned with actions by which persons, leaders or followers, are made aware of moral principles governing autonomous decision making.

Subordinates or followers are staff members assigned to deliver services under the leadership of managers.

Team. A group of leaders and subordinate staff members whose task is the successful accomplishment of a project.

Project Management is the sum total of actions undertaken by leaders and team members deploying the resources available to them towards the successful delivery of a project.

Organizations are basically the institutional groupings of individuals coming together to maximize the impact of their actions in order to sustain their own existence and to prosper. Within this essay, it refers primarily to any public institution, such as a ministry, a department, an agency, a corporation... created by government to carry out their respectively assigned mission.

Projects are processes undertaken by an individual or an organization and aiming at generating change of various nature or scale.

Values are relative, as defined by Spinoza: “Good or evil are purely relative”. - Although, of course, we must agree that there is a difference between a poison and a remedy! Should there be no good or evil in se, there is however good or evil as far as we are concerned: there exist things that are in harmony with our own essence. Therefore, it becomes imperative to acquire a true awareness towards this and to be in a position to communicate this knowledge. The corner stone of this moral position, Spinoza calls *conatus*, which he defines thus: “everything according to its inner strength (quantum in se est) strives to sustain its own existence.” [4] That impulse (*élan vital* as Henri Bergson would put it) is common to all living creatures, individuals or human institutions.

8.2.. Why refer to Spinoza?

As we have seen in our opening exergue, Spinoza emerges as a rationalist akin to René Descartes, who introduced the argumentative method based on scientific precepts, which were developed during the Renaissance under the influence of Copernicus and Galileo. Breaking with the scholastic’s philosophers, the first rationalists applied to all subject matters the kind of mathematical analysis developed in physics which gave birth to a new natural science, grounded on firmer basis than the ones derived from commentaries of the Greek philosopher Aristotle and of the Holy Scriptures.

Spinoza, like Descartes, attempted to implant his work more *geometrico*, as he tells us in the subtitle of *Ethics* [5], his main opus. In so doing, he eventually became a great deal more radical than his peers and made a clear rupture with any thought sustaining the finalist error. He denounced those living under the illusion that they are free (e.g. he will give a new meaning to the concept of freedom, as we shall see later) and thus, refuting those who saw a break between man and the rest of nature (e.g. who saw man as a kind of “empire within an empire”).

That illusion flows, as he saw it, from an error based on anthropomorphism. He criticized the scholastics by asserting that geometric rigor, when applied to the cosmos, will inevitably reveal the existence of a superior being, God, who necessarily maintains the totality of Nature in its existence. *Deus sive Natura* [6] is the revolutionary principle he proposes in Part IV of his Ethics.

This philosophy has fundamental implications on our human condition, when it comes to choose **how to live ethically**. In the first place, the idea that there is a personal God that would have created Nature for the use of man and who would dictate a moral of good and evil, of sins and wrongdoings, conducing to salvation or to eternal damnation in another world, is a dead issue. For Spinoza, there is only the here-and-now and man has to attain his own accomplishment which can only be brought about by its full realization of his own nature: **to understand**. Spinoza asserts that should man achieve such understanding, then he will be overjoyed and will be enlightened by the necessary nature of our universe. In so doing, he will intuitively grasp the reality of God (Nature), thereby experiencing eternity.

Then, what is the purpose of ethics if everything is pre-ordained? What is underlying his idea of *free necessity*?

It is pointless, as we have seen, to look for what is good or evil in itself. This should put an end to dogmatic ethics, whereby one acts as a censor admonishing other based on his emotions or his opinions, without being able to rationally justify his positions. Furthermore, there is no need to either praise nor blame the behavior of others according to one's own preferences, lifestyle or future ends, without any solid grounding in reality. In our cosmos, there isn't any *deus ex machina* expecting anything from men... This is a definite departure from what would normally be considered as ethical and it puts an end to the domination of the ayatollahs of ethics. How is that possible? Spinoza asserts that natural beings have an inborn impulse (e.g. *conatus* in Latin [7]) sustaining their existence and development). That vital impulse leads men to consider as good "whatever is useful to them". All there is to do in order to choose amongst the various options that are within their reach by necessity, is to use judiciously their rational faculties. Consequently, it follows that they will experience their freedom of choice each time that they are not subjected to any exogenous influence or external power, thereby accomplishing fully their personal purpose in their own existence. The path to achieve this goal is prescribed by Spinoza and it should lead to the expected joyfulness that is the real beatitude he is proposing. In fact, Spinoza could just as easily have agreed with the aphorism coined by Blaise Pascal: *All of our dignity consists in thought. Let us endeavor then to think well; this is the principle of morality*. [8]

8.3.. Applying this philosophy to Complex Change Management

Organizations, whose prime impulse is sustaining their own existence, are yet are in constant evolution: it has never been true that human institutions have endured steadfast through time against pressures of various kinds. In prior times, the institutions were more solidly grounded in a resilient conservative mode and therefore were slower to adapt to change. In our current time, things evolve at a faster pace that is akin to that of the Renaissance, which was much

more than a resurgence of Antiquity notwithstanding the erroneous popular view. This period was replete with emerging novelties and Friedrich Engels was right when he described the period, as *“The most progressively disturbing era the world has ever known.”* [9]

Nowadays, it is thus: with the advent of the digital age, men are constantly bombarded by information on the future and must often enough react immediately. News circulate at the speed of light through the official press industry, or through the social medias that permeate the five continents and the whole world. The environment on planet earth is submitted to much abuse aimed at satisfying men’s greed to always get more, better, and faster. Social consensus is more difficult to obtain, while individualism is dominant in a highly fragmented society. The bottom line is that modern life increases the pressures that require changes in the current public structures, whether they are ministries, departments or other agencies. These organization in turn rely on their professional manpower to keep abreast with the changes and attempt proactively to anticipate, control and even to precede the changes that are needed.

Given these challenges facing public institutions, the key emerging question concerns the best practices that could be brought to bear on the management of complex changes? There lies the underlying purpose of this essay. Furthermore, it shall be imperative that our proposal throw light on the nature of the required actions as well as on the means to be applied: we shall fare away from the Machiavellian principle that the end justifies the means and we shall rather give the utmost importance to the ethical character of such a project.

8.4.. Initiating Organizational Change

8.4.1.. Planning the Change Project

Most often, an organization will be brought to change following an assessment based on the quantified gap between the projected performances and the actual results it meets. Doing better to tackle the future challenges: this must become a new focus. We have to remember that by definition we have established this notion as a primary truth that we should keep in mind at all time. Consequently, the assessment should examine the sources of the observable variances between ends and results, paying attention to the organizational components that need to be improved, such as the orientations of the organization, its structure, its resources, the states of the human relations within it... Following this diagnostic, objectives for the future performances and the identification of all factors supportive of the necessary changes have to be laid out. Any foreseeable resistance should be identified clearly. All these factors should bring about the preparation of an articulate plan to implement the projected change.

Generally speaking, management should initiate the assessment process and should complete a thorough in-depth analysis of the situation. Depending on the scope of the change required, the leader should forecast the degree of involvement needed from the followers to carry out the plan. He will have the responsibility to draft a strategy that will be proportional to the efforts needed, considering the importance of the potential gain expected from the change, which will depend on the fact that the move is imposed or freely chosen, and to its degree of urgency. It is fair to expect that a project imposed and urgent will proceed on the basis of simple information

and require obedience, while the spontaneous and non-urgent one will invite a larger participation of the team.

Between the two, it is possible to imagine a situation that allows more freedom for actions urgently needed that seeks general acceptance or the non-urgent situation that leaves a narrower space for individual actions while it requires responsible response on the part of the agents.

In each of these four cases, the leader should choose a strategy that corresponds to the necessities of the situation and he should seek the key elements to activate the required response on the part of the actors. The subordinates should adjust to the ongoing situation and act accordingly as it is required of them, modulating their response between committed obedience and active participation. The next figure illustrates the four possibilities that are thus distinguished.

Figure 8.1 Types of Change

	Non-Urgent	Urgent
Imposed change	Important initiative CONSULTATION	Very weak initiative INFORMATION
Chosen Change	Very important initiative (Strong empowerment) RESPONSABILIZATION	Weak initiative PERSUASION

8.4.2.. Implementing Change

Recapping the sequence of events, we can list: 1) the necessity of making a rigorous diagnosis; 2) the setting of clear objectives; 3) the identification of key factors involved; and 4) the laying out of a detailed plan... Those are all necessary steps that are prior to **implementing the proposed change**. When all of these have been completed, then what is left is to deliver on the plan. The intervening members of the team, leaders and subordinates, must be clear about their respective roles and proceed accordingly in order to profit the organization. Their institution has a vested interest to strengthen its own existence and to search for significant advantages from a development that can generate new opportunities.

It is important now to delineate what is to be expected from the team members:

- a.. Leaders are responsible to oversee the ongoing process. They are the ones who are the guardians of the smooth proceeding of the project and they remain those agents that are ultimately responsible for the mobilization of the troop and, when it is called for, for the appreciation of all small successes observed along the way;

b.. The subordinates should take their respective place in the hierarchy by giving sense to their best efforts in achieving the project. It is their responsibility to make the objectives their own and to find the best practices that can generate the expected results.

Let us see now what are the ethical values that both categories of members in the team, leaders and followers, must display? From management we can rightfully expect close monitoring of the mobilization of those involved with pursuing the project. Robert K. Greenleaf has written an inspiring piece of philosophy promoting his **leadership ethics**, that will be use as a checklist in our quest for best practices. [10]

Greenleaf introduces the idea that, prior to becoming a leader, someone has to learn to obey and execute orders. He proceeds to illustrate his proposal by using the *Journey to the East*, written by the German writer Hermann Hesse [11], whereby we follow a band of men on a mythical journey to reach the Far East. They are accompanied by a faithful servant called Leo, whose responsibility it is to do their menial chores, but also to sustain them by his good spirit. All goes well until at one time during the expedition, Leo disappears, and the group falls into disarray, incapable of resuming the journey until Leo reappears. It is only then, that it dawns on the pilgrims that their servant was in fact their guide. – So, it is with a leader: he must learn to serve the common interests of the group before taking charge. According to Greenleaf, it is in this way that he can best learn to play his role as a leader. His hierarchical authority will then be strengthened by moral authority, conducive to the success of the enterprise by wakening his followers to full conscience. Thus, each and every participant will be uplifted in the pursuit of the common goal and will show a strong acceptance of his guidance and a strong involvement to the project.

In response to this role played by management, the subordinates must rise to the level, feeling intimately associated to the project. This disposition requires that they pursue the endeavor over and above their own self-interest. Spinoza, just like Thomas Hobbes and well before Jean-Jacques Rousseau, has maintained that society is based on a social agreement whereby every individual accepts to forego a certain degree of his own autonomy in favor of the collective. It is in that way that he can give greater value to his own personal efforts. By so doing, he derives a far greater benefit for his own existence, while the collective team consolidates its own existence. This idea may perhaps be construed to illustrate Darwin's evolutionary theory of the survival of the fittest in our human society!

8.4.3.. Managing Organizational Transition

The next phase regarding the implementation of a change project implies **navigating from the current state of affairs to a new state**. Here again, the manager must reveal himself to be a change agent, motivating and rallying his subordinates towards the desired objectives. He has the mission of explaining plainly the expectations, while always being respectful of the persons that are involved in the process or are affected by it. These actions require that he values the expertise of his employees and that he makes sure to increase their knowhow whenever it is

lacking. He should also consider the rhythm of each person to assimilate the new realities introduced by the change: as a popular saying goes, “one cannot induce a flower to grow faster by pulling on it”. He must convince himself that those that are fully involved in the project are the ultimate persons responsible for their own adjustment. They are the ones that have to respond and to place themselves in a position to take benefit of new opportunities. Consequently, the manager must rally all his subordinates, **motivating them**, towards the delivery of the project. This attitude requires that he acknowledges the personal values of every members of his team and that he delegates part of the mandate to his followers on the basis of trust. Obviously, it is impossible for a choirmaster to play a *cantata* all by himself: he must rely on a large scope of voices and he can find them by selecting carefully his sopranos, his tenors, his barytones and his bass.

In return, the executants must fulfill their respective tasks to the best of their ability in order that the project be a complete success.

No one can ignore that the whole team is responsible for the delivery of the change project, while it is also true that the process can reveal a few natural leaders. Management should identify those moral leaders and make sure that they get their full support in order to convince those who resist the new realities and hang on to the status quo. Their challenge is to get everyone on board.

8.4.4.. Assessing the Project

At the end of such a delicate operation, it is necessary to create the conditions needed to conduct a rigorous assessment of the process and of the degree to which it has succeeded in reaching the objectives that were anticipated in the initial plan. Often enough, this scrutiny of a project offers a serious challenge. It is not easy to accept self-criticism. Notwithstanding this, it is only in this manner that a learning organization will emerge [12], will grow and will succeed in future adaptations of the sort.

Let us now list the supportive conditions needed for this assessment:

- Committed and motivational management that animates the process;
- Clear and impartial definitions of assessment criteria;
- Finally, it is necessary to adopt a readiness of mind that does not search for scapegoats to blame but tries to learn from the experience.

8.5.. Final considerations

Up to this point, the components of a change project were introduced and were examined to discover systemic traits that present themselves in every instance. Administrative literature studying project management issues shows the pitfalls a change agent can meet when engaging in such an operation. We have dwelt on them at length in this paper. There remains to distinguish the values leaders and followers must display, if we consider the ethical principles that follow necessarily, as Spinoza would say, from the determinisms that prevail in an

organization. Naming these values can help to establish a hierarchy within the actions that must be taken in order to engage harmoniously in a project and guarantee its success. By subscribing to a Spinozist philosophy, we implicitly agreed to the necessity of abiding by certain values that guarantee that the whole process will go on smoothly...

It is unavoidable in our troubled times that one, leader or subordinate, be put in the position to adapt his practice to everchanging conditions, that have often never been met before. This conjuncture also offers new opportunities for change to those new employees joining the public sector. In so doing, civil servants become responsible to their hierarchy **as well as to the public they are called upon to serve**. An American President, whom in prior times had also been a civil servant, has written a classic piece of public administration literature that reads as follows:

“The question for us is, how shall our series of governments within governments be so administered that it shall always be to the interest of the public officer to serve, not his superior alone but the community also, with the best efforts of his talents and the soberest service of his conscience”. [13]

President Woodrow Wilson, who initiated the founding of the first public administration schools in the U.S., foresaw that the **ethics of public servants was the corner stone conducive to trust in Government at large**. Therefore, the fundamental paper he wrote in 1887 made a point to highlight the importance of ethical integrity for civil servants.

Let us now see the qualities that are needed to properly initiate a change project:

1) What kind of leader?

The organization we are looking at should be under the leadership of managers that look upon themselves as **trustees of the common good**. They must be willing to question their own contributions and accept criticisms aimed to improve practices. They must engage in problem solving without complacency and never brush problems under the rug. They should rise to the challenges that present themselves, look for adequate remedies to problematic situations and implement the required correctives. Their vision with respect to the organization should be aimed at establishing the right objectives for the organization and at reaching the high targets it sets for itself. Their role is also to initiate actions and take responsibilities for the results. Communication skills should help to enroll subordinates under their leadership, while their actions should always be respectful and strictly equitable for all persons involved.

2) What kind of followers?

Organizations depend largely on employees that are competent, that grow in the mastery of their skills and that are apt to adopt a critical distance when habits kick in. Such employees must be motivated to give their input and their criticisms in the appropriate manners to their leaders, always being careful to observe the hierarchical pyramid. They must reveal themselves flexible in their interventions and show their loyalty to their superiors while they demonstrate prudence when engaged in action. As a general rule, one should expect that they show diligence and

demonstrate full cooperation while working with the team. They should be fully engaged in their role and care for the success of their organization in filling its mission, making sure to serve with loyalty. Trustees of their fellow citizens, they must strive to protect the best interest of society, which may mean under dire circumstances that they should be able to denounce any wrongdoings that they have witnessed (e.g. we can think here of exceptional situations when a whistleblower must be protected from retaliation).

Figure 8.2 Values expected from a Team

Values expected from <i>Managers</i>	Values expected from <i>Subordinates</i>
Conceptual Awareness Foresight Decisive and Self-assured Astute & Innovative Responsible and Dedicated Persuasive (communications skills) Respectful of Others Fair Self-critical Listening Capabilities	Professional Competencies Flexible & Adaptable Cooperative Methodical & Cautious Accountable Obedient & Trusting Open to Others Loyal Critical Mind Commitment

The above listing is nowhere near exhaustive. And there is no one-size-fits-all solution. Not by any means! There are many ways to manage change by relying on actual strengths and by reducing deficiencies found through self-examination. It would have been possible to analyze the process further and to distinguish many more different styles of leadership. In the same way, it is possible to unfold many ways to contribute validly to a common task on the part of subordinates. Every person involved should discover its unique qualities so that he may bring its fullest contribution to the common task.

* * *

NOTES

- [1] Prigogine, Ilya, La fin des certitudes. Temps, Chaos et les Lois de la Nature, Paris : Éditions Odile Jacob, 1996. The title of this book can be translated thus: The End of Certainties. Time, Chaos and Natural Laws.
- [2] Baruch Spinoza (1632-1677) is a philosopher from the Netherlands, who constructed an

- impressive system breaking with Western philosophical tradition by implementing a "geometric" method of exposition. His main work is entitled *Ethics*. Proved in Geometrical Order, a book on which he labored from 1661 to 1675 and which was published posthumously by his friends the very year of his death.
- [3] Please note that these definitions aim at untangling the semantics that shroud the text. They are not taken directly from a dictionary and are provided to explain the meaning of some technical words in the present paper.
- [4] Spinoza, Baruch, *L'éthique*, in *Œuvres complètes*, Paris : Gallimard, Coll. La Pléiade, 1954, Part III, Proposition 6, p. 420.
- [5] Id., *ibid.*, pp. 301 – 596.
- [6] Id., *ibid.*, Part IV, Proposition 4 : Demonstration, p. 494.
- [7] This notion of "conatus" has disappeared from contemporary philosophical thought. It is analogous, however, to the Bergsonian notion of "élan vital" and could have been borrowed from the theory of complex systems which considers that these systems emerge spontaneously from simple structures. The chaos theory offers examples, which have been recycled by the management literature. In the theory of complex organizations, these ideas can be used to give meaning to transformative approaches that require adapting a structure to make easier to tackle demanding processes.
- [8] Pascal, Blaise, *Pensées*, Paris: Gallimard (Collection La Pléiade), 1954, p.1157, # 264.
- [9] Engels, Friedrich, *Dialectique de la nature* (1873), Paris : Éditions sociales, 1952, p. 30.
- [10] Greenleaf, Robert K., *Servant Leadership. A Journey into the Nature of Legitimate Power & Greatness*, N.Y.: Paulist Press, 2002 (25th Anniversary Edition), 370 pp.
- [11] Hesse, Hermann, *Le voyage en Orient*, Paris : Calmann-Lévy, 1991, p. 124.
Hesse was the recipient of the Nobel Prize for Literature in 1946.
- [12] This notion was introduced in the management literature by Peter Senge. See: Senge, Peter M., *The Fifth Discipline, The Art & Practice of the Learning Organization*, N.Y. : Doubleday Currency Book, 1990.
- [13] In the original, the author of this present contribution provides a French translation of this quote. See: Wilson, Woodrow, "The Study of Administration", in *Political Science Quarterly*, Vol 2, No. 2 (June 1887), pp.197-222, at <https://www.jstor.org/stable/2139277>.

REFERENCES

- Ciula, Joanne (Ed.), *Ethics, the Heart of Leadership*, Westport, CT: Praeger, 2004.
- Cooper, Terry, *The Responsible Administrator*, San Francisco: Jossey-Bass, 1998.
- Greenleaf, Robert, *Servant Leadership*, Mahwah, NJ: Paulist Press, 2002.
- Kellerman, Barbara, *Bad Leadership*, Harvard B. School Press, Cambridge, MA, 2004.
- MacGregor Burns, James, *Transforming Leadership*, N.Y.: Grove Press, 2003.
- Price, Terry, *Understanding Ethical Failures in Leadership*, N.Y.: Cambridge U. P, 2006.
- Spinoza, Baruch, *L'Éthique*, in *Œuvres complètes*, Paris : Gallimard (Coll. La Pléiade), 1952.
- Waldrop, Mitchell, *Complexity*, N.Y.: Simon & Shuster, 1992.
- Wheatley, *Leadership and the New Science*, San Francisco: Berett-Koehler, 1992.

* * *

Managing Complex Projects & Related Legal Issues

Written by **Mr. Gabriel Jobidon**, Ph.D. Law Student (L.L.B., MBA, M. Env.).

Introduction

This article is aiming at capturing the essential concepts and notions regarding the management of complex projects, linked to contractual arrangements and more specifically the area of intellectual property with respect to quick startups and research projects (R&D).

9.1.. Assessing the Type of Project Complexity

Projects have defining characteristics that allows management to identify the required approach to bring the projects to successful implementation, such as complexity. According to Hill, the most significant role of a manager is managing complexity, which helps modulate the requirements for planning, coordination and control, identify the goals of the project, select the organizational form of the project and determine the stakeholders' needed expertise and experience.

According to Baccarini, project complexity can be defined on the basis of two concurring dimensions, that is "differentiation" which touches on the variety of elements such as tasks to be carried out, the multitude of stakeholders and the number of components of a project, and also "interdependence" suggesting the interconnections between these elements. More specifically, he identifies two major themes flowing from project management literature: technological complexity and organizational complexity. The latter relates to the definition of a relationship through notions such as communications, allocation of risks and rewards as well as the decision-making process, just to name a few.

Technological complexity is expressed in terms of transformed inputs to obtain the desired outputs, using technical processes with the proper expertise, knowledge and competencies. Here the idea is to define the notion of complexity applicable to multi-partner projects especially of the type R&D and/or startups, in order to make it amenable to inclusion into contractual agreements to accomplish operational ability.

Within a project, the larger the number of partners, the more it is important to take the time necessary to properly define the various processes between the partners in terms of communications, the decision-making process, and sharing of fallout benefits such as intellectual property. This is made all the more critical, given that the various partners are from different organizational backgrounds. For instance, this would be the case in situations where a private organization is partnering with a public organization, both being subject to significantly different legal and regulatory conditions. Those distinct exogenous environments call for special

attention and care, which can take the form of regulatory oversight or calling on lawyers specializing in this type of transaction.

A Deloitte report revealed that complex projects are the ones failing most frequently. However, they could be successful if they were managed more closely with proper controls. In assessing the complexity of a project, which is reflected in the contractual agreement, it is necessary to conduct a thorough evaluation of the risks and level of complexity. To do so, managers can consult accounting firms specializing in these issues, while keeping in mind this can be a costly endeavour. An alternative to outsourcing would be the publicly available tools such as the Government of Canada's project complexity and risk assessment tool which considers the project's characteristics, the risks associated with strategic management, procurement, human resources, activities, project management integration and project requirements. This will allow the partners to appropriately allocate or share the risks associated with the project as well as to avoid, at least in part, the pitfalls that will inevitably arise over the course of the project.

9.2.. Types of Transactions and Adapted Contractual Approach

Another essential element for the project manager, attempting to reduce legal risk associated with the project is to clearly define the types of transactions partners will be part of. It logically follows that simple governance structures are necessarily associated with simple contractual relationships and conversely, where complex structures are involved it should in kind be, associated with complex partnership relationships. When complex structures are associated with simple relationships, partners are exposed to wasteful cost outlays.

Williamson, 2009 Nobel Prize Laureate for Economics and Macneil, identified what constitutes a complex relationship in contractual terms and they developed appropriate governance structures adapted for different transaction types.

According to Williamson, there are three critical characteristics to qualify a transaction, namely; the degree of uncertainty; the frequency of such transactions; and the type of investment involved. Investments can be specific, non-specific or idiosyncratic, which means relating to an organization or given partners. Depending on the qualification of the transaction, Williamson proposes an appropriate governance structure that underpins a contractual approach. Indeed, Macneil has identified three different contractual approaches, namely classical, neoclassical and relational, which serve as a basis for Williamson's work.

The **classical approach** is based on the concept of "presentation" that is the attempt to predict all future events possibly affecting the relationship and to include them in the contractual agreement. The identity of the various parties to a transaction is considered irrelevant; the object of the contract can easily be valued in dollar terms; formal sources outweigh informal ones and the participation of third parties to a transaction is discouraged because different poles of interest can complicate the transaction.

Clearly, that approach has been problematic when confronted with modern transactions, and more particularly long-term agreements within a context of complex industry largely dominated

by uncertainties, making the concept of “presentation” virtually impossible because of the inherently incomplete nature of contracts and the quest for flexible solutions by planners and managers.

The **neoclassical approach** does not attempt to foresee all possible future events; rather it is based on flexibility; a means of structuring exchanges and the evolutionary dimension of relations between the main stakeholders, allowing for savings in terms of time and money. Thus, the use of external standards (ex. ISO standards), the direct determination of execution by third parties (ex. the role of an architect in a construction project or the nomination of an impartial arbitrator or auditor), renegotiation and redetermination mechanisms are considered flexibility indicators of the neoclassical approach and enable its operational use.

Finally, contractual agreements based on the **relational approach** provide determining characteristics. Constant communications between parties, which are numerous and have individual and collective interests, is not limited to formal linguistic definitions but also on numerous informal and extensive exchanges. Parties’ satisfaction does not rest uniquely on economic transactions, but also on social and personal interaction. The beginning and ending of the relation are gradual and the planning, carried out mutually in concerted fashion, focuses on the structures and processes of the relationship. Future cooperation in planning and performance is expected and deemed necessary for the success of the long-term agreement. Finally, the benefits and burdens of the relationship must be shared rather than divided and allocated.

Hence, depending on the type of transaction, Williamson suggests the use of a proper contractual approach. The table below, derived from Williamson’s work, exemplifies this concordance between the type of transaction and the ideal contractual approach.

		Investment Characteristics		
		<i>Nonspecific</i>	<i>Mixed</i>	<i>Idiosyncratic</i>
Frequency	<i>Occasional</i>	Market Governance (Classical Contracting)	Trilateral Governance (Neoclassical Contracting)	
	<i>Recurrent</i>		Bilateral Governance	Unified Governance (Relational Contracting)

Whenever levels of uncertainty and idiosyncrasies are high, which is often the case regarding R&D projects, the parties must provide for adequate mechanisms for the resolution of problems rather than try to plan for any eventual event to occur because of the incomplete nature of long-term arrangements. Consequently, both Williamson and MacNeil recommend wrapping the transaction with the right structure of governance, sufficiently elaborated to allow effective decision-making, such as an arbitration process. They also recommend that bilateral agreements give way to unified structures of governance, which means an environment where the partners have the feeling they have proper support from senior levels of management, leading to a more harmonious and standardized management of the relationship.

Project managers must therefore take the time to qualify the type of transaction linking the parties and the adapted contractual agreement applicable thereto. Furthermore, managers must also take the time to assess the objectives and expectations of other parties to minimize risk and disagreements, as well as verify the capacity of other parties to fulfill their obligations, based mostly on past track records and reputation.

The preparation of an R&D partnership contract should be an open and mutual endeavour, allowing the parties to assess the context where the partners are expected to evolve.

9.3.. The Project Legal Structure

Managers must also pay attention to the project's legal structure in order to meet the desired objectives. The legal system in Quebec provides for a wide variety of legal structures, such as partnerships or services agreements, and managers should weigh several pertinent factors in order to select the proper structure applicable to their project.

Prior to pondering which legal structure to adopt, managers must complete a strategic review. It is important to consider the objectives of the organizations involved and determine whether they have a common vision, as well as the related adequate structure of governance, as stated above. The number of people involved, the risk tolerance of partners and the benefits related to the tax structure are all important factors to consider in order to make an enlightened choice regarding the legal structure.

Following these preliminary considerations, the next step is selecting among the various forms of association. Those are in the form of joint-stock company; limited partnership (LP); undeclared partnership; service agreement relationship or a purely contractual organization (joint venture).

The Quebec Civil Code, Article-2186 provides that a company is the result of a contract by which different parties decide to carry on an activity by contributing to it by the pooling of goods, knowledge or activities, and by ensuring that the parties share the profits resulting from this activity between themselves in a spirit of collaboration. While it is possible to enter into a contractual agreement verbally in Quebec, it remains wise to do it in the written form to establish the original intention of the parties, especially regarding complex projects with high

levels of uncertainty. Four types of for-profit organizational structures are possible under Article-2188 of the Civil Code, namely: General Partnerships; Limited Partnerships (LP); Undeclared Partnerships; and Joint-Stock Company.

9.3.1.. General Partnerships

General partnerships are a form of organization widely adopted by professionals, where associates operate under one common name, with a central office location, which can act in justice, which means sue and be sued. Associates are jointly and severally responsible for certain debts and obligations of the organization. This means associates are individually responsible for the liabilities of the partnership. An associate may be excluded from sharing in losses. However, that does not affect third party liability (QcC, Art. 2201, 2203). Revenue from general partnerships is allocated to partners according to their pre-established share participation. Furthermore, they are not held to contribute only in money terms, which can be assets or simply skills and knowledge with market value. Each associate is severally responsible and must contribute the committed input. (QcC, Art. 2198 to 2200) Associates are not allowed to compete against the created organization (QcC, Art. 2204). Unless otherwise stipulated, decisions are made collectively and by a simple majority of votes, regardless of the share of the partners, except for decisions affecting the partnership contract where it must be unanimous. (QcC, 2216) This type of organization is less expensive than joint-stock companies and is a great deal less complicated. In fiscal terms, partners can take advantage from taxation for individuals and use the expenses from the partnership to reduce their tax liability. However, if the revenue from the partnership is high, then partners are affected because the rate is higher for individuals than for corporations. Partnerships must be registered in the enterprise register. Partners engage their personal responsibility and could have to pay the entire debts of the company, even if they have not personally committed any error.

9.3.2.. Limited Partnerships

Such organizations are composed of two categories of partners, namely one or more general partners who are the sole persons authorized to administer and bind the partnership, and of one or more special partners who are bound to contribute to the common stock of the partnership (QcC, Art. 2236). Special partners are committed to bring assets to the organization, whether in the form of capital or in kind (QcC, Art 2040). Special partners are not liable for the debts incurred by the organization, either jointly or severally, beyond the agreed invested amount (QcC, Art. 2246).

On the other hand, general partners are the ones conducting the operations and the management of the organization and must therefore bring to the partnership their experience, knowledge, skills and competencies. (QcC, Art. 2238, 2244) They are jointly and severally liable for the debts incurred towards third parties. (QcC, Art. 2246) Such an organization is legally qualified to call for public savings for funding. (QcC, Art. 2237) [2]. Just like general partnerships, associates can benefit from tax advantages reserved for individuals, where they can use the expenses of the organization to reduce their personal taxation. Such organizations also less complicated than a joint stock company and must be registered.

9.3.3.. Undeclared Partnerships

Such an organization is not a legal entity. Associates operate individually as representatives on behalf of all the partners [20]. The organization does not have to register. In fact, any partnership not registered is deemed an undeclared partnership. Each partner remains the owner of the property he contributes to the undeclared partnership and operates under his own name (QcC, Art. 2252; 2253). As opposed to general partnerships, associates are not severally liable. However, they remain jointly liable for debts incurred by the partnership (QcC, Art. 2254). The Quebec Civil Code provisions regulating general partnerships also apply to undeclared partnerships [21]. What differentiates those two types of partnership is at the level of responsibility towards third parties, whereas the property of the partnership is confused with those of the sued partner in the undeclared partnership (QcC, Art. 2257). The undeclared partnership cannot be sued, it is the creditor who must sue one or all the partners.

9.3.4.. Joint-Stock Company

A joint-stock company is a separate legal entity from those who collectively hold the invested share capital, which is in sharp contrast to what was presented above. It is therefore distinct from its founders (QcC, Art. 309), which thus enjoy limited liability, implying that the bankruptcy of the joint-stock company does not necessarily entail personal bankruptcy (QcC, Art. 309). In fact, the shareholders of a joint-stock company only put their monetary investment into play (QcC, Art. 315). The joint-stock company can own assets, incur liabilities and conduct transactions in its own name (QcC, Art. 302) and has the capacity to exercise all its rights (QcC, Art. 303).

The founding investors must make a decision regarding where to incorporate the projected organization whether federally or provincially; that is under the “Canada Business Corporations Act” or under Quebec’s “Business Corporations Act” The choice is largely based on whether the projected operations are only local to the province versus national across the land or even international in scope, thereby pointing to a federal corporation.

The joint-stock company has a perpetual life, which is therefore unlimited (QcC, Art. 314). The purpose of such a company is to carry on a business in order to realize profits that will eventually be distributed among its shareholders, if any. To finance itself, a joint-stock company issues shares, that is a share capital unit, which entitles the holder to receive assets from the corporation in addition to participating in the decision-making process through the exercise of the right to vote. Thus, the perpetuity of the legal entity, the limited liability of the shareholders and the access to different modes of financing are all advantages of the joint-stock company. In addition, these companies are tax-advantaged because of the lower tax rate than individuals and the ability to defer tax payments. However, setting up a joint-stock company is complex, mainly in terms of governance, because it requires the preparation of articles of incorporation, the registration of subscribing shareholders, the submission of annual returns and the keeping of detailed minutes, just to name those few. The joint-stock company may institute proceedings and be prosecuted (CcQ, Art. 303). Lacasse indicates that a high-risk, large-scale, long-term joint

venture in the R&D field should opt for the private joint-stock company because it shares some of the benefits of general partnerships, it limits the responsibility of the partners and it is easy to enforce the rights and obligations of the parties given its well-defined structure.

9.3.5.. Service Agreements

Rather than establishing a legal entity, project managers could simply go towards a purely contractual relationship, using service contracts that is, a contract by which a service provider commits to providing a specific service to the customer, usually in exchange for a payment. The service provider owns the means, e.g. the ability to perform the service according to his own methods, which are therefore not imposed by the customer.

As in any contract, it is important for project managers to make efforts prior to the contract conclusion to clearly identify the project objectives and establish monitoring, control and approval procedures. The transmission of information between the customer and the service provider is one of the most important points of the service agreement. In fact, the service provider is required to provide the client, before the contract is concluded, with all useful information concerning the task, the goods and the time necessary to perform the service (QcC, Art. 2102). This obligation of information is also applicable throughout the execution of the contract. Case law determines the extent of this obligation, considering, in particular, the type of contract, the personality and expertise of the contractors, the importance of the information, the circumstances and conditions of the contract negotiation, the customer's trust in his supplier and the overall context of the project.

The service agreement must specify the object of the contract and provide for a detailed description of the project, the terms and conditions of the project, a project calendar establishing the timeline, allocated resources as well as the terms of payment. In addition, the agreement must define the client's obligations, such as the provision of information, and those of the service provider. Terms and conditions regarding party liability, applicable penalties, termination of the agreement, assignment of the retainer and subcontracting must thus be provided for.

Since R&D projects inherently contain sensitive information and innovative products and processes, it becomes mandatory that an agreement of confidentiality and non-disclosure is prepared and signed by the parties. The contract should provide what will happen to the technology developed by the service provider or a third party, as well as terms for the protection of the intellectual property rights of the client. These notions will be more specifically addressed in the following section dealing with intellectual property. If no agreement is signed between the parties, the provisions of the Civil Code will apply (QcC, Art. 2098 and on).

9.3.6.. Joint Ventures

Finally, project managers may consider the creation of a joint venture, a type of contract which emerged from common law jurisdictions and that was popularized in the United States in the

nineteenth century. A joint venture is an association of two corporations or individuals for the purpose of a specific activity, as stipulated by Article-3 of the Investment Canada Act. Project managers who chose not to opt for partnerships or joint-stock companies, and wish to maintain their own legal status, may opt for the joint venture legal structure. To distinguish joint ventures from the previously presented legal structures, case law identified criteria such as the existence of a contractual relationship, a community of interests, an obligation of contribution and ownership, a joint management structure, a quest for profits, participation in profits as well as a limited purpose and duration of the relationship. The link between stakeholders in a joint venture requires mutual trust, which should be more important than the legal structure, and a commitment to cooperation in order to achieve a common goal. Above all, what characterizes the joint venture is the fact that the parties do not give up their autonomy or their decision-making power. Likewise, the parties remain the owners of their contribution to the joint venture and do not share the profits. The partners are the recipients of the profits generated by their operating assets or contributions.

The rationale underlying such an arrangement lies in partners seeking complementarity in terms of knowledge or capital, cost rationalization or research and development. To define the relationship, parties should negotiate this agreement in good faith and with the intent to harmonize the individual interests of each party in order to guide the project towards a common goal, thus moving on from individual management towards cooperative management practices. The contractual terms of the joint venture are usually much less precise than those of the other legal forms: instead of trying to anticipate all the obligations of the parties, parties should aim to create a framework of reference establishing collaboration, cooperation and consultation mechanisms to face the unforeseen events of the relationship and to achieve the common purpose of the joint venture.

There are several advantages flowing from such a structure, namely confidentiality, flexibility and agility given the absence of contractual formalities. As a downside, however, those attributes give rise to legal uncertainties and outcomes, as there are no sound legal underpinnings. Any misunderstanding, disagreement or litigation will be the object of interpretation by judges or arbitrators.

Project managers have at their disposal various forms of legal structures amenable to the desired result. It must be stressed, however, that every structure has advantages and inconveniences, which points to the need by managers to carry out a thorough strategic analysis with respect to the objectives along with serious consultation with experienced legal counsel.

9.4.. Types of Protection with Respect to Intellectual Property

Intellectual property is a very significant aspect of legal arrangements, as applied to complex projects or R&D, which should be paid serious attention to, by management. The current regime aims to recognize the creative effort of those producing a work of the mind and to ensure the promotion and dissemination of creations and innovative productions [28].

In general terms the law accords two categories of rights; pecuniary and moral.

The pecuniary or economic rights take the form of exclusive rights of exploitation of the work, which materializes through the payment of royalties.

On the other hand, moral or personality rights are a right to be recognized as the creator of the work, as well as a right to integrity to protect the honour and reputation of the creator.

It must be noted that, ideas themselves are not protected. The *Patent Act*, Article-27 (8) points out that no patent rights can be awarded for simple scientific principles or theoretical concepts. In the same manner, the *Copyright Act*, Article-3 points out that the work should have an actual material form. The laws are oriented towards the production and publication of the works. There are several types of intellectual property in Canada, that is copyrights, trademarks, patents, and trade secrets. Project managers must be clear as to which laws are applicable under their respective circumstances, such that the rights and obligations of the intervening parties be properly delineated.

9.4.1.. Copyright Law

The *Copyright Act* protects four classes of creation, namely: literary; plays and drama; music; and works of art.

While it would seem to be a digression from the subject treated in this document, it must, however, be made clear that computer systems software and applications are held to be part of the literary domain. The *Copyright Act*, Article-2 defines computer programs as a set of instructions or statements, expressed, fixed, embodied or stored in any manner, that is to be used directly or indirectly in a computer in order to bring about a specific result.

Copyright assigns exclusivity of ownership and power to the author, that is: to create, reproduce, publish, and also license the right to other parties, temporarily or permanently. Those are in the order of economic interest. Article 13 (1) of the act stipulates that the author of the work is the first owner of the copyright, which is not the case in the *Patent Act*. There is no formal action to be taken for the law to apply; it is only a matter of producing the item often times referred to as the “work”. While there is no obligation to register the work for the law to apply, it is recommended in cases of assignment, licensing, transfer or acquisition.

Contrary to what the Quebec Civil Code provides for verbal contractual agreements, it is necessary to have written and signed agreements regarding transfers of authorship rights. This could also be accomplished through the services of the owner’s duly authorized agent, according to Article-13 (4).

Whenever copyrights are a significant asset and/or an important part of an organization, such as in cases of software development enterprises, then it becomes important to classify the

products by version numbers and specify them as such in contractual agreements upon transfers, licensing, or acquisitions.

Copyright Act Article-6 deems the right of ownership to last the lifetime of the author, followed by another 50 years beyond death, unless the author is unknown in which case the right extends 50 years beyond the publication or 75 years from the date of creation, whichever comes first.

There is an exception to the authorship right as stipulated by Article- 13 (3) of the *Copyright Act*: if an author is employed by an organization, there is a deeming provision in the article to the effect the employer is the author, unless otherwise stipulated in a written agreement.

In situations where an organization uses subcontractors to create a particular work, paying subcontractors for their services does not make the employer the author of the copyright. It rather is the property of the subcontractor, having created the work. It is therefore crucial for organizations to provide essential clauses for the transfer of copyrights in their subcontracting contracts.

The *Copyright Act* also creates moral rights on behalf of the author. Article-14.1 stipulates the author of a work has the integral right to his work and claiming it to be his creation. Moral rights cannot be transferred, although the authorship right has been transferred. This is more easily understood in cases where the work is a piece of art but becomes significantly more complex when it comes to commercial transactions. This leads to the principle that organizations should include clauses in the contract regarding the passage of title along with moral rights in cases of transfers. One final point of interest is that all rights transferred to organizations are returned to the actual authors in cases of business failure, normally called bankruptcy.

Another point to highlight regarding ownership of copyrights, particularly in cases of R&D partnerships, is situations of collective productions.

In situations where there are many partners, it becomes imperative to delineate the types of collective productions in order to establish who is the owner of the intellectual property. Three types are recognized, namely: collective works; works created in collaboration; and derived works.

Derived works is when one person, the second, uses a significant part of the original author's work, the first. For instance, think of a translation of a literary work, or the use of a conceptual plan from an original creator, where such a case was debated before the Supreme Court of Nova Scotia in *MacNutt vs. Acadia University* [3]. The *Copyright Act* is silent regarding derived works, thereby providing less protection as opposed to the U.S.

Another type is a collective work such as a compendium. The law defines such works as the contribution of many authors in separate parts [30]. The key criterion is the possibility to identify the individual contributions by the different authors. The current collective work on project management assembled by Professor Yvan Lauzon, where several authors are

contributing their own separate expertise, is a perfect example of such collective work. In situations like this, each author retains full ownership of his/her respective contribution.

Finally, the last type of collective production is works created by collective collaboration. As defined in the Copyright Act, it is a result of the collaboration of two or more authors where it is impossible to distinguish the contribution of each party [30]. Regarding this criterion, Article-2 of the *Copyright Act* is central to this issue and therefore gives rise to joint copyright of the authors as an indivisible group. A restrictive interpretation of this definition considers the indivisibility of the work as a material requirement, whereas a more liberal interpretation would consider it from an intellectual point of view, which implies a willingness of the parties to make the work a unique piece of art.

The *Drapeau vs. Girard* case demonstrated that this willingness of the parties is a factual question and that the behaviour of a person in relation to the work will be an important element in determining that willingness. Furthermore, the Quebec Civil Code, Article-2639 deems the authorship is a moral right relating with the actual personality of the author and in so doing escapes the jurisdiction of arbitrators in cases of dispute. In situations of collaboration, the copyright is in force for the entire life of the last author, followed by another 50 years after death. [30] A classic example would be co-authors collaborating for a publication. It would be wise to agree upstream on the terms allocating the intellectual property rights applicable to R&D projects, otherwise this could lead to important litigation cost.

It might also be interesting to consider the use of a legal entity, as discussed in the previous section, who would own the copyright of a collaboratively created work.

9.4.2.. Trademarks

Trademarks are an excellent way to protect intellectual property. The Trade-marks Act creates three categories: the ordinary type; the certified type; the distinctive symbol.

The **ordinary type** is usually represented by a word; a sound; a drawing; or a combination of elements to differentiate a product or a service, for example a catch phrase or a slogan used by the fast-food industry.

The **certified type** serves to differentiate a product or service associated to a particular standard, for example, ISO, as opposed to those not being under the ISO certification.

The **distinctive symbol** can be the form of a product or its container as well as a distinctive sound, allowing the consumer to identify the enterprise, for example the TOBLERONE chocolate bar. This is central to a trademark otherwise it could simply become generic and be part of the public domain.

Exception to the rule can only be accomplished through a licence under Article-50 (1) by which the use of the mark by a licensee is presumed to be that of the owner of the mark [32, 38]. The

contract must provide for the quality control of the licensee's products and services by the owner.

It is also possible for a person or organization to project the use of a trademark when its use has not yet started. This mark will only be truly registered at the beginning of its use.

Trademarks are intangible assets of an organization. Therefore, they can be sold or transferred. Article-48 (1) of the *Trade-marks Act*, trademarks, whether registered or not, can be transferred as part of goodwill, being the result of negotiation, or separately. [38] However Article-48 (2) does not preclude the trademark losing its distinctive character, if residual rights subsist with two or more parties, following a transfer. [38] It logically follows that such transactions should be properly planned and written into a contractual arrangement supportive of the targeted result.

9.4.3.. Patent Rights

Patent rights are another way to protect intellectual property, which should be of major interest to managers of complex projects or R&D partnerships. A patent right delivered to a party gives rise to complete exclusivity regarding that invention. This right prevents any third party, individual or organization to use the invention [31]. The *Patent Act* defines an invention as, "*any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter.*" The novelty criterion means the invention does not exist anywhere in the world and the utility criterion eliminates all theoretical concepts, thereby indicating a requirement for inventions being applied in reality. The individual who creates an invention is usually the owner and can also get patent right protection. Copyright law has provisions regarding the employment relationship, which is not the case for patent rights. It is the jurisprudence that has force of law, where if an individual creates an invention while employed, then it is the employer who is recognized as the owner and can therefore proceed to get patent right protection [32]. In order to verify whether the employee was hired to invent, such as a scientist doing research in an institution, one must verify a number of criteria such as the explicit objective of the job, the employee's behavioural pattern once the invention is complete, access to confidential information and the existence of incentive plans encouraging the development of products.

In order to avoid court interpretation of this situation, it becomes imperative that a well-prepared contract should ensure there is a transfer to the employer ahead of any invention. [33] There is also a need for a contractual arrangement with a subcontractor ensure the fate of inventions that may arise from this type of contract.

Organizations can be joint owners of patents and can cross-license each other, using the invention in a kind of strategic alliance [31]. The *Patent Act* provides for the transfer of a patent, which must be done in writing, as in the case of copyright.

The patent is territorial in nature: the exclusive rights are only applicable in the region or country in which the application was filed, and a patent granted. Furthermore, Article-44 of the

Patent Act establishes that the exclusive right to exploit an invention has a limited duration of 20 years from the date of filing. In Canada, patents are granted to the first inventor who files his application. Even if when someone is the first inventor, the application will be rejected if someone else has applied beforehand.

This is why it is necessary to file the application quickly, but not too much, because if the innovation is not yet complete or if details are missing, it will be necessary to file a new application, which generates additional costs, delays and frustration.

Just like it is a common practice in many types of operations, project managers should not hesitate to call on agents specializing on patent rights for the protection and best interest of the organization.

9.4.4.. Trade Secrets

Unfortunately, there is no clear definition of what a trade secret is and to make matters more difficult; there is no specific law to guide the situation. Generally, trade secrets can take various forms, such as: a formula; means and methods; drawings; designs; devices or processes conferring a significant commercial advantage to an organization with respect to the competition.

The World Intellectual Property Organization (WIPO) provides three criteria to determine the genuine status of a commercial secret: (1) The information must remain secret. To achieve this, organizations must ensure that people operating in the targeted area have no knowledge of the information underlying the said secret; (2) The actual secret or secrets must find their value in the commercial domain because of their secret nature, not simply because they have a commercial value and (3) Sufficient means of protection and efforts must be applied to sustain the secret nature of this intangible asset.

There is no pre-established procedure regarding the protection of trade secrets, neither in the form of registration nor other forms. Therefore, they potentially have an unlimited life. The classic example is the secret applicable to the Coca-Cola formula for the syrup underlying the soda pop taste, which has been enduring unfailingly for decades. Pragmatically, the secret creates its own legal right and has no territorial constraints. Losing the secret nature of the formula, device or other generates a loss of commercial advantage, where a market premium would otherwise be made available to the owner organization. Innovative organizations becoming owners of valuable commercial secrets, provides them with favourably differentiating products or services, giving them better market penetration, enhanced survivability and financial growth. If this is pushed further to a level of monopoly, then the organization has pricing control with a significant premium.

Although not directly acquired, trade secrets can still be “obtained” through confidentiality agreements with subcontractors, or through the confidentiality relationship that can be created between the employer and the employee [31]. In the world of business and strategic planning, it

could be that an enterprise is merged or bought outright, simply to get control over the trade secrets. In the case of trusted employees or subcontractors, there can be a transfer of information including or restricting conditions of usage. When there is a restriction of use, and therefore non-competition, it will equate to a transfer of rights.

9.5.. Resolution of Disputes

While it is true contractual arrangements tend to be heavily invested in the prevention of problems and making sure behavioural compliance is predictable, it is still important to ensure that the various contractual agreements provide for dispute resolution mechanisms.

Having the right to critique; to investigate; to audit or have open frank discussions are also conducive for more trust building. In other words, giving partners or subcontractors the opportunity to express themselves is a factor that contributes to the perception of procedural fairness.

Having the ability to express concerns is an equitable feature, allowing an individual to present pertinent information when impacted by a decision. Usually those participants allowed to express their opinions will assess the decision as being fairer than those who are not allowed to express their points of view. Individuals will feel that their interests are protected in the long term and will consider the process as fair. Giving the members a chance to speak and express their opinions provides them, to a certain degree, indirect control over a decision.

By creating conditions for the use of a fair process, such as giving voice to partners in the case of decision appeal, authorities will show a greater willingness to cooperate and could be perceived as trustworthy.

Macneil, Williamson & Fuller each have declared that the use of third parties for conflict resolution has advantages over litigation in the courts by creating flexibility and filling the contractual gaps.

As Williamson pointed out, the difference between litigation and arbitration is in terms of contract continuity, understood as the ability to complete the contract. Contract continuity is presumed under arbitration mechanisms, whereas this presumption is much weaker when parties resort to traditional justice. When conflicts reach litigation, the relationship between partners is usually broken. Moreover, the use of arbitration does not endanger the project, which favours the continuity of relations.

Since R & D projects rely heavily on the maintenance of healthy relationships between partners, it would be important to promote the use of incremental measures and submitted to an entity independent of the parties to the contract, such as a mediator or an arbitrator. These measures could take the form of a discussion, a recovery notice, a formal protest, an appeal and then a final decision. It is also desirable to try to solve the problems at the lowest possible hierarchical level and then escalate the conflict to employees with greater decision-making powers.

R&D projects are dependent on good partner relationships. This points to the need for proactive measures to ensure smooth operations under the mediating intervention of an arbitrator. Those measures should be gradual: (1) discussions; (2) notices of correction; (3) a formal protest; (4) an appeal and (5) a final decision. It is also a good idea to try and resolve the problem at the lowest possible hierarchical level and then escalate the disagreement upwards to employees more empowered to address issues.

Conclusion

Project managers can take note of the legal considerations discussed in this article to assess the complexity of their project, the type of transaction and the appropriate contracting approach, to differentiate the legal structure of the project as well as their advantages and disadvantages and understand the ways in which intellectual property is protected. Furthermore, the need for appropriate conflict resolution mechanisms are addressed comprehensively in order to sustain the ongoing project, which is in the nature of R&D partnerships and quick startups.

While this article presents certain legal elements supportive of project managers, it does not pretend to be exhaustive. Consequently, it is always a sound decision to consult a seasoned legal counsel regarding these matters.

NOTES

- [1] Hill, T. Production/operations management: Text and cases. Prentice Hall: 1991.
- [2] Bubshait, K.A.; Selen, W.J. In Project characteristics that influence the implementation of project management techniques: A survey, 1992; Project Management Institute.
- [3] Wozniak, T.M. Significance vs. Capability: "Fit for use" project controls. AACE International Transactions 1993, A. 2.1.
- [4] Morris, P.W.; Hough, G.H. The anatomy of major projects: A study of the reality of project management. 1987.
- [5] Bennett, J. International construction project management: General theory and practice. Butterworth-Heinemann: 1991.
- [6] Baccarini, D. The concept of project complexity—a review. International journal of project management 1996, 14, 201-204.
- [7] Fremont, E.K.; Rosenzweig, J.E. Organization and management: A systems and contingency approach. McGraw-Hill: 1988.
- [8] Mintzberg, H. The structuring of organizations. In Readings in strategic management, Springer: 1989; pp 322-352.
- [9] Deloitte. Analytique prévisionnelle des projets. Votre projet sera-t-il gagnant? <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/risk/ca-fr-ers-predictive-project-analytics.pdf>
- [10] Canada, G.d. Outil d'évaluation de la complexité et des risques des projets (ecrp). <https://www.canada.ca/fr/secretariat-conseil-tresor/services/gestion-information-technologie-projets/gestion-projets/outil-evaluation-complexite-risques-projets.html>
- [11] Williamson, O.E. Transaction-cost economics: The governance of contractual relations. The journal of Law and Economics 1979, 22, 233-261.

- [12] MacNeil, I.R. The new social contract: An inquiry into modern contractual relations. Yale University Press: New Haven, 1980.
- [13] MacNeil, I.R. Contracts: Adjustment of long-term economic relations under classical, neoclassical and relational contracts law. Northwestern University Law Review 1977, 72, 854-905.
- [14] MacNeil, I.R. A primer of contract planning. The Southern California Law Review 1974, 48, 627-704.
- [15] Hart, O. Incomplete contracts and public ownership: Remarks, and an application to public-private partnerships. The Economic Journal 2003, 113, 69-76.
- [16] Campbell, D.; Harris, D. Flexibility in long-term contractual relationships - the role of co-operation. Journal of Law and Society 1993, 20, 166-191.
- [17] Laurin, A.; Boucher, V. Vos contrats: Une approche systématique et disciplinée s'impose. https://www.lavery.ca/DATA/PUBLICATION/2978_fr~v~vos-contrats-une-approche-systematique-et-disciplinee-simpose.pdf
- [18] Breton, S.; Langelier, P.; Boucher, V.; Houle-Couture, J.; Thornton, R.C.G.; Lavery. Partenariat entre pme, par où commencer ? In Matins Conférence STIQ, (STIQ), S.-T.I.Q., Ed. Boucherville, 2017.
- [19] Logik, L. Choisir la forme logique qui convient à votre entreprise. <https://legallogik.com/choisir-la-forme-juridique-qui-convient-a-votre-entreprise/?lang=fr>
- [20] Entreprises, R.d. Les différentes formes juridiques d'entreprises. <http://www.registreentreprises.gouv.qc.ca/fr/demarrer/differentes-formes-juridiques/>
- [21] Singh, J. Les principales formes d'entreprises. <https://www.avocat.qc.ca/affaires/iiformesentreprises.htm>
- [22] Lacasse, N. Realisation d'une coentreprise a l'etranger: Le choix de la forme juridique, la. Rev. Gen. 1988, 19, 771.
- [23] Deslauriers, J. Vincent Karim, Contrat d'entreprise (ouvrages mobiliers et immobiliers: Construction et rénovation). Contrats de prestation de services et l'hypothèque légale, 2e éd., montréal, wilson & lafleur, 2011, 981 p., isbn 978-289689-050-07. Les Cahiers de droit 2012, 53, 667-669.
- [24] Perron, C.; Mai, H.H. Quelques réflexions sur la notion et l'application du joint venture au Québec. Droit spécialisé des contrats 2, 343.
- [25] Loi sur investissement canada. In ch. 28, Canada, P.d., Ed. 1985.
- [26] Fréchette, P. La qualification des contrats: Aspects pratiques. Les Cahiers de droit 2010, 51, 375-424.
- [27] Dubisson, M. Les caractères juridiques du contrat de coopération en matière industrielle et commerciale. DPCL, tome10 1984.
- [28] Dubé, M. La propriété intellectuelle dans l'enseignement et la recherche universitaires: les prémisses juridiques. benhur.telug.ca/spersonnel/mcouture/ACFAS2004/PI-ACFAS2004-Dube.ppt
- [29] Loi sur les brevets. In ch. P-4, Canada, P.d., Ed. L.R.C., 1985.
- [30] Loi sur le droit d'auteur. In ch. C-42, Canada, P.d., Ed. L.R.C., 1985.
- [31] Painchaud, F. La propriété intellectuelle dans les transactions commerciales. In La vente d'entreprise, Faculté de droit de l'université McGill, 1995.

- [32] Richard, H.G. Propriété intellectuelle et sous-traitance. LEGER ROBIC RICHARD, avocats ROBIC, agents de brevets et de marques de commerce: Montréal, 1995.
- [33] MacNutt v. Acadia University, 2017 NSCA 57.
- [34] Jarvis-Tonus, J.; Lovrics, C.; Winegust, T.C.; Ngo, A. Revue de l'année 2016 – droit d'auteur. <https://fr.bereskinparr.com/doc/revue-de-l-ann-e-2016-droit-d-auteur>
- [35] Ouellet, C. Œuvre créée ou non créée en collaboration? Là est la question... commentaires sur l'arrêt drapeau c. Girard [version électronique]. Cahiers de propriété intellectuelle 2004, 16, 875-884.
- [36] Drapeau c. Girard, [2003] R.J.Q. 2539 (C.A.).
- [37] Rivoire, M.; Gold, E. Propriété intellectuelle, cour suprême du canada et droit civil. McGill Law Journal/Revue de droit de McGill 2015, 60, 381-430.
- [38] Loi sur les marques de commerce. In ch. T-13, Canada, P.d., Ed. 1985.
- [39] Comstock Canada v. Electec Ltd. (1991), 38 C.P.R. (3d) 29 (Fed. T.D.).
- [40] Canada, O.d.l.p.i.d. Protégez votre innovation.
<http://www.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/fra/wr03586.html#secret>
- [41] Quéré, L. Les « dispositifs de confiance » dans l'espace public. Réseaux 2005, 132, 185.
- [42] Folger, R. Distributive and procedural justice: Combined impact of voice and improvement on experienced inequity. Journal of personality and social psychology 1977, 35, 108.
- [43] Folger, R.; Greenberg, J. Procedural justice: An interpretive analysis of personnel systems. Research in personnel and human resources management 1985, 3, 141-183.
- [44] Lind, E.A.; Tyler, T.R. The social psychology of procedural justice. Springer Science & Business Media: 1988.
- [45] Leventhal, G.S. What should be done with equity theory? In Social exchange, Springer: 1980; pp 27-55.
- [46] Van den Bos, K.; Wilke, H.A.; Lind, E.A. When do we need procedural fairness? The role of trust in authority. Journal of Personality and social Psychology 1998, 75, 1449.
- [47] Van den Bos, K.; Wilke, H.A.; Lind, E.A.; Vermunt, R. Evaluating outcomes by means of the fair process effect: Evidence for different processes in fairness and satisfaction judgments. Journal of Personality and Social Psychology 1998, 74, 1493.
- [48] Thibault, J.; Walker, L. Procedural justice: A psychological analysis. Lawrence Erlbaum Associates: Hillsdale, NJ, 1975.
- [49] Korsgaard, M.A.; Schweiger, D.M.; Sapienza, H.J. Building commitment, attachment, and trust in strategic decision-making teams: The role of procedural justice. Academy of Management journal 1995, 38, 60-84.
- [50] De Cremer, D.; Tyler, T.R. The effects of trust in authority and procedural fairness on cooperation. Journal of Applied Psychology 2007, 92, 639.
- [51] Fuller, L.L. Collective bargaining and the arbitrator. Wis. L. Rev. 1963, 3.
- [52] Friedman, L.M. Contract law in america: A social and economic case study. Quid Pro Books: 2011.
- [53] Asken, G. Legal considerations in using arbitration clauses to resolve future problems which may arise during long-term business agreements. The Business Lawyer 1972, 28, 595-603.

* * *

PROJECT MANAGEMENT & LEGAL INTELLIGENCE:

How Project Management can use the Law as Strategic Tool

*Written by **Thierry PIETTE-COUDOL**, used to teach at Faculties of Law in French Universities, and now he is an honored retired practicing lawyer in the Barreau de Paris.*

PREAMBULE

Legal intelligence is a heightened form of legal monitoring. It is essentially based on organizing the legal information resources, geared to the strategic decision-making process. The project manager is personally concerned about the legal intelligence relating to new technologies, having become pervasive as a result of their communicative nature. Legal matters relating to Information and Communication Technologies (ICT's) can be exploited by conventional means, thereby becoming a real strategic tool. This is the case as applied to the European Union (EU).

Going from Information Technology (IT) to Communications (ICT's)

Informatics emerged and grew from the days of data processing, which was basically the domain of data capture, updating data files and laying out on the pre-designed reporting format. Nowadays, the technology allows for information processing including the communication functionality. The features offered, by the power of technology is virtually endless, such as: software applications for cooperative or collaborative work, through Electronic Data Interchange (EDI); Electronic Commerce (EC) and more, with computing environments of different enterprises with different data architectures on various platforms. Recent European legal directives have moved that evolution towards now paying great legal attention to data transmission and legal frameworks [1].

Enduring the Law or Taking Advantage of it

- Whether in the course of professional or purely personal life, an individual is responsible of his actions and choices. As for the first encounter with the law, a person might be called upon to account for a responsibility situation a closely related feature with judicial risk. Within a properly organized environment, the immediately visible facets of the law are generally the ones perceived as blocking or limitative in nature
- That would be in the order of criminal law: like in situations of hacking and illegal intrusions in systems, computer applications and data sets
- Or an obligation to carry out a formal administrative declaration, such as CNIL, encryption authority; certifying transmission and invoicing and so on

Primarily, legal aspects tend to be constraining, prior to becoming positive and lending themselves to support operations. So it is, whenever the law comes to bear to validate or plan and organize professional activities. The legal framework rests on the commonly known instruments such as: agreements, contracts, protocols, policies, codes of conduct, best practices and more.

This document purports to show that whenever business dealings take place within the European Union or with partners thereof, then how to assess the decrees referred to above. (1) As more and more soft documentation will be the normal situation over paper, then the project manager can take the lead, even in cases of uncertainty for as long he uses legal means to secure and validate. (2) However, shuffling the means to secure and validate must be carried out simultaneously considering both the technical and the law. (3)

9.6.. ANTICIPATING THE APPLICABILITY OF EUROPEAN STANDARDS

With respect to the information society, new directives on standards keep flooding the member nations with a continuous stream of rules. Those rules have force of law and are applicable in all the nations and must be incorporated within their own respective legal code. This must be done within eighteen months on average per the directive itself. The transposition is essential for smooth, seamless operations across the internal market. This concept of transposition is indicative of how European standards have become intrusive within the various jurisdictions. The idea is not a textual word for word overlay of the European directive, however the integration is presumed carried out in harmony with the law of the jurisdiction. If there is contradiction, the EU directive overrides, superseding the local code.

9.6.1.. Transposition Delays Incompatible with ICT Deployment

Timely transposition is a key issue to be addressed, which is largely a function of the various member nations. France for instance, does not have a good track record in this respect, where action is mired in an endless bureaucratic web of decision-making and follow-up action. Consequently, the delays are caused by, severe administrative wrangling. A report produced by the Senate [2] reporting the longtime administrative dysfunction underlying this inaction, which had already been reported in prior times by the State Council through four executive orders by the Prime Minister, attempting to alleviate this problem but never acted upon. The underpinnings of this dysfunction are well known. In the first place, the effect of the directives, are not part of the negotiations, second; the inter-ministerial coordination is deficient to the extent that, if there is a disagreement between the administrative units, then permanent stumbling blocks emerge. The consequences could be many, as it is impossible to assess the opportunity costs associated with non-transposition, in terms of legal uncertainties, multiple litigations, and loss of political credibility within the Union.

Given the sensitive nature of communications in the context of information systems and supportive technology, failing to transpose quickly can generate potentially severe prejudice to the organization, while those located in countries having transposed in a timely manner, enjoy a competitive advantage. In all cases, minimally transposing directives represents a significant value-added advantage. However, in time the hard core of the directives will become an integral part of the national body of law.

Anticipating forthcoming legal rules, which in time will be created anyway, represents a minimal risk. Should anyone or organization get into a grave difficulty for having anticipated wrongly towards another person or organization, then recourse to a judge for assistance is possible. It follows that a prejudicial question can be asked regarding the interpretation or validity of a European rule. The judge is then obligated to refer to: Courts of Justice of European Communities (CJEC), which is empowered to declare the applicable interpretation of the rule in question, thereby putting the case to rest. Furthermore, recently in France the judge can recognize a direct effect towards a European directive, even if non-transposed.

9.6.2.. Dematerialization & Security by Contractual Agreement

Even though the law may have an aura of technological flavor, it remains insufficient to organize an appropriate framework for complex or innovative ICT applications, especially in the absence of text of transposition. Business partners using Electronic Data Interchange (EDI) design their own contractual agreement for a secured environment to carry out their transactions.

The legal framework required and applying to point-to-point relationships is usually misunderstood. Basically, it is the legal framework tailored to the needs of two partners exchanging in good faith: data, information and documents. Security is also a big concern to stave off hackers and fraudsters, whom are obviously not business partners. Then:

- Plan the legal framework supportive of a contractual arrangement.
- Proceed dematerialization with normal legal and smooth operations.
- Legal validation of electronic transmissions properly secured.
- Continued monitoring and sustainable legal compliance of electronic transmissions; the chain of confidence and traceability of operations.
- Design and implement an appropriate archival system.

Hence, we can see that the technical and the legal come together as complementary disciplines, while keeping an eye on the potentially interfering events. (Ref. Part 3)

9.6.3.. Assessing Foreign Legal Standards

Globalization has generated a trend, where the larger French commercial enterprises have deployed and grown their relations outside the EU.

The USA is prominent among the targeted nations for trade. The American power is so overwhelming that its legal system has great cross-border influence in foreign countries, even if the head office is located outside the USA. Beyond being compliant with domestic law in their respective country, those organizations also have to remain compatible with American law as well. The question is sensitive; should foreign law have extraterritorial force of law in our country? The various nations and their judges have different interpretations on this matter, so being cautious is being wise.

9.6.4.. Security While Respecting the User (RGPD)

There are certain legal documents touching on ICT's, which are in sharp contradiction with human rights. Securing electronic transactions, allowing for secured soft legal transmissions is important. The concept of security is all encompassing. It addresses the whole organization, therefore the physical dimension as well. The intent is to reduce all exposures to a low manageable level, protecting the organizational assets against fraud and industrial espionage.

Security policies must be very stringent; establishing with certainty, who is who, and who does what, meaning the methodologies should authenticate the intervening parties making them accountable for illegal acts or errors. Organizational procedures as well as technological support must come together to reduce exposure to risk as exemplified by the following:

- Identity Management within the Organization.
- Transaction Monitoring & Tracking.
- Physical Plant Surveillance.
- Implementing Biometrics to Authenticate.

Pushed to extremes, this big brother effect could impinge on employee's privacy and personal data, liberties and freedom

The project manager must be protective of personal data, which are well protected at the European level by: Rule 2016/679 enacted by the European Parliament and Council, April 27, 2016 relative to the protection of physical persons with respect to data processing having a revealing character and free circulation of the said data, otherwise referred to as RGPD. Management must anticipate the negative effects flowing from ICT's, whenever directly or indirectly authentication processing occurs along with tracking, thereby interfering with personal information and privacy. Clearly, the project manager plays a key role in the organization lending a positive contribution alongside with economic and legal intelligence and social responsibility of the organization.

9.7.. DEVELOPING DEMATERIALIZATION OF WRITTEN DOCUMENTS

Information systems associated with communications provides the infrastructure required to conduct electronic commerce transactions with business partners or accomplish the various procedural transactions in relation to the public administrations. This shows the importance of dematerializing actions and procedures within a secured environment supporting the interchange of information developed within a legal framework or purely contractual. The ultimate objective is to simplify the life of organizations rallying them towards Electronic Commerce and have the state services and social groups develop a modern approach. This represents a win-win situation for the administrations and their clients or social organizations, involved in a context of administrative simplification.

9.7.1.. Securing Dematerialized (Soft) Documents

Securing electronic interchanges completes the process of documentary dematerialization, which is often referred to as “soft” documentation in the English-speaking world. Going from paper to soft documentation as it is often called, represents an event that has to be legally authorized. The information with electronic support is susceptible to be transported via telecommunications in different directions, not all with the same basic equal risk and concern. So, it becomes imperative to consider the security aspect as an integral part of the dematerialization process, which should be equal to what the paper support would be expected to get.

Public data does not travel as orphan over networks; rather it is assembled as electronic documents forming messages or files. All of those datasets must be protected with the proper security, offering the legal guaranty necessary, being added to with the proper technical security coding, traveling together at the same time and processed simultaneously and should not be separated [3].

9.7.1.1.. Trustable Services

For over a decade following the publication of Directive 1999/93 dated December 13, 1999 regarding a European Community Framework with respect to electronic signatures, Europe proceeded to upgrade and consolidate the signatures to “Trustable Services” with a new ruling: EU Rule 10/2014 of the European Parliament and Council, dated July 23, 2014 on electronic identification and trustable services applying to electronic transactions within the community and superseding directive 1999/93/CE.

Essentially, the directive was focused on electronic signatures without providing a workable framework for reliable transnational and inter-sector electronic transactions, while there was a growing need for electronic identification. Adopting a new directive would not in itself have offered a solution for inter-operational electronic signature, because of divergence in the transposition of Directive 99/93. Conversely, a ruling, which is directly applicable without transposition yields more harmony, leading to the attainment of the objectives as proposed by the legislation.

Article 1, of the Ruling stipulates: “The present ruling establishes the rules applicable to Electronic Identification (EID) and Trustable Electronic Services (TES) to insure electronic transactions for smooth operations within the EU market” The intent is to raise the status of trustable services to a legal status. “The present ruling establishes a legal framework for: all electronic; signatures, cachets, date/time stamping, documents, supplies, and website authentication.”

Beyond the specifications for electronic signatures and cachets, trustable services encompass date/time stamping, which represents linking other electronic control data items, which when

taken together form a traceable and verifiable event, available for review and accountability. (Art. 3.25) Furthermore, website certification is done through a certified mandated service, qualified to deliver such certification, whose purpose is to authenticate the site to a particular party. (Art. 3.30) Given the forgoing, it therefore logically follows that electronically generated documents receive the same treatment value in a court of law as printed documents. (Art. 34.1) Hence, certified services transmit and receive electronically generated documents, whose integrity and authenticity are fully trustable and accepted as evidence in courts of law. (Art. 35.1)

Securing services delivered by mandated, trustable vendors are an indispensable condition to obtain the targeted dematerialization of paper documentation in compliance with continuous application of the law.

9.7.1.2.. Addressing the Open Markets

In Europe nowadays, the markets are open for any organization or anyone wanting to operate legally and with total dematerialization. In 2010, a European commission known as the Brussels Commission conducted a survey, reviewing to what extent the state of dematerialization had progressed across the member nations and also promoting it. Following that, the Union worked out a program whose expressed objective was the full implementation of dematerialization across the markets throughout the member nations, while opening to international competitive markets as well for the 2020's. Given the objective, the intent is clearly expressed, "all electronic" no less.

Directive 2014/24 dated February 26, 2014 applicable to open markets, is the central document representing the architecture of the European plan for a complete digital world. The framework for the total disappearance of paper for transactions in open markets, meaning only electronically generated documentation is allowed. The continent is viscerally attached to its paper form, suggesting that moving to electronically generated documents is not devoid of risks. Consequently, all legal guaranties awarded to paper, however now being weakened gives rise to the security dimension as the key parameter and compensating factor to make this a viable and secured alternative. Furthermore, the most classic issue represented by the signature on a piece of paper, now moving forward to an electronic signature is a quantum change to overcome. This policy opens up a wide field of applications flowing from the trustable services.

In the context of dematerialization applicable to general commercial markets, the general security controls are mandatory; those are: Identification (ID); Data Integrity; Confidentiality; Date/Time Stamping; and Access Control. Security being in the forefront of ICT's needs, then a certain pooling of expert resources is observed in the market place, consolidating talent and required expertise, thereby offering highly secured and reliable environments. Such services are available and used by public sector organizations, according to specific requirements defined in France as "Client Profile" "profil d'acheteur" in French. Vendors appear to be in a position to satisfy the requirements. There are also private computing platforms yielding additional income.

The dematerialized market is highly security driven as a result of the dematerialized platforms, where the required skill sets is mutualized and shared, such that the services are available to any national or international business, submitting their bids to the administration.

9.7.2.. Pervasive Electronic Implementation

Certain applications being developed and deployed into operations are real all-time milestone ICT's, and this is a time where such challenges should be of utmost interest for the project manager. For example, here are two applications: one of the oldest and a more recent one.

9.7.2.1.. The Electronic Invoice

The invoice is an excellent example of soft documentation, which has been applied in the EDI environment for quite some time already. There are several parameters and attributes to such a document. It is simultaneously a support document for accounting control as well as vouching for a commercial transaction. It itemizes the transaction data completely including sourcing and time elements. It shows sales taxes where applicable, such as value added tax, and also other corporate fiscal issues. This process started in Europe in the 1990's. Electronic invoicing as a process has received wider and more generalized features more suitable for current technologies, under modified Directive 2001/115 dated December 20, 2001. It became urgent to harmonize, given the modalities were inadequate in conforming to the deployment of new technologies applicable to invoicing methods.

The directive introduced various measures whose intent was based on taxation as focus. The invoice was amenable to any transaction for goods and services in accordance with pre-approved conditions determined by the state. There would be no pre-specified format, rather specific reference made to the pertinent data. Choice would be available in either paper or soft form, and any payable would be in the currency of the nation where the delivery takes place. The invoice could be in either paper or electronic form.

In terms of electronic invoicing, the modified Directive 2001/115 recognized two types of messages, EDI and some innovative one, which would be unstructured and accompanied by an electronic signature for transactions over the Internet.

- As far as EDI is concerned, the directive refers to a recommendation in 1994 touching on the UN/EDIFACT Standards, while ignoring the emergence of the XML Standard and related features.
- Since Internet is devoid of native security then this environment does not provide adequate security support. Therefore, to guaranty the identification and data integrity it was felt the electronic signature would be the needed solution.

Both paper and soft documents must be secured. "Their authenticity, integrity and readability must be assured." Linkage between the document and associated merchandise or delivered services must be maintained: Management control must be such, that a reliable (3) audit trail is maintained including the delivery and the invoice, whether it is paper or soft. In the EDI

environment endowed with advanced electronic signatures is specifically designed to insure the authenticity and integrity of electronic invoices. Users are free to choose the platform. “Given the existence of other performing technologies the mandated users are not directed to anyone particular platform for electronic invoicing.”

9.7.2.2.. Open Data

On November 17, 2003, Directive 2003/98 on the reuse of public sector information, was a legal ruling, addressing the minimal applicable set of rules regarding the use of public administration documents, held by the various member nations of the Union. This ruling implies the readiness of the information systems across the Union to be complying, such that the said information should be easily retrievable. The directive was modified in 2013 with Directive 2013/37/UE1, as an effective means to yield open data, dealing with data capture, storage and retrieval. Many times, public action is conducive to generating documents, but oddly enough become meaningful only when they are communicated.

For several years, legal decrees have attempted to get open information and data. Accomplishing this objective means the data and information becomes available to those not necessarily the beneficiaries of such a system. The policy is, completed by the ruling on dematerialization referred to above. Any public organization converting to electronically based documentation has the obligation to make such a service in a user-friendly format for reusable data.

In France, the Administrative Documents Access Commission (ADAC) is a kind of watchdog arbitrating on behalf of the user public, whenever a particular administrative unit refuses to make available certain documents, while allowed by the law. Another innovative concept coming into existence is the idea of reference data, which is a concept created by Article L.321-4 of the Public Relations and Administration Code. According to the article, making the data available to the user public is deemed an actual mission of the public service. The concept derives its definition from the nature and characteristics of the data in the first place. It provides a commonality of terminology to identify products, services, territories, and individuals. This is accomplished by public or private figures, not those in the administration holding such data. Furthermore, the concept of reusing also requires the data be available in high quality format.

A new article, R. 231 in the code, spells out clearly that reference data should be made available to the public by the administration generating it, or by another administration appointed for that purpose, or by a service vendor responsible for an inter-ministerial portal, whose mission is to bring together the information of the state and other public organizations, and make this service openly available on the public portal: URL <https://data.gouv.fr>.

The aggregated reference data must be made available to the public under reliable and secured conditions as decreed by the Prime Minister. Every administration should commit to this policy and publish a policy statement regarding this feature.

9.8.. DIFFERENTIATING RIGHTS AND TECHNOLOGY

In the world of ICT's many times, applications are quite complex supported by high technology computing platforms and high-tech operating systems, including the expertise to monitor, operate and maintain the uptime. The project manager has to be selective in choosing from sometimes widely diversified computing material in the market place. This process is made easier by the various regulations and legal requirements as well as contractual, which guides the project manager in making the right selections and decisions or otherwise easily eliminate certain product offerings.

As pointed out earlier dematerializing and security for data interchange is the required process, which is the implementation of controls on identification, data integrity, access controls, backup and recovery procedures and many more. Given the forgoing it is essential that the fine line between the legal and the technical be well understood.

- Archival systems do not necessarily satisfy the legal requirements by themselves
- In terms of signatures, such as the one flowing from the Civil Code in no way diminishes the pertinence of the electronic data signature for technical staff.

It is true sometimes that both are needed to satisfy the legal security and the technical security.

9.8.1.. Technical Archival vs. Legal Archival

9.8.1.1.. Archiving & Conservation

Why is electronic archiving in organizations important, which is rarely well done? There are many good answers for that, namely: for the protection of the memory of the organization; to follow legal and regulatory requirements; the need for factual evidence in courts of law; historical documentation and more. Archiving flows from the operations based on the ongoing technical profile of the organization, conducting its normal course of business. Business organizations lean heavily on their track records for corporate memory purposes, but also in cases of organizational growth and development. The key attributes are the document tracing and retrieval aspects, which are critical. Systems managers are keeping a constant vigilance when it comes to archiving. Furthermore, management policy should be concerned with integrating the procedures to also include the legal dimensions.

While technical professionals speak of archives, on the other hand lawyers speak of conservation, terms often times used interchangeably. Everything leans on one particular definition as the central piece [4]. The definition evokes technical aspects for archiving as well as legal. As far as the law is concerned the concept is "conservation" while for the technical side of the issue it is "archiving".

Another term to deal with is storage. A European directive issued on December 20, 2001 on invoicing, defines the meaning and how to accomplish: "Using electronic equipment including compressing, data storage through whatever means or applied technologies, which could be in the nature of: wire; radio transmission; optical character recognition for data capture;

electromagnetic reader machinery and other means.” What is important to appreciate is, archiving evokes dynamic concepts like a process, while storage evokes static states like element conservation.

9.8.1.2.. Archiving Serving as Legal Evidence

Why in law, is it necessary to archive properly? Clearly, it is for whenever it is used as evidence in courts of law. In cases of litigation, which could happen with any opposing party, and the evidence must be produced attesting to certain events, situations or breach. Given the paper evidence in support of allegations, the presiding judge can form an opinion based on objective facts, attempting to be fair delivering justice. Hence, it is clear archiving documents can serve many referral purposes, including as evidence in courts of law.

However, a document does not necessarily represent an act in law. Legal archiving pays no attention to the technical aspects it only considers legal acts in law. As far as the law is concerned there is no documents, only legal acts. To be practical, a legal act can only have one of two types of content, which are: either rights or obligations. They are two facets of the same reality that is the rights for one represents the obligations of the other. There are two varieties of such acts: Contracts known as bilateral and legal acts known as unilateral. These acts receive full force of validity once they are, signed by those concerned.

All commercial and administrative documents affecting the organization [5] must be archived beyond simple storage or safekeeping. It should be done according to modern technical means, using the best practices available.

9.8.1.3.. Legal Archival Horizon Determined by Law

Recapping, legal archiving represents archiving legal acts, but also all the business documents with paper as well as electronic support. The next issue is the safekeeping time required for conservation.

There are technical operational constraints in terms of electronic messages stored on files for various periods of time, which are a function of computing control, given specific architectures. Whenever electronic messages are, actual private legal acts and signed accordingly then the archival, conservation time is determined by the law, not by technical constraints. The ISO Standard 15489 Records Management states the following in general terms: “Decisions with respect to the time period for conservation and archiving of documents, is entirely based on the legal and regulatory requirements and is also a function of the business and economic risks involved.” The international ISO pronouncement of the archival standard covers, all the issues affecting archival systems and related time for safekeeping, given that it pays attention to both the legal and technical dimensions for such systems. Going forward, France is under the ISO Standard Z42-013 and related features.

9.8.2.. Graphic & Electronic Signatures – Electronic Cachet

The digital signature [6] was developed by, security specialists for their own needs, which were in the order of identification, data integrity and non-repudiation. It is an effective device; however deficient as far as legal counsels are concerned. France like other Latin countries, deems that device must also serve another fundamental legal purpose, which is: the signer of the document asserts consent to the content, thereby giving authenticity to the process in cases, where it is submitted as evidence in courts of law and other administrative situations.

Beyond its legal use, electronic signatures play a significant role in the life cycle of electronically written documents. It therefore follows that:

- The electronic signature validates going from paper written documents to soft form and does authenticate it if needed.
- The electronic signature provides for secured transmission with data integrity for archival purposes.

Accordingly, the electronic signature can alternatively serve to secure legal material and/or the technical side of the system. The attributes giving rise to either aspect comes from the following: the focus is the message, or the attached coded piece referred to as cachet or both together. With respect to the European rule referred to above, there can be several types of signatures, which are a function of the level of assurance required.

As defined by the rule: “The electronic signature (ES) is a dataset conjoined with other control data items used by the signer representing the ES.” (Art. 3.6) Associated with the ES, article 3 introduced the notion of “Electronic Cachet (EC)”

NOTE: A cachet, also used in English as a word, has its origin in French. Webster defines it as “a seal used especially as a mark of official approval.” Hence it is a distinctive sign making it official. The mechanical aspect is linked to a concept where the signature represents a specific individual, and which cannot be repudiated.

Hence it follows that the finality of the tool in considered in proposition 43: “The electronic cachet should serve to prove that an electronic document has been delivered by a legal person and guarantees the origin and the integrity of the document.” The author of the cachet is a physical person, whose intent is not to mislead anyone. He/she does not contradict that the cachet is emerging from a legal person, however only a physical person can enact such a procedure.

In North America, organizations are recognized as legal persons. In the French system, organizations are considered as legal fiction, and consequently cannot by themselves produce a legal document, and furthermore are incapable of signing with all the legal implications involved. It is necessary that in respect of article 43 the cachet must be, enacted by a physical person. Both the ES and EC have to be certified. In both cases, the certificates have to be properly qualified to be legally valid [7]. Special procedures exist to make them legally valid as

they are created in compliance with the definitions retained in the article, addendum II, which are in terms of: “application software and computing hardware appropriate to generate the electronic signature and accompanying cachet.” They can also receive certification in the member nations and then they are classified into the European database [8].

The Electronic Cachet is useful for:

- Proving an electronic document has been delivered by a legal person, guaranteeing its origin and integrity in compliance with article 43, serving as electronic signature for legal persons
- Authenticating not only electronic documents delivered by a legal person, but also any other digital transmission, such as from: a server; items of software; or systems and other adjunct messages; in compliance with article 47. This recognizes the validity of the organization server certificate.

The foregoing highlights that; the only pertinent legal effects applicable are to the Qualified Electronic Cachet (EC).

It is possible to get soft documentation, here referred to as dematerialization, even though there is no specific legal requirement, leaning on the electronic signature or cachet. Below the qualified electronic signature, there is the advanced electronic signature. It however does not allow no-contest consent of the author in the eyes of legal counsels, but it is not completely devoid of valid legal characteristics [9].

NOTES

[1] Decree number 1999/93, December 13, 1999 with respect to electronic signatures, provided a framework for the community and was also superseding: Rule n°910/2014, July 23, 2014 on identification and trustworthiness of electronic services regarding electronic transactions. Decree number 2000/31, June 8, 2000 relating to certain legal aspects of services of the digital society and electronic commerce applied to domestic usage; Decree (UE) 2016/679 enacted by the European Parliament in council, April 27, 2016 with respect to the protection of physical persons relating to free-flowing personal data (RGPD).

[2] Cf. Information Report n°250 (2001-2002) – Delegate of the Senate to the European Union M. Hubert Haenel.

[3] For example, the Electronic Signature and corresponding companion the Electronic Certificate, are both transmitted.

[4] In France on January 3, 1979 the law on archiving defined it as follows: "The archives are the sum total of all the documents, irrespective of dates, form, material support, produced or received by any person, whether public or private in the course of their respective activities. Conserving those documents is based on public interest as well as the management and justified as far as the rights of persons public or private, and also for purposes of historical research."

[5] Considering email messages.

[6] It is a signature based on cryptographic means designed to guaranty the identification, the integrity and which cannot be repudiated.

[7] Cf. Article 21 for Electronic Signatures and Article 30 Qualified Electronic Cachets.

[8] Cf. Articles 22, 23, 24 & 30.

[9] The advanced ES validates the soft invoice without consent of the author, since the invoice is not regarded as legal act. It explains why the paper invoice is not signed.

* * *

10.. CATEGORIZING TOOLS to DEVELOP COLLECTIVE INTELLIGENCE in PROJECTS

Written by **Pr. Yvan Lauzon** and cooperation of **Stephanie Fissette UQAR** (University of Quebec).

- The following tools can be quite contributive for the efficient work of work teams. Given the vast quantity of literature available on the Internet, you are invited to seek those proposed by a qualified authority, such as Wikipedia or recommendations by peers in the field.
- Tools here are mostly in the order of a methodology (M) interrelated processes and techniques (T) checklists (L) functionality software (S) or forms to be filled out partially or totally during meetings (F).
- Of course, many consulting firms have their own toolbox to work with and made accessible to clients usually for a predetermined period of time.
- There are collections of books and online toolboxes available such as: “*Boîte à outils*” of the French Editor *Dunod*™ and *100 files of Bréal*. There are also many free-of-charge Websites you can check, such as: (<http://www.100notions.com>) (*GP-Québec* Toolbox; -- <https://gp-quebec.ca/boite-a-outils-de-gp-quebec/>).
- Generally, there are two main origins for such tools: Quality Management (QM) and Human Resources Management (HRM) activities.
- We have voluntarily avoided to present personal development methods like: Mindfulness; Theory U of Otto Scharmer; Visualizing and more. There are dozens, probably hundreds of methodologies to generate feel-better situations and self-control and growth.
- In the same manner, we have not addressed deliverables for Information Systems (IS) done by collective development like Open source.
- Here we have developed collective tools contributions, over that of individuals supporting a tangible collective effort during meetings, whether in person or virtual.

* * *

NOTE: The second edition of this work includes a complete description in English of each tool identified below, representing 20 pages inclusive of 4 pages of lexical development from *English to French* and *French to English*.

* * *

10.1 Category –1– Manage information & Share knowledge

- Blog.
- Co-Development Group.
- Collaborative Platform.
- Collaborative Writing.
- Community of Interests.
- Community of Practice (CoP).
- Creative Community.
- Discussion Group / Discussion Forum.
- Enterprise Wiki.
- Extranet.
- Groupware.
- Intranet.
- Learning Management System (LMS) / Learning Support System (LSS).
- Learning Networks.
- Lunch 'N Learn (Lunch and Learn).
- Social Network Enterprise.
- Website Creation.

* * *

10.2 Category –2– Problem diagnostic & Analysis in groups

- 5 Why's (Five Whys).
- 5 Ws 1H (Five Ws and How) or 5 Ws 2H.
- Balanced Scorecard .
- Benchmarking.
- CEDAC diagram.
- Dashboard.
- Decision-Making Tree.
- Ishikawa Diagram.
- Mind-Mapping.
- PARETO Analysis.
- SWOT analysis.
- Symptoms of the Problem and/or Conflict (Directory of ...).
- Trend Analysis.
- Value Analysis.
- Value Chains Analysis.

* * *

10.3 Category –3– Appreciative of collective reflections

- Citizen Conferences.
- Delphi.
- Dialogue Circle.
- Fish Bowl Conversation.
- Focus Group.
- Future Search Conference.
- Graphic Facilitation.
- Interviews.
- Shared Vision.
- World Café.

* * *

10.4 Category –4– New idea management

- 6 Thinking Hats (Six Thinking Hats).
- Brainstorming.
- Brainwriting Software.
- Creative Problem Solving.
- Creative Studio.
- Creativity Room.
- Creativity Sessions.

* * *

10.5 Category –5– Collective decision-making

- Compatibility Matrix.
- Consensus Conference.
- Multiple Criteria Decision Analysis.
- Murder Board.
- Weighted Voting.

* * *

10.6 Category –6– Project co-construction

- Design Thinking.
- Functional analysis.
- Hackathon.
- Sprint Design.

* * *

10.7 Category –7– Champion change associated to a project

- Business Case (Project).
- Business Environment Analysis (PESTELOD).
- Business Plan.
- Change.
- Change Matrix.
- Lewin's Force Field Analysis.
- Project Risk Analysis / Project Risk Assessment.
- Resistance to Change (Summary table of ...).
- Responsibilities Chart.
- Simulation.
- Stakeholders Analysis.

* * *

10.8 Category –8– Re-enforced collaboration within teams & Enhanced interaction between team members

- Action Learning.
- Employee Engagement Survey.
- Escape Game.
- Ice Breaker.
- Leadership Diagnostic.
- Serious Game.
- Sociogram.
- Team Building.
- Team Coaching.
- Team Retreat.
- Work Team Rules.

* * *

10.9 Category –9– Innovation

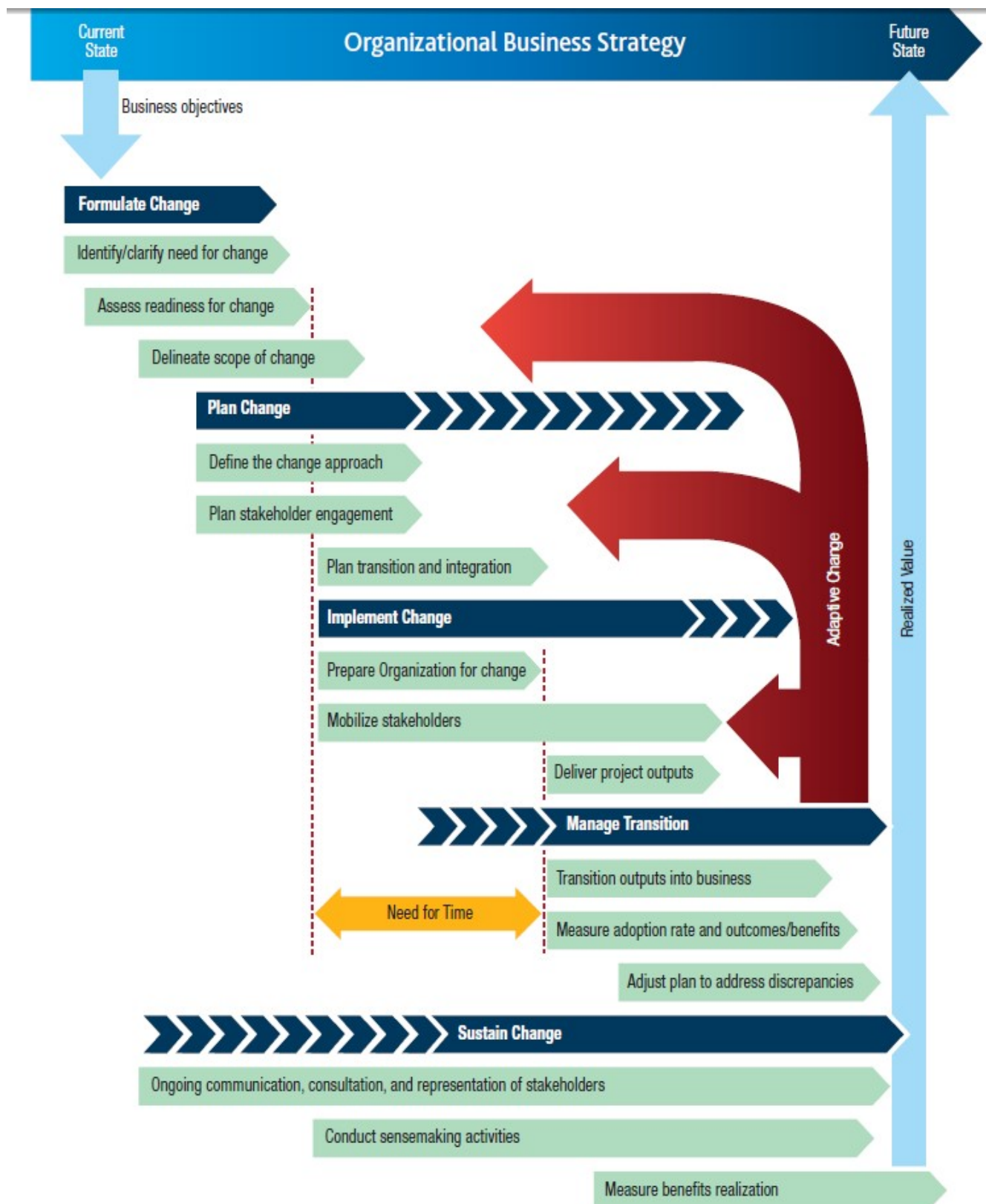
- Design Thinking.
- Innovation Pipeline.

* * *

11.. MANAGING CHANGE & PROJECT MANAGEMENT: The Key Issues Related Thereto

Written by **Pr. Yvan Lauzon MBA**

- According to Marsan 2008 (ISBN: 978-2804156282), by definition change is:
“The process going from state-A to state-B is precisely the link determining the complexity of change. Change is an ongoing transformation flux implying internal mutations, dynamic moments and sometimes hectic and turbulent, simultaneously causing resistance and levers to resilience, creativity and innovation.”
- As suggested above in change management, there is no single pattern or magic recipe solution to all types of change and situations we might come across in the field in either private or public organizations.
- In the early versions of the knowledge corpus PMBoK, PMI International was addressing change as, that emerging from a project via the angle of communications. However, since 2013, it is now a great deal more elaborate. PMI has published several documents specifically focused on the subject of change, including the well read:
Managing Change in Organizations: A Practice Guide (ISBN: 978-1628250152).
- Since 2013 in PMI publications we find five stages are proposed as illustrated in the next page:
 1. Define the change.
 2. Planning for the change.
 3. Implementing the change.
 4. Managing the change.
 5. Sustaining the change.
- Systematic integration of the change associated with the project and the management of change allows for the following:
 - Better assessment and anticipation of the human impacts, that is emotional reactions; preoccupations and concerns; individuals and groups; leading to a seamless transition and provide adequate support.
 - Inform and mobilize employees to ease change to action.
 - Insure employees have the necessary tools and competencies to cope with the change.
 - Develop strategies and concerted actions geared to insure smooth transition
- The American firm PROCI Inc. is often quoted in PMI publications (prosci.com/...) is a world leader in Change Management (CM).
- Other international associations (e.g. IPMA) have in their own way treated the junction between Change Management (CM) and Project Management (PM), a desirable integration.



SOURCE : PMI (ISBN: 978-1628250152)

CONCLUSION & OUTLOOK

- Being attentive and be continuously monitoring major global trends in society, weak change signals, opportunities and emerging threats in business environment should now be the norm. However, this also applies internally, whether organizations are public or private sector.
- In fact, despite strong technological capacity, the postmodern organization is always undergoing the rallying call of the coffee machine to stimulate collaboration among project team members, completing SCRUM meetings for example (if *Agile mode* is used, of course).

Here are a few strongly expressed ideas in this book, along with a prospective look ahead:

Effective Project Teams

- The first and foremost finality of any project, is the accomplishment of the preset objectives. This is measured with respect to time and money budgets, expressed in terms of variances less than 10% for cost and time delivery over the initially projected numbers: Quality, Cost, Delays (Q-C-D). Added to the assessment of success an additional five performance criteria should apply, namely: Compliance or coherence with early objectives; Efficiency; Effectiveness; Pertinence and Utility in terms of business solution.
- The project team must also be evaluated according to impartial criteria and therefore not simply on a GO / NO-GO basis. The five criteria clearly apply, but also other features are considered in this context, namely: Innovation; Creativity (e.g. Doing better differently); Team learning; Team members satisfaction; Coordination; Conflict resolution; Atmosphere of trust; Team cohesion and mutual help.
- Many factors determine the ideal size of the project team. An important criterion is the atmosphere within the team, to be assessed on a case-by-case basis generally. Whenever, a team is too big for optimal performance then it can be fragmented on a functionality basis. (e.g. Programmers Team-1, Programmers Team-2 and so on).

Winning conditions for a growing success of even complex projects

- As was aptly mentioned in a June 2018 document of the International Association IPMA (ISBN: 978-9492338198)

"In order to run a project successfully three things are really key: Communication, the use of established processes, and a focus on what must be done according to contract and what is achievable. Regarding the communication, different tools and structured processes are applied, but more importantly are an open mindset of the participants, and an effort by all to understand what the interests of the other parties are. This sometimes can be especially challenging for the Coordinators, as it is their

responsibility to lead to project to success, to balance the interests of all partners and possibly moderate in conflicts. In a cross-cultural setting, these tasks become even more important, and the fact that both Coordinators have a working knowledge of each other's languages (English/Japanese) certainly helped in avoiding misunderstandings and in establishing good working relationships''.

Major Trends

Here are some of the major trends affecting Project Management in postmodern organization:

- Growing "Projectification" in the industrialized countries (or in the process of being), working more and more often in Project mode.
- Complexification of all the society: More and more interdisciplinary & complex Issues & Challenges / Accelerated temporal effect / Unstable political context / Societal movements, ...
- Agility & quick adaptation required at all times, of the work of the Project Manager Leader and his managers, but also his teammates, including rookies.

Skills Attributes required in 2020

The Project Leader pays attention to three concurrent Skills Attributes and keep all time the Focuses on:

- 1.. *As Leader he must be a seasoned project manager, strongly believing in continuous improvement.*
- 2.. *Be an excellent negotiator with the various stakeholders to get generalized consensus and needed support, necessary for the proper execution of the project.*
- 3... *Be in full agreement with the necessity for levels of assurance represented by the audit and expert review function and therefore prepares the way for legitimate accountability and due diligence.*

* * *

REFERENCES

NOTE: The **second edition** of this collective work will be published in early June 2019. It will include supplementary documents, two INDEXES with over 300 keywords for fast retrieval. Also included references, articles and books. Briefly, it is an updated version by over 30%.

* * *

FIRST READER REVIEW (POV)

I have known Professor Yvan Lauzon MBA since 2012 at the time I was undergoing my studies within the MBA program at UQAM in Montreal. I can recall how invested he was in Project Management (PM) lecturing his two assigned technology courses in the MBA Program – Cities & Metropolis.

Several authors across the world have written about project management, and some have even touched on the topic of complex projects. What is unique however, about the considerable work of Professor Lauzon is how he balanced theory and practice in a highly comprehensive manner for the practitioner.

Whether it is in terms of personal or professional relations among the elected representatives and the public service, the core objective for municipalities, which is the closest government to the people, is a question of making the best choices in order to deliver the best services to the tax payers, so they get value for money and satisfaction as citizens. Notions of social acceptability and public consultation are now the key success factors, accomplishing the best possible projects to give the citizen a better quality of life, while keeping a sustainable balance between the economy, the environment and social development.

Effective communications between the various levels, such as the elected members, the management, employees, unions, government authorities and business partners, are a fundamental component of success and therefore is not an option.

Some projects might be described as complex, requiring an intimate understanding of the component issues, highlighting the sections needing more focus and management attention. In this context and resulting from my experience I can identify a few of those issues not to be underestimated:

- The project room; participants; tasks to be accomplished; and related activities.
- The projected cost budget and contracts with the suppliers and consultants.
- Tentative focus on the business objective and horizon of change management.
- Identify those key participants involved in the interactive management.
- Managing the virtual teams with the support of a good collaborative software.

I am not an expert in Project Management; however, I can assert with confidence that creating the necessary conditions for success has to be a given. In this context calling upon the best expertise and qualified human resources, to assemble winning project teams is clearly a basic management objective.

Furthermore, the interactive dimension of a project always makes it such that there is a learning aspect to the project development, and that applies to individuals as well as the collective. Complex projects are at a higher risk level, which requires tighter management and better team talent to minimize. The main problem is; not everything is predictable up front, as stated above there is a learning effect ongoing. It is reported in the literature that, more than 70% of complex projects are over cost and time budgets. The best brainpower can assist greatly in resolving problems as they emerge.

Many times, it is easy to fall victim to expedite the project too rapidly, chopping corners on quality, with a short-term view and quick profit without assessing the impacts or consequences. This can clearly give rise to costly dysfunctions, such as having to redo a second time what should have been done properly the first time; or serving one's own best interest versus the collective; or yet other undisclosed motivation. Avoiding such bad situations can be achieved by the following:

- Issues; problems; challenges; deadlines; quality; costing; studies & factors PESTELOD (*).
- Various government level interplay; Municipal, Provincial. Federal; cost estimate versus actual variance; human resources, financial and material constraints.
- PODC, percentage of completion; milestone deliverables; complexity; ethics; public funding; and uncertainty.
- Ongoing quality assurance; sustainable development; and social acceptability.
- Organizational culture; public versus private; ongoing development; change management; and flexible staffing.
- Risk management; professional development, competence management; and technological pressure management.
- Key success factors; winning conditions; business environment; and a world view.
- Change management is a constant challenge at all levels.
- Management leadership rallying resources to optimize effective delivery.
- Able to deliver on objectives for organizational performance and motivation.
- Innovation with best practices; managing long term sustainable projects, not for 5 to 10 years and then having to restart.
- Quality has lasting value through time and participants have grown in the process.

In any organization public or private, the need to manage the dynamics associated with structure and staffing is a constant concern. Skill set development and organizational fit is a better guarantee of functional survivability.

Self-assessment is a good approach to constantly improve, leaving the comfort zone and go farther all together. Raising questions can be revealing about the usefulness, pertinence, coherence, efficiency and effectiveness about things we routinely do.

Improving communications and dismantling islands of information is a desirable objective, integrating with the proper governance to a process of doing together.

In the digital age, where Artificial Intelligence (AI) and Open Data (OD) have emerged and are becoming pervasive, creating an accelerated business cycle and making decisions is an art requiring pause and informed maturity. In this respect it will be interesting to watch the evolution of projects delivering improved services to the community.

Being knowledgeable with a good sense of awareness is important in terms of human relationships, allowing for pleasant work environments.

Professor Yvan Lauzon MBA designed this collective book with the practitioner in mind.

The project manager is continually looking for practical advice and methodology. Therefore, balancing theory and field practice was the pragmatic choice, supportive of project management including those held as complex.

Robert Coutu, MBA

Mayor, Montreal East

March 25, 2019

(*): PESTELOD = Political / Economical / Social / Technological / Environmental / Legal & Ethic / Organizational / Demographical.

* * *

INDEX

NUMERICAL INDEX of THEMES COVERED

NOTE: The **second edition** of this collective work will be published in early June 2019. It will include supplementary documents, two INDEXES with over 300 keywords for fast retrieval. Also included references, articles and books. Briefly, it is an updated version by over 30%.

* * *

ALPHABETICAL INDEX of THEMES COVERED

NOTE: The **second edition** of this collective work will be published in early June 2019. It will include supplementary documents, two INDEXES with over 300 keywords for fast retrieval. Also included references, articles and books. Briefly, it is an updated version by over 30%.

* * *

TERMINOLOGICAL PRECISIONS

The terms or notions appearing in this **Addendum A** were selected from this unique source:

- S1.. Encyclopedic Dictionary of Public Administration
 / L. Côté & J-F Savard (dir.). ENAP website, with English & French versions.
 (http://www.dictionnaire.enap.ca/Dictionnaire/63/Index_by_word.enap?by=word)
(NOTE: Reproduction in whole or part of the definitions contained in this dictionary is authorized, provided the source is acknowledged.).

The Second edition, to be published in early June 2019, will cover other sources of definitions.

Terms included in **Addendum A**:

- Code of Conduct.
- Corporate Governance of State-owned Enterprises.
- Integrated Services.
- Management by Results.
- Public Ethics.
- Public Governance.
- Public Management.
- Shared Services.

* * *

- **Code of Conduct** (Code de conduite)

Extract (S1): “code of conduct” is a generic expression that covers several concepts that may be said to share family resemblances (in the Wittgensteinian sense). This article proposes a definition for the term but also deals with parallel notions identified by four other, closely related terms: “code,” “code of professional conduct,” “ethics” and “code of ethics.”

A code of professional conduct constitutes a reference document for the members of a profession. Historically speaking, a prime example of such a code is the Hippocratic Oath pledged by physicians since the time of ancient Greece, since it states the rules and norms for medical practice focused on the good of the patient. Over time, such rules for other professions have been codified, and in present-day Quebec, for instance, each legally recognized profession possesses a reference document that sets out rules governing its members' practice. In the civil service, which includes a wide range of professionals, there are several such codes of professional conduct in effect. These codes promote suitable behaviour and ensure that work-related services are provided competently and in compliance with obligations determined by professional corporations, which also see that these obligations are met.

A code of ethics stands out sharply from a code of professional conduct by the fact that it covers rules that apply to behaviour more broadly and formulate what is acceptable in the eyes of a community in all fields of human endeavour and not simply in that of professional practices. For a long time, such codes were based on moral precepts inspired by religious beliefs. With the advent of the Modern Age (which grew out of the Age of Enlightenment in the 18th century), it was gradually accepted that such codes of ethics should be adopted on the basis of values that are defined and recognized by particular communities, taking into account the laws in force and accepted standards of good behaviour. This notion will be returned to further on, when ethics, the discipline that provides the content of such codes, has been dealt with in the next paragraph.

- **Corporate Governance of State-owned Enterprises** (Gouvernance des entreprises publiques)

Extract (S1): To begin with, corporate governance refers to the interplay of formal and informal relationships linking a corporation's management and its shareholders or owners, who are represented on the board of directors. The members of the board define the organization's strategy, approve its budget and discuss the main challenges to be tackled. Decision making must consider not only considerations of profitability but also those of sustainable development and social responsibility. SOEs in particular are expected to demonstrate ethical behaviour and a high degree of transparency owing, precisely, to their public character (Simard, Dupuis and Bernier, 2006).

In the case of SOEs, corporate governance brings into play a complex set of laws, regulations, mechanisms, processes, norms and customs through which these organizations may be governed (Lynn et al., 2000). Specifically, it concerns the relationships between management, the board of directors and the institutional environment of this relatively independent enterprise, but not involve departmental senior managers who are in contact with the so-called “appropriate minister,” occasionally the prime minister (or premier) and deputy ministers, as well as the central agencies responsible for SOEs in the Ministry of Finance or the Treasury Board Secretariat (depending on the government). SOEs are also compelled to appear before parliamentary committees whose proceedings and deliberations concern their sector of activity.

The governance of State-owned enterprises is unique in that the government is the sole shareholder. A SOE has a so-called “appropriate minister,” who is the primary liaison with its head officers. Thus, there would not appear to be any requirement to include various stakeholders in a SOE's governance so as to represent various groups of actors in society. However, governments have deemed it necessary or useful to have representatives of the various environments affected by the activities of SOEs to sit on their boards and thereby account more fully for the views of these actors in matters of governance.

- **Integrated Services** (Services intégrés)

Extract (S1): In the public sector context, integrated services refer to the result of bringing together – and fitting together – government services so that citizens can access them in a single

seamless experience based on their wants and needs. The subject of integrated services is increasingly discussed under the heading of integrated service delivery (ISD). The concept and practice of ISD have evolved from the earlier notions of one-stop shopping and single window service delivery; both of these terms are still in frequent use.

Initiatives to integrate government services are being taken in countries around the world – from Canada to Kazakhstan. Citizen satisfaction surveys in several countries have shown that citizens want citizen-centred service. They want to access government services quickly, conveniently and seamlessly regardless of the level of government responsible for delivering the services. They also want to receive their services through the delivery channel of their choice, e.g., via the telephone, in-person service or online. Citizens are pressing public organizations to provide services at a level equal to, or better than, what the private sector provides.

Governments' use of ISD dates back a long way (e.g., Government Agents Offices in Canada's province of British Columbia originated in the 1880s). Most ISD arrangements, however, date from the late 1980s. The striking variety of arrangements that have emerged range in complexity all the way from one government department collaborating with another department to provide a single service, to several departments in one government joining up with departments in another government and with private and third sector organizations to deliver several services.

In terms of their purposes, ISD initiatives can be classified into:

- Information gateways that provide access to government information and referral services (e.g. on consumer protection) through such channels as telephone call centres, government service centres and Internet sites.
- One-stop service department stores (e.g., Australia's Centrelink) by which citizens can conveniently access both related and unrelated government services, usually through each of the main delivery channels.
- Seamless service boutiques that provide easy access through one or more channels to a related cluster of services (e.g., advice to business) or services for a particular client group (e.g., youth).

ISD arrangements can also be classified in terms of their structure:

- Owner-delivered refers to service delivery by a department or a government.
- Owner-delivered in a co-located environment involves delivery by departments or governments that share space at a particular location.
- Shared delivery through integration refers to delivery by a partnership that integrates the services of more than one department or government.
- A service utility is an organization that delivers services on behalf of government organizations but delivers no services, or very few services, of its own.
- An ISD department takes the form of a department or agency focused on improving service delivery, with a division concerned with promoting ISD.

ISD initiatives based on the department store model are especially popular in Australia and Canada where they have been adopted not only by the federal government (Centrelink and Service Canada) but also by virtually every state/provincial government (e.g., Smart Service Queensland and Access Nova Scotia).

Most ISD initiatives involve a partnership of some kind and these partnerships can involve coordination and/or collaboration across departmental, jurisdictional and sector boundaries. Experience has shown that, in general, inter-departmental ISD is easier to achieve than the inter-jurisdictional and inter-sector varieties. It is now widely envisaged that in the future, government services will be delivered increasingly through the collaboration of governments with business and not-for-profit organizations.

Many governments have integrated their services by “bundling” them on their website according to “life events” such as having a baby or getting married (e.g., Denmark's citizens' portal). A few governments (e.g., the United Kingdom with its Tell Us Once project) are enabling citizens to engage in one-time data provision whereby they only have to tell government once about such changes in such life circumstances as births, deaths or a change of address, and that information is then shared among the relevant departments. Governments are also making considerable use of Web 2.0 technologies such as Facebook, Twitter and wikis to integrate services by connecting governments with their partners and with citizens.

Integrated channel delivery is a vital component of ISD in that it involves joining up channels to improve service. Citizens often use more than one delivery channel (e.g., telephone and Internet) for a single transaction with government. Thus, it is important to coordinate service delivery across delivery channels. It is also important to rationalize the use of delivery channels by providing services through the most cost-efficient one. The Internet channel is the information backbone for use of the in-person and telephone channels, and it has become the preferred channel for many citizens. Since use of the Internet channel is much more cost-efficient than other channels, governments want citizens to migrate to that channel and to such other self-service channels as kiosks and interactive voice response. At the same time, there is considerable pressure to maintain the traditional telephone and in-person channels so that citizens can use the channel of their choice to access the services they need, regardless of their social, demographic, geographical, or technological circumstances.

There is a broad range of political, legal, structural, managerial, operational, and cultural barriers to service integration. However, governments have been vigorous and innovative in overcoming many of these barriers and thereby fostering integrated, citizen-centred, inter-jurisdictional, and multi-channel service.

- **Management by Results** (Gestion par résultats)

Extract (S1): Management by results (MBR), or results-based management (RBM), is a government performance management framework with three logically linked focuses: the

quality of public services, the optimization of available means and resources, and the accountability of public sector managers.

MBR is based on the principle of performance commitments. Indeed, managers cannot simply set objectives, as in management by objectives, but must also undertake to achieve those objectives. Managerial action is thus subject to an obligation of results (or a performance commitment) and should ensure, or at least facilitate, the achievement of results targets. The three constraints that have to be managed within the context of this approach are the scarcity of the resources and means placed at the disposal of managers, compliance with legal and administrative rules, standards and practices, and the satisfaction of citizens, viewed as clients, users and recipients of public services (Mazouz and Leclerc, 2008).

Generally speaking, MBR makes results central to managerial and organizational action. For Mazouz and Leclerc (2008), the concept of results refers to four specific and measurable categories of outputs that the managers of public service supply systems must consider in their quest for performance: delivery results, management results, policy results and overall improvement results (see the results categories discussed further on in this definition).

A number of management tools are widely used in MBR, including strategic planning, annual management and continuous improvement plans, systematic measurement and evaluation, management scorecards, performance indicators, benchmarking, process reviews, annual management reports, accountability reporting, management agreements and performance contracts (agreements) between the different levels and stakeholders involved in government action. These tools enable public sector managers to plan, organize, make decisions about, control, monitor and assess the quantity and value of the results achieved under their management mandate (Mazouz and Tardif, 2010).

- **Public Ethics** (Éthique publique)

Extract (S1): Public ethics is a new paradigm in the social sciences that sheds a particular light on a range of topics and issues: the conduct of public officials and social actors involved in the construction of public problems; the systems and processes designed to regulate the conduct of these people; and the characteristics and moral justifications of public actions. In our time, ethics is referred to from a perspective differentiating it from other modes of normative regulation and aims, such as moral philosophy and deontology.

- **Public Governance** (Gouvernance publique)

Extract (S1): Public governance is an interdisciplinary field of study centring on relationships of power between government authorities, civil society and the market, in a context of transformations in the ability of political communities to legitimately govern themselves and act effectively. These relationships can vary in nature, embodying relationships of authority (e.g., authority exerted by the State but also by the market through the enforcement of contractual

arrangements) as well as relationships of influence and persuasion, coercion and manipulation (Lukes, 2005).

- **Public Management** (Management public)

Extract (S1): Public management consists in a set of processes and tools aimed at achieving optimal performance in an organization dedicated to public service.

While this brief description may appear straightforward, it nevertheless conceals more difficulties than first meets the eye. As is clear from an in-depth examination, historical and ideological roots continue to shape contemporary management-inspired practices and that this notion continues to be freighted with numerous issues.

From a historical point of view, public management took root in the 1970s and 1980s, an era marked by the expansion of neoliberal discourse and its disparagements of government action and the quality of management in public administrations. In particular, this discourse vaunted the superior management methods of the private sector in comparison with those of the public sector. There was thus a strong pull toward adopting private sector practices, viewed by many as a “miraculous elixir” for the problems experienced by public administrations (Rainey, 1990, p.166). This perception compelled redefining both public administration and traditional Weberian bureaucracy (Parenteau, 1994, pp. 5-8; Hood, 2005, p. 14; and Rainey, 1990, p. 157; Auby, 1996, p. 3). Inevitably, such redefinition generated tensions between two rationalities – namely, a managerial rationality versus a legal-administrative rationality. In turn, these tensions brought on a clash between the cult of performance and compliance with rules and procedures. Such mutual antagonism lessened as management shed some aspects of private sector rationality – including the notion of profit – and gained some aspects of public sector rationality – including equity, for example. Then, management became “public” (Payette, 1992, p. 8) and, from that point on, governments no longer administered but instead managed (Savoie, in Payette, 1992, pp. 5-6).

Among public administrations, the quest is now for performance – a core notion both in research and in practice. Performance comes accompanied by a number of other notions, including the delegation of authority and its corollaries, accountability and efficiency. From this point of view, public management philosophy is summed up rather aptly by the saying “let managers manage.”

- **Shared Services** (Services partagés)

Extract (S1): The concept of shared services can be defined as a management approach that consists, according to the classic definition of Schulman (1999), in “the concentration of company resources performing like activities, typically spread across the organization, in order to service multiple, internal partners at lower cost and with higher service levels, with the common goal of delighting external customers and enhancing corporate value.”

In other words, the shared service management approach refers to the practice, within an organization, of sharing a common set of services that are delivered in a similar manner across several business units (Quinn, Cooke and Kris, 2000). Shared services basically achieve economies of scale by grouping activities (Pépin, 2004) to maximize efficiency, such as by sharing equipment, information and expertise. Dreyfuss (2010) showed that there are six main reasons for implementing shared services: the lower cost of producing services, the efficient use of resources, the consistency of established processes, the maintenance of quality standards, agility in satisfying customer needs, and business performance (Dreyfuss, 2010).

There is no consensus on the origin of the concept of shared services. Some claim that it was created by General Electric, the company that had a group in the U.S. in 1986 known as Client Business Services, which served as a model for what is now shared services. As noted by Quinn, Cooke and Kris (2000), other consultants participating in studies conducted in 1990 by Bob Gunn of A.T. Kearney with companies such as Ford, Johnson and Johnson, IBM, AT&T, Nynex, Digital, Dupont, Hewlett-Packard, Alcoa and Shell have all exhibited one common feature: the existence of a type of shared services for financial operations. This observation gives credence to the consultants on Bob Gunn's team who take credit for coining the term of shared services if they did not indeed create the underlying idea. Historically speaking, we can be sure of two facts concerning the origin of the concept of shared services: it was created in the United States and was first focused on the entire range of financial service operations (Quinn, Cooke and Kris, 2000).

Traditionally, the shared services approach has been most often applied to financial operations. However, the range of services that can be shared has expanded over time (King, 2007) and today includes support and consulting services such as human resources, information technology, purchasing, supply chains, records management, legal services and customer relationship management (Pépin, 2004).

The public sector appears to be one of the areas holding out the greatest promise for the expansion of this approach. Public administrations have drawn on the experiences of private enterprises to tackle such challenges as ageing populations, greater demand for services and the need to reduce the cost of government operations. In this respect, the shared services approach has become a global phenomenon, as it has helped organizations to achieve gains in terms of performance, the flexibility required to adapt to a changing environment, and cutting costs. Many public administrations have begun to set up shared services (Pépin, 2004). Examples in Canada can be found in the provinces of British Columbia, Alberta, Ontario, New Brunswick and Quebec. Outside of Canada, public administrations in Great Britain, the United States, France, Spain, Germany and Australia (Pépin, 2004) and other countries have turned to this management model.

In public administrations, the shared services approach means that various services, especially those of an administrative nature, are provided in accordance with a specific management model in which government departments and agencies (the clients) “define their service needs,

choose their service levels, hold the budget and pay for the services they choose” (Government of British Columbia, 2002).

A key component of the shared services model consists in the underlying management philosophy, which has created a split between governance responsibilities and operational service responsibilities (Ministère des Services gouvernementaux du Québec, 2005, p. 4). As a result, public organizations have been forced to review their service provision strategies (Hogan, 2007) and to choose new adapted approaches for providing internal services.

As is shown by the experiences of various public administrations, different models have been used for implementing the shared service management approach. Some models have tended to centralize administrative services, such as in British Columbia, Alberta, Ontario and Great Britain. Others have resorted to private enterprises for certain types of services. Some shared service management models have kept the administration and management of administrative support services within one government department, while others have created a new, separate agency solely dedicated to applying the management model (Pépin, 2003).

The value of any type of shared service model lies in its ability to provide services according to a selected management model and to generate economies of scale that each client government department or agency would not be able to do on its own. This management model denotes a major shift in service culture (ministère des Services gouvernementaux du Québec, 2005) centred on satisfying client needs and reducing costs.

There are several considerations to keep in mind when choosing a specific model for implementing shared services. To begin with, it will be necessary to analyze the strengths and weaknesses of the organization concerned, the legal framework surrounding its operations, its current administrative structure, its target clientele and the geographical concentration of its entities (Pépin, 2003, p. 6). Then, each public administration must decide whether or not it will make participation in shared services mandatory for government departments and agencies. For example, most Canadian provinces have adopted a mandatory approach for three years only, while in the States of Australia, all agencies must participate in at least one shared service centre for transactional services designated by the authorities (ministère des Services gouvernementaux du Québec, 2005, p. 25).

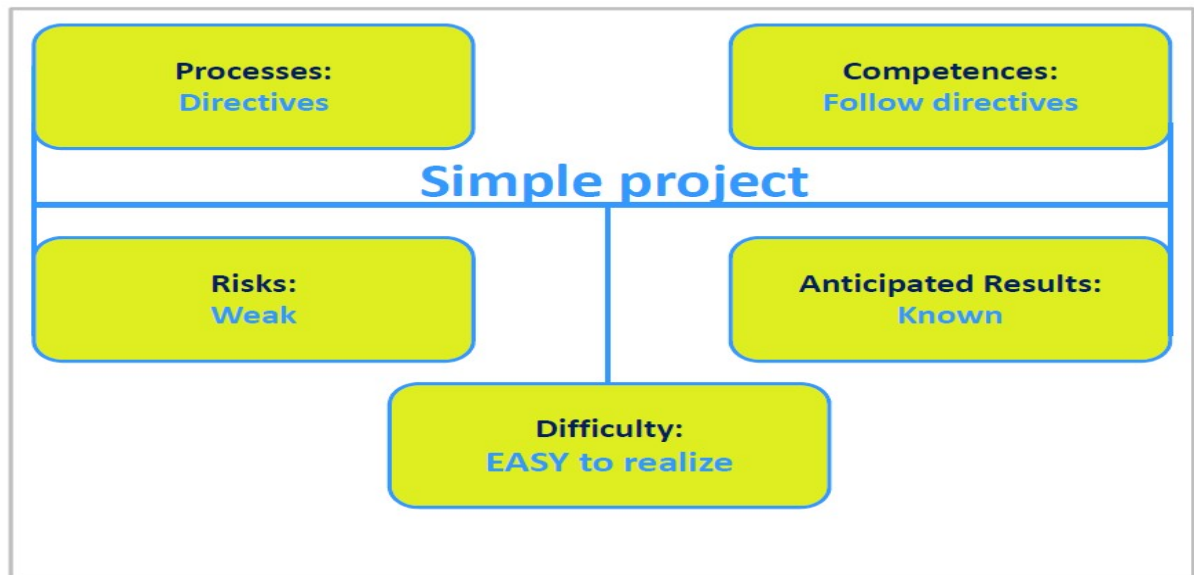
Shared services offer public administrations an opportunity to reduce operating costs and to increase the level of expertise in administrative services. Indeed, the shared service management model helps to reduce the duplication inherent in the administrative support functions of each government department and agency and makes it possible to increase the efficiency of the public administration (Quinn, Cooke and Kris, 2000, p. 216).

The unique character of public administrations poses unusual and specific challenges in regards of shared services (Pépin, 2004, p. 22), necessitating the support of political and administrative authorities, the extensive mobilization of staff and partners, as well as an implementation strategy that takes into consideration the reality and capacity of government departments and

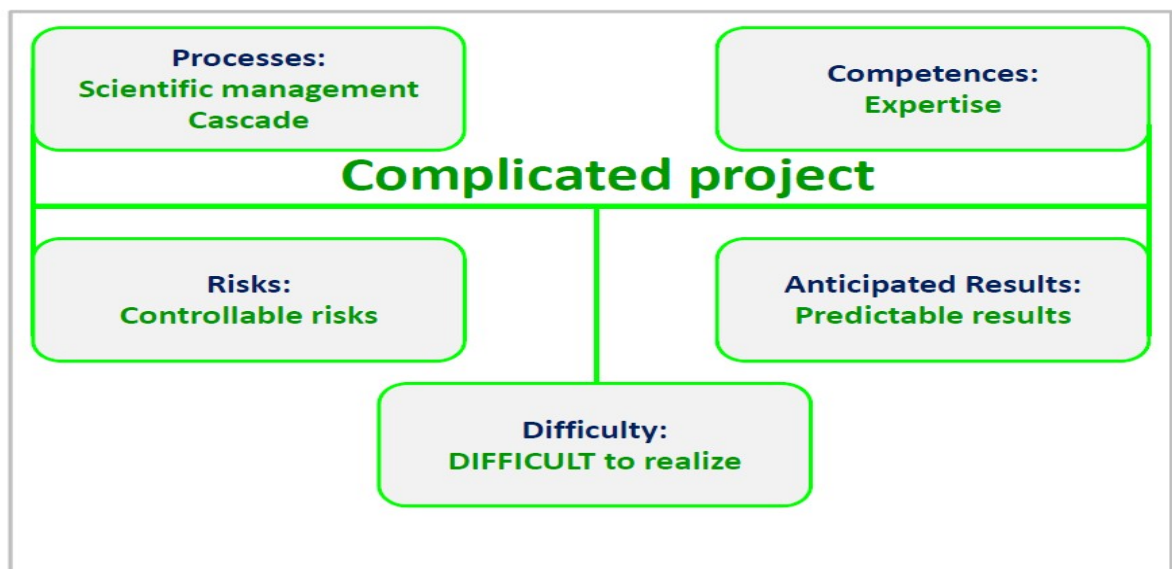
agencies. Public administrations are thus faced with a genuine paradigm shift (ministère des Services gouvernementaux du Québec, 2005, p. 149), not to mention a formidable challenge. Shared services represent an opportunity for providing a standardized service offering that will be facilitated by technological advances. Public administrations that have implemented shared service management models consider this approach an essential tool for achieving their objectives (Pépin, 2004, p. 22).

* * *

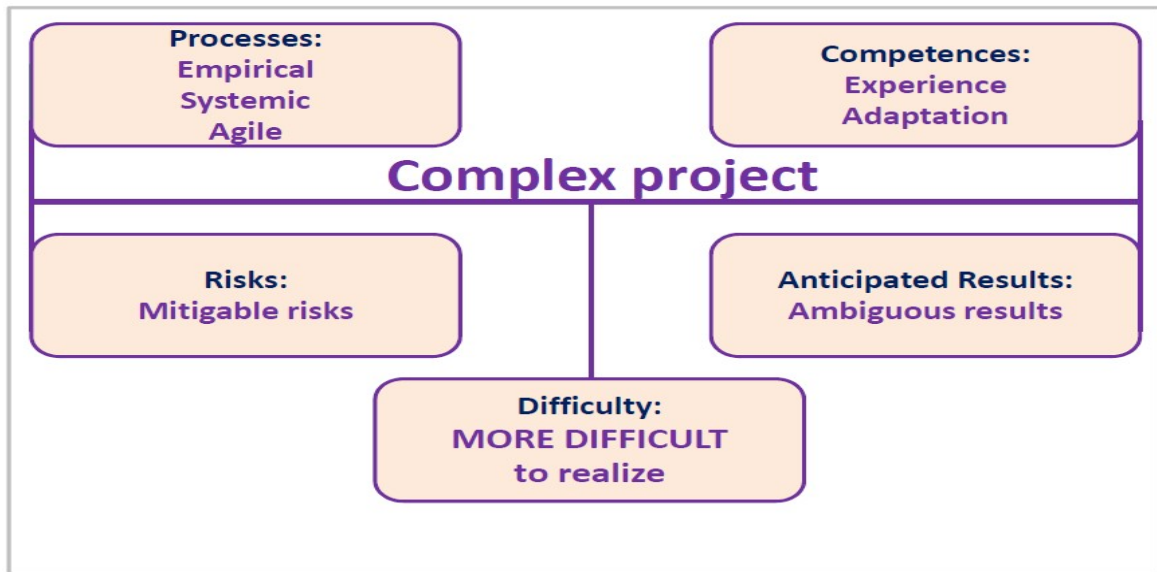
TYPOLOGY of PROJECT: SIMPLE / COMPLICATED / COMPLEX / DISRUPTIVE INNOVATION



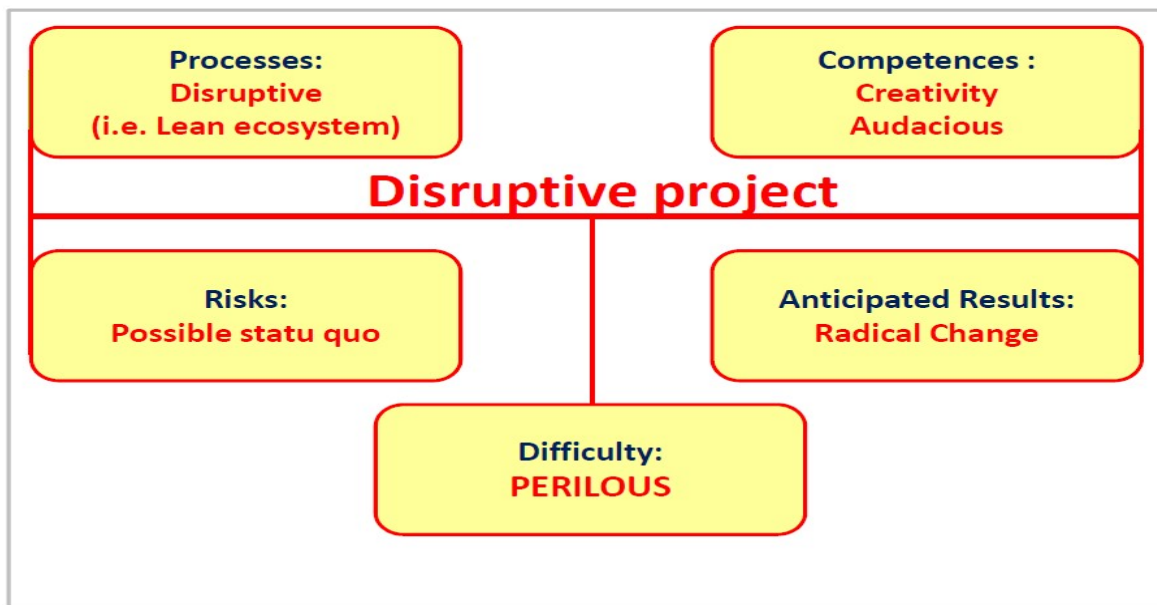
Source : Internet



Source : Internet



Source : Internet



Source : Internet

* * *

FREQUENT ASKED QUESTIONS (FAQ) about COMPLEX Project

Written by *Pr. Yvan Lauzon, MBA*

Q1) How can Complicated projects be distinguished from Complex projects?

Typically, Complex Projects have the Following Characteristics:

- Complex projects have a higher level of uncertainty with significantly superior complexity. More is unknown than known. Certain authoritative authors speak of the absence of good evident answers, with mixed signals and contradictory elements.
- Weak common shared vision and consensus between intervening parties in the face of the project to be addressed effectively.
- The current level of individual and collective knowledge does not allow for easy capture of the necessary information as risk reducers to launch the project on solid grounds. The gathered information may not lend itself to easy fragmentation into manageable components with clear delimiters. It is very difficult and many times totally impossible to predict the end result with any degree of reasonable certainty. This leads to the need to simulate and modeling the process, attempting to get a handle on the course of action to be deployed going forward. Those projects tend to be quite creative in nature and innovative. Accordingly, the approach is flexible and iterative.
- Complex projects by their very nature require superior management ability and strong seasoned leadership, handling a difficult multivariate environment.
- Those projects must also be endowed with a certain number of winning conditions as risk reducers.

Q2)- Is a Complex project always a big one?

That is, can complex project be small to intermediate?

Hence, is there a relationship size-complexity?

NO, there is no correlation demonstrating a direct link Complex versus Size.

A project might be held as Complex, while another of the same size in terms of time and money budget is not.

Q3)- Can a project be of multi-complexities?

YES, complexity can be layered and compounded.

Q4)- Is it possible to fragment a complex project into several small projects?

Here I think an analogy is possible as in cases of Private Public Partnerships (PPP).

Q5)- Just like there is a gradation for project managers in terms of expertise from junior to senior, then is there a category of project managers for complex projects?

YES, it is logical that there should such a classification with socially recognized status with the associated privileges thereto.

Q6)- Is a complex project, held as complex for everyone, or is it complex for some and not so for others?

Officials of the government (for example: Quebec government bodies such as the Treasury Board Secretariat or the Auditor General) should express opinions on this subject within their official public documents and/or operational practices.

Q7)- Within the project portfolio of a public organization, there might be a certain number of those projects that could be regarded as complex. What would be the percentage applicable to complex projects?

IT DEPENDS; it is treated on a case-by-case basis

Ask first your Project Management Office (PMO)...

* * *

PUBLICATIONS – YLA

YLA Formation inc. (YLA) publishes since 2003 FREE eBooks and books available especially in university bookstores.

BOOKS – NOW AVAILABLE

- **DOING BETTER by doing differently TOGETHER (2nd Edition) – ISBN: 978-1999461478**
- **Project Manager Roles & Main Skills Attribute:
Competence Breakdown Structure CBS Model – ISBN: 978-1999410629**
- **Developing the collective intelligence in project teams (2nd Edition)-ISBN: 978-1989364000**
- **Let the Collective Intelligence of Your Work Team Break Out – ISBN: 978-1989364079**
- **Managing Projects better, even Complex ones – ISBN: 978-1999461461**

BOOKS – AVAILABLE SOON

- **Managing Projects better, even Complex ones (2nd Edition) – ISBN: 978-1989364147**
- **Multi-criteria Evaluation of Public Projects – ISBN: 978-1999461447**

* * *

Printed books could be ordered ONLINE via:

WWW.COOPSCOOUTAOUAIS.COM

-OR- by email via:

**EDITOR-PUBLISHER: YLA FORMATION inc.
C.P. 24006, CSP POINTES, H1A 4Z2,
CANADA newpmp2.0@gmail.com**