



# Competency-Based Management in the Regulatory Sector

## DISCUSSION PAPER

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**Critical Conversation™**

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## Introduction

The Certificate Program in Regulatory Leadership (CPRL) is an advanced professional development program for those involved in leading any facet of government regulation. A collaborative enterprise of Carleton University and the University of Ottawa, this program is designed to contribute to improving the professional standards of the regulatory regime of the Government of Canada and the people who work there. One of the aims of this program is to engage leaders across the regulatory sector in thoughtful discussion about key issues facing the sector. To this end, in spring 2016 the program hosted a "critical conversation" based on a paper titled "Reflections on Regulatory Regimes Present and Future." Positive response to this event encouraged us to work toward a second critical conversation, to be held in April 2017, in which we invite thought leaders, exemplars, and practitioners to consider competency-based management (CBM) and assess its usefulness in improving performance and creating a bridge between rules-based and modernized regulation. The discussion paper we present here will form the basis for this critical conversation.

During discussions in June 2016 with the Certificate Program's ADM Advisory Committee, it became clear that federal regulatory competencies are due to be refreshed and updated. Following on this discussion, during summer 2016 CPRL staff undertook an examination of competency-based management across the regulatory sector. This work involved a literature review, an assessment of the extent to which CBM is practiced across the sector, and interviews with knowledgeable personnel from different departments and agencies who could comment on their experience with CBM.

This discussion paper presents a summary of this work. It provides some context for CBM and its practice in the Canadian Public Service, outlines the benefits of CBM and its potential to support regulatory modernization, presents four case studies that illustrate current approaches to CBM in the regulatory sector, and finally proposes a maturity model that can be used to display cumulative effort in CBM across all departments as well as progress by individual departments as they work to modernize their regulatory practice. It is our hope that a facilitated discussion of the ideas presented here will result in an informed view of the feasibility of using CBM in the regulatory sector to facilitate modernization and produce greater comfort with the idea of proficient performance in modernized regulation.

## Competencies and Competency-Based Management

Any modern government strategy to manage human capital must include, among other things, the management of competency.<sup>1</sup> The Public Service Commission of Canada defines *competencies* as "the

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<sup>1</sup> Leibowitz, Jay. *Addressing the Human Capital Crisis in the Federal Government: A Knowledge Management Perspective*. Routledge: New York, 2011.

characteristics of an individual which underlie performance or behaviour at work."<sup>2</sup> A more organic definition, developed by Service Canada in their highly recognized CBM work is, "any knowledge, skill/ability, or personal quality, demonstrated through behaviour, that results in service excellence."<sup>3</sup> Over the course of a career, an employee can refine existing competencies and learn and develop new ones. Refining competencies is a matter of moving along a progression in proficiency, from basic knowledge, skills, and experience through several intermediate stages to mastery and expertise. The concept of proficiency in a competency enables better calibration of performance (see Annex A).

Competencies differ from "qualifications" in the following two ways. First, competencies are linked to the strategic vision and goals of the organization. Secondly, competencies are useful beyond just recruiting; they can also be used to guide training and development, to evaluate and manage performance, and for succession planning. A *competency profile* is a set of competencies and associated behaviours that link directly to the work to be performed. Typically organizations start out by using competency profiles as a tool for training and human resource planning, and then move into using them for performance evaluation after employees understand the concept.

As public entities are being called on more and more to be resilient and adaptable in the face of constant political, economic, environmental, and technological change, *competency-based management* provides an approach to human resources management that offers greater resiliency and adaptability than conventional HR methods by tying HR activities into strategic directions and defining and describing the operational work done by employees to accomplish these directions. It also places a higher value on employees, in that "the development of competency-based management frameworks to support activities such as 'gap analysis,' recruitment, learning and other key human resource processes all reflect an acknowledgement by organizations that their workforce is key to their success in the modern workplace."<sup>4</sup>

## Benefits of Competency-Based Management

A 2010 OECD report<sup>5</sup> on managing competencies in government identified the following benefits of CBM as practiced in OECD countries.

- Public administration systems have undergone major change worldwide over the past 20 to 30 years and will undoubtedly continue to change. CBM is often used by governments to leverage change and to transform a traditional bureaucracy into a modern and flexible organization.

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<sup>2</sup> Public Service Commission of Canada. 2015-2016 Annual Report. <https://www.canada.ca/en/public-service-commission/services/publications/public-service-commission-canada-2015-2016-annual-report.html>

<sup>3</sup> Bonder, Arieh, Carl-Denis Bouchard and Guy Bellemare. *Competency-Based Management: An Integrated Approach to Human Resource Management in the Canadian Public Sector*. Public Personnel Management. Vol. 40, No. 1. Spring 2011, p.4

<sup>4</sup> Ibid, p.2.

<sup>5</sup> de Beeck, Sophie and Annie Hondeghem. OECD. *Managing Competencies in Government: State of the Art Practices and Issues at Stake for the Future*. GOV/PGC/PEM(2010)1. August 31, 2010. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/PEM\(2010\)1&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=GOV/PGC/PEM(2010)1&docLanguage=En)

- Competencies can be used as a powerful communication tool because they provide a common language and a shared understanding of the behaviours needed to achieve organizational objectives.
- Competency standards can improve recruitment and training, leading to increased employee proficiency and to greater productivity, worker safety, and employee retention.
- Competency frameworks can be integrative, both vertically (tying individual employees and their behaviours to an organization's mission and strategy) and horizontally (tying each component of the human resources cycle, from recruitment to reward, into one frame of reference).
- Competency-based management increases the flexibility of public servants, allowing an organization to take new directions and weather uncertainties more readily.
- Competency-based management creates a culture of continuous learning and improvement and provides employees with opportunities to develop and apply new knowledge and skills, enhancing their employability and enabling better career planning.

### Competency-Based Management in Canada's Public Service

The Government of Canada has used various leadership competency profiles since the 1970s.<sup>6</sup> Over time these profiles have evolved to answer human resources needs and support new government initiatives. Competency-Based Human Resources Management became a public services-wide initiative under La Relève,<sup>7</sup> an initiative for the renewal of the federal public service commenced in 1997. In 1998, the Profile of Public Service Leadership Competencies was developed as part of this renewal. In 1999, the Treasury Board Secretariat (TBS) published a *Framework for Competency-Based Management in the Public Service of Canada*,<sup>8</sup> building on the experience and efforts of departmental practitioners over the years. Collaborating in this initiative, the Public Service Commission surveyed 57 organizations in the federal sector to gauge the level of interest in and practice of CBM. This survey revealed that more than half the organizations had already mounted a CBM project and that interest in this management system was widespread and on the rise. Rather than presenting a common model of CBM for all to follow, the framework provided a guide to legislative, policy, and practical considerations to help organizations build their own CBM systems.

In 2005 the Key Leadership Competencies Profile replaced the Profile of Public Service Leadership Competencies, collapsing the original 14 competencies into four and making related behaviours more concrete and observable. A new "Employee level" was added in 2008, increasing the capacity for employees to participate in their own assessment, learning, and career planning. In March 2015 a new

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<sup>6</sup> Leuven, K.U., Public Management Institute. Competency Management in Canada's Core Public Administration. 2010. <http://soc.kuleuven.be/io/onderzoek/project/files/hrm27-country-report-canada.pdf>

<sup>7</sup> Parliament of Canada. Federal Public Service Renewal - The La Relève Initiative. Jack Stilborn, Political and Social Affairs Division. November, 1998. <http://www.lop.parl.gc.ca/content/lop/researchpublications/prb987-e.htm>

<sup>8</sup> Treasury Board of Canada Secretariat and Public Service Commission. Overview of the Framework for Competency-Based Management in the Public Service of Canada. December 1999. [http://publiservice.tbs-sct.gc.ca/HR\\_CONNEXIONS\\_RH/sigs/CBHRM/framework\\_cbm/siglist\\_e.html](http://publiservice.tbs-sct.gc.ca/HR_CONNEXIONS_RH/sigs/CBHRM/framework_cbm/siglist_e.html)

Key Leadership Competency Profile<sup>9</sup> for federal public service executives and senior leaders was approved. Now expanded to six competencies, the profile aligns with the vision for a public service that is collaborative, innovative, streamlined, high performing, adaptable, and diverse.

Today, the concept of competency is at the heart of federal hiring practices and renewal of Canada's public service. As stated in the Public Service Commission's 2015-2016 annual report: "Public service renewal is essential to ensure that the public service is prepared and capable of delivering results for Canadians. We support departments and agencies in their renewal efforts by centrally recruiting individuals with the skills and competencies needed for the future and by investing in new approaches to modernize staffing, assessment and recruitment services."<sup>10</sup>

One example of an effort to promote competency-based management across a functional community is the work of the Community of Federal Regulators (CFR), a partnership of federal departments and agencies that facilitates collaboration and the professional development of federal employees involved in regulation. In 2010 CFR reported<sup>11</sup> that it had approved a set of eight core competencies identified in *Core Competencies for the Regulatory Community*,<sup>12</sup> a 2006 study commissioned by the Privy Council Office's Regulatory Affairs and Orders in Council Secretariat. The core competency set includes five behavioural competencies: analytical thinking, strategic thinking, communication, working cooperatively/horizontally, and initiative; and three technical competencies: instrument choice, compliance and enforcement, and performance measurement. Although some elements of CFR's work have been picked up by various departments, a sector-wide CBM model has not gained traction and CFR's work has come to focus on career development.

Our discussions with CFR representatives centred on the fundamentals of a competency model and how such an initiative could be brought to fruition. Their work has focused on policy, and the competencies they have developed are primarily for managers and were sourced from the academic literature and existing Treasury Board Secretariat competencies. They offer the following from their experience:

- Performance management is under the jurisdiction of TBS and the Office of the Chief Human Resources Officer. The current TBS performance management framework makes it impossible to add or remove behavioural and leadership competencies for the federal public service.
- The starting point for competency-based management in the regulatory sector is a baseline competency model, with integral pillars and doctrines, that applies across the sector, recognizing that different users may find the model useful for different purposes, e.g., as a

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<sup>9</sup> Government of Canada. The Key Leadership Competency Profile. June, 2016. <https://www.canada.ca/en/treasury-board-secretariat/services/professional-development/key-leadership-competency-profile.html>

<sup>10</sup> Public Service Commission of Canada. 2015-2016 Annual Report. <https://www.canada.ca/en/public-service-commission/services/publications/public-service-commission-canada-2015-2016-annual-report.html>

<sup>11</sup> Sharma, Sunaina and Nancy Wildgoose. Core Competencies for Canada's Regulatory Community (March 1, 2010). Regulatory Governance Brief No. 11. Available at SSRN: <https://ssrn.com/abstract=1595468>

<sup>12</sup> Government of Canada. Public Works and Government Services Canada. Consulting Services. Core Competencies for the Regulatory Community. 2006.

training and development tool vs. in recruitment and performance assessment. Departments and agencies can then add or remove competencies to match their specific needs.

- At least 39 federal government employment classifications and levels exist within the regulatory community. A competency model needs to correlate with existing qualifications for each classification level and be general enough to apply to the same role across departments and agencies without diluting the definition of the competition to the point where it loses meaning.
- Success in developing a sector-wide competency model hinges on getting the perspective of front-line staff and those in regional offices. Compliance and enforcement competencies should be developed first before expanding to competencies needed throughout the rest of the regulatory life cycle.
- An outside firm hired to assist in developing a competency model may have talent-management expertise but lack a good understanding of how the federal government works. Knowledgeable parties in-house and in other departments and agencies can be just as or more helpful in guiding the process.

### **Why Use Competency-Based Management in the Regulatory Sector?**

In *Real Change: A Fair and Open Government*,<sup>13</sup> the Liberals recognized that Canadians' confidence in government has declined. The Liberal plan for transparent and fair government is predicated on a desire "that government work well, and be seen to work well" and is aimed at delivering "better public services and more effective public servants for Canadians." In our view, competency-based management in the regulatory sector directly supports government priorities for openness and fairness and can be a key enabler for stronger performance across the sector.

We understand that the trust Canadians place in their public services begins and ends with the credible performance of public servants. In a regulatory context, there are direct links between the performance of food, fishery, or airworthiness inspectors, the credibility of regulatory decisions made by these individuals, broader public confidence in regulatory systems, and, ultimately, the confidence and trust Canadians have in their governing institutions. Efforts to strengthen these connections are much needed.

Regulation can take different forms, from the inspection of individual functions to risk-based assurance that larger systems are compliant. The former is rules-based regulation, which seeks literal compliance, and the latter is modernized regulation, focused on achieving outcomes and effects. Good regulatory practice is not an "either/or" but a "both/and" approach in which risk-based assurance is reinforced by some level of rules-based inspection. Both may lead to enforcement, but a modernized approach assigns greater responsibility to the regulated operator for assurance of compliance.

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<sup>13</sup> Liberal Party of Canada. *Real Change: A Fair and Open Government*. <https://www.liberal.ca/files/2015/06/a-fair-and-open-government.pdf>

Competency-based management offers three significant advantages to regulatory work. First, it supports human performance in rules-based regulation. Second, it facilitates a transition to modernized regulatory functions. Third, it sustains effective human performance in both.

In simple terms, human performance is what we do, why we do it, and how we do it. In organizational terms, human performance reflects how closely the carrying out of a task matches the standards set for that task. Optimal human performance is exhibited when the performance behaviours lead to valued results, including credibility, confidence, and trust. If we want to increase the regulatory sector's credibility and boost public confidence and trust in their work, then identifying those behaviours that most influence performance and organizing those behaviours into competency profiles under a competency-based management system make good sense.

### **The Evolution of Competency-Based Management in the Regulatory Sector**

Our work indicates that most current CBM efforts in the regulatory sector are exerted along three axes, with some cross-over and overlap:

- Central agency definition and elaboration of competencies as a matter of human resources policy
- Extensive use of elements of CBM by individual departments to shape developmental and technical training programs
- A cross-sectoral effort initiated by the Community of Federal Regulators (CFR).

Three non-government professional development programs also exist:

- Carleton University/University of Ottawa: Certificate Program in Regulatory Leadership
- Carleton University: Career Development Program for Regulatory Professionals
- Algonquin College: Certificate Program in Regulatory Affairs.

Organizations that implement CBM are challenged to develop and execute a strategy that integrates the use of competencies across functions so that, over time, the strategy builds capability and capacity to support larger policy, program, or organizational goals. The following questions arise:

- What is the most effective implementation sequence?
- What performance indicators can be used to measure implementation progress?
- Which vectors are critical to long-term success (i.e., capability, capacity, and alignment)?

To begin to answer these questions, we went to senior public officials with experience in applying CBM in the regulatory sector, asking them to describe their CBM work, to identify lessons learned, and to make recommendations arising from their experience. We conducted interviews with representatives from the RCMP, Environment and Climate Change Canada, Canadian Food Inspection Agency, and Health Canada. Interview findings are summarized in the following case studies. While it is not the purpose of this discussion paper to provide detailed advice on the process of developing competency descriptions and profiles, each case study includes a section on lessons learned and recommendations that offers some guidance on this process. See also Annex A on this subject.

## Case Studies

### Royal Canadian Mounted Police

In 2002 the RCMP began to create competency profiles for each individual role in its many different areas of specialization across the organization. Working with the Hay Group as well as in-house HR staff, a framework was established to determine what each profile should look like and how many competencies it should have. The end result was a successful competency dictionary that is being used by other organizations as a model for initiating CBM. The team began by profiling the largest employment groups and then worked their way to senior positions. It took eight years to achieve 80% completion.

Competency profiles were developed through task/job analysis. Consultants and in-house HR staff used focus groups of incumbents and supervisors, as well as written job descriptions, to identify key competencies for each position within the agency. The more senior the position, the more generic the profile became, to accommodate the different paths that might lead to such a position. Competencies are now entrenched in all aspects of the HR process: they are assessed in recruitment (through interviews and cognitive tests), at the training academy, and during field coaching, annual performance appraisals, the promotion process, talent management, and succession planning.

The RCMP competency profiles are considered to be evergreen. The development process provided the opportunity to revise competency profiles if employees felt that the competencies identified for their role were not actually integral to their daily work, or if other competencies had been overlooked. Employees keep a competency résumé to record competencies in regular use.

The RCMP eventually ceased using external consultants. The project team and in-house HR staff with a background in industrial organization were involved throughout, and were therefore able to take over the remainder of the project (including the development of profiles, competency assessment, and integration of the model into wider HR practice).

### *Lessons learned*

- Competency profiles were not retrofitted to existing HR structure. This created the dilemma of how the competencies would be used. Profile creation should have gone hand-in-hand with the existing system. The development of competency profiles had to pause while tools, policies, and processes were established to assess the competencies and integrate them into the wider HR system.
- Some competencies were missed, and there was a tendency for competencies to become too elaborate and for the development process to become onerous. It was decided to cluster roles requiring the same competencies within job families. Having too many profiles in the same job family created artificial barriers and impeded career mobility.



### ***Recommendations***

- Allow employees to identify missing competencies or to have input in revising their profile if they feel the competencies identified for their role are not actually integral to their daily work.

### **Environment and Climate Change Canada**

Environment and Climate Change Canada (ECCC) has one of the largest regulatory functions in the federal government. Its main goal in developing its competency program was to foster a community practice around regulation. It was clear that some individuals working directly on regulatory affairs were able to understand their role in the Canadian regulatory framework, but the broader community had difficulty determining their contribution and impact. ECCC defines the regulatory community broadly to include positions in risk management, communications, performance monitoring and evaluation, stakeholder relations, legal, and others.

ECCC developed a set of competencies for all roles across the department, but the decision was made not to tie these competencies to HR classifications. Instead, ECCC approaches competencies from a training perspective and encourages employees to understand their roles in the wider regulatory context. They now offer 35 courses, developed in consultation with managers and directors, which employees take voluntarily. Course instructors ask participants what areas they would like to improve; common feedback has been to include training and development on performance management, risk assessment, and enforcement-related competencies. One particular success has been ECCC's practice of bringing front-line workers to courses for those working on regulatory design, in order to discuss regulation implementation and tie the regulatory life cycle together.

ECCC's competency program was created following the TBS Cabinet Directive on Regulatory Management (2010), and it defined competencies according to TBS guidelines and Ann O'Toole's work with the CFR. The proficiency of each competency is rated as Fundamental, Intermediate, or Advanced.

### ***Lessons Learned***

- One of the challenges identified by ECCC in their model is that it relies on managers being aware of their employee's needs and of gaps in knowledge or competency within the division. Managers also need to ensure that an employee actually registers in the training program.
- Behavioural competencies defined by TBS are broad and generic, but the technical competencies defined by each department should be more tailored; technical competencies will differ by role/community more than by department.

### ***Recommendations***

- Use the same competency language across training and development opportunities, HR functions, performance management, and staffing. Ensure that the definitions are meaningful.
- Demonstrate to public servants that they can have a dynamic career as a regulator, regardless of which department they work for (i.e., employees should see themselves as transferable).

- Ensure that each role understands what is needed from them by other roles (e.g., how can regulation designers better understand the needs of enforcers?)

### **Canadian Food Inspection Agency**

The Canadian Food Inspection Agency (CFIA) developed an Executive Career Development Program (ECDP), investing in the training and development of those identified as having excellent or emerging talent in the organization. This exercise was prompted by a CFIA President who was open to examining how CFIA conducts itself as an agency, including what competencies will be needed in the future given the significant recent changes in regulations governing CFIA's activities. CFIA was strategic in having a strong sense of what staff and skills they have, and where to invest in training.

CFIA was able to develop its own competency framework and incorporate it into staffing because it is a "Separate Agency" under Schedule V of the *Financial Administration Act*. CFIA worked with Hay Group to develop competencies that aligned with existing TBS competencies but were more detailed and specific to CFIA's work. This approach avoided limiting employees' career mobility.

CFIA uses technology to assist in talent management: an algorithm was developed to prepare a Talent Matrix and Evaluator to assist in measuring performance against CFIA's competencies. Managers can use this tool to assess employees aspiring to different levels and to predict an employee's future competency. Talent managers can use the nine-block assessment product to strategize where best to employ resources within the agency and to target professional development training or courses to meet future business needs.

Although the framework is intended more for training and career development than as a tool for employees to use when seeking a promotion, employees can use similar self-assessment tools on CFIA's intra-website to assess their competencies and access training resources. CFIA has published its competency dictionary on this website.

### ***Lessons learned***

- TBS competency definitions did not fit CFIA's needs. They were too general and not accessible.
- The process takes time. Hay Group took about 18 months to write the algorithms for the Talent Matrix and Evaluator and to define competencies.
- Less than half of CFIA's executives have participated in the program. CFIA acknowledges that more coaching should be provided to executives struggling with the program and recognizes that those working at national headquarters are under greater scrutiny and pressure.
- Their competency framework has encouraged peer learning. Members of the ECDP have attended the CPRL program, reporting back to their peers, and several vice presidents have participated in lunch-and-learn events to share and advise on career paths.
- At one point, EX-03 employees were shuffled to bring new perspectives to branches, broaden thinking, and foster a more agency-wide approach. Some of the exchanges were not a good fit,

and talent managers learned to pay closer attention to predictive indicators before making a shift.

### ***Recommendations***

- If a similar program were to be rolled out for employees at lower levels, managers and employees would have to have more conversations about career goals. More active segregation of employees into different clusters would also be needed.

### **Health Canada**

Health Canada has one of the largest federal regulatory responsibilities. Initially it used standard leadership and values and ethics competencies developed by TBS, and then introduced a competency development plan for a small group of scientists in the Health Products and Food Branch (HPFB). This initiative was not mandatory; rather, it fit within an informal trajectory of joining and understanding the organization, beginning to build competencies, and looking ahead to think about talent management. This plan was replaced in 2016 by a competency-based learning and development roadmap, developed through the HPFB Centre of Learning. The process of developing the roadmap included examination of competency models in the federal health departments of the U.S., Australia, New Zealand, and the U.K.

### ***Lessons learned***

- HPFB employees were receptive to the idea of a competency-based training program, but budget constraints limited the breadth and depth of training offered.
- There is a need to distinguish between measures of performance (within TBS jurisdiction), competencies, and self-assessment tools to guide learning and development.
- It is difficult to assess many of the competencies required for regulatory work, such as critical thinking, judgement, and risk management.
- The perception of competency development as a promotional tool ("If I take this course, I'll get a raise") needs to be overcome.
- If competencies are tied to performance measurement, union and classification issues arise.

### ***Recommendations***

- A sector-wide CBM model risks becoming too broad and losing robustness if competency profiles are made general enough to apply across all federal regulatory functions and areas.
- Consider offering a "boot camp" to all employees on cross-cutting competencies such as plain language writing, risk management, policy writing, and general administrative skills.
- Offer an introductory course on government and social science for employees who received most of their training in the applied or life sciences.

## **Proposing a Maturity Model**

### **Maturity Models**

The questions that we asked about the use of CBM in the regulatory sector, and the answers we received through our interviews with senior public officials working in the sector, are really about

understanding the maturity of the CBM effort. Having a good handle on where we are now – how mature the CBM effort is – can, in turn, lead to decisions about future capabilities and reinforce or suggest changes to the original path and pace of effort. What would be helpful now is a way to describe maturity that enables informed decisions about where best to use scarce resources to return the greatest value. We propose developing a maturity model for this purpose.

A maturity model is a structured collection of elements that describe the characteristics of effective processes at different stages of development, as well as suggesting points of demarcation between stages and methods of transitioning from one stage to another. Maturity models are used extensively in project management and the management of information technology. We believe this is a useful construct to show the evolution of CBM within departments and across the regulatory sector.

A maturity model offers these benefits:

- It provides a place to start when considering future growth.
- It identifies necessary events and predictable transition challenges.
- It helps to organize similar experiences and offers a common language for implementation.
- With common stages of growth, it can provide a framework for setting priorities.
- It establishes a method to define progress and measure improvement.

It is important to understand at the outset that the maturity model is about managing a cross-sectoral CBM effort, not about how to implement CBM in any one group.

**Characteristics of the Model**

The model we are proposing is a five-by-six grid. The horizontal axis indicates the level of maturity in implementing CBM, divided into five stages that correspond to progression in development. The vertical axis identifies six "vectors" (organizational elements) that, taken together, describe an organization's effort to implement CBM. A hypothetical maturity profile for an organization implementing CBM could look like this:

**CBM MATURITY MODEL**

Vectors	Stages of Progression in the Implementation of CBM				
	Recognizing	Understanding	Managing	Mastering	Leading
Accountability					
Direction					
Resources					
Method					
Relationships					
Results					

Along the horizontal axis, the five stages of increasing development and maturity in implementing CBM are:

- **Recognizing:** Acknowledging the need to strengthen performance, recognizing the behaviours that lead to desired performance, consciously searching for additional information on human performance and competencies, and attempting to define the scale and scope of a corporate or program effort to organize these behaviours systematically.
- **Understanding:** Being aware of the availability of CBM as a possible solution to strengthen performance; defining and describing the opportunity regarding rationale, scale and scope; and initiating proof of concept or pilot projects to test CBM as a solution.
- **Managing:** Creating a business case for CBM, using it in full project form within a defined program or organizational unit to strengthen performance, committing resources to support multiple projects, and establishing an organizational infrastructure to support and manage a CBM project environment.
- **Mastering:** Using CBM in program form to support and facilitate strategic or high-priority organizational or program goals, developing different service lines to apply CBM in multiple and different applications across fields or programs, and initiating applied research to expand the practical application of CBM.
- **Leading:** Using CBM principles to align human behaviours with strategic goals and reinforce an organization's ethos or value system; conducting basic and applied research in CBM to answer fundamental questions of national strategy or importance; and supporting, promoting, and facilitating the integration of CBM with other disciplines.

Along the vertical axis, the six vectors that together broadly describe progression in a public organization or program are shown below.

- **Accountability (Policy, Doctrine, and Standards):** The extent to which an organization has evolved a CBM policy framework in support of strategic goals. Progression could be evaluated based on the level of authorizing or funding decisions, the articulation of policy goals and defining principles, determination of accountability, the degree to which doctrine is used to connect policy to practical application, and the routine use of a consistent method of evaluating compliance with policy through standards.
- **Direction (Strategy, Plans, and Tactics):** Existence of a well developed CBM business case to establish and enable a business strategy to implement CBM policy. Over time, the strategy would evolve into business plans, operational work plans, and project plans, such that a continuum would exist from strategic to tactical. Progression of the overall direction of CBM effort could be established from consideration of a focus on efficiency vs. effectiveness, a

strategy of supply push vs. demand pull, decisions to lead or lag behind the community, and decisions as to pursuit of high- vs. low-risk projects.

- **Resources (Organization, Structure, and Staff):** The extent to which an organization is resourced to implement the CBM strategy; the way it has organized and structured the effort, including the development of a cadre of subject matter experts (SMEs) to do the work. Progression could be considered with respect to the amount of funding available (high vs. low), whether the CBM effort is regarded as a cost or a profit centre, the place the effort occupies on the organizational chart relative to the vertical chain of command (high vs. low), and the bench strength of the cadre of SMEs.
- **Method (Methodology, Process, and Gaps):** The relative sophistication of the CBM methodology within the organization as it implements the strategy. Progression could be assessed on whether the organization focuses on some vs. all stages of the CBM methodology (e.g., a focus on job or task analysis, an emphasis on developing core technical and behavioural competencies), benchmarking other organizations, or being benchmarked by them. Progression could also be evaluated on the extent to which the organization seeks opportunities to demonstrate CBM versus searching for systemic performance concerns.
- **Relationships (Culture, Clients, and Partners):** How the CBM effort has engaged the organizational culture in an internal dialogue on strengthening performance through competency development; the extent to which the organization has engaged externally with clients and partners in a similar discussion. Relationships could be looked at regarding the seconded or permanent presence of operational exemplars in the CBM effort, the breadth and depth of the client base, the life span of client relationships, and the degree of repeat business with clients. A similar perspective could be developed for partners: the number of partnerships, their lifespan, and the extent to which partnerships have evolved into communities and networks.
- **Results (Outputs, Outcomes, and Value):** The consequences of using CBM; the outputs from the use of CBM and the longer-term outcomes that have been realized as CBM is implemented through relationships to achieve improved performance across a program or unit. The area could be looked at in terms of quality (high vs. low or variable); breadth and depth of impact of CBM on high-priority business and/or policy goals and organizational, program, or national objectives; and the extent to which the CBM effort has added value or created new value for clients.

## Two Levels of Application

The maturity concept can be used at two levels. First, and more strategically, it can help to organize and display cumulative effort across the regulatory sector. This information would be useful for funding bodies, central or oversight agencies, or high-level program managers interested in understanding aggregate levels of investment, areas of priority focus, and potential opportunities. Second, and more

operationally, the idea could be used within an organization that has implemented CBM and wishes to understand more fully the decisions it will need to make as it grows the effort. As well, organizations thinking of using CBM could use it to define and understand the solution space for their implementation strategy and identify challenging transitions from one level of maturity to another (see Annex B). In both applications, using the idea could lead to decisions to accelerate, delay, or change investments to facilitate a more balanced implementation of CBM.

### Considerations

- The stages of progression used in the maturity model are mostly cumulative, in that organizations that have arrived at, say, the stage of Managing would necessarily have completed most of the work of the earlier stages of Recognizing and Understanding. But this condition is not rigid because organizations are not monoliths; they could easily have one foot in one stage and another in one more advanced.
- Progressions between developmental stages are not necessarily smooth, nor are the transitions necessarily the same across vectors. The effort required to develop a comprehensive policy framework is considerable, and so the difference between the Managing and Mastering Stages in the Accountability vector can be considerably greater than, say, the equivalent stage in Method.
- The vectors are interdependent. You can't have Method without Resources; both depend on Accountability and Direction, and for Relationships and Results to be realized, progress in all four preceding vectors would be needed to some degree.
- Understanding the practical demarcations between stages for each vector is important. Management decisions about sequence and relative priority will be needed to develop a coherent change management approach properly.

### Using the Maturity Model

When setting out to use the maturity model in your organization, the first thing to do is to decide on the scope and scale of application. Where is CBM being implemented and what progression is being measured? Is it a program, a complete organization, or a unit of an organization? Within this scope, across what range or scale of activities is the model considered to apply?

Next, develop relevant metrics for each of the six vectors. These should be referenced against the horizontal axis of the model such that each measure changes gradually from Recognizing through to Leading. It should be feasible to develop at least a few measures in each category.

Selecting and refining metrics is itself a useful exercise, because it engages a group or an organization in deliberate discussions about the future of CBM and identifies both a path and a pace of evolution. It also helps an organization to become more familiar with the often thorny problem of describing performance regarding valued accomplishments. Annex A shows a grid with possible metrics that might prove useful. Not all measures need to be present for the organization to be at that stage of progression.

Having selected metrics, it remains to locate the organization along each vector. That is, which measure at which stage of development most accurately and completely describes the current situation in each vector? Where there are significant differences within a vector, some judgement would be needed to find a middle ground.

With the individual measures completed, the perspective could widen to see the total picture presented by the model. Which vector is most advanced and which is least? Is progression balanced or is it skewed by, say, Method being much further advanced than, say, Accountability or Relationships? Connecting the positions for each vector could yield a profile of progression. Is a broader pattern evident? What does this mean for the management of the CBM effort?

If several different programs or organizational units evaluate their progression on the model, and if there is some consistency regarding performance measures, the model would show the relative positions of each and give an aggregate picture of CBM effort. Is there a cluster in certain areas? Is a skewed pattern evident? Funding, legislative, or oversight bodies would find this information useful when considering levels of investment or for accountability purposes.

Consider the hypothetical maturity profile presented earlier (see p. 12). Connecting the leading edges of each vector produces a maturity profile. This information can be used to set relative implementation priorities across the vectors. Should attention and resources be directed to a certain vector? Are there obvious transitions that need to be considered? Should investments be changed? Regarding overall implementation is a more balanced progression desirable and, if so, how should the path and pace of the CBM effort be adjusted to achieve this?

The maturity profile shown on p. 12 suggests an organization that has a well developed strategic Direction, has allocated Resources to it, and has established Relationships with internal and external stakeholders. It would be reasonable to conclude that implementation of CBM has traction in this organization. However, work remains in establishing Accountability and Method. Given the horizontal separation between Accountability, Direction, and Method, it would appear that this organization's strategic direction is well ahead of front-line implementation and that the connection between accountability and strategy needs to be tightened.

### **Priorities and Weighting**

The vectors in the maturity model are pathways along which one could plan the implementation of CBM. In a perfect world, one would suppose that an organization could coordinate its implementation of CBM so that progression happened evenly across vectors.

For implementation classicists, the optimal progression might be to have Accountability leading and Method lagging. For those who favour a "what works best" or contingency approach, it may be that Method leads and the rest catch up as best they can. The "fog of war" and friction loss that comes with managing change in any organization makes a prescribed implementation plan more of an intention than a reality.



Whatever choice is made, it is evident that some vectors are more important to long-term success than others. Method is essential because without it there is no sustained use of CBM. Similarly, Accountability is also essential because it grants legitimacy and resources, from which Resources and Relationships can flow. Finally, Results are essential because valued accomplishments from the widespread use of CBM will validate policy decisions and lead to continued and perhaps greater resources.

With the ranking idea in mind, it would be relatively easy to establish a weighted scale for the model and derive a CBM Maturity Index, an aggregate number that might represent a general progression in the implementation of CBM. However, using a single number to represent maturity across a broad range of activities tends to oversimplify the problems of implementation and transition, and risks trivializing some of the very difficult tasks growing CBM. For this reason, we do not propose a maturity index.

## **Closing Thoughts**

Much has been learned about competency-based management in the Canadian Public Service since it was first introduced in the 1970s and then brought to the forefront of human resources practice in the 1990s. Our scan of CBM across the regulatory sector today shows a wide diversity of use, making sector-wide assessment difficult. To better understand how the use of CBM is evolving in the sector and to chart the efforts of individual departments, we propose the application of a maturity model.

This discussion paper provides a snapshot of CBM efforts in some federal regulatory bodies and then describes a maturity model that could be used to advance the implementation of CBM in the regulatory sector. Such a model can display cumulative effort across the sector, as well as progress by individual departments and agencies. It can also help identify priorities for enhancing CBM efforts and show where collaboration would be useful. This model is intended to support the management of a cross-sectoral CBM effort, not to guide department CBM practices, although it may be helpful for that purpose too. It shows pathways along which such an effort could be broadly directed, with the proposed criteria as markers of progress.

Good CBM decisions in the regulatory sector are essential for long-term success in building capability and capacity and in improving alignment between front-line performance and strategic objectives. In turn, these results will strengthen public confidence in regulatory systems and governing institutions. The maturity model we propose here is a work in progress, and it is hoped that the ideas presented in this paper will stimulate further discussion and reflection.

## ANNEX A: Developing Competencies for the Regulatory Sector

Competency-based management is a way to organize behaviours in the form of competencies. A competency is an observable behaviour. For example, you can observe someone perform compliance interviews or audit a safety management system. Both lead to results, beginning with soft suasion and possibly ending with hard enforcement. As a component of talent management, CBM enables a stable connection between individual actions and the aims of regulations. Competencies are also ground truths, which, if properly established, can connect individual performance with government priorities for openness and fairness and hasten progress toward maintaining public confidence and trust.

It is unlikely that competencies will be different between rules-based and modernized approaches. Both require knowledge of the regulated domain as well as the skills needed for effective performance as a regulator within this domain. From the perspective of human performance, the challenges lies in defining behaviours for both.

Competency is sometimes seen as an on-off switch. One is competent or one is not. This approach is the basis of standards for, say, architects or airplane pilots. These professions have well-established processes to certify that an individual is competent to practice. This approach is of limited use in complex regulated domains because of the very different and more granular judgements exercised by regulators. We suggest that competent performance can be understood better by working with the idea of *proficiency*, meaning the ability to exercise a competency across a range of increasingly complex situations. For example, a railway safety inspector needs to be proficient in the inspection of railway cars. In a modernized approach, they will add to this proficiency further proficiencies in auditing safety management systems, assessing risk, and using judgement. Both sets of behaviours are performed in the same domain but require significantly different levels of expertise.

Determining a range of proficiency relevant to both approaches is difficult, but developmental models can help. One such approach is the Dreyfus Model of Skill Acquisition<sup>14</sup> used for professional development in health care and aviation. It is a situational model that fits well with the idea of increasing levels of complexity across the spectrum.

The basic premise of the model is that in the development of competence, a person passes through five levels of proficiency: novice, advanced beginner, competent, proficient, and expert. With experience and mastery, a skill is transformed, which brings about improved performance. The proficiency levels represent changes in three general aspects of skilled performance:

- Movement from abstract principles to the use of real experience as models for action
- Change in perception of a demand situation where it is less a collection of equally relevant bits and more a complete whole in which only certain parts are relevant

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<sup>14</sup> Dreyfus, S.E. and H.L. Dreyfus. February 1980. A five-stage model of mental activities involved in directed skill acquisition. Unpublished report supported by the Air Force Office of Scientific Research (AFSC), United States Airforce (Contract No. F49620-79-C-0063), University of California at Berkeley. See also Herbert and Stuart Dreyfus: Skill Acquisition - The Dreyfus Brothers, *Technology Review* (1986), Vol. 89, pp. 42.

- The passage from the perspective of a detached observer to involved performer engaged in a situation.

The Dreyfus Model is context dependent, in that a competency remains the same but proficient behaviour changes with context. Inspectors of, say, food production systems need different determinations of proficiency than ship safety inspectors. The following broad definitions of proficiency could become the basis for further elaboration to fit different operating contexts.

1. Novice	2. Advanced Beginner	3. Competent	4. Proficient	5. Expert
No experience of the situations in which they are expected to perform. They can work with basic descriptors of a task situation that can be recognized without situational experience. They make extensive use of definitions, rules and checklists.	Demonstrates marginally acceptable levels of performance. They can recognize the global characteristics of a situation and have enough experience to note the situation's components. They require ongoing support in an operational setting.	Can see action in terms of long range goals. They can establish a perspective on a situation based on analysis. They have a feeling of mastery and can manage a situation's contingencies. But, they lack the speed and flexibility of proficiency.	Perceives whole situations instead of component parts. Perspective is not thought out but presents itself. Meaning is perceived in terms of long range plans. Performance is guided by maxims that guide direction and reflect the nuances of a situation.	No reliance on analytic principles (rules, etc.) to connect understanding to appropriate action. Analytical tools and processes become background. Has deep understanding of the total situation. Can see the whole and zero in on critical factors. But, performance will deteriorate if required to adhere to a formal model or rule.

The above array could guide thinking about proficiency in rules-based and modernized regulation. Competency-based management approaches currently in use could be elaborated using these descriptors to enable transition and further strengthen performance across the spectrum.

### Example: Service Canada

Service Canada provides a good example of a department that has developed a competency-based management framework that operates at all levels.<sup>15</sup> From the outset, the framework was intended to integrate key HR processes around the concept of a competency profile, and to incorporate knowledge gained from past HR work guided by the discipline of job analysis. Their structure of a competency profile reflects three types of competency: core competencies (mostly personal qualities, required of all employees), group competencies (required for certain job roles), and task competencies (related to specific jobs). The decision to merge job analysis with the development of competency profiles arose from the recognition that job analysis provides an objective picture of the job, not the person doing the job, and 1) supports fair and accurate HR practices and 2) ensures the defensibility of the decisions made.

Service Canada started with the job classification system already in place in the Canadian public service, and then developed competency profiles for key jobs in the department, informed by the job

<sup>15</sup> Bonder, Arieh, Carl-Denis Bouchard and Guy Bellemare. Competency-Based Management: An Integrated Approach to Human Resource Management in the Canadian Public Sector. Public Personnel Management. Vol. 40, No. 1. Spring 2011.

descriptions for each job. In the course of this work, they found that identifying levels of competency (proficiency) within each competency can become too detailed and cumbersome for users, so they opted for a simple five-point universal Likert scale, as follows:

### **Service Canada CBM Scale**

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- 0 Cannot Rate – Insufficient information to assess.
  - 1 Introductory – Little or no knowledge/proficiency. Rarely demonstrates. Needs significant development.
  - 2 Basic – Basic knowledge/proficiency. Sometimes demonstrates. May need development.
  - 3 Proficient – Knowledgeable/proficient. Usually demonstrates. Little development required.
  - 4 Very Proficient – In-depth knowledge/proficiency. Demonstrates most of the time. No development required.
  - 5 Mastery – Expert knowledge/proficiency.
- 

They opted for a "multiple-job approach," which considered the full range of competencies required for any one job. This allowed them to create a common conceptual framework which could then be customized for specific jobs. Union consultation was key to their success, and union representatives were quick to see the value of CBM for the organization as a whole and for individual employees. Union representatives, along with job incumbents and supervisors, participated in developing the first competency profiles for key front-line jobs. Consultation and involvement of all key players continues to be a strong element of further refinement of Service Canada's CBM efforts.

Work on CBM continues in the form of educating and training users, developing profiles for new jobs, updating the competency dictionary, and enhancing HR tools on the departmental website. Three major challenges that are being addressed are 1) getting senior managers to accept this new approach to HR management so that it becomes the new normal, 2) developing an effective communication strategy that makes all managers and employees aware of the CBM framework and the resources that are available to them, and 3) developing a CBM governance structure showing how key decisions will be made by the department.

## Annex B - Possible Performance Measures for a CBM Maturity Model

VECTORS	Stages of Progression in the Implementation of CBM				
	Recognizing	Understanding	Managing	Mastering	Leading
<b>Accountability</b>	Aware of the need for policy.	Have a high-level statement of intent for CBM.	Developed and use a policy framework to guide and direct CBM effort.	Policy framework acts in support of higher order policy objectives.	Policy framework is integrated with national policy objectives.
	Understand the need for doctrine to connect policy to practice.	Developed doctrinal framework to guide activities.	Fully developed body of doctrine to connect policy to practice.	Doctrine integrated with higher order program or operating doctrine.	Doctrine integrated with national level or strategic doctrine.
	Recognize the benefits of standards to ensure compliance with policy.	Developed high-level standards to gauge compliance with policy.	Compliance with policy validated through comprehensive standards.	Standards integrated with higher order program or organizational standards.	Standards integrated with national level standards for program accountability.
<b>Direction</b>	Aware of the need for a guiding strategy to implement CBM.	Use a generic strategy to generally guide the CBM effort.	Use a formal strategy and do regular strategy reviews.	Strategy connects to and supports higher order goals.	Strategy is integrated with national policy objectives.
	Understand the benefits of planning implementation of strategy.	Developed a basic work plan to set the path and pace of implementation.	Fully developed business planning to control path and pace.	Business planning for CBM is coordinated with higher order planning cycles.	Formal strategic planning for CBM drives business planning.
	Recognize basic tactics and stages needed to advance the CBM effort.	Evolved a set of steps and stages in the application of CBM.	Use a documented approach in applying CBM.	Developed multiple approaches for use in different areas.	Comprehensive approach for use in different areas at different levels.
<b>Resources</b>	CBM is funded in an ad hoc way.	CBM is funded on a project-by-project.	CBM is funded as a discrete program.	CBM is a cost centre with multiple programs and projects.	CBM is a profit centre and returns hard resources.
	There is a centre of effort but no box on the organizational chart.	Appears as a box in a functional structure.	Appears as a standalone organizational structure.	Standalone structure within 2 or 3 reporting levels of the top.	Direct reporting line to the most senior level.
	There are one or two CPTs in the organization.	< 25% of CBM projects are done by CPTs.	50% of applications done by CPTs. CPT certification is a job prerequisite.	75% of applications are done by CPTs. Internal coaching by CPTs.	All projects run by CPTs. Organization provides CPTs as coaches to others.

### Possible Performance Measures for a CBM Maturity Model (Continued)

VECTOR	Stages of Progression in the Implementation of CBM				
	Recognizing	Understanding	Managing	Mastering	Leading
<b>Method</b>	Generally aware of the CBM Model.	Use of generic stages of the CBM Model.	Extensive development of Front End Analysis and Evaluation Stages.	Use of a customized CBM model tailored to own organization.	Full integration of CBM Model in business planning cycle.
	Aware of the need to focus on behaviours.	Focuses on individual behaviours.	Focus on functional competencies in projects.	Focuses on program and organization-level behaviours.	Focuses on organizational core competencies.
	Looks for limited opportunities to demonstrate CBM.	Looks for specific performance issues to demonstrate use of CBM.	Looks for operational problems for CBM to solve.	Cooperative effort to define major operational problems.	Focuses on systemic performance gaps.
<b>Relationships</b>	CBM has no standing in the professional culture.	CBM applied in collaboration with exemplars.	Operational exemplars use CBM to solve operational issues.	CBM has standing in the operational culture & is 'owned' by exemplars.	Value for performance improvement present in the organizational ethos.
	One or two potential clients identified.	Two or three clients using CBM in proof of concept projects.	Multiple clients using CBM in ongoing projects.	Large client base with many repeat clients concentrated in one area.	Extensive client base with multiple repeat clients in different areas.
	Have established initial contacts with potential partners.	Attempting to develop collaborative partnerships in proof of concept projects.	Have and use multiple partnerships to collaborate within one area.	Part of a network of partnerships within the public sector in many areas.	Act as a centre of effort in a network of public and private sector partnerships.
<b>Results</b>	Aware of quality issues but unable to measure quality and value added.	CBM projects are of variable quality.	CBM projects are of consistently good quality.	CBM projects are of high quality. Some are benchmarked.	CBM methods and results are benchmarked nationally for quality.
	Aware of the kind of results that could have important impact.	Results from pilot projects show potential impact.	Results from projects have important but limited impact.	Results influence critical organizational or program objectives.	Results directly affect national objectives.
	Aware of the nature of CBM value-added but unable to capture it exactly.	Value-added from pilot projects captured as qualitative measures.	Value-added from CBM projects is calculated and used as part of ROI.	CBM has some responsibility for program objectives.	CBM is delegated responsibility for achieving national objectives.