Industry Canada

FOCUSING ON RESULTS:

A GUIDE TO PERFORMANCE MEASUREMENT

Discussion Paper
March 1995

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BACKGROUND AND PURPOSE

This document attempts to facilitate responses by line managers to a variety of pressures calling for measures of performance.

Governments face increasing pressure to do better in conducting their business and demonstrating their accomplishments. Demand from the public is strong for tangible results at affordable cost. Managers are being asked to develop and use information on how well their operations are performing.

Continuing resource constraints and demands for good government will require that managers "do the right things", and that they "do them right". Operations will need to be relevant, successful and cost-effective. Resource reallocations will be common and will need the support of peformance information.

The New Expenditure Management System (NEMS) requires, in departmental Business Plans and Outlooks, public accountability about how departments implement Program Review results, what their priorities and goals are, what they expect to achieve, and how well they are performing on an ongoing basis. This means a shift in focus from activities and outputs to impacts and results.

The new Treasury Board Review Policy seeks to ensure that timely and relevant information on what is working and on the impact of policies and programs is available to support decision-making and to account for performance. The policy manual states (page 4):

> *Departmental managers are accountable for monitoring the performance of their programs and operations: monitoring on an ongoing basis and reviewing key aspects of the performance of programs and operations. This involves developing relevant and useful performance indicators, performance expectations and client-oriented service standards; and collecting, analysing and using credible information in a timely and cost-effective manner to improve the delivery of programs and operations, to account for performance and to inform clients of the level, quality and cost of services provided.*

This document has three main sections: basic performance measurement concepts, some useful tips, and one practical approach to organizing and presenting performance measurement elements. It is not a detailed, technical piece providing answers for all situations; nor does it address the issue of the

ex ante assessment of an initiative's impacts. Rather, it takes the need for government involvemement as a given, and aims to help managers to develop their own *ex post* measures. The "ingredients" provided by the paper must be combined appropriately to suit the particularities of our mandate, each line of business and each of our program, service and information offerings.

1. WHAT IS PERFORMANCE MEASUREMENT?

A. Overview

Simply stated, performance measurement is about measuring results. It is the process of seeking "real-time" answers to the question: "Are we getting what we expect at an acceptable cost?" We measure to learn what is happening, in order to identify problems, make corrections, and demonstrate successes.

Developing performance information for the post-Program Review Industry Canada will be a challenge. Measures will be required at the corporate level - for instance, to monitor our implementation of Program Review decisions, and the responses to major departmental priorities - as well as at the Sector and operational levels. The variety and complexity of the department's principal lines of business will call for a broad range of approaches to indicators - what works for regulation, inspection and licensing services will differ from what is needed for information-based products, funded assistance programs, and policy initiatives. The "one-size-fits-all" approach simply will not work.

The team involved in an initiative, i.e. the manager together with his or her delivery staff, must be front and centre, in the development of performance measures. Measurement requires the team's understanding of the initiative, and appreciation of the typical issues that will have to be monitored and dealt with, as well as the decisions that will have to be taken in managing the initiative. This is the basis for defining the kinds of information that will support those decisions. They must be the team's measures, not those of an outside "expert" who may be retained to help.

Regardless of the nature of the initiative (program, policy, service or other operation), the same steps are needed to develop performance measures, i.e.:

- agree upon the results we intend to achieve (a "vision");

- decide what to measure, to compare what happened to what was intended;

- demonstrate progress and achievements so that any necessary follow-up action can be taken.

The rest of this first section concentrates on these three steps.

B. The Vision: Intended Achievements

Policies, programs, services and other operations all start with a vision: who does what to whom and why. This is the basis for the authority to launch an initiative. It is ususally expressed in various documents, including Memoranda to Cabinet and Treasury Board submissions. The vision, and in particular, our desired achievements, must be ever-present in the minds of managers and staff. Performance measurement tracks progress toward achieving the vision. To measure progress, it is not enough to focus on the things we do - we also need a clear sense of whom we are trying to reach and the impacts we want to achieve. These are critical to useful performance measurement. The elements that constitue a vision are examined below.

OBJECTIVES: The first step for any initiative (policy, program, service, operation, etc.) is a clear statement of objectives, providing a general sense of what results are expected. However, meaningful objectives go much further than focusing on activities and outputs: they address intended impacts. Figure 1 makes two activity-based objectives more results-oriented.

1. From Activity- to Results-based Objectives

> **GOING FROM WHAT WE DO TO WHY WE DO IT:**
>
> To conduct inspections of firms involved in given commercial activities.
> ↓ ↓ ↓ ↓ ↓ ↓
> To increase awareness, among (given) firms, of regulations and to ensure fairness in (given) commerciasl activities.
>
> To deliver X number of workshops of ABC type to a given industry sector
> ↓ ↓ ↓ ↓ ↓ ↓
> To increase the awareness and exploitation of technology or export market opportunities among members of a given sector.

Once appropriate objectives have been defined, other "vision" elements add detail. These are outlined below, in the order in which it makes sense to

address them. Starting with expected impacts (rather than activities) has the advantage of making the vision results-driven rather than activity-driven.

IMPACTS: These will usually be a consequence - a new state of affairs or a change in behaviour - that can be plausibly attributed to the initiative. Starting with a definition of the desired ultimate (or long-term) impacts, one can then work back to definitions of the medium-term and immediate (short-term) impacts that contribute to the ultimate outcome. (One could also proceed from immediate to long-term impacts.) Figure 2 illustrates a plausible chain of impacts, from immediate client awareness/behaviour to longer term social effects, for workshops on technology opportunities and consumer products inspections. Both examples recognize the fact that longer-term impacts usually begin with a change in behaviour.

2. From behavioural impacts to economic and societal impacts.

IMPACTS	TECHNOLOGY WORKSHOP	INSPECTIONS
AWARENESS	of technology opportunities	of regulations
DECISION	to seek/develop new technology	to respect regul'ns
ACTION	research team formed & active	respect of regul'ns
BUSINESS/ IMPACTS	technology acquired/adapted/ technology adopted new products efficiency gains	confidence re "level playing field"
ECONOMIC IMPACTS	competitive prices increased sales/mkt share job creation	fair competition
SOCIETAL IMPACTS	income gains increased well-being	consumer confidence justice

REACH: Results are ususally achieved by, with, through, or within certain parties (targets, clients, users) that an initiative "reaches": firms will adopt technologies and become more competitive; retailers contribute to consumer safety, or justice by complying with the law; third parties deliver a departmental program to help firms to increase technology acquisition. Other stakeholders also have an indirect interest in, or are indirectly affected by, the

initiative. To be effective, both manager and staff must agree upon and understand whom they are targeting with their initiative. Figure 3 illustrates this element.

3. Illustrations of "Reach"

REACH	PRODUCT INSPECTION	DIAGNOSTIC SVCE
TARGET GROUP	Retailers of certain products	Firms - XX size, in YY sector, with ZZ traits
CO-DELIVERERS /PARTNERS	Retailer associations HQ of retail chains	Technology centres
OTHER STAKEHOLDERS	Other govt. departments Consumers	Target firm suppliers Consumer groups Environmental groups

ACTIVITIES/OUTPUTS: To reach groups and produce impacts, we engage in selected tasks and produce certain products/services. These are probably the easiest to identify and manage. We will want to ensure they are completed on time, within budget and according to specifications. Ensuring we have the right mix of activities and outputs is key to producing the intended impacts. This mix (and the measures used) may change over time, as illustrated in Figure 4.

4. Adjusting the activities/outputs mix

> The Software Products Sector Campaign was originally designed with six components. Approved funding was less than originally sought. Rather than cut each component, the program manager chose to abandon entire components and trim others, so as to maintain the highest level of direct services to firms. The components abandoned were less directly targeted at firms. A similar reallocation of effort could occur in response to activities not producing the expected results, or not eliciting sufficient client interest.

OPERATIONAL GOALS: Measurable goals or operational targets (including service standards) for each of the above elements complete the vision, for instance: the number of workshops, licenses, inspections, applications, etc. of

a given type, for a given period; the number of clients or "targets", by type, that will be reached in a given period; levels of client satisfaction; an estimation of the extent or magnitude of each of the impacts. All these are the benchmarks against which actual performance will be measured. Figure 5 presents a few examples of operational targets, some quantitative and some qualitative.

5. Examples of operational goals & service standards

<u>Software Products Sector Campaign - Diagnostic Review Service (DRS)</u>:

REACH: 75% of the 200 target firms will receive info within 5 yrs

SERVICE: 90% of clients state that services met/exceeded expectations

ACTIONS: 75% of firms completing the business review will implement
recommendations fully/partially within one year

**LONG
TERM:**   70% of DRS firms will have increased revenue due to DRS use

<u>Spectrum Management (Licensing) Service Standards</u>: (examples)

- We will return all telephone messages within one working day.
- We will direct you to the right contact person on the first referral.
- You will be served within 10 minutes of arriving at our office.

C. Decide What to Measure and How

With each of the vision elements defined, we can now select a set of <u>indicators</u> or <u>measures</u> to track progress toward our intended results. Proceeding directly to the selection of measures without defining a vision might lead us to the right measures, but then it may not. Focusing first on the "vision" increases the likelihood of selecting the best indicators.

There is no need to measure everything. In making our selection of measures for each of the vision elements, we must concentrate on the critical areas of performance, and in particular, reach and impacts.

Quantitative measures may be quantities and percentages, or more complex calculations such as unit costs, efficiency or productivity ratios. **Qualitative** measures are descriptive, such as attributes or attitudes and opinions. "Hard" (quantitative) measures are usually preferable, to the extent that they are possible; but "soft" (qualitative) measures can also yield useful, often richer, insights to performance. *Both types have their place.*

Process-based indicators are easy to identify: <u>activity/output</u> measures (such as the number and type of inspections completed, papers produced, permits delivered, applications processed, workshops held, grants issued, etc.) and <u>financial</u> indicators (dollars and % of budget spent, committed, free). In some project-based operations, activity/output measures might be based on meeting milestones, budget and specifications.

The key, though, is to express measures in <u>results</u> terms, wherever possible. Results measures should include reach and impacts items like client satisfaction levels; the extent to which service standards are met; the number/percentage of clients reached, by sector, sub-sector, size, region, etc.; the change in a client's level of awareness or behaviour; the number of new products/processes developed; the change in a firm's sales, employment or market share; etc.

The next step is to figure out what specific data are needed and where they can be obtained. Both manager and staff, once again, should be directly involved in these decisions, so that data collection is built in as a regular part of the ongoing delivery activities. Here again, the nature of the operation will dictate the amount and type of data to collect. Some will come from internal sources (the departmental financial and human resource systems), while others will come from the clients themselves. Some might come from third-parties, possibly Statistics Canada, similar organizations or other sources.

Decisions on data collection timing, methods and frequency come next. Data can be collected at the start of a transaction with a client, as the transaction unfolds, at its completion or, some time later (to allow for impacts to emerge). The data from a baseline survey can provide a sound starting point for setting up before-and-after comparisons that help to measure certain results over time. Initial discussions with clients, or application forms, are simple methods to use; many other relatively low-cost ones are available, ranging from short fax- or mail-back forms, to telephone surveys. Some data can be collected in either an ongoing way, as a part of each transaction, or concentrated into periodic "blitzes". Experts can be hired to collect the data, or it can be made an

integral, ongoing part of the tasks of the personnel delivering the initiative. Statistical sampling can reduce the collection burden and cut costs in cases with a large client population.

6. Data collection methods

Data can be collected in a variety of ways...

• Personal interviews (telephone or face-to-face)

• Formal client/user surveys (mail, telephone, fax, face-to-face)

• Omnibus surveys (for a limited number of questions)

• Focus groups

• Mail-back or Fax-back cards for client/user feedback

• Computerized 24-hour call back surveys (telephone and voice mail)

...by program staff or by private-sector specialists.

The effective management of performance information usually requires information systems; these must be planned for in the development of performance measures. We can often use or build upon existing systems (financial, for example), but in some cases, new systems will have to be developed (e.g.: a time-reporting system, or client-tracking system).

D. Demonstrate Results

Performance measurement becomes "real" only when data are analysed and acted upon. This means getting the right information to the right individuals at the right time. To the extent possible, the manager must therefore determine, up front, who needs (or wants) what information and when. This can start with his or her own ongoing operational purposes; it should also include other demands beyond the immediate operation, such as senior management, corporate processes (e.g.: the annual business planning exercise), program evaluation studies, periodic reviews, and ministerial, public or other enquiries. This needs analysis drives many of the decisions that follow.

Data alone are not very useful. They need to be organized, analysed and interpreted so that conclusions can be drawn on how well things are functioning, and, possibly, recommendations made. This can happen periodically, but at a frequency and in a manner that meet the requirements identified in advance.

One helpful way of reporting[1] focuses on three items: <u>Resources</u>, <u>Reach</u> and <u>Results</u>. The "three Rs" summarize process issues (activities/outputs) and emphasize effectiveness issues (the right things to the right parties at the right cost). All three "Rs" are intricately linked: a "picture" that lacks even one of them is far from complete, and a change in any one affects the other two directly. This means that each of them must be planned, measured and managed. Understanding the dynamics among these three elements can be critical to making sound trade-off decisions. We generally monitor resources fairly well. However, we have less experience with - and information on - the two other areas, often because of our activities/outputs emphasis. Yet, knowledge about each of these is fundamental to improving our initiatives, to making sure that we reach the right clients with the right products/services and in the best way, in order to achieve the right impacts; or, to ensuring, in a more balanced way, relevant, cost-effective results.

Report contents will vary: performance trends over time; actual performance compared to targets or plans (with variances); comparisons to previous periods, or to similar operations or other benchmarks (if available); results by organizational unit and/or sub-unit; monthly and year-to-date performance; etc.

A performance report is limited in what it can convey: it only points to areas that require attention, rather than solutions to problem areas. Decisions (e.g. on corrective actions) can then be taken in response to the performance report, and, probably, other inputs. In many instances, a performance report can also provide the substance for success stories that can positively influence resource allocation decisions and publicly demonstrate the achievement of good results.

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[1] See Steve Montague: *The Three Rs of Performance-Based Management*, <u>Focus</u>, Volume 3, Issues 6, Dec/94 - Jan/95. The three Rs are proposed as a basis for reporting performance, but also provide a useful "model" for planning.

E. <u>CONCLUSION</u>

The previous sections have outlined a sound process for developing results-based measures of performance, which can be characterized as first deciding what we want to accomplish, figuring out how to measure progress meaningfully, and reporting on performance. The approach is <u>flexible</u>, having been used in many situations: information-based services, funded assistance programs, and organizations. It can also apply to regulatory and policy initiatives, to individual projects or to a planning process. The overview on the next page outlines the principal tasks involved.

OVERVIEW: A PROCESS FOR MEASURING PERFORMANCE

STEPS	1. ESTABLISH PROFILE ("VISION"):	2. SET OPERA-TIONAL GOALS/ TARGETS	3. SELECT KEY MEASURES/ INDICATORS	4. PREPARE DATA COLLECTION	5. REPORT PER-FORMANCE
TASKS	√ Agree on <u>mission</u> & <u>objectives</u> √ Define <u>impacts</u> · Direct · Medium term · Long term √ Define <u>reach</u> · Clients/users · Intermediaries · Other stake-holders √ Define <u>activities</u> and <u>outputs</u>	√ Activities/Outputs: · Planned quanti-ties (#, %) · Planned costs · Specifications · Timeframe(s) √ Reach · Planned quanti-ties (#, %) · Planned costs · Timeframe(s) √ Impacts · Planned quanti-ties (#, %) · Planned costs · Specifications · Timeframes	√ Activity and outputs measures √ Reach measures √ Impacts measures	√ Data √ Sources √ Means of collection √ Frequency √ Responsibilities √ Systems · Available · Needed	√ User(s) √ Content · Resources · Reach · Results √ Frequency √ Responsibilities
END PRODUCTS	*PROFILE DOCUMENT*	*OPERATIONAL PLAN*	*LISTING OF KEY INDICATORS*	*PLAN FOR DATA COLLECTION*	*PERFORMANCE REPORTS*

2. A FEW TIPS ON MEASURING RESULTS

Recent performance measurement experience yields some useful insights to keep in mind in developing or using results indicators:

§   *We Measure Performance to Learn and Improve*

Performance measurement is a learning tool and helps us to understand what is working and what isn't. It is essential to the process of continuous improvement in our operations. It points to what is "on track" and what is not, so that appropriate actions can be taken and success stories recognized.

§   *Developing Measures Should Be a Participative Exercise*

Developing performance measures can be a valuable team-building exercise if it involves both manager and staff together in a group approach. The discussions and reflection involved in defining and understanding an initiative can yield added side benefits like a coherent, unified vision of the initiative, a common understanding of the intended results, and consistent operational delivery.

§   *We Need to Measure Both Efficiency and Effectiveness*

There is no point in doing things right if they are not the right things. Measures of process (activities and outputs) may be useful (particularly for repetitive, high-volume operations) to help us achieve greater efficiency; but they are of little value without effectiveness measures that focus on clients and impacts. In particular, we should look for the changes in client behaviour that usually precede economic impacts. Measuring this behavioural link in the impacts "chain" can strengthen our confidence that our activities will eventually lead to more tangible impacts, some of which may be more difficult to measure.

§   *Too Many Measures Are No Better Than Too Few*

We cannot measure everything. Some earlier approaches attempted to do this - unsuccessfully. It is best (and more practical) to focus first only on a limited number of key results indicators. However, there is probably a minimum number of measures below which little useful performance information can be generated. This will vary with the nature of the operations being measured.

§   *Start "Small" and Adjust/Improve*

It may be wise to start with a limited number of measures, then to refine them and add new ones in order to build a measurement system progressively. An obvious logical order would involve measuring immediate impacts much sooner than other "downstream" or medium-term impacts. Long-term impacts may be better left to periodic, in-depth evaluation studies. The first measurement attempts will not be perfect - there will always be room for improvement. This must be a continuous process.

§   *Initial Operational Targets: Challenging, Maybe, But Not Impossible*

Operational goals or targets are easily set on the basis of past experience. Ideally, we should have baseline data as a starting point. However, with limited experience, we are at the mercy of our "best judgement" for our initial targets. This is not an argument for not setting targets. Our initial attempts - as imperfect as they may be - still provide a benchmark against which to compare actual performance. Obviously, they will have to be refined as experience is gained - they are not cast in stone.

§   *Measuring Performance Costs Time and Money; Not Measuring May Cost More*

Measuring performance is not without costs, in both time and money. Common sense dictates that we not spend more on measuring performance than the program is worth. However, not having measures may mean that we cannot show, with any credibility, what is being achieved, nor "fix" what is not working well.

§   *Two "Acid-tests"*

Two simple approaches can be used to check the quality of a performance measurement system: the <u>first</u> tests the intrinsic coherence or "logic" of the vision of an initiative by assessing the degree of congruence between its objectives and its impacts statements. The <u>second</u> is a simple observation of the use that is made of the performance information; a high degree of use may be a signal that the measures are right and that the performance information being generated is appropriate to the decisions at hand.

3. <u>ORGANIZING AND PRESENTING THE PERFORMANCE MEASUREMENT ELEMENTS</u>

This final section turns to one practical way of organizing and presenting the performance measurement "content" or "substance" resulting from the approach described earlier. The intent here is to illustrate, rather than to prescribe.

This presentation scheme, referred to as PBMA (for "Performance-Based Management Approach"), emphasizes measuring performance in terms of results (outcomes, or impacts on clients) rather than process (activities and outputs). It is based on recent, practical applications in a variety of situations, including Industry Canada initiatives and those of several other government and private-sector organizations.

The "Performance Framework" portion of the PBMA presentation first describes what is expected of an initiative. This can include the following: the basic "vision" elements, time-specific, operational performance goals or targets, as well as the most relevant and useful measures or indicators. These can be presented in a multi-column table as illustrated on the following page. When dealing with goals and measures, some practitioners combine activities and outputs into one column - implicitly stressing the point that greater emphasis should be placed on clients and impacts.

A similar multi-column structure can be used to outline the remaining performance measurement elements including required data, their sources, collection frequency, method(s) and responsibilities, as well as the performance reporting details (contents, frequency, user, etc.).

Appendix A provides one PBMA example, while Appendix B is an example of the use of the three Rs as a basis for reporting performance.

Two parts of a Performance Framework: *(A similar third table could present operational goals or targets)*

PROFILE　　　　　　　**INITIATIVE/SERVICE/PROGRAM:** _____

TIMEFRAME & RESOURCES: _____　　　　　　　**DATE:** _____

OBJECTIVES:　● Expressed in terms of results expected, rather than activities
　　　　　　　　　●

ACTIVITIES	OUTPUTS	REACH	IMMEDIATE IMPACTS	INTERMED./LONG-TERM IMPACTS
Main activities involved in the initiative e.g.: 　Management of 　　initiative/projects 　　clients 　　policy/issues 　　resources	Main products e.g.: 　plans, policies, 　regulations, 　reports, events, 　promotion, funding, 　information offerings, 　service outputs	Main parties involved in the initiative e.g.: 　primary targets/clients/users 　co-delivery agents 　other stakeholders	Results arising from the activities and outputs e.g.: <u>Client service</u>: 　needs met 　satisfaction level <u>Behavioural influence</u>: 　awareness increase 　knowledge gain 　decisions/actions	Results arising over progressively longer periods e.g.: 　company/group impacts 　commercial impacts 　economic impacts 　societal impacts

INDICATORS or MEASURES

ACTIVITIES AND OUTPUTS	REACH	IMMEDIATE IMPACTS	INTERM./L.TERM IMPACTS
Examples: 　● Number of workshops held/inspections completed, licenses delivered, cases processed, etc. by type, unit, region, etc. 　● Completion of special projects / milestones e.g.: promotion campaign 　● Completion of annual plan (time/budget) 　● Resource commitments/expenditures vs. budget	Examples: ● Co-delivery agents used vs. plan ● # / % / type of clients reached/targeted 　· by group/subsector 　· by region 　· by size 　· by etc.	Examples: ● Client satisfaction levels versus expectations: 　timeliness, usefulness, relevance, access, immediate impacts, likely LT impacts, etc. ranked in importance by clients ● # / % confirming 　↑ of awareness 　resulting decisions/type 　resulting actions/type	Examples: ● ↑ /compliance levels ● ↑ /mktplace fairness ● ↑ /consumer confidence ● more orderly mktplace ● public confidence ● new products/proceses ● ↑ in productivity ● ↑ sales/mkt share/jobs ● competitiveness

IF YOU REQUIRE...

...TRAINING IN PERFORMANCE MEASUREMENT:

The Training and Development Division in Industry Canada's Human Resources Branch offers a performance measurement workshop on an as-requested basis. This workshop is designed as a practical application of the concepts and the approach outlined in this document, and can be tailored to meet the specific needs of individual groups. It is an ideal way for managers to undertake, with their team, the initial steps in designing measures - or a refining of what they have already developed.

Contact: Louise Lappa (613) 954-4052

...CLARIFICATIONS, ADVICE, FURTHER HELP:

Comments, and suggestions to help improve this document are welcome. The last page is a form that can be used for this purpose - just complete it and send it to one of the persons below.

Advice on performance measurement and guidance on obtaining professional outside help in the field is also available. Please contact one of the following:

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We would appreciate receiving your reactions to this paper - use the other side of this sheet if you require more space.

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(Name)　　　　　　　　　　　　*(Telephone)*

Date: _____

APPENDIX A

The Software Products Sector Campaign

(Diagnostic Review Service - DRS)

> · *The following example is taken from an appendix to the May 1994 Evaluation Framework for this Industry Canada sector campaign. To identify ongoing performance indicators, a group approach was used, with a facilitator from the departmental program evaluation directorate. The responsible director and his staff participated fully in the sessions. Some of the expressions used differ from those in the preceding text, such as "Program Framework" and "Performance and Information Framework". What really matters is that the key performance measurement elements are included. Also, page two of the example highlights the "Influencing Factors" that could affect the performance of the initiative.*

COMPONENT: Diagnostic Review Service

I - PROGRAM FRAMEWORK				
CAMPAIGN PURPOSE: To increase the competitive performance of the Canadian-owned Software Products industry companies				
COMPONENT OBJECTIVE: To improve the core competencies of threshold firms in order to increase their competitive performance				
ACTIVITIES	**OUTPUTS**	**REACH**	**DIRECT IMPACTS**	**ULTIMATE IMPACTS**
Client management: Identification of potential users Introduction of DRS services Advisory Services Referral **Program Management:** Perform a comprehensive review of the business/company's overall practices Perform thorough analysis of company strengths and weaknesses in the areas of general management practices, marketing, productivity, human resource development and technology management	**Client:** Overall company assessment Strategies and action plans designed to correct weaknesses and/or take advantage of opportunities Assistance to implement strategies/action plans **Program:** List of potential clients Client handbook Corporate memory data bank on DRS users Consultant contact list	**Target clients:** Threshold companies including theTop 200 Software products firms **Delivery agents:** Industry Canada HQ staff Industry Canada regional Sector specialist (Officer) **Co-delivery agents:** Consultants **Stakeholders:** Provincial governments OGDs Industry Associations with mandate to serve Software Products firms	**Awareness:** Increase firms' awareness of the need to assess their core competencies **Actions:** Assess their core competencies with a focus on SWOT analysis and the 8 Critical Success Factors (CSF) Take corrective actions as they relate to core competencies and the 8 CSFs **Client service:** Provide excellent expertise and expert advice	**Influence:** **(INTERMEDIATE)** Establish Corporate management practices, organization structure and processes to meet the needs of growth **(LONG TERM)** Increase core competencies of the target group firms which should lead to improving their competitive performance

COMPONENT: *Diagnostic Review Service*

INFLUENCING FACTORS

• Availability of financial and human resources from:
  - Industry Canada
  - Co-deliverers
  - Provincial governments
 	
• Capacity to create and maintain a database on threshold companies
 	
• Competency of consultants
 	
• Level of competitive provincial programs (i.e., duplication)

COMPONENT: *Diagnostic Review Service*

II - PERFORMANCE FRAMEWORK

KEY PERFORMANCE INDICATORS

REACH	DIRECT IMPACTS	ULTIMATE IMPACTS
Target clients: Provision of information on the DRS component to the targeted threshold companies (including the top 200) **Delivery agents:** Training and provision of information on the DRS component to Industry Canada regional Sector specialists (on-going) **Co-delivery agents:** Provision of information and guidance on the DRS component to consultants (on-going) **Stakeholders:** Provision of information to provincial governments, industry associations and OGDs	**Awareness:** Proportion of potential firms which have assessed their core competencies (i.e., completed the DRS business review phase) **Actions:** Proportion of firms that completed the business review which intend to fully or partially implement recommended changes/strategies/action plans Proportion of firms that completed the business review which have fully or partially implemented recommended changes/strategies/action plans **Client service:** Extent to which DRS meets and even exceeds users' expectations Level of satisfaction with the expertise/ technical advice provided	For those firms where related corrective actions were identified: **(INTERMEDIATE TERM)** Proportion of firms which have changed organization structure to meet the needs of growth Proportion of firms which have established or changed management practices and processes to meet the needs of growth **(LONG TERM)** Proportion of firms which have increased/ improved core competencies related to the 8 critical success factors (overall) Number of success stories demonstrating increased competitive performance due to changes brought about by using DRS Increased revenue due to benefits received from using DRS

COMPONENT: Diagnostic Review Service

III: PERFORMANCE & INFORMATION FRAMEWORK			
KEY RESULTS AREAS	**INDICATORS AND GOALS**	**DATA COLLECTION**	**REPORTING**
I - REACH & SERVE			
Training and/provision of information on the DRS component to: - target clients - delivery agents: - co-delivery agents: - stakeholders:	75% of the top 200 firms are provided with the information on the DRS component within 5 years	**Source:** Directorate administration files **When:** on-going **Who:** Campaign manager	**Who:** Campaign Manager **Frequency:** Semi-annually
	30 firms/year will be offered the service of DRS by direct contact	**Source:** Directorate and regional administration files **When:** on-going **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Semi-annually
	150 software products firms will use the services of DRS	**Source:** Regional files + RAMS/COOP SYSTEM **When:** on-going **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Monthly
	Information will be provided to 3 Software Industry National Associations; SILC (i.e., 10 provinces, Federal Sector specialists and HQ; and to the following OGDs: EAC, Investment Canada, EIC, WDO, ACOA, FORD-Q;	**Source:** Regional and Directorate administration files **When:** on-going **Who:** Sector specialist and Campaign Manager	**Who:** Campaign Manager **Frequency:** Annual

COMPONENT: Diagnostic Review Service

III: PERFORMANCE & INFORMATION FRAMEWORK			
KEY RESULTS AREAS	**INDICATORS AND GOALS**	**DATA COLLECTION**	**REPORTING**
II - DIRECT IMPACTS (Client Service)			
<u>**Client service:**</u> **Provide excellent expertise and expert advice**	80% of clients will state that they are at least satisfied with the expertise & technical advice received from consultants	**Source:** DRS Evaluation Form **When:** Right after DRS Business Review is completed for every firm **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Semi-annually
	90% of DRS clients will state that DRS at least met their expectations for the services used	**Source:** DRS Evaluation Form **When:** Right after DRS Business Review is completed for every firm **Who:** Sector specialist	**Who:** Campaign Manager **When:** Semi-annually
	90% of clients will state that they are at least satisfied with the quality of service received from sector specialists	**Source:** DRS Evaluation Form **When:** Right after DRS Business Review is completed for every firm **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Semi-annually

COMPONENT: Diagnostic Review Service

III: PERFORMANCE & INFORMATION FRAMEWORK			
KEY RESULTS AREAS	**INDICATORS AND GOALS**	**DATA COLLECTION**	**REPORTING**
II - DIRECT IMPACTS (Influence)			
<u>Awareness:</u> Increase firms' awareness of the need to assess their core competencies	90% of DRS applicants will complete the DRS Business Review phase (i.e., will assess their core competencies with a focus on SWOT analysis and the 8 CSFs)	**Source:** Project files **When:** On-going **Who:** Sector specialist	**Who:** Campaign **Frequency:** Semi-annually
<u>Actions:</u> Take corrective actions as they relate to core competencies and the 8 CSFs	80% of the firms that completed the business review will indicate their intent to fully or partially implement recommended changes/ strategies/action plans	**Source:** DRS evaluation form **When:** Right after the DRS business review is completed **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Semi-annually
	75% of the firms that completed the business review will implement recommended changes/strategies/ action plans, fully or partially within one year	**Source:** DRS evaluation form **When:** not before 6 months after the business review completion and no later than 2 years **Who:** Sector specialist	**Who:** Campaign Manager **Frequency:** Semi-annually

COMPONENT: Diagnostic Review Service

III: PERFORMANCE & INFORMATION FRAMEWORK			
KEY RESULTS AREAS	**INDICATORS AND GOALS**	**DATA COLLECTION**	**REPORTING**
III - ULTIMATE IMPACTS (Influence)			
Intermediate term: **Enhance management competency in organizational development, i.e. in the areas of:** **developing management team** **establishing management practices and processes**	**For those firms where related corrective actions were identified:** **(INTERMEDIATE TERM)** **75% of the firms which have completed either a management or marketing review have undertaken at least one of the following:** - **changed their organization structure to better meet the needs of growth** - **established or changed management practices and processes to better meet the needs of growth**	**Source:** DRS evaluation form **When:** not before 6 months after the business review completion and no later than 2 years **Who:** Sector specialist	**Who:** Campaign Manager **When:** Semi-annually

COMPONENT: Diagnostic Review Service

III: PERFORMANCE & INFORMATION FRAMEWORK			
KEY RESULTS AREAS	**INDICATORS AND GOALS**	**DATA COLLECTION**	**REPORTING**
<u>Long term:</u> Increase in core competencies of the target group firms which should lead to improving their competitive performance	75% of the client firms have increased/improved core competencies as it relates to the 8 critical success factors (overall)	**Source:** DRS evaluation form **When:** not before 6 months after the business review completion and no later than 2 years **Who:** Sector specialist	**Who:** Campaign Manager **When:** Semi-annually
	Number of success stories demonstrating increased competitive performance due to changes brought about by using DRS	**Source:** Project files, evaluation form and case-studies from mid-term evaluation study **When:** On-going and during mid-term evaluation study of the Sector Campaign **Who:** Sector specialist and Evaluation Directorate	**Who:** Campaign Manager and Evaluation Directorate **When:** On-going and supplemented by evaluation study in three years
	70% of the firms using DRS have increased their revenue due to benefits received from using DRS	**Source:** Case-study in evaluation study **When:** Mid-term review (i.e., 3rd year of the Sector Campaign life cycle) **Who:** Evaluation Directorate	**Who:** Evaluation Directorate **When:** Before the end of the 3rd year of life of the Sector Campaign

APPENDIX B

The Technology Outreach Program (TOP):

Reporting Performance

TOP funds approximately 20 technology centres that offer a range of services to the private sector. The responsible Industry Canada program manager and the heads of the TOP centres joined forces to establish a way of monitoring and reporting performance. The resulting Performance-Based Management System (PBMS) now serves the manager of each centre as well as Industry Canada management. What follows are exerpts from a performance report covering six months, and summing up a number of TOP Centre reports for Industry Canada management. This, therefore, is only a partial picture; however, it gives a sense of how the TOP results are monitored. The detailed client results report (last page) is presented for only two services.

TECHNOLOGY OUTREACH PROGRAM (TOP)

The 20 TOP Centres funded by Industry Canada offer a range of services from low intensity, wide-reaching services to build awareness and general knowledge, to high intensity, specifically-focused research and problem-solving to produce specific economic benefits.

The Performance Based Management System (PBMS) has now been implemented by all of the Centres. This report is based on the information from the reports of the Centres for the first six months of this year. The PBMS provides a balanced scorecard for the analysis of program results. The implementation of the PBMS has been difficult for some Centres because of the systems that had to be set up, particularly for client tracking. Further refinements and improvements to the PBMS and systems developed by the Centres, are still needed. The PBMS is still very new and, even though valuable information has been produced, specific objectives have been set for the coming year to further improve. The expectation is more accurate and pertinent information, that will be useful to both the department and the Centres.

The PBMS relies on three basic areas of measure - cost, reach and impact. The challenge faced by TOP (and by each of the Centres) is to find the optimum balance among each of these when setting goals, delineating plans and making decisions. The PBMS provides specific information to the Centres and to TOP which can be used to set detailed objectives and strategies that are understandable and acceptable to all parties.

Early on, TOP, in conjunction with the Centres, established that the most useful and realistic method of measurement and analysis (or benchmarking) was on the basis of the individual service offerings of the Centres. The services were grouped into four main categories: information services, education services, technical support services, and research, development and testing services, with a fifth for activities promoting general awareness.

The PBMS provides guidance at three levels:

Strategic: to better position TOP vis-a-vis other federal government programs, and to help in setting technology diffusion policy.

Tactical: to better understand what service lines work best, ensure meaningful dialogue based on performance, and provide information for on-going service adjustments.

Operational: to allow the development of a performance contract mentality to establish strategic and pragmatic performance goals for each Centre, based on a balance between cost, reach and impact.

TOP SERVICE PERFORMANCE SUMMARY

For a total program expenditure of $5,252,284.43 as of September 30, 1995, TOP reached close to 28,000 clients (including over 17,000 SMEs), over 90% of clients felt that the services offered by the Centres were useful, over 90% of clients were satisfied, and 80% reported direct benefits resulting from their interaction with the Centres. Cost per client served compared favourably with other federal government offerings.

Note: The page complementing this one from the full TOP report has not been reproduced here. It identifies the five services correspondidng to the five rows below: 1. Research, Development & Testing; 2. Technical Specialist support; 3. Education; 4. Information, and 5. General Awareness.

KEY PERFORMANCE MEASURES			KEY RATIOS	
Resources	**Reach**	**Results**	**Cost per Client Served**	**Cost per Service Output**
TOP Costs n/a Total Effort $4,944,28	# SMEs n/a # Total 308	1. 98% very or somewhat useful 2. 48% used comparable service 3. 20% better than comparison 4. 54% clients very satisfied 5. 84% reporting benefits	TOP n/a Total $16,050	TOP n/a Total $8,600
TOP Costs n/a Total Effort $4,690,98	# SMEs n/a # Total 1,300	1. 96% very or somewhat useful 2. 45% used comparable service 3. 40% better than comparison 4. 62% clients very satisfied 5. 87% reported benefits	TOP n/a Total $3,600	TOP n/a Total $1,450
TOP Costs n/a Total Effort $2,151,17	# SMEs n/a # Individuals 21,315	1. 92% very or somewhat useful 2. 39% used comparable service 3. 32% better than comparison 4. 47% clients very satisfied 5. 78% reporting benefits	TOP n/a Total $100	TOP n/a Total $5,380
TOP Costs n/a Total Effort $2,059,78	# SMEs 17,000 # Total 28,000	1. 86% very or somewhat useful 2. 39% used comparable service 3. 28% better than comparison 4. 51% clients very satisfied 5. 81% reporting benefits	TOP n/a Total $74	TOP n/a Total $560
TOP Costs n/a Total Effort $100,815	200,000 plus (?)	• distribution of news vehicle • rating by independent polls	TOP n/a Total (?)	TOP n/a Total n/a

Note: The estimated 28,000 clients include estimated overlap across all service lines based on analysis of PBMS reports and detailed client lists received from Centres.

Summary Analysis of Client Results

Usefulness

Client feedback showed that TOP services were highly useful to most clients. The high-intensity and higher-cost services such as research, development and testing technical support showed the highest usefulness ratings - consistent with the increased opportunity for a centre to add value during a more extensive client interaction.

Comparative Performance

Less than half of TOP clients stated that they had used a comparable service. The service with the most noted comparisons by clients was research, development and testing (48%) followed by [some text deleted for brevity]. TOP's wider reaching services [...] capture a [...] proportion [...] who do not avail themselves of similar support from other sources.

[...] TOP services ranged from a high of 40% of clients rating TOP centres as better than others in [...] to a low of 20% of [...] clients ranking TOP as better than alternatives. At the other end of the spectrum, the percentage of clients ranking TOP services as poorer than alternatives ranged from 13% for [...].

These findings show that TOP services face more extensive competition in [...] than in other service categories.

Client Satisfaction

The proportion of TOP clients who were very satisfied was close to half in all service categories with the exception of [...] where over 60% were satisfied. On the other hand, the proportion of clients who stated that they were not very or not at all satisfied was less than 10% in all service categories. While these results are encouraging, it should be noted that our content analysis showed that up to half of the respondents stating that they were 'somewhat satisfied' with services were actually somewhat dissatisfied. This would imply that over a quarter of current TOP clients are not being fully satisfied by service delivery - thus there is an opportunity to improve on current client service in all areas.

Benefits

Over 80% of TOP clients noted actual benefits from the assistance received. The proportion claiming benefits ranged from 78% among educational services clients to 86% and 87% in research, development testing and technical specialist support. Quantified benefits estimates become more and more difficult as one moves into the analysis of wide diffusion activities like educational and information services. Firm-level economic benefits are most easily identified and attributed for longer term, more highly intensive 'projects' as opposed to shorter term, low intensity interactions such as enquiry responses or general training sessions. For technical specialist support, for example, analysis indicated an average of $50,000 per project in incremental return on sales and cost savings benefits (see June 9, 1994 PBMS Final Report - P.28).

More work will be required to refine benefits estimations - especially for the more extensively diffusion-oriented activities.

Client Results: Information Services

Frequency of Client Responses to selected Questions

1. Perceived Usefulness of Services (n = 1,212)

Very Useful	41%
Somewhat Useful	45%
Not Very Useful	8%
Not At All Useful	3%
Don't Know/Not Sure	3%
	100%

2. Used Comparable Services (n = 1,212)

Yes	39%
No	61%
	100%

3. Comparison: Service Used / Other Services (n = 466)

Much Better	9%
Better	19%
About the Same	47%
Poorer	13%
Much Poorer	4%
Don't Know/Not Sure	8%
	100%

4. Satisfaction with Last Interaction (n = 1,212)

Very Satisfied	51%
Somewhat Satisfied	41%
Not Very Satisfied	4%
Not At All Satisfied	2%
Don't Know/Not Sure	2%
	100%

5. Incidence of Benefits (n = 1,212)

Specific Benefits Noted	81%
No Specific Benefits Noted	19%
	100%

Client Results: Education

Frequency of Client Responses to Selected Questions

1. Perceived Usefulness of Services (n = 787)

Very Useful	44%
Somewhat Useful	49%
Not Very Useful	6%
Not at All Useful	1%
	100%

2. Used Comparable Services (n = 788)

Yes	39%
No	61%
	100%

3. Comparison of Services Used to Other Services (n = 284)

Much Better	8%
Better	24%
About the Same	52%
Poorer	15%
Much Poorer	1%
	100%

4. Satisfaction with Last Interaction (n = 783)

Very Satisfied	47%
Somewhat Satisfied	48%
Not Very Satisfied	4%
Not At All Satisfied	1%
	100%

5. Incidence of Benefits (n = 788)

Specific Benefits Noted	78%
No Specific Benefits Noted	22%
	100%

(Similar reports available for other services)

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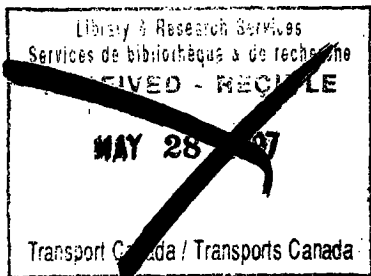## (A short list of materials that may be useful)

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