

A DYNAMIC BALANCED SCORECARD TEMPLATE FOR PUBLIC SECTOR AGENCIES

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ABSTRACT:

This paper describes a dynamic balanced scorecard template developed for the Australian Federal Department of Communications Information Technology and the Arts (DCITA) by a research team from the University of New South Wales and CSC(Aust) in conjunction with senior DCITA executives and ministerial staff.

The project involved the development of a prototype management flight simulator, built around the Kaplan and Norton 'balanced scorecard' (BSC) concept. The engine for the simulator is a system dynamics model, built in Powersim, designed to draw real time data from departmental information systems. The prototype was designed as a template that could be customised for any level of the organisation.

The model is broadly structured around the traditional BSC sectors, adapted for the Australian public sector environment. It incorporates the following sub-models:

- Resources: (human capital; outsourced services)
- Internal Process: (workflow; corporate communication)
- Customer Perspective: (service quality, corporate governance & corporate health)
- Learning & Growth: (intellectual capital; personnel development)

The paper includes illustrations of causal loop and stock flow diagrams of key components.

Keywords: system dynamics; causal loop; balanced scorecard; knowledge management; performance management; public sector management.



PERFORMANCE MANAGEMENT - AUSTRALIAN PUBLIC SECTOR CONTEXT

The Australian Public Sector has undergone a series of reforms in recent years with the aim of providing the government of Australia with the services it requires in a rapidly changing world. The pressure for reform has been driven by both international and domestic developments including globalisation, technological change, policy initiatives, the changing workplace environment and the demographics of the primary provider of services, the Australian Public Service (APS).

The suite of financial, employment, competition and customer service reforms focuses on developing a more business-like performance culture within the public sector. These reforms provide the opportunity to develop a Balanced Scorecard for Australian Public Sector agencies that assists managers to assess service delivery performance and the capacity to adapt in a rapidly changing environment.

Federal Government Resource Management Reforms of the 1990's

A key policy of the current government for a high performing public sector is to build a stronger budgetary position through expenditure restraint and concentration on core business.¹ A range of the recent resource management reforms are briefly outlined below to assist in clarifying the customer/service provider relationship that exists in the Australian federal public sector context and which differs substantially from a public sector that primarily provides services direct to the community.

The resource management approach implemented by the Australian Public Sector (APS) in July 1999 consists of an outcomes, outputs, accrual based budgeting and reporting resource management framework, supported by devolved banking and financial management systems.

The essential purpose of the outcomes and outputs framework is to answer three questions:

- (i) What does government want to change? (outcomes)
- (ii) How does it want to make that change? (outputs)
- (iii) How does it know if it is succeeding in making that change? (indicators)

The system works as a hierarchy. Government, through its ministers and with the assistance of relevant agencies, specifies the outcomes it is seeking to achieve in a given policy arena. These outcomes are specified in terms of the impact government is aiming to have on some aspect of society, the economy or the national interest. Parliament appropriates funds to allow the government to achieve these outcomes.

These funds allow government to 'buy' outputs or services from agencies. Agencies specify the outputs (eg. policy advice) they undertake to provide to contribute to the achievement of these outcomes, including through third parties.

Specification of what will be delivered can help improve the understanding and knowledge of those outside the agency who have an interest in its performance, including Ministers, Parliament and external accountability bodies such as the Auditor General.

The framework encourages agencies to focus on the specific products they deliver (outputs) and how to deliver them in the most efficient and effective ways; and to identify business lines they should drop or outsource. The implementation of accrual accounting using

¹ The Hon. John Howard, MP, Prime Minister: Launch of Ethical Standards and Values in the Australian Public services – MAB/MIAC publication No. 19, 9 May 1996.

generally accepted accounting principles provides the basis for benchmarking comparisons so that decisions about preferred providers are better informed.

Annex 1 illustrates the typical way a work unit might develop its work action plan, identifying the planned outcomes and outputs, resources required and agreed, performance criteria and other work units whose activities impinge on achievement

Where services are provided direct to industry and the community, the development of *client service charters* is an integral part of the reforms and an important indicator of performance. The Government itself makes decisions on programs and (usually) on guidelines for service provision. Within these guidelines, however, governments expect service delivery to be of a high standard and public servants are accountable to their Minister and to government for their service to customers in this context.

Charters must specify standards for service delivery and set out complaint handling and feedback mechanisms, and must be developed through consultation with customers and staff. Agencies are required to report annually, through the Department of Finance and Administration, to the Parliament on their performance against the charter.

The reforms outlined above provide a more complex view of the customer perspective for the Australian national public sector than that which exists in the private sector. In the public sector context, the prime customer (ie the agent who pays for a reciprocal service) is the Minister on behalf of the Government.

CHARACTERISTICS OF AN AUSTRALIAN GOVERNMENT BSC

The 'Customers' of the Federal Public Sector

Much of the writings on implementing the Balanced Scorecard in the public sector focuses on levels of Government that provide services direct to the community. However, in Australia, community services are primarily the responsibility of State and Local Governments. As noted above, the primary function of the Australian Federal Public Sector is to provide a range of services to the Government through the Minister responsible for the function.

Departments also have a legal requirements which set up 'customer relationships', especially to the Auditor General and to the Parliament in respect of 'governance'.

In those cases where Federal Departments do provide services direct to the public, they are required to prepare and implement a service charter, providing a clear 'customer relationship'.

Thus there are three 'Customers' who may need to be addressed in a BSC:

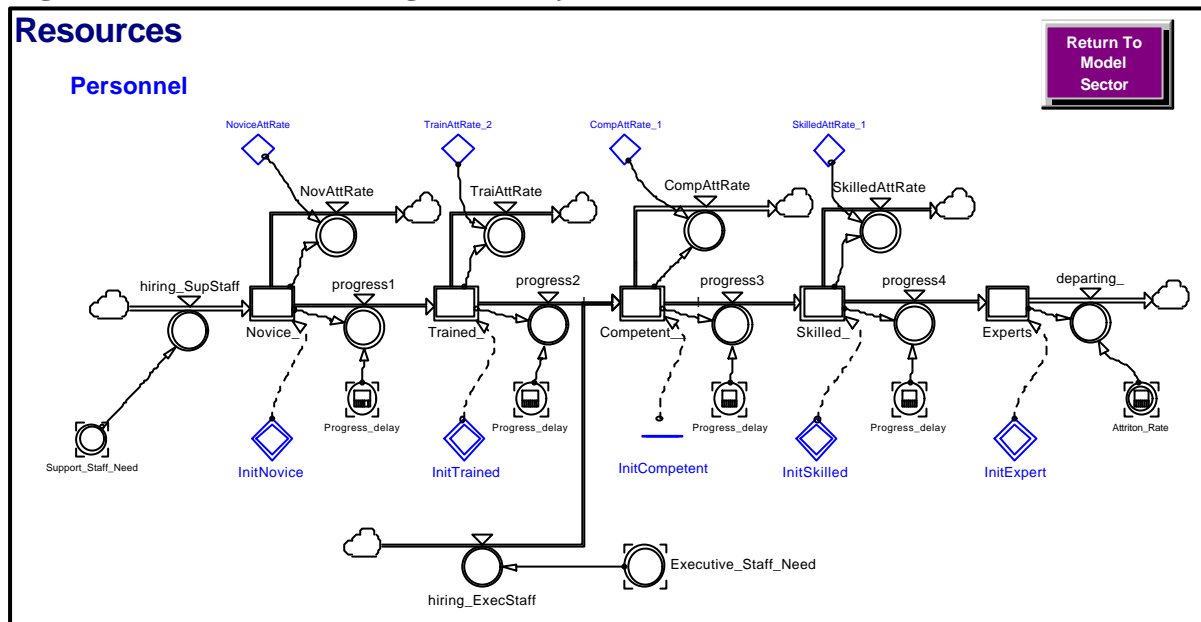
- *for most departmental activities*, the Minister, and through him/her, the Government;
- *in respect of governance*, the Auditor General and Parliament, as well as the Minister;
- *for service delivery activities*, the corporate or individual service recipients.

The BSC template that has been developed focuses specifically on the relationship between managerial responses to any 'workload-resourcing' gap (the 'Capacity Gap'), and how this impacts on the first two 'Customers' above. The model outputs relate specifically to output quality index; probability of fraud / probity incident; and probability of EEO incident.

The following causal loop diagrams illustrate the mechanisms by which these are impacted by departmental operations. The interrelationships between the respective work area outputs and their impact on achievement of outcome indicators is subject of a separate study.

Figure 2 depicts the staffing module of the Resources Sector in the Dynamic BSC model. This model tracks skill levels of senior executives, executives, technical and administrative support staff, based on staff turnover rates and time at each level to reach full efficiency.

Figure 2: Staff Resources Segment of Dynamic Balanced Scorecard Model



At the moment this is a relatively simple model, but the intention is, at a later stage, to incorporate the human capital accounting concepts of Paul Straussman and Eric Sveiby.

Key resource management performance criteria relate to corporate governance (probity, fraud control, etc), managing expenditure patterns (and especially employment related expenditure patterns) to budget and achieving efficiencies in an increasingly efficient environment.

The Characteristics of the Internal Processes in the Federal Public Sector

The core processes in a Federal Department are essentially the same as for the private sector. These are to:

- Establish direction;
- Acquire resources;
- Provide capability; and
- Execute the mission.

Whilst the Government establishes the policy and program outcomes that are to be achieved in exchange for the financial resources, management translates the vision and allocates the capabilities to achieve the delivery of agreed outputs.

The resource management framework provides a backdrop for an integrated planning process that links corporate plans, business plans and individual plans. This planning process focuses on achieving results through the delivery of outputs as the agency, the business unit and the individual's performance is linked to the outputs which in turn is linked to the outcomes that the Government's desires for the community. (Refer Annex 1).

As noted in relation to resource management, once the budget framework is set, Federal Departmental managers have limited scope for obtaining extra resources. Any increase in workload, or workload underestimate, typically will be addressed by working harder:

- more intense and longer hours of work (unpaid overtime)
- reduction in time devoted to training and development
- reduction in strategic management activities (through redirection of 'management time' to 'task time')
- deferring some work (which simply postpones the day of reckoning) and
- reduction in target quality of inputs (e.g. through cutting background research effort) or outputs

As illustrated in Figure 3, if such responses are prolonged, they tend to bring about dysfunctional feedback effects which eventually increase the capacity gap, through increased re-work, falling moral, increased staff turnover.

Where there is excellence in leadership and a culture characterised by the 'learning organisation' one could expect innovative responses to any significant or prolonged 'capacity gap'. In essence such innovation changes the 'rules of the game' and achieves the end result much more efficiently. There are many local examples of such behaviour across the bureaucracy, but at this juncture the authors would be sparing in their application of 'learning organisation' to Departments as a whole.

Only dysfunctional responses, as illustrated in Figure 3, have been incorporated in to the model at this stage because of lack of data to permit modelling of the 'learning organisation' response.

Figure 3: Key Interrelationships Impacting on Internal Processes

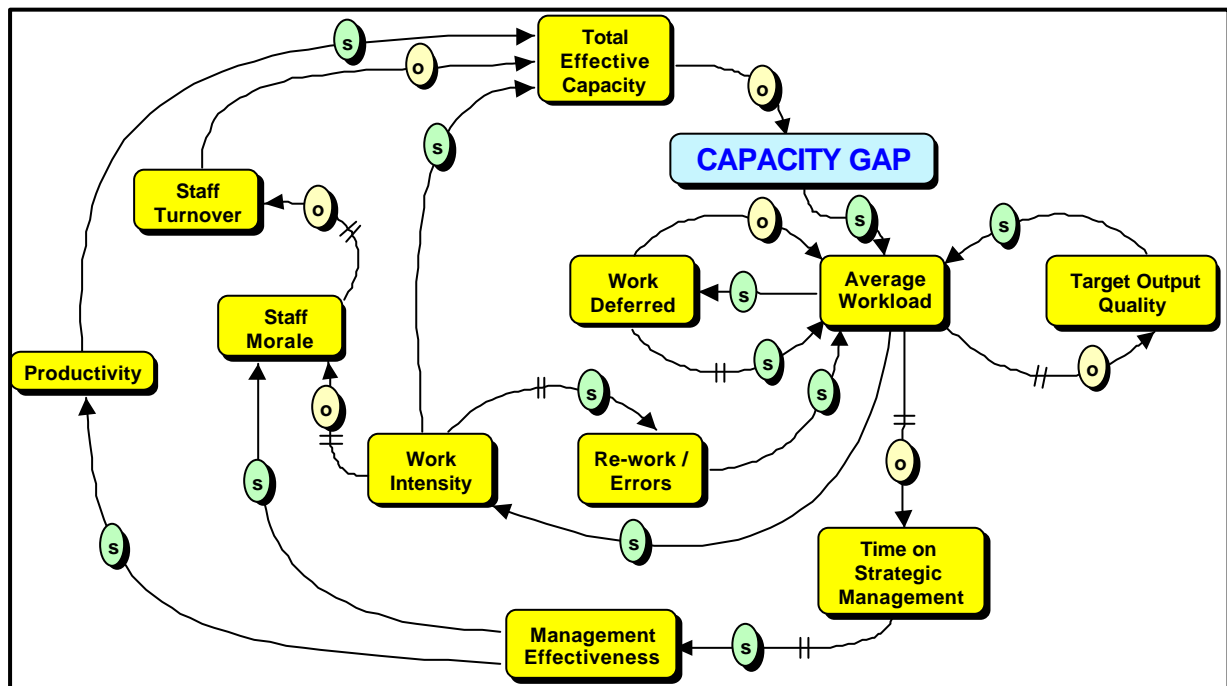


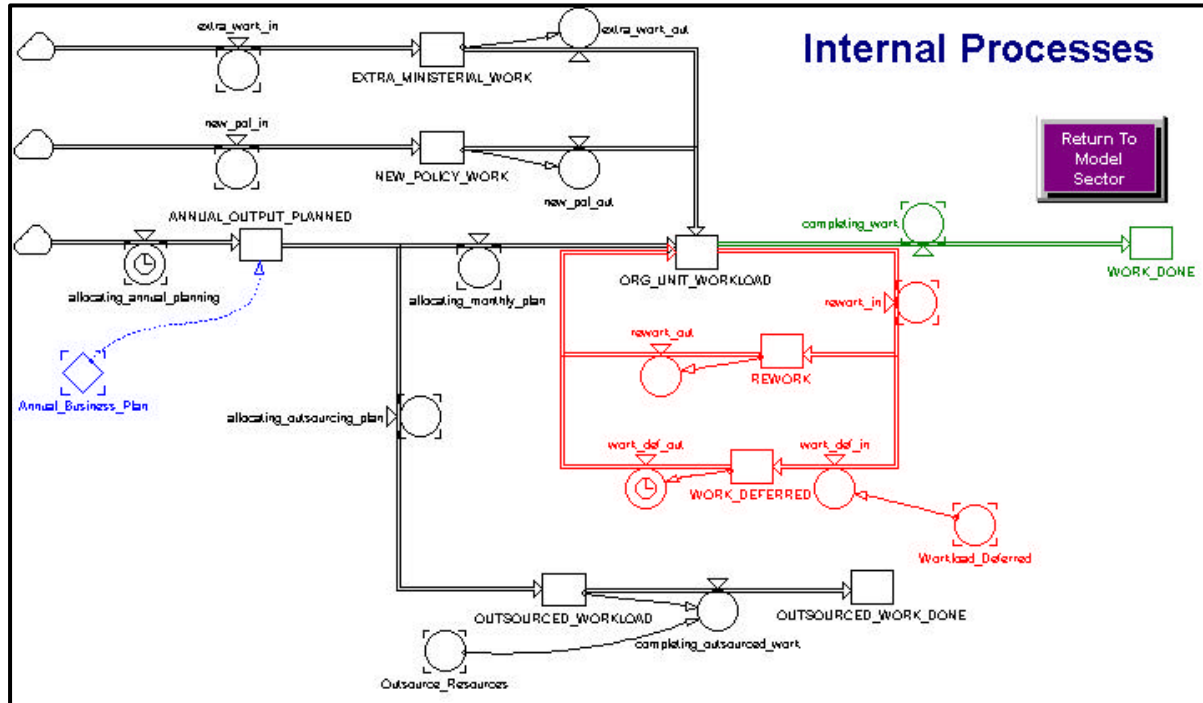
Figure 4 is a simplified extract of the Powersim dynamic BSC model relating to the Internal Process Sector, corresponding to the causal loop diagram above. The module currently draws its base data from spreadsheet, including:

- annual work plans
- new policy and extra ministerial projects

- average monthly patterns of work

The model also includes allows for outsourcing activities (not included in the causal loop diagram).

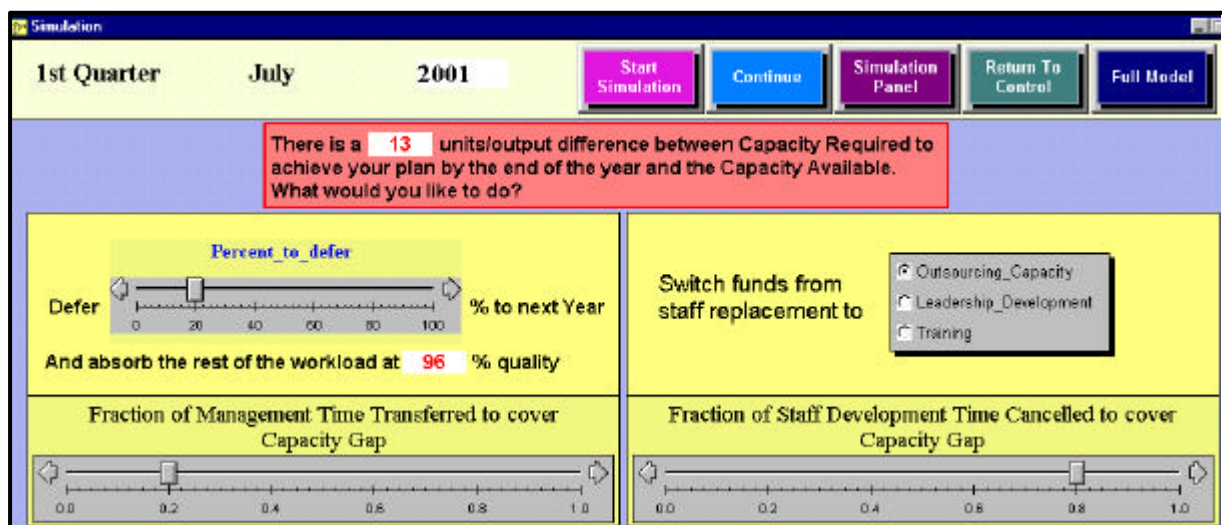
Figure 4: Internal Process Sector of the Dynamic BSC Model



In the model, how the capacity gap is addressed is a matter, each three months, for user decision, with the user being given the choice of:

- specifying a % of the excess workload to defer to the next year
- switching a % of strategic management time onto the excess workload
- switching a % of staff development time on to the excess workload
- absorbing the excess workload through reduction in output quality

Figure 5: Dynamic BSC Simulator Control Panel

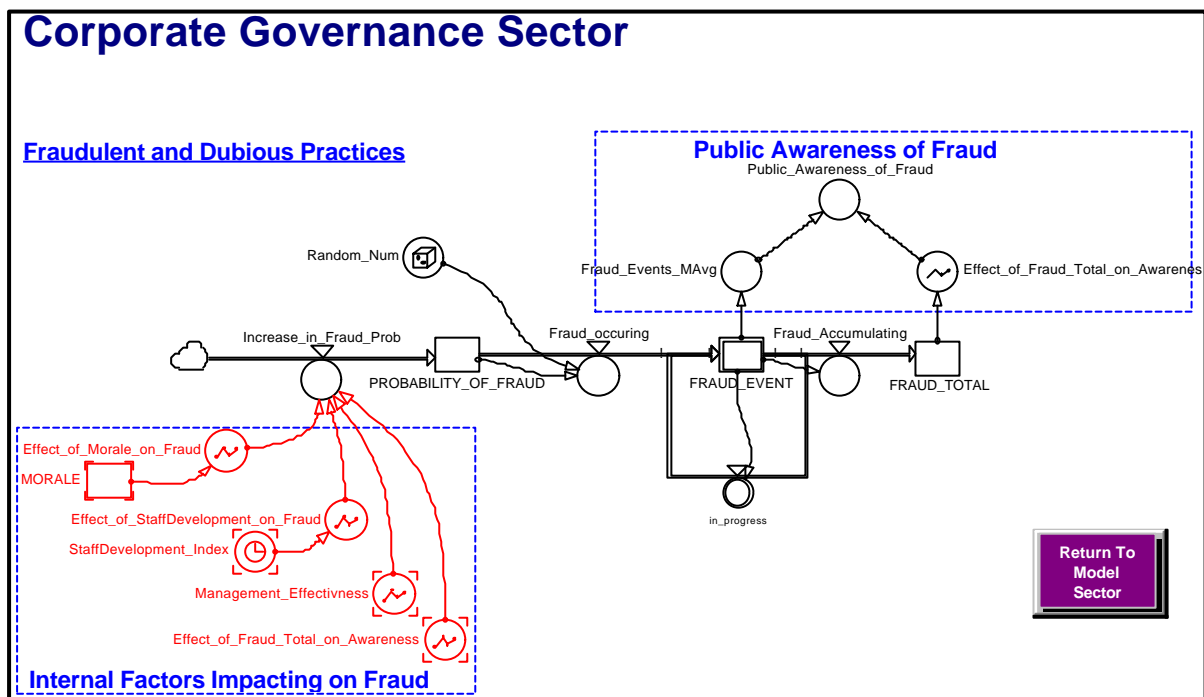


Corporate Governance & Corporate Health

We have been undecided whether corporate governance and corporate health should be regarded as sectors in their own right of the Federal Public Sector Balanced Scorecard. On the one hand, Corporate Governance might be viewed as a key indicator in the Customer Sector, whilst Corporate Health might be an indicator for the Internal Process Sector. On the other hand, failures in these areas tend to have major political implications for the Minister and the Government as well as significant feedback interrelationships with the other sectors. This suggests that they might appropriately be considered as sectors in their own right. A firm decision has yet to be made in this regard.

The Australian National Audit Office (ANAO) defines corporate governance to encompass authority, accountability, stewardship, leadership, direction and control.² The dynamics BSC model, at this stage, uses fraud events as a general surrogate for the effectiveness of governance across the broad range of departmental activities.

Figure 7: Corporate Governance Sector of Dynamic Balanced Scorecard



Model Output

At the time of writing this paper, only illustrative reporting screens have been developed. Figure 8 is an example. It is apparent from discussions with departmental staff that ultimate use of the simulator will depend as much as anything on the “look and feel” of the output screens. The current version of Powersim has limited flexibility in screen design and it is likely that custom screens will be developed in Visual Basic or C++.

Future Developments

Model Validation & Verification

Whilst basic validation has been carried out during model construction, a wide range of parameter values at this stage are simply based on the judgement of experienced public

² ANAO, *Applying the Principles and Practice of Corporate Governance in Budget Funded Agencies*, Australian Government Publishing Service, Canberra 1997.

service officials. Analyses will be undertaken to identify the model's sensitivity to such parameters and the more significant ones will be subject to more detailed research. At the same time a very wide range of management literature is being reviewed to provide as much support as possible for the key relationships.

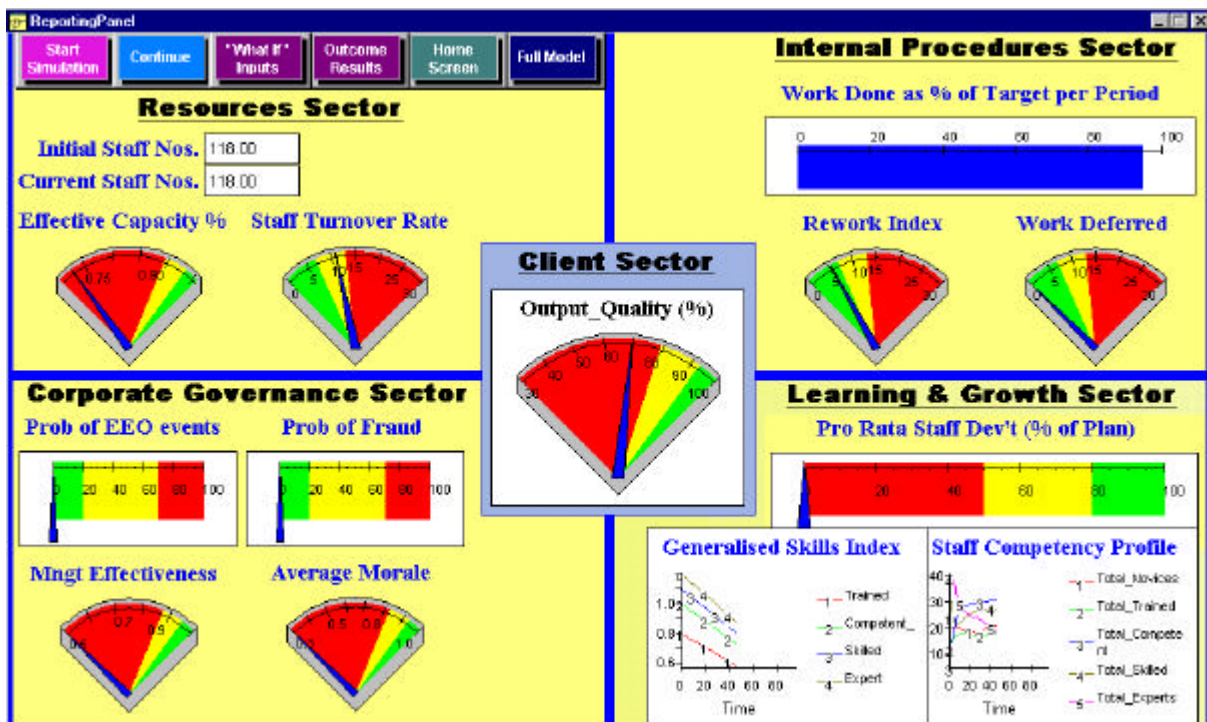
Integration With Departmental Work Plans

The next stage of the project will involve a detailed strategic planning session with senior managers to identify branch activities, outputs and performance indicators. The template at Annex 1 was developed to guide discussion. Following this a high level model will be developed relating the work inputs and key output indicators. This would then be integrated with the output quality driver from this model.

Integration With Balanced Scorecard Software

The final stage of this project will be to link the dynamic simulator with the Department's proposed enterprise information system. At this stage no firm decision on the software has been made: contenders include SAP, PeopleSoft and CorVu. The model design is such that it should be relatively straight forward to draw base data directly from the corporate system.

Figure 8: Illustrative Output Screen for the Dynamic Balanced Scorecard



ANNEX A: 2000-01 Business Planning Development Template

OUTCOMES CONTRIBUTING TO STRATEGIC DIRECTION:

Include those outcomes that the business unit contributes to: eg.

Outcome 1 – A cultural environment that enriches the lives of all Australians)

Outcomes 2 – A competitive and diverse communications and information technology industries and services

OUTPUTS CONTRIBUTING TO OUTCOMES:

Outcome 1

Include those outputs that the business unit contributes to outcome 1 eg.

Output 1.1 - Advice on the policy and regulatory framework for cultural heritage

Output 1.2 - Programs which support national organisations of cultural excellence

Outcome 2

Include those outputs that the business unit contributes to outcome 2

Output 2.1 – Advice on the policy and regulatory framework for communications industries

Output 2.4 – Administer departmental programs to promote access to communication services

OUTPUT 1.1

STRATEGIC OBJECTIVE	KEY STAKEHOLDER	CORE PROCESS	PROJECT / ISSUE	ACTION ITEM	LINKAGE TO OTHER BUSINESS UNIT/S

PERFORMANCE MEASURES 1.1

QUALITY	QUANTITY	TIMLINESS	COST	PRICE	STAFF YEARS

RESOURCES FOR OUTCOME 1:

DEPARTMENTAL EXPENSES	OUTPUT 1 (\$'000)	OUTPUT 2 (\$'000)	Total for outcome 1 (\$'000)
Employee expenses			
Supplier expenses			
Other operating expenses			
Capital expenses			
Own sourced revenue			
Administered Expenses:			
Subsidies			
Grants			
Other			
Independent revenues/other revenues			