

## Chapter 6

### Measuring progress

There are two main purposes for measuring intangible assets and two main parties who will be interested in the results.

- In the ***external presentation***, the company describes itself as accurately as possible to stakeholders, customers, creditors, and shareholders so they can assess the quality of its management and whether it is likely to be a reliable supplier or a dependable creditor.
- ***Internal measurement*** is undertaken for management, which needs to know as much as possible about the company so that it can monitor its progress and take corrective action when needed (Sveiby, 1997, p 163).

## 6.1 Introduction

At an intuitive level it could be assumed that much progress has taken place. This chapter will however be utilized to investigate and provide factual evidence that the intellectual capital management philosophy was beneficial for the CSIRIS IMPS service as a whole. As such, the purpose of this chapter is threefold. Most importantly, the intention is to set a benchmark so that activities to follow will have a set of results against which to measure progress. A secondary aim is to record the growth that has taken place during the study period and, thirdly, the aim is to identify the priority actions that have to be taken forward to the phase of development that should take place after the completion of this research. The process followed to gather evidence and identify priority actions is provided in the section below. Section 6.4 provides insight into the reaction of stakeholders when they were provided with the *IMPS Intellectual Capital Report*.

## 6.2 Process followed

As was referred to in section 1.3, research stretched over an 18-month period. At the onset of the research a detailed situation analysis was completed. The result of this situation analysis is reflected in [section 5.2](#) on page 5.10. From then progress was monitored informally. A formal review of progress was carried out at the end of the study period. The results of the review were used to create an intellectual capital report for the CSIRIS IMPS section. A self-assessment template, introduced within the CSIR in 2002 and which line programmes are required to use when measuring **their** results, was adapted and utilized for this purpose. The CSIRIS *IMPS Intellectual Capital Report* is provided as Attachment 1.

In terms of the actual measurement, it was decided to make use of a variety of methods to gauge progress. The methods implemented to gather feedback and proof of growth and satisfaction were discussed in more detail in [section 1.5](#) on page 1.7. To measure human capital development specifically, a skills audit was carried out to establish a complete list of skills as well as to create a skills development plan for the section. Secondly, the contributions to the staff newsletter were analysed as an indicator to establish the extent to which staff members were learning from each other. Staff satisfaction was measured through a series of group interviews at the start of the second implementation phase and through focus group discussions at the end of the research period.

In selecting appropriate questions for the focus group discussions, it was decided to reword and make use of the 'new signs of trouble' list that was created by Stewart (1997, p 201). Attachment 3 provides both the questions and the instructions given to the facilitators prior to the discussions. No managers or staff members regarded as managers (union representatives) were included in the focus group discussions. Staff members were divided into two groups. It was deliberately decided to split the groups by race to ensure that groups were as uniform as is possible but also to make provision for the use of indigenous languages during discussions. A deviation from the classic focus group compilation is that both facilitators and group members knew each other. This is in contrast to the advice of the authors consulted but, as

discussed in section 1.5 and because staff satisfaction was the topic of discussion, this was not seen as detrimental to the process. Staff members are familiar with single-hour meetings and discussions and, because there was no need for lengthy introductions, it was decided to limit the focus group discussions to an hour rather than the usual two-hour session. Participants were given the opportunity to send further comments to the facilitator for a period of two working days after the discussion. The two facilitators were briefed a week in advance of the group discussions. Both tested and understood the instructions given in Attachment 3.

Progress in terms of the development of structural capital was mainly measured through an analysis of the available IMPS documentation on the Intranet; evaluations of available usage statistics; and of results gained from benchmarking the cataloguing and ILL processes.

A Delphi exercise was used to gain feedback from information specialists (as first line customers). The e-mail communication initially sent to the information specialists as well as the subsequent iterations of the questionnaire are reflected in Attachment 4. The exercise not only polled satisfaction but was also very useful to gather information on what these customers regard as:

- the most crucial issues to address; and
- which aspects should be seen as achievements to build upon.

As a last step to test results, the *IMPS Intellectual Capital Report* was made available to IMPS stakeholders. (Stakeholders for IMPS, as was discussed in section 5.4.1 on [page 5.26](#), are seen as the CSIRIS director, front line managers and union representatives.) In the case of the stakeholders, it was decided to gain feedback through personal semi-structured interviews. This approach was thought suitable because it would provide the opportunity to gain personal feedback outside the meeting space, which could be confused with the normal work interaction. As discussed in section 1.5 on [page 1.9](#), Westbrook (in Powell, 1997, pp 150-151) and Zemke and Kramlinger's (1982, p 101-103) general advice for preparation and conducting personal semi-structured interviews was followed. Each interviewee was provided with access to the report (see instructions in Attachment 5) prior to the interview. The guiding questions for the personal interviews as well as a list of priority actions that came from the *IMPS Intellectual Capital Report* are provided in Attachment 5. The sessions with the stakeholders were used to share information where it was necessary, to prompt for their opinions when appropriate and to identify those actions that they would support as the most important for the next phase of development. The results of the analysis of the IMPS intellectual capital activities, as well as the feedback gained from the stakeholders, are reflected in the next section.

### **6.3 Results**

As a first step, [Table 3.2](#) on page 3.14 was reviewed. The table indicates the phases to expect when implementing intellectual capital management. As Edvinsson (1997, p 370) warned, the phases did not occur sequentially. It is the researcher's

perception that intellectual capital management, within IMPS, is at this stage reaching Edvinsson’s ‘measurement’ phase but that some actions, such as the Intranet development, are already within the ‘technology’ phase. With regard to the steps to take and the strategy to follow, which are also reflected in Table 3.2, a similar pattern is visible. All of the authors quoted in Table 3.2 did make provision for an audit or overview of results, which is the purpose of the rest of this section.

In reviewing the progress made, the situation analysis done in April 2001 was used as a point of departure. Table 6.1 provides a quick overview of the progress made in IMPS (from the situation analysis provided in [section 5.2](#) on page 5.11 to the situation towards the end of the study period).

**Table 6.1: Situation analysis in brief**

<b>April 2001 Human Capital</b>	<b>September 2002</b>
Top-heavy management structure. Little input from staff members.	Reduced number of managers. Staff members have many opportunities to participate and provide input in matters that are of concern to them.
Most staff members have more than ten years experience in exactly the same position.	A number of staff members have been moved to more challenging positions. Areas where change is critical – due to the age profile, have been identified.
Little participation in professional activities.	Increase in activities. The group can vouch for one association chairmanship and two conference papers. Professional society meetings and training sessions are attended regularly by a wide spectrum of staff members.
No visible sharing of knowledge and learning	Still limited but visible sharing is taking place. Staff members are beginning to informally train each other.
Staff room under-utilized.	Utilized to a larger extent but there still are problems that have to be addressed.
E-mail system misused for social activities.	Standard templates for customer communication have been developed. Jokes and fun items are shared via the staff newsletter.
Skills in application software lacking.	Skills are intact and the skill level is growing. Staff members are assisting each other in acquiring new knowledge about applications.
Little innovation and/or new products.	Innovation and creativity visible through both marketing activities and the development of web products.

**Structural Capital**

Venue lacking maintenance	All areas were re-painted and carpeted. Communal recreation area upgraded.
Library system not fully implemented	Only one module still needs implementing. Library stock should be fully integrated within the calendar year.
Document management system under-utilized	Document management system has become part of the way things are done.
Advanced features in e-mail system not utilized	Managers all are able to use advanced features and do so regularly. All staff members are able to accept appointments and check the status of their own e-mails to clients.
Intranet interface mainly gave access to brochure ware	Intranet interface gives access to a variety of supplier products as well as organizational memory information. The CSIRIS homepage has been on the list of the 10 most visited sites on the CSIR Intranet since January

<b>April 2001</b>	<b>September 2002</b>
	2002.
PC infrastructure adequate	PC infrastructure adequate but now needs upgrading.
Photocopy equipment needed maintenance	New maintenance contract negotiated. Alternative equipment and work procedure has lessened the dependency on photocopying equipment.
<b>Customer capital</b>	
Contact aimed at selling	Contact aimed at marketing.
Address list was available	Address list transferred to a more user-friendly system. Updated and maintained regularly.
Marketing was an 'add-on'	Marketing is the responsibility of a task team. The task team is functioning very efficiently. A marketing plan has been prepared and implemented. Marketing material is used effectively.
Little evidence of branding	Own brand is well established internally. It is used consistently on the Intranet, marketing e-mails and promotional material. The CSIR brand is used for external communication.
Customers had no insight into price structuring	Customers do have insight into why and when handling fees are charged.
<b>Financial capital</b>	
Staff had no insight into financial responsibilities and accountabilities	Staff members are conscious of expenditure and income.
Little control over private use of telephones and stationery	Private use is monitored and controlled.
Rationale behind pricing was not documented	Rationale documented and applied consistently.
Relationship with stakeholders was very limited.	An established and managed relationship with all stakeholders.

From this brief analysis it was clear that progress had taken place. It was therefore seen as appropriate to continue with a more detailed review. Attachment 1 gives access to the detailed analysis while sections 6.2.1 to 6.2.5, provide the outcome of an analysis of the progress made. The first aspect evaluated and discussed is human capital development.

### **6.3.1 Human capital**

From [Table 5.4](#) on page 5.46, the following activities were identified to evaluate growth in human capital development and staff satisfaction:

- 1 An audit of staff skills and an evaluation of the human resource development plan.
- 2 Staff satisfaction monitoring through
  - a interviews;
  - b focus group discussions;
  - c an analysis of 'gripes and whines' sessions and staff meeting participation; and
  - d an analysis of the staff newsletter.
- 3 A review of task group activities.

Sections [one](#) and two (pp A1.7-A1.19) in Attachment 1 provide the detail of the evaluation. From the results of the evaluation, it is possible to report the following strengths with regard to human capital development:

- Staff members are willing to develop their own skills.
- The work environment is supportive.
- The skills required to perform the IMPS tasks are available and being used.
- The document delivery section has the strengths and skills level necessary for the continuation of that service.
- Although it still needs cultivation, a relatively strong and reliable professional network does exist.
- The work environment allows for the participation of all staff members in the review of processes.
- All staff members are prepared to contribute in order to improve the work environment.
- At least 62 % of the staff members are younger than 50 years of age.
- A staff newsletter is in place and is being utilized successfully.
- Staff members are contributing to the process of identifying weaknesses within the service. They are also assisting in finding solutions to these problems.

However, the following weaknesses will need to be addressed during the phase following this research:

- In terms of skills development it is necessary to re-evaluate the significance of value chains, as discussed in section 4.5.4 on [page 4.22](#). It appears that the skills associated with the intangible value chain need more attention. Although a skills development plan has been developed, it needs to be re-evaluated specifically keeping the intangible value chain skills in mind. The plan also needs to be implemented and evaluated for success.
- Skills levels have not yet been properly benchmarked and, as a result, some staff members have an unrealistic perception of their own skills level.
- Staff members who do not perform core IMPS functions are not being accommodated in terms of their skills development.
- An obvious weakness in terms of the skills development plan, is that, although a relatively large percentage of staff members (38 %) are older than 50, there is no indication that provision has been made for the acquisition of retirement life skills.
- In terms of the transfer of knowledge, only 'mentoring' is seen as a required skill. Other options need to be further investigated.
- The identified strengths within IMPS have not been prioritised nor tested for true value. It is difficult to develop competitive advantage without that knowledge.
- Information management skills transfer does not receive any priority attention, and yet in terms of cataloguing expertise there is a real threat that expertise could be lost within a very short period.
- The process of research, to develop professional skills, needs to be accelerated. Where research has been conducted, it is essential that the research be reported to the professional fraternity for peer review and feedback.
- A tendency to divert attention by blaming colleagues needs to be closely monitored.

- The imbalance in age distribution within the information management group needs to be addressed.
- Although sufficient resources are available, there is lack of evidence that systems are being optimally utilized.
- Not enough is being done to share experience amongst each other and the staff members of the preferred partner, UP AIS.
- The Black/White perceptions have not been sufficiently addressed.
- Job commitment (in contrast to commitment to the employer or colleagues) is not always at an acceptable level.

From the list of weaknesses it is clear that much work still needs to be done. However, having identified what needs to be addressed, it is anticipated that it should be a relatively easy task to make rapid progress. A number of actions were identified to address the identified weaknesses. Stakeholders were requested to assist in prioritising these actions. The complete list of actions is provided in Attachment 5 ([page A5.3](#)) and the first part of [section 6.3.5](#) on page 6.12, gives the detail of those actions that were seen as the most important to address. Structural capital, which is addressed next, showed very definite strengths but a number of weaknesses were also recognizable.

### **6.3.2 Structural capital**

The following activities to evaluate growth in structural capital development were identified in [Table 5.4](#) on page 5.45:

- structural capital audit and analysis of available statistics;
- audit of process re-engineering;
- audit of repositories and systems; and
- review of new products and services.

[Section three](#) (pp A1.22-A1.32) in Attachment 1 provides the detail of the evaluation of the IMPS structural capital. From the analysis it was possible to identify the following strengths with regard to structural capital development:

- in cataloguing, there is an ability to adhere to national and international standards;
- a wide variety of available products was made accessible to researchers within the CSIR;
- knowledge about the evaluation of information products has been acquired and implemented;
- the core documentation collection has been established (but not enough effort has been placed on the development of the collection);
- the core IMPS processes are in line with those of its strategic partner and, in the case of cataloguing, in line with that of the best in the country;
- a benchmark process has been established and suitable benchmark partners have been identified;
- the IMPS information management group has been part of the initialisation of the investigation into the state of cataloguing in the country;



- long-standing relationships with reliable suppliers are intact;
- information about e-product suppliers is readily available;
- a strong network, which includes key staff from CSIRIS IMPS and UP AIS, has been put in place;
- a well developed but non-formal network with staff at the science councils is in place; and
- the reliability of the CSIR ICT infrastructure is seen as a competitive advantage.

The following challenges still need to be faced:

- Information technology equipment not functioning at minimum network standards needs to be replaced as a matter of urgency.
- Clients have a need to be more closely involved with the weeding-of-stock process.
- A process to manage expectations, created when electronic products are tested (trial periods), is not in place.
- There is currently no follow-up evaluation to establish if trial users continue to make use of the products after subscription. A method of control should be built into the process.
- A regular review schedule for internal documents needs to be established.
- Use of the available documents/items (on the document management system or via the Intranet) is not being monitored for usefulness.
- The paper filing system has not been integrated with the electronic system.
- Journal administration is still done via a separate system. The administration should be transferred to the central library system.
- 'IMPS'-type departments within benchmark institutions are considerably larger than that of the CSIRIS IMPS section. It is necessary to also benchmark with smaller and non-academic institutions.
- Knowledge about key suppliers is available but is not shareable in its present format.
- The similarity in the demographics of staff members between UP AIS and IMPS does not allow for creativity and 'out-of-the-box' thinking.
- There has been very little activity in allowing staff members to actually share the experience of working within each other's departments during this review period.
- The partnership between CSIRIS and UP AIS is an enigma to colleagues in the professional associations.
- Some staff members are lacking appropriate knowledge to utilize pieces of equipment to their full capacity.

A number of priority actions were identified to address these issues. Stakeholders were requested to assist in prioritising the actions. The complete list of actions is provided in Attachment 5 ([page A5.3](#)) and section 6.3.5, in this chapter, gives the detail of those actions that were seen as the most important to address. The next section provides more details about the strengths and weaknesses associated with customer capital.



### 6.3.3 Customer capital

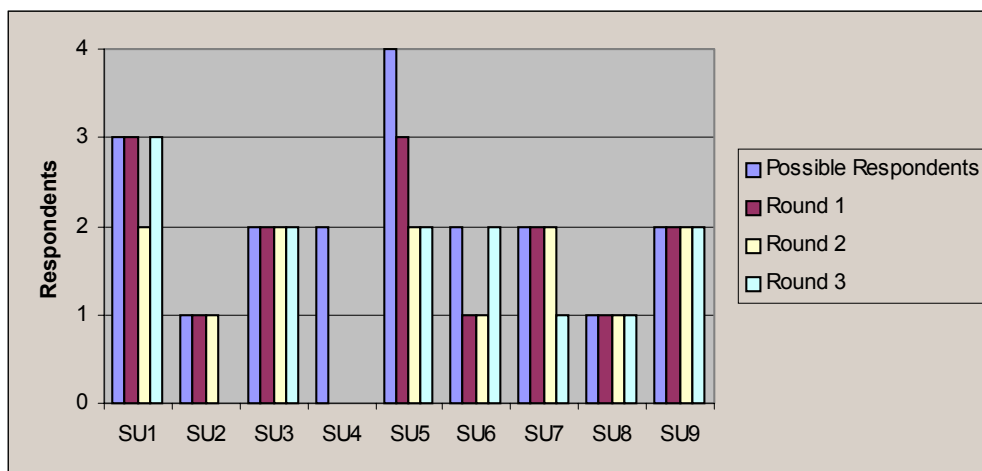
The following activities to evaluate growth in customer capital development were identified in [Table 5.4](#) on page 5.45:

- feedback from first line customers using the Delphi technique;
- analysis of usage statistics for new supplier products – second line customers (researchers).

Before the results are discussed, it is interesting to note that the electronic Delphi exercise was seen as a successful, easy and quick technique to gain reliable feedback. The Delphi exercise should also be regarded as the most important source of feedback for this section of the report. The way in which the classic Delphi technique was adapted to suit the context of the research was discussed in section 1.5 on [page 1.10](#).

In conducting the Delphi exercise, 19 clients were approached for feedback. In round one, there was 79 % (15) participation, which dropped and stabilized to 68 % (13) in round two and three. Only one strategic unit did not participate. Figure 6.1 provides a graphical representation of the participation.

**Fig 6.1: Delphi participation**



[Section four](#) (pp A.1.32-A1.34) in Attachment 1 provides the detail of the feedback received. The following strengths with regard to customer capital development were identified:

- Front line clients appear to be comfortable with the process where staff members other than themselves deliver back office services.
- The new staff induction process provides a good example of constant improving and learning from experience. This process needs to be rolled out to other sections as well.
- Marketing efforts are based on fact rather than on perceived needs.

The identified challenges provide proof that perceptions need to be managed. The areas that need improvement are the following:

- The intellectual property administration process is not functioning optimally.
- Clients need more insight into the information management process.
- Customers have a perception that they were not consulted during the weeding of stock. The perception needs to be addressed.
- There appears to be enough contact in establishing a relationship with the customers' customer but there is too little maintenance of the relationship as very little contact is maintained afterwards. The relationship with the front line is also not receiving the attention it needs.
- There is also a perception that the intellectual property administration process is not functioning optimally.
- Too little progress is being made in terms of external business creation, mainly due to time constraints and a lack of confidence in the 'salesmen'.

A number of priority actions were identified to address the issues raised by first line customers. Stakeholders were requested to assist in prioritising the actions. The complete list of actions is provided in Attachment 5 ([page A5.3](#)) and section 6.3.5, in this chapter, gives the detail of those actions that were seen as the most important to address. It is also necessary to mention that, although it may not have been identified as a specific action, there is a definite need to enlarge the base from which to test customer satisfaction amongst research staff. (Research staff members were not approached, as it was not seen as appropriate to do a customer survey for the IMPS section only within the larger CSIR.)

Apart from the Delphi exercise, the usage statistics for new products were also analysed as part of customer capital. The two specific products in question are ScienceDirect and EbscoHost. The detailed usage of these products was recorded in [section 5.1](#) of Attachment 1. In general it is possible to say that, according to usage statistics from the suppliers, the average number of pages viewed within ScienceDirect has been just less than 9 000 per month. Between 150 and 700 search sessions are taking place per month and, as a result, on average 1 000 full text articles are downloaded from the system. From that it is possible to deduce that the system is being utilized. Taking the total number of researchers within the CSIR into consideration (in [section 5.1.1](#) on page 5.3 it is indicated that 1443 members of the full staff complement are registered as users within the library system), it is of concern that the product is not utilized optimally. It is presumed that the trend is due to the fact that researchers at present have access to both paper and electronic journals. This dual subscription practice is set to stop at the start of the next financial year. The next six-month period should therefore be utilized to again market the product extensively.

All 10 databases available via EbscoHost are being accessed. Usage statistics for this product are not as extensive as those provided by ScienceDirect. It is however possible to report that the CSIR's usage of the product compares favourably with

those of the larger South African technikons. It is recommended that the supplier is approached to ensure that more usable statistics are made available. Without such statistics it will remain impossible to make useful deductions about the usage of the product amongst researchers.

Weaknesses associated with the supplier products (such as the lack of reliable statistics in EbscoHost) were addressed as part of stakeholder capital and will again be addressed in the next section, which relates to stakeholder commitment. Because of the explicit aim not to confuse researchers who are not concerned with the fact that IMPS is only one section within CSIRIS it was, within the context of this research, rather difficult to separate stakeholders from customers. The next section does, however, provide detail that relates to the relationship with IMPS' internal stakeholders. It is also necessary to already mention that actual financial figures were not used as part of this research project as it was not seen as appropriate to do so.

#### **6.3.4 Stakeholder commitment as part of financial capital**

[Table 5.4](#) on page 5.45 specifies the following activities to evaluate growth in financial capital:

- personal semi-structured interviews;
- measurement against the mission of the group;
- analysis of activities, to provide proof that the IMPS group is building an infrastructure that is aligned with an e-business approach; and an
- analysis of available supply chains.

The reason for including stakeholders within the financial capital review was discussed in section 4.5.5 and [Figure 4.5](#) on page 4.31 illustrates 'stakeholder-financial' capital in relation to the other capitals. Because stakeholders are seen as part of the IMPS financial capital, their opinion on the development of intellectual capital as well as the financial management within IMPS was polled through personal, semi-structured interviews. The result of these interviews is discussed in more detail in section 6.4 of this chapter.

In addition to the semi-structured interviews, a number of performance indicators (improved asset utilization and the availability of effective supply chains) were identified (in lieu of actual financial figures) and discussed in section five of the *IMPS Intellectual Capital Report* (see Attachment 1 [section five](#) (pp 34-40)). From the evaluation of these indicators, it was possible to identify the following strengths with regard to financial capital development:

- the availability of statistics from suppliers;
- the fact that income targets were met and expenditure was kept within budget; and
- the availability of information about products, suppliers and services.

In terms of weaknesses, the following would need attention:

- The lack of comparable statistics relating to the use of paper-based products and services makes attempts to provide proof of customer independence to speculation.
- The perception of low information literacy levels of research staff has not yet been tested.
- The methodology followed for time sheet capturing is time-consuming.
- The report functionality within the central record keeping system (PMS) is not being utilized optimally.
- Very little of the experience gained in negotiating with suppliers over the review period has been captured.

Again, as was the case when analysing the other capitals, in an attempt to address the identified weaknesses a number of priority tasks were listed. The list of priority actions is provided in Attachment 5. Section 6.3.5, below, provides insight into those priority actions that need addressing immediately.

### **6.3.5 Priority Actions**

Trying to address each one of these actions would cause a loss in focus and therefore the list was made available to stakeholders prior to the interview with them (see Attachment 5, [page A5.3](#)). The intention here was two-fold. In the first instance it was an effort to focus on the future rather than to reflect on past performance for a prolonged period. In the second instance, it was to gain commitment from the stakeholders in terms of those activities that they would support when it is necessary to do so. Stakeholders were prepared to assist with the process. They were asked to indicate importance using a five-point scale, where five is most and one is least important. The result of the importance rating is reflected in Attachment 5, [pages A5.10](#) to A5.12. Only those actions that were rated as five- and four-point 'priorities' were then identified as actions to be implemented during the next growth phase. The actions to be implemented are discussed in more detail below.

All development actions listed below are in a random and not any priority order. As has been the case throughout, human capital development activities are more extensive than activities associated with any of the other capitals. This should not be seen as a major concern at this stage but the trend needs to be monitored to ensure balance in intellectual capital development. The most important identified human capital development activities are the following:

- Develop an objective tool against which staff members can test their own skill levels.
- Establish a reliable benchmark for IMPS skills levels.
- Test the validity of the identified document delivery strengths and build the appropriate skill levels to maintain the expected standard.
- Develop and implement a plan of action to minimize the risk within the information management section.

- Include professional research in the skills development plan for all professional staff.
- Complete the skills development plan and implement.
- Change the distribution of staff in the information management section.
- Develop a strategy to better harness the diversity within the IMPS group.
- Establish a plan to ensure that communication (especially from management) items are placed in the 'CSIRIS on Friday' newsletter - **regularly**.
- Create a strategy to address issues raised during staff satisfaction focus group discussions. The strategy should address:
  - Perceptions based on cultural differences.
  - The use of the staff tearoom.

Of these items it would in all probability be necessary to address staff satisfaction issues first as these will have an impact on the way in which all other activities will progress. Items such as the skills development plan and placing communication articles in *CSIRIS on Friday* have already been initiated and will not be as difficult or time-consuming as a strategy to harness the diversity in the group and addressing staff perceptions about cultural differences. Developing an objective tool against which to measure skill levels and then establishing a benchmark go hand in hand and could therefore be seen as a single project.

In terms of structural capital development, the following could be seen as the most important issues:

- Place greater effort on the development of the CSIRIS documentation collection. A regular review schedule needs to be established, the use of the available items should be monitored and the paper filing system has to be integrated with the electronic system.
- Benchmark the 'evaluation of new e-products' process should be benchmarked with that of the strategic partner.
- A core group of trial product users (early adopters amongst the researchers) should be established.
- Transfer journal administration to the central library system.
- Identify strategic partners, similar in staff size and library budget, without jeopardizing the existing relationships with academic partners
- Benchmark the suppliers with those of the strategic partner.
- Initialise a process to monitor key/core suppliers.
- Develop the relationship with partners in the science council community.
- Build the image of CSIRIS IMPS as a strategic partner within the profession by sharing joint knowledge where possible.
- Evaluate the basic understanding of the use of equipment and augment the understanding with a knowledge/skills development exercise.
- Complete an evaluation of the available equipment for strategic planning purposes.
- Integrate systems to stop the duplication of work

Again, some of these activities have already been initiated and it should therefore only be a question of building upon what is already in place. Transferring the journal

administration to the library system is a comprehensive and important task and that should definitely receive priority attention. It will also be a first step towards integrating systems so that duplication of work can be eradicated.

Fewer actions were identified in terms of customer and financial capital development. All of these appear to be achievable. In terms of customer capital development, the following are required:

- Fully review the ILLs/document delivery processes and include a proper investigation into a recording system that is accessible to end users/clients.
- Re-engineer the process that relates to research report administration.
- Initiate a process to evaluate client satisfaction for CSIRIS as a whole.
- Develop an action plan to build relationships with the front line staff.
- Formulate a complete business plan for the external income drive. The plan should make provision for appropriate human resources.

Re-engineering the research report administration urgently needs addressing, as a revised process should be in place before the start of the new calendar year. The knowledge gained while negotiating supplier contracts, which is part of the identified financial capital development activities listed below, also needs to be done as soon as possible. Other financial capital activities are to:

- initiate a process to reliably establish information literacy levels;
- develop a strategy, which would ensure an increase in information literacy levels throughout the CSIR;
- create a system to use report functions within the available system (PMS) more effectively;
- investigate alternative methods of recording time spent on projects so that less time needs to be spent on recording the action;
- capture the knowledge gained about the existing supply chains;
- formalize the process to select and ensure the reliability of electronic supply chains; and to
- remove the costing differences between SUs.

As referred to at the beginning of this section, the list of actions is extensive and, should it become necessary, the number of actions should be reduced further in order to ensure that activities that are implemented are accepted by staff and will build customer satisfaction and trust.

The process of identifying strengths, weaknesses and priority actions has been very rewarding as it was possible to also identify those actions that could be regarded as good practice within CSIRIS. Section 6.5 provides recommendations as to which of these actions should be implemented throughout CSIRIS. The section below provides more insight into the general feedback received from stakeholders in response to the *IMPS Intellectual Capital Report*.

#### **6.4 Stakeholder reaction to the *IMPS Intellectual Capital Report***

Stakeholders responded very positively to the idea of an *IMPS Intellectual Capital Report* available. They were impressed with the accomplishments of the group. Stakeholders did not require any additional information prior to the start of the interviews. Attachment 5 provides the full details but, in terms of general perceptions, the following statements were made:

- There has been an improvement within IMPS. What is being done is working! Some of this should be rolled out to the front line.
- The clients' perception about the service/unit has improved tremendously. This is mainly due to resolving identified problems but also due to the introduction of electronic services.
- Communication is a problem throughout CSIRIS and the *IMPS Intellectual Capital Report* is a case in point. Many of the actions implemented in IMPS are not known to the front line.
- As general comment: appointing a client liaison officer was a good decision. It has enhanced the CSIRIS image.
- Apart from what has been written in the report, it is possible to say that the situation within IMPS is calmer than before. However, because there is an ever-present national threat of privatisation, it should be expected that staff members would react negatively towards any attempts to make them independent. Similarly, staff members in general do not like change. As a result, dissatisfaction should be expected when change occurs.
- The list of actions is very comprehensive – it is difficult to identify anything that was not addressed.
- The actions were rather intensive. It may have been better to distribute the actions over a longer period of time.

Stakeholders indicated that the operational issues listed below need attention. It is a concern that many of these items were not identified while completing the intellectual capital review. The items that need attention are:

- There is a perception that IMPS staff members do not know where the library collection is. Perhaps it is just a question of training staff members in dealing directly with clients but at present it reflects as inefficient service.
- The systems are not fully integrated and clients seem to be battling to find answers.
- As far as ILLs are concerned, it is of concern that Sabinet Online records are not totally up to date. This reflects badly on filling rates.
- The security of the stock is a big concern. The fact that the stacks are now being locked is a big improvement. IMPS staff needs to do proper stock control.
- Abbreviations should not be used in the catalogue as staff members find them difficult to interpret.
- The service has improved, but there is more room for improvement.
- There are still some concerns over staff members not providing feedback on progress.



- There are also complaints about the journal circulation slips not looking professional.

Although actual financial figures did not form part of this report, stakeholders are aware of the IMPS financial performance. In general stakeholders were impressed with the way in which the IMPS finances were managed. Nonetheless, there were two specific issues that was felt needed attention. These are to:

- Standardize the way in which SUs have to pay for services such as ILLs and cataloguing. The current arrangement allows for too much discrepancy.
- The journal renewal procedure, which impacts on the entire budgeting process, is still too cumbersome. It should be streamlined.

Stakeholders think that benchmarking against the processes followed at UP AIS is good practice. They indicated that the following also needed to be benchmarked:

- The document delivery process. Especially in terms of delivering items from an institution's own collection to its staff. The purpose would be to establish a realistic turn-around time expectation.
- Web presence, especially the desktop products and services which are available to end users from other library web interfaces, needs to be benchmarked.

In general stakeholders appeared surprised that so many documents were already available centrally. When asked what additional documents should be made available via the CSIRIS web interface, the following was suggested:

- Front line documents, for example guidelines, policies and procedures. The focus should be to create knowledge for staff members who have to do relief-work during holidays.

The following were also mentioned:

- centralizing the filing system would be beneficial, as it would force everyone to sort out his or her own system; and
- there should be a strong focus on business English. All communication documentation should be standardized and made available as part of the Intranet collection.

General advice from the stakeholders was collected and listed. The items of advice include the following:

- IMPS staff members need to consider practicing patience with each other, in response to the issues associated with cultural differences.
- It is recommended that a set of work ethics or acceptable 'office' behaviour guidelines be drawn up for and by staff, also as a response to issues associated with cultural differences.

- Job switching may open new avenues for staff members; the option should be investigated as further skills development.
- The IMPS personal monitor has brought in a measure of objectivity, which is positive, but staff members do not fully comprehend the aim and goal of the monitor. These should be explained in full.
- It is necessary to investigate and integrate the work being done on skills development with the CSIR's four-stage career model<sup>1</sup>. It was seen as a weakness that there is no obvious linkage with the standardized CSIR practice. This matter needs urgent attention.
- Staff members should be allowed to acquire skills that will allow them to understand the nature of the business. They need 'skills' to understand which skills are necessary to make progress in their careers (skills for upward mobility).
- Staff should be given more choices by encouraging multi-skilling.

As a last comment, it is necessary to mention that **CSIRIS** stakeholder attitude was definitely influenced by positive interactions with CSIRIS customers. The fact that stakeholders were surprised that so much had taken place within the IMPS environment can be seen as an indication that it was a mistake not to build more strongly on the same model in terms of the **IMPS** stakeholders.

## 6.5 Conclusion and recommendations

From the review, it is clear that significant progress has been made in establishing a basis for further intellectual capital development within CSIRIS IMPS. It is recommended that the practice also be introduced to the CSIRIS front line. In doing so, the following good practices should be noted:

- Establishing staff perceptions about their own skills and competencies was a very useful exercise. It identified the need for objective tools to measure skill levels. It also provided a basis point from which to move forward.
- The review of staff satisfaction at regular intervals, using a variety of methodologies, paid dividends and should be continued.
- Using a variety of smaller satisfaction polls at regular intervals is a good way of keeping in constant touch with client satisfaction as well.
- The use of the staff newsletter as a communication and knowledge-sharing tool is recommended.
- The relationship with a single reliable partner has worked well. The experience gained from the interactions will be invaluable in the fostering of relationships with further partners but also with other sections within the UP AIS.
- Being able to focus attention on the evaluation of core processes only has ensured that the evaluations were done in such a way that the evaluation and improvement of subsequent processes would be a relatively easy task. A

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<sup>1</sup> The CSIR makes use of a 4 stage career model. *Career stage 1:* Someone who works under supervision, *Career stage 2:* An independent worker, no longer working under supervision, *Career stage 3:* Someone who works through others, who supervises, *Career stage 4:* A sponsor, an influencer, a renowned expert. All staff are 'classed' according to this model.

similar process could ensure that the core front line activities could also be evaluated and improved.

- A validated market survey focuses attention. It allows for the development of appropriate marketing material and for targeting appropriate customers so that it becomes relatively easy to market products and services.
- A comprehensive analysis of supplier products gives confidence in the selection of a specific product.

Lastly, it may also be of value to ensure that the virtual silo that exists between the front and the back line staff members within CSIRIS is addressed so that the group can function as a single entity. Structuring the service (and therefore the staff members) to address each of the capitals rather than the front and the back line may be very useful.

## **6.6 Summary**

This chapter provided an overview of the results achieved through the introduction of intellectual capital management within the CSIRIS IMPS section. Both strengths and weaknesses were identified after the *IMPS Intellectual Capital Report* (see Attachment 1) was compiled. From the weaknesses, a number of priority actions were identified and listed while the strengths provided a good lead as to what could be considered good practice. Stakeholders were asked to make use of the list of actions and to assist in identifying only those items that should be addressed during the next review period. A condensed list of priority actions is reported in section 6.3.5. The last part of Chapter 6 was used to report on the stakeholder reaction to the intellectual capital report and to provide a number of recommendations as a consequence of what was established during the review process. Chapter 7 provides an overview of the results achieved and some conclusions reached and also recommends areas for further research.