



Ministry of Economic Development

Business Evaluation of the Intellectual Property Office of New Zealand: Final Report

November 2009

Mr Ross van der Schyff
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205 Victoria Street
Wellington

23 November 2009

Dear Ross

Business Evaluation of the Intellectual Property Office of New Zealand: Final Report

We are pleased to present our report on business evaluation of the Intellectual Property Office of New Zealand. Our report has been prepared in accordance with our contract dated 27 July 2009.

We would be pleased to discuss any aspect of this report with you further.

Yours sincerely



Debbie Francis
Partner



Richard Forgan
Director



Craig Reid
Director

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We have not independently verified the accuracy of information provided to us, and have not conducted any form of audit in respect of IPONZ. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied. The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise. The statements and opinions expressed in this report are based on information available as at the date of the report.

We reserve the right, but will be under no obligation, to review or amend our Report, if any additional information which was in existence on the date of this report was not brought to our attention, or subsequently comes to light.

This report is issued pursuant to the terms and conditions set out in our Contract dated 27 July 2009.

1. Executive Summary

Introduction

This report summarises the findings of our business evaluation of the Intellectual Property Office of New Zealand (IPONZ) operations. The project's core objectives were to:

- determine service expectations;
- review operations; and
- recommend future direction and scope resources.

Context

Over the next three years, proposed legislative changes arising from the Patents Bill and The Trademark (International Treaty and Enforcement) Amendment Bill will significantly change the way in which IPONZ undertakes examinations. At the time of this report, both pieces of legislation were before Select Committee. These pieces of legislation seek to bring New Zealand's intellectual property legislation into line with global norms.

In addition to the considerable change in legislation on the horizon, IPONZ are also considering options for the redevelopment of the core registry and case management software that underpins the business ("Project Compass").

Activity around Single Economic Market (SEM) initiatives is also accelerating, with a view to further harmonising and integrating Australia and New Zealand's intellectual property regimes. Harmonisation will only be possible if New Zealand's legislation aligns with Australian legislation, and the quality of New Zealand's examinations is at least comparable.

Costs of Intellectual Property Ownership

IPONZ's fees are potentially as little as 5% to 10% of the total costs to owners of registering intellectual property (whether patents, trademarks, designs or plant variety rights (PVR)).

The majority of applicants' costs lie in:

- Preparing an application; and
- Dealing with questions or objections to the registration.

The consistency and quality of IPONZ's activities can save or create significant costs for intellectual property (IP) owners, far in excess of the fee amounts charged by IPONZ itself for those activities.

As such, any judgement about the efficiency or effectiveness of IPONZ's activities needs to consider how to minimise the "whole of system" costs of IP ownership, not just the costs of IPONZ's services.

This presents a challenge for IPONZ, in terms of how to balance the potentially conflicting objectives of:

- Minimising the total cost to owners of registering intellectual property; and
- Ensuring that IPONZ's regulatory neutrality and objectivity is in no way compromised.

Current Performance

IPONZ's performance in the last 12 - 18 months shows a generally positive trend.

Customers

Feedback on IPONZ was generally positive, and in some cases highly complimentary, from both the profession (Patent and Trademark

Attorneys) and individual owners (both public and private). Many noted that the relationship with IPONZ and IPONZ's demonstration of a customer service ethic, while still open to improvement, was at an all-time high. They also compared IPONZ favourably to overseas IP offices.

Internal

IPONZ's internal culture surveys show a significant improvement over the last year, although it does not yet meet the average for the Ministry of Economic Development's (MED) Business Services Branch.

Staff turnover is lower than in the past, although this is likely to be attributable to the recession and a lack of other employment opportunities (and customers have noted an improvement in consistency of application examinations). IPONZ has also taken the opportunity presented by reduced volumes of new applications to reduce the backlog of unprocessed applications.

The Future

IPONZ is facing serious challenges over the next three years, in terms of the need to implement new legislation and the more complex services that this requires (particularly in the patents areas). As the economy improves, application volumes can be expected to increase again. Further, IPONZ's historical employment patterns can also be expected to reassert themselves (very high staff turnover in the more junior parts of the examination teams).

The future therefore holds a complex change management challenge, in an environment of increasing business-as-usual volumes and increasing staff turnover.

Recommendations

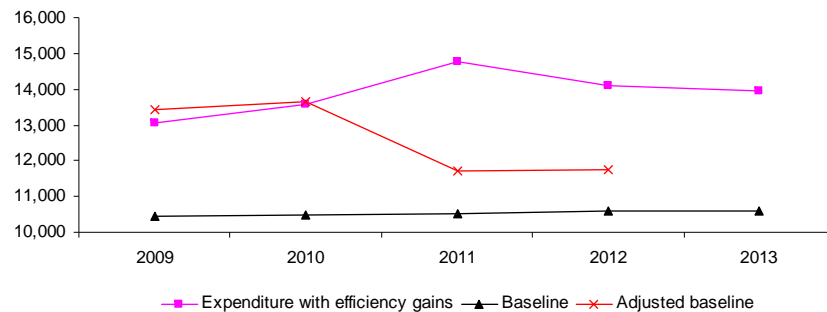
Given the challenges noted above, our key recommendations are as follows:

1. Convert Project Compass from an IT implementation project into a Business Transformation Project.
2. In undertaking the business transformation project, put value to the IP owner at the heart of the transformation.
3. Address the staff retention issue through a career structure review and exploration of alternative employment options; and
4. Increase staff numbers well in advance of the implementation of the Trademarks Amendments Bill and Patents Bill, in order to preserve business-as-usual activity throughout the Bill and IT implementation projects, and train staff in advance of the the new legislation and regulations coming into effect.

Impacts on Funding

IPONZ currently operates with a \$10.5 million expenditure baseline and fiscally neutral adjustments (FNAs) lift this to \$13.6 million per annum (after absorbing a \$1.3 million value-for-money reduction). As a consequence of declines in revenue and increases in costs due to implementation of the new legislation, we would expect IPONZ's annual expenditure to be as shown in the graph below.

Figure 1 Current Baseline v's Expenditure Forecast



Source: IPONZ, PwC Analysis

We therefore recommend that IPONZ's permitted expenditure is increased to \$14.9 million in financial year FY 2011 and set \$14.0 million per annum thereafter.

Due to the extension of the trademark renewal period from seven to ten years from FY2011, revenues will be severely impacted between FY2011 and FY2013 (approximately \$3 million per annum). IPONZ therefore loses the majority of trademark renewal revenue for three years (essentially all such future revenue streams are deferred for that three-year period). Thereafter, when trademark renewal revenue returns to normal levels, IPONZ is expected to achieve a modest surplus.

The existing Memorandum Account balance can absorb the temporary loss of revenue for two years, but dips to a significant negative balance in FY2013.

A fees review will be necessary in 2011, to address in particular the issues of:

- Ensuring that cross-subsidies have not emerged between the different activities (patents, trademarks etc), particularly as a consequence of the increased work in patents examination;

- Accommodate the impact on trademark fees of accession to the Madrid Protocol; and
- Incentivise customers, where possible, into cost-minimising behaviours.

IPONZ will also need to consider whether to increase fees (particularly in patents) so as to ensure that the Memorandum Account maintains a (modest) surplus.

2. Evaluation Process

This section provides some introductory commentary on the context in which the Business Evaluation has been undertaken and the approach.

Scope

The aims of the project are to:

Determine Service Expectations

1. Ascertain industry views of IPONZs' current service performance and identify industry expectations of IPONZ going forward;
2. Assess MED senior management expectations of IPONZ within the wider MED and Government strategic priorities;

Review Operations

3. Assess the efficiency and effectiveness of IPONZ's existing operations;
4. Consider the strategic and operational implications for IPONZ of new legislative and regulatory requirements and initiatives;
5. Assess the resource and other implications of the planned upgrade to IPONZ's core registry and case management software;

Recommend Future Directions and Scope Resources

6. Make recommendations as to:
 - 6.1. Indications for future directions, key business initiatives, and key performance indicators for IPONZ, taking into account the findings of work undertaken under 1 – 5 above.
 - 6.2. Any key changes to the focus, policies, practices, activities, and services of IPONZ that are considered necessary, or desirable to reflect the recommendations of 6.1.

7. Identify:

- 7.1. Implications for IPONZ's expenditure and revenue baselines of the recommendations of 6.1 and 6.2; and
- 7.2. Any adjustment of fees and baselines that are considered necessary to reflect the recommendations of 6.1.

Approach

Our approach has been to:

Gather Information

- Review the policies, practices and services through document and website analysis;
- Conduct interviews with the Group Manager, key line managers and the Commissioner of Patents, Trade Marks and Designs;
- Hold workshops and phone interviews with users of IPONZ's services;

Undertake Analysis

- High-level comparison of key functions and operating metrics with IP Australia and the UK Patent Office, through interviews with each organisation and review of published performance materials;
- Develop a simple financial model for forecasting revenue and expenditure baselines;
- Identify strengths and weaknesses in IPONZ's existing operations, including options for improving performance;
- Identify resource and other implications of new legislation; and
- Prepare a summary of the findings and conclusions for the Ministry.

3. Key Background Information and Context

This section summarises key background information that sets the context for this review.

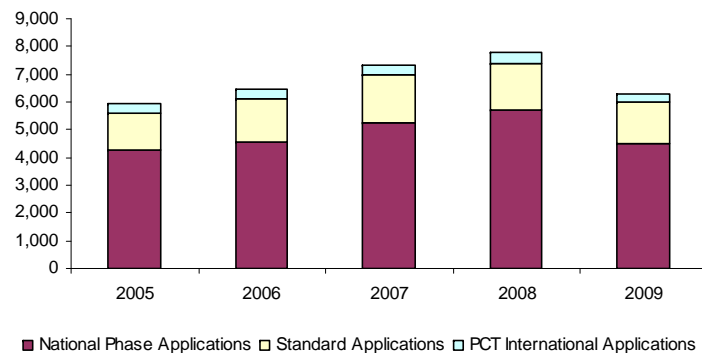
Recession and Economic Downturn

The current recession has had a number of effects upon IPONZ which, it has to be said, are generally positive. They do, however, highlight some key risks going forward.

Business Volumes

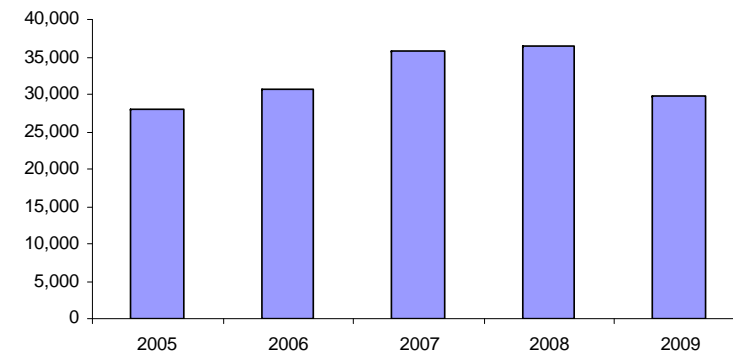
Volumes of trademark and patent applications have reduced significantly in the last year.

Figure 2 Patent Applications (FY 2005 – 2009)



Source: IPONZ

Figure 3 Trademark Applications – Total Classes (FY 2005 – 2009)



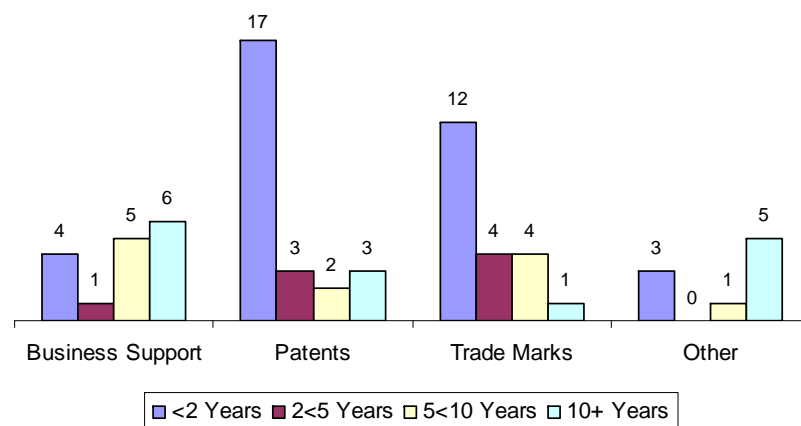
Source: IPONZ

There may be some emerging evidence of an increase in volumes, although it is not yet clear whether this is activity stored up from the last year (people postponing incurring the costs of IP registration), or represents an underlying increase in volumes.

Staffing

The graph below shows IPONZ's staffing profile (number of staff by length of service, by team). It is obvious at a glance that IPONZ's staffing profile is very heavily weighted towards staff with less than two years of service.

Figure 4 IPONZ Staff Profile



Source: IPONZ data

The recession has actually assisted IPONZ in this regard, as junior staff who would previously have left within a very short period have instead remained with IPONZ. As the economy picks up again, the old patterns of employment are likely to reassert themselves.

The key issue for IPONZ is that it is losing junior staff just at the point where their need for supervision and for extensive quality checks of their work is starting to rapidly decline.

IPONZ understands that two of the main destinations for such staff are the IP profession (i.e. becoming an Agent) or working for IP owners. In both cases, the key reasons for staff turnover are the linked issues of pay and career progression.

New Legislation

IPONZ will in the near future need to implement the following new legislation (assuming that it is passed into law):

- The Patents Bill; and
- The Trademark (International Treaty and Enforcement) Amendment Bill.

Both these Bills can be expected to have impacts on IPONZ in terms of workloads and the skills needed to perform legislated requirements.

Patents Bill

The principal impact of this Bill on IPONZ's ongoing activities is to require IPONZ to assess patent applications for an inventive step, and on a worldwide basis.

The Patents Bill also requires IPONZ to assist in the regulation of the Profession.

Trademark Amendment Bill

The major impact of the Trademark Amendment Bill is to provide legislative underpinning for accession to the Madrid Protocol. This should provide New Zealand trademark owners with a simpler and cheaper mechanism for registering trademarks overseas.

This change is unlikely to materially affect the amount of work per New Zealand trademark filing. Accession to the Protocol does give overseas owners an easier route to registering a trademark in New Zealand, and as such may lead to an increase in international filings.

Further, the Trademarks Amendments Bill creates a new enforcement requirement, in relation to breaches of copyright.

Single Economic Market

Intellectual Property has also been identified as an issue for further trans-Tasman cooperation. There are opportunities particularly in:

- Mutual recognition; and
- Trans-Tasman IP registers.

Such initiatives will rely on implementing the new legislation (so that there is a high degree of alignment between Australian and New Zealand legislation) and ensuring that the quality of examinations in the new legislative environment is at least comparable to examinations undertaken in Australia.

Prognosis

IPONZ is therefore, in the near future, going to face a number of significant pressures:

- The volume of IP applications will increase as the economy begins to grow;
- Staff turnover will increase, reducing available skills and increasing the burden of training and quality control;
- New legislation will require an increase in skills and workloads will increase (in the short term during implementation, and in the long term in delivering the new legislative requirements); and
- During this period, IPONZ must continue to maintain business-as-usual service to its customers.

4. Service Expectations

This section considers IPONZ's customers and their views on and expectations of IPONZ's services.

Customers

IPONZ has two categories of customer:

- IP owners, including:
 - Businesses of all sizes, from large corporations to individual entrepreneurs, from New Zealand and overseas;
 - Public sector organisations such as Universities and Crown Research Institutes (CRIs), but also local authorities (e.g. in relation to trademarks); and
- IP agents (a specialist section of the legal profession), acting on behalf of those owners.

The large majority of patent registrations take place through agents; in the case of trademarks there is a larger proportion of private applicants, although the majority are still via agents. Nevertheless, in our view, IPONZ's real and most important customers are the owners.

Customer Channels

IPONZ allows IP applications to be made on-line and on paper. There is still a high utilisation of the paper-based channel. This often involves IPONZ having to undertake a significant amount of data entry (typing of applications and scanning of documents).

There is currently limited self-service capability – the ability for customers to perform administrative tasks themselves (eg changes of addresses).

Customer Expectations and IPONZ's Performance

Owners and agents generally expressed a high degree of satisfaction with IPONZ's performance. In particular, it was felt that IPONZ compared very well with IP offices internationally.

What Matters to Customers

From our consultation, we conclude that IPONZ's customers value the following attributes, in their day-to-day dealings with IPONZ:

- Consistency and quality of examinations, particularly of trademarks;
 - Agents expressed a perception that IPONZ gave priority to meeting deadlines, rather than ensuring that applications were consistently reviewed to a high quality.
 - There was also a view that there was inconsistent treatment of similar applications between different members of the examination team.
- Easy and reliable information flows (e.g. being able to understand where an application is in the process);
 - Agents and customers expressed some frustration with the effort required to keep track of applications' progress throughout the registration process.
 - Customers in particular noted an opportunity for the use of IT to automate many of these processes.
- Service and guidance around the preparation of applications particularly for individual users and small businesses.
 - While larger customers and agents understood the system and could make use of it with relative ease, smaller customers felt that IPONZ could do more to assist or guide the occasional or one-off customer through the process, without compromising regulatory neutrality.

What Doesn't Matter to Customers

Apart from the key registration turnarounds (receipting of applications), many customers do not value rapid turn-around of examinations (particularly in the patents area). The grant of the IP is likely to be part of a wider global effort, and rapid turnaround in New Zealand does not add value.

This is a consequence of New Zealand's current patent legislation being out of step with the rest of the world (examining for novelty in New Zealand only). The grant of a patent in New Zealand, and an examination of novelty in New Zealand, does not add value to a global approach to IP registration. This might change when New Zealand's legislation is brought up to date – a rapid and high quality examination, if IPONZ can deliver such, might have much greater value to customers.

Other Views

Customers were also generally positive about IPONZ's efforts to raise awareness of IP and the importance and challenges of protecting it.

Customer Costs

IPONZ's costs were generally viewed by owners as being on the end of the scale between "trivial" and "small" in relation to the total cost of IP ownership. The majority of costs arose in preparing applications and in dealing with objections and questions. Other costs arose in administration around applications (following up on progress, deadlines etc).

Some of these costs are within customers' ability to control (eg making a telephone call for an update, rather than writing a letter). Some costs might arise from a deliberate commercial strategy (eg pushing for a trademark registration in the maximum number of categories, or registering terms that are in general use).

IPONZ's Response

We also note that IPONZ feels that a small number of exceptions to normal performance are unfairly held up by customers or their agents as being representative of standard performance. IPONZ considers that when it requests specific examples of poor quality or inconsistent examinations, none are forthcoming. It is apparent that some balancing of expectations is required.

5. Review of Operations

This section provides our findings in relation to IPONZ's current operations.

Summary

Overall, we consider that IPONZ is on a good trajectory, and is showing improving performance. As always, there are matters that could be improved, but IPONZ is already aware of many of these and focussing effort to address them.

An examination of the efficiency and effectiveness of IPONZ's operations also needs to consider the impact of IPONZ's activities on customers' total costs of IP registration.

Internal Culture

IPONZ's most recent culture survey demonstrates a significant improvement over the previous year. The organisation does not yet meet the median benchmark but is progressing to achieve this.

High levels of employee engagement have been shown to have direct and measurable impacts on individual performance, retention, productivity levels and improved organisational results. Therefore, continuing to focus in this area should enhance the organisation as a whole.

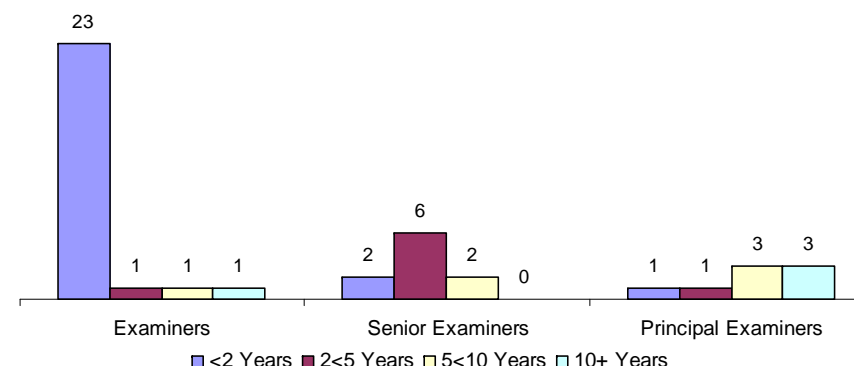
Staff Turnover

As previously noted, staff turnover in IPONZ is generally high, particularly amongst junior recruits to the examination teams. This situation has improved during the recession, but we would expect that when the economy emerges from recession, this situation will return to the historical pattern.

Figure 5 IPONZ Examiners - Length of Service by Position

Source: IPONZ

While this is not necessarily an unusual profile, there are consequences



for IPONZ's efficiency, in that:

- The pool of reasonably experienced resource is very limited;
- The investment in training of new staff is lost very rapidly (although it might be a service to the wider IP community); and
- Much greater levels of supervision and re-work by senior staff are required when junior staff are less experienced.

IPONZ will always grapple with staff turnover at the more junior levels, as many see IPONZ as a stepping stone to better opportunities working in the profession or as IP managers for large owners. Nevertheless, this is a source of significant inefficiency, which is likely to become worse as the staff turnover increases.

Impact of Staff Turnover

We have estimated the impact of staff turnover on IPONZ's costs, focussing on the high turnover of junior staff. The approach has been to compare actual FTEs (i.e. employees) with effective FTEs (ie the actual FTE equivalent of work output, given their lower productivity compared to more experienced colleagues.

Current staff numbers are shown in the table below, for examiners with less than two years' experience. The table also shows estimates for the effective FTE that would be available, assuming an average length of service of one, two and three years.

Table 1 Comparison of Actual and Effective Examiner FTE, by Normal Duration of Service¹

Team	Actual FTE	Effective FTE by Duration of Employment		
		1 Year	2 Years	3 Years
Trademarks	10.0	6.3	8.1	8.8
Patents	13.0	5.4	8.7	10.1
Total	23.0	11.7	16.8	18.9

Source: PwC Analysis

Even in the current recession, the average duration of employment for junior staff is approximately one year. In other words, under current

¹ The analysis assumes that there is a regular recruitment cycle e.g. if staff normally stay for two years, IPONZ will recruit half of the required staff every year.

patterns of employment IPONZ is getting the work of 11.7 experienced staff from employing 23.5 inexperienced staff.

Moving to an average stay of two years would increase the effective FTE by approximately five. Alternatively, if it could retain staff for a year longer on average, IPONZ could reduce its numbers of examiners by seven, and obtain the same level of output. Assuming an average salary of \$44,000, the direct salary savings would be approximately \$308,000.

In addition, other sources of inefficiency arising from use of less experienced staff would be reduced, including:

- Time spent by senior staff training less experienced employees;
- Supervision, quality control and the risks of re-work;
- Risks of inconsistencies in examinations;
- Recruitment costs;
- The operating costs of having people at desks (telephone, IT, stationery etc); and
- MED overhead allocations (although this would also depend on the relative movements compared with other parts of BSB and MED).

The table below summarises the pay scales for the examination teams.

Table 2 Pay Bands for Examiners

Pay Band	Low	High	Position
D	\$36,532	\$54,798	Examiners
E	\$41,436	\$62,154	-
F	\$48,232	\$72,347	Senior Examiners
G	\$54,309	\$81,464	-
H	\$62,349	\$93,523	Principal Examiners
I	\$70,094	\$105,140	-

Source: MED

We have not undertaken a full remuneration review, but have compared IPONZ's salaries with publically available information for academics² and the legal profession³ as likely competing sources of employment

IPONZ's entry-level salaries are generally comparable, but rapidly fall behind the available remuneration in alternative fields both in terms of absolute pay levels for a given level of experience and potential for advancement.

Processes

IPONZ has undertaken a process mapping exercise to support Project Compass. In relation to current processes we make the following observations:

² Deloitte Comparison Study on University Staff, Academic Salaries and Remuneration, 2008

³ Hays Legal Sector Commentary 2009.

- The process maps examine IPONZ's internal processes, in a high level of detail, but there is no process map that demonstrates an end-to-end view of the processes from the customer's perspective.
- The processes appear to be complex with many steps and hand-offs around the business.
- In trademarks in particular, the same application will be subject to different work flow management and allocation systems as it progresses through the examination process.
- The process still allows for paper-based applications, and the fee structures do not incentivise a shift to a purely on-line world.

Customer Views

As noted in the previous section, IPONZ's customers generally rate IPONZ highly. They do raise a number of points that merit some consideration for IPONZ's future direction:

- Customers, particularly in patents, do not appear to value rapid turnaround times by IPONZ, although they do value defined turnaround times. IPONZ's key performance indicators (KPIs) drive at rapid and defined turnaround times. This suggests a mismatch between how IPONZ judges value to its customers (rapid service) and what customers value (quality examination).
- There is an opportunity to simplify IPONZ's activities and reduce customers' transaction costs through:
 - Accelerating the move to on-line channels as the predominant method of interaction;
 - Automation of routine communications (eg reminders or status flags automatically sent to owners and their agents); and
 - Self-service by customers around routine administrative tasks.

- Small customers in particular would value more advice around preparing applications. This presents something of a challenge for IPONZ which must also maintain an appropriate regulatory neutrality.

Service Levels and Backlogs

IPONZ is generally meeting its specified service levels. Decisions to grant or reject an application are being consistently upheld when challenged. Examination turn-around times are being met or only marginally missed. The exception is the speed of dealing with correspondence on applications.

IPONZ has also been driving down accumulated outstanding patent examinations.

Business Intelligence

IPONZ tracks overall volumes of business as they pass through the system, and reports on these monthly, particularly as regards meeting KPI timeframes.

IPONZ has much lower capability, however, to track and analyse the flow of work through the system, in terms of the reasons for why work is taking a particular path, for instance:

- How many first examinations raised objections?
- What was the nature of the objections?
- How many of these were resolved rapidly by the customer?
- Why were they resolved rapidly by the customer?
- Could the applications have been reasonably submitted in such a way as to not incur these objections?
- Why were they not?

- Are any particular customers driving patterns that have been identified?

The current IPOL system has severe limitations in this regard and IPONZ therefore struggles to engage positively with customers, as a group and individually, around:

- The norms for flows of business e.g. objection rates and how these are resolved;
- How customers and IPONZ together could reduce costs or take friction (real or perceived) out of the system.

As such, it is also very difficult for IPONZ to assess its own effectiveness in performing its role.

Interaction with Policy Function

There appear to be relatively little interaction between IPONZ and the relevant policy sections in the MED. Greater cooperation and contact will be required in relation to drafting the new regulations and SEM initiatives.

IP Awareness

IP awareness and education has generated some positive awareness for IPONZ, although it does not strictly relate to IPONZ's core roles around examination and registration of IP.

General Observations and Conclusions

In considering IPONZ's performance and making recommendations as to future activity, we make the following observations:

- In our view, IPONZ does not yet appear to be in the habit of examining its own performance and processes from the perspective of the

customer, or to consider that it has a valid contribution to make to reducing customers' total costs of IP registration.

- The immature staffing profile, particularly if it reverts to historical norms, is a large source of inefficiency, cost and risk.
- There are opportunities to simplify IPONZ's operations through:
 - Eliminating paper-based applications;
 - Creating lean processes and eliminating duplicative data entry or scanning work;
 - Automation of tasks in examinations, business analysis and production of the journal.
- There are opportunities to reduce customers' total costs of IP registration through:
 - Self-service by customers;
 - Automation of provision of information to customers;
 - Rebalancing of effort applied at different stages of the examination and registration processes; and
 - Providing a greater level of advice and assistance to the occasional or one-off user.

We recognise that IPONZ is aware of and seeking to address many of these matters already, although much will rely on the implementation of Project Compass.

6. Implications of New Legislation

This section covers the likely impacts on IPONZ of the new legislation that it will need to implement over the next few years.

For each Bill, we consider:

- Transition impacts;
- Impacts on business volumes; and
- Impacts on the nature of work conducted by IPONZ (ie the impacts once the legislation has been implemented and is back into a “business-as-usual” basis).

These impacts have been developed together with IPONZ managers.

Trademark Amendment Bill

The Trademark (International Treaty and Enforcement) Amendment Bill is likely to come into effect from mid-2011. The principal effect of the Bill is to bring New Zealand within the Madrid Protocol, a system designed to facilitate the registration of trademarks in multiple countries. This will make it much easier for offshore parties to register trademarks in New Zealand (essentially, ticking another box on the application and paying the relevant fee).

The Bill also brings New Zealand into line with the:

- Singapore Treaty
 - This is an international framework for the harmonization and simplification of trademark registration procedures across all contracting parties. It is a requirement under the Singapore Treaty that New Zealand use the International Nice classification system for goods and services (see below); and

- Nice Agreement
 - The Nice Agreement concerns an International system of classification of goods and services for the purposes of registering trade marks.

In addition, the Bill creates an enforcement obligation in relation to copyright violations.

Transition Impacts

Key impacts that will arise are:

- Establishment of the IT systems to interface with the World Intellectual Property Office (WIPO) and accompanying processes.
- Drafting of necessary regulations.

Volume Impacts

Two volume impacts may arise:

- Processing of international filings by New Zealand owners. The impact on IPONZ of this activity is essentially acting as a post-box⁴ on behalf of WIPO.
- Incremental volumes of registrations from overseas via the Madrid system, over and above those that would have registered in New Zealand in any event. This is extremely difficult to predict and there are limited statistics available from other IP offices or WIPO on precedents for joining Madrid.

There is little or no evidence of the impact of accession to the Madrid protocol, particularly as the most relevant precedents (e.g. Australia) joined prior to the US, which has been a major user of the Madrid system.

⁴ IPONZ does need to perform checks on completeness of mandatory filing requirements.

Work Impacts

Neither the Bill nor the Madrid Protocol fundamentally changes the nature of the examination conducted by the trademarks team, although some of the Madrid-related processes will add some additional work requirements.

Summary

We consider, on balance, that the trademarks team should be able to maintain its operations at or very near to current staffing levels in the long term (assuming that volumes do not increase dramatically). In the short term, it is likely to need to transfer resource from examination and related activities to establishment of the new systems and drafting of regulations. We estimate this to be approximately two FTE for calendar year 2010 and the first half of calendar year 2011 (assuming that the IT upgrades are delivered within this period).

Patents Bill

The Patents Bill is likely to come into effect from mid-2011. The Bill will bring New Zealand's patent law into line with common international practice and will require corresponding modification of IPONZ's examination activity. It will also require IPONZ to contribute to the regulation of the patent attorney profession.

Transition Impacts

A range of transition impacts are likely to arise:

- Ongoing work on the Bill;
- Development of the Regulations;
- Development of processes and IT systems to implement the new requirements;
- Staff training at all levels of examiner, and in business support functions, in advance of the regulations coming into effect;

- Development of new operations manuals and documentation (both internal and external).

IPONZ will also need to contribute to the development of the regulatory regime for the profession.

Volume Impacts

The change in legislation is unlikely to affect volumes of applications (either Patent Cooperation Treaty (PCT) or convention).

There is a scenario in which a rapid and very high quality examination of a patent application might have commercial value to owners, in which case New Zealand might see increased volumes of applications. This has not been used as the base assumption in conducting the analysis.

Work Impacts

The principal impacts arise due to the change in the nature of the examination that must be undertaken, particularly in relation to convention filings. Specific impacts are estimated as:

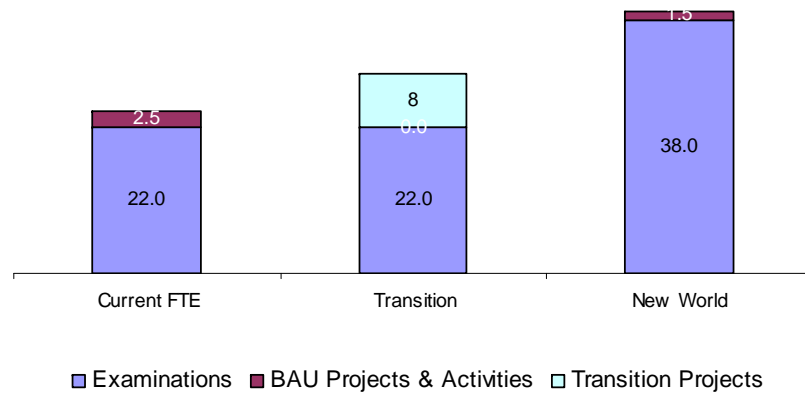
- An estimated increase of approximately 1 hour's work per PCT application and a further hour's work on associated correspondence (an increase of 50% to 60% over current workloads); and
- An estimated increase of up to three times the required work per convention filing (an increase from six to approximately 18 hours per application).

Convention filings form only approximately 10% of the patents team's examinations, so the actual increase in total workload is not as extreme.

Combined Impacts – Patents Team

The chart overleaf illustrates the likely FTE requirement, moving from the current to post-Patents Bill environment (assuming current volumes of work and existing work practices).

Figure 6 Patents Team - Transition Impacts



Source: IPONZ/PwC Analysis

NB The figures shown are before taking into account efficiency gains from strengthening the staffing profile.

In practice, the patents team will need to release more senior and experienced staff into transition activities, while maintaining examination capacity at current levels. As the transition completes, these staff can be released from projects back into business-as-usual.

7. IT Upgrade

This section of the review focuses on the resource and other implications of the planned upgrade to IPONZ's core registry and case management software. It should be stressed that Project Compass is at the very early stages of development and as such, a formal review of the project and resources applied can only comment upon the early planning that has taken place.

Current Situation

IPONZ currently use a registry system (IPOL) designed in the mid 1990's to perform core processing and registry operations. This system, built on the technology of the day, is now reaching its twilight years. Like many systems of this age, support and maintenance is becoming increasingly difficult to source and apply in a cost effective manner. In addition to the age of the system, numerous enhancements over the years have resulted in a complex solution that requires significant effort to change and update. With considerable change in legislation on the horizon IPONZ have taken the decision to look at options for redevelopment of the core registry solution. Further, Plant Variety Rights, whose management has only recently transferred to IPONZ, are managed through an entirely separate Access database.

A key aspect of the new system will be increasing the use of the on-line channel and moving more of the core administrative functions from IPONZ to the actual users of the service.

Current Initiatives

IPONZ has begun planning for a project related to the upgrade of its existing IT solutions. Project Compass contains a number of phases to complete what will be a replacement of its existing core registry platform.

The currently identified phases are:

1. Building the high level requirements for the new solution.
2. Build vs. Buy analysis phase.
3. Business Case phase.
4. Business Process Review.
5. ISO Accreditation.
6. RFP Vendor Selection.
7. Development/Customisation.
8. Data Cleansing/Post Code validation/Conversion.
9. Implementation.

In addition to Project Compass, IPONZ is also undertaking ongoing upgrades and enhancements to its existing system (IPOL). This activity is based around providing small enhancements to the IPOL legacy system utilising the existing deployed resource that is engaged to provide system support to the organisation on a "use it or lose it basis".

Project Compass

This project has been established to provide a new solution for the core registry functions undertaken for all IPONZ-administered IP items. This includes trade marks, patents, designs, PVR, PCT requests and Geographical Indications (GI).

Work has begun on informing the future state vision of the solution with key items identified as being:

- The system enables staff to focus on higher value adding items rather than administration;

- Streamlined processes incorporating automation and sensible workflow;
- Client and public self service at the forefront;
- Removal of paper based processes; and
- Integration of international, government to business (G2B) and government to public interfaces.

Designed to transform the way that IPONZ operates, Project Compass will require a large amount of change for IPONZ.

Our observations have been categorised into three areas:

1. Project Initiation
2. Planned Phases
3. Implementation.

Project Initiation

Project Compass will be a large undertaking for IPONZ. Ensuring that the project starts off on the best possible footing is important and requires careful management.

Observation 1: Limited initial business case documentation exists.

It seems that there is an absence of an initial business case for the project. It is possible that the project has excellent foundations and is a well informed investment for IPONZ; however, it is unusual that this type of documentation does not currently exist.

While the reasons for undertaking the project may seem obvious, good practice would expect that some formal documentation should be created to provide traceability for the work being undertaken. In addition IPONZ's business plan outlines some key activities that form what has become Project Compass. We would expect that the formal documentation in this regard would provide the core reasons for undertaking the investment.

Observation 2: Formal project management practices are required.

Although IPONZ is in the early stages of this project a formal project plan and methodology is required.

Projects of this nature require industry-strength project management principles to be applied from the outset. We understand that resources for this role will be specified in the funding case to be prepared by October 2009.

Project Phases

The high level phases that have been identified roughly sketch out a sound plan for IPONZ to follow. As the plans are not well advanced it is possible that some modification will occur to these phases with some being extended and some perhaps being removed altogether.

Observation 3: Emphasis is required on building the high level requirements for the new solution.

The high level requirements for the new system are being brought together over a four month period, with IPONZ dedicating an analysis resource to this task. As this project is a mission critical implementation for the organisation we would expect that key resources or external support would be applied to this important stage of the project.

The high level requirements phase is critical and will serve as a key input for the business case and the proposed documentation necessary for the request for proposal (RFP) process. It is paramount that this documentation is created to the correct level of detail and with the end point of system procurement in mind.

Observation 4: Procurement analysis phase.

We consider that this phase is more likely to be a management decision rather a phase in the project. It is apparent already at this stage, that to achieve the outcomes that IPONZ is considering, a market based procurement process will be required. To reduce risk this should be based around a configurable package.

IPONZ face three choices in relation to the decision for replacing the IPOL system.

- Upgrade/Rebuild the existing IPOL solution;
- Build a new solution from scratch;
- Purchase a solution that can be configured to meet IPONZ's requirements and integrated with its other (relevant) systems.

Option 3 represents the most appropriate option for IPONZ moving forward.

Observation 5: The RFP Vendor Selection needs to be executed a time that will provide the best proposals.

IPONZ need to plan this phase carefully and possibly consider vendor briefings or timing the RFP process to ensure that they obtain the best quality proposals.

This phase currently has a very aggressive timeframe that spans the Christmas holiday season. We would consider the type of vendor selection phase that IPONZ would require would take approximately 8 - 12 weeks to complete. Consideration should be given to either scheduling vendor responses to be received prior to Christmas or scheduling the phase to occur in early 2010. We understand that MED is already advancing this process.

Observation 6: Business Process Review needs to remove wastage.

Now that the nature of the new legislation is becoming clearer, IPONZ should engage in a robust process review while this activity is underway.

Existing processes have been examined and mapped, which is commendable. The "future state" is, however, the priority. An option to consider is to undertake a "Lean Six Sigma" approach to review the current processes used within the organisation. This would quickly uncover the key hold-ups and pass-offs that could be contributing to sub-optimal performance within the current processes. Resolving the issue, previously discussed, of high junior staff turnover will also assist in this process.

Implementation

Observation 8: Project Staging.

The potential conversion and data cleansing exercises that will be required with the implementation of a new system will require careful planning. Options to convert the whole system effectively by product area (patents, trademarks etc) will need to be considered as well as decisions on historical records. We would recommend including an implementation plan as part of the RFP process and carrying out a risk assessment on the options that are presented.

The options that IPONZ face for the implementation phase are likely to be driven by the solution that is chosen. For this reason it would be advisable to ask the vendor community for their approach to performing the conversion and mitigating the risks involved.

Ongoing upgrades and enhancements

In addition to the Project Compass activities, IPONZ is also undertaking a large amount of business-as-usual activity to maintain its existing systems and provide incremental improvements.

The ongoing upgrades and enhancements program contain the following areas of focus:

- Reporting with Crystal Reports;
- IPOL Enhancements;
- Miscellaneous Macro Enhancements; and
- EPOQUE Installation.

The ongoing upgrade activities are designed to perform improvements and remove bugs from the existing applications. IPONZ currently sources support for its IPOL system from an outsourced organisation.

Due to the age of the currently deployed application and technology it is difficult to source the skills required to undertake the work required. IPONZ is treating this support as a sunk cost and using the support time that is budgeted and paid for as a means to provide small change activity against the IPOL system.

Resource Implications

The principal impact of Project Compass can be expected to be in relation to automation of tasks that currently require manual activity, and the transfer of some activity to customers under a self-service model. We agree with IPONZ's estimate that Project Compass should enable a reduction of between 4 and 5 FTEs in administrative tasks.

8. Conclusions and Recommendations

This section sets out our recommendations, in the light of the previous analysis.

Conclusions on Current Performance

Efficiency

As previously noted, we consider that IPONZ is on a good trajectory in terms of its ability to objectively assess its performance and addressing organisational issues. It has recognised many of the inefficiencies that exist in the current operation. Some inefficiencies can be addressed in the near term (e.g. workflow management in the trademarks team) while others will require implementation of the new IT system.

Effectiveness

There are also opportunities to explore how IPONZ can operate in ways that reduce customer costs, and which might create greater value for customers.

Prognosis

As previously noted, IPONZ's future currently holds some significant stresses.

- The volume of IP applications will increase as the economy begins to grow;
- Staff turnover will increase, reducing available skills and increasing the burden of training and quality control;
- New legislation will require an increase in skills and workloads will increase (in the short term during implementation, and in the long term in delivering the new legislative requirements); and

- During this period, IPONZ must continue to maintain business-as-usual service to its customers.

Recommendations

Given that IPONZ is already seeking to address a wide range of existing inefficiencies, our recommendations in some cases serve to endorse what IPONZ is already doing. In others, we suggest a different perspective or approach to addressing the known issues.

The first recommendation is fundamentally about IPONZ's thinking about itself and its customers.

Recommendation 1

Convert Project Compass from an IT implementation project into a Business Transformation Project.

The project should:

- Cover all of the major change management drivers facing the organisation;
- Be run with a (small) Project Management Office, dedicated to overseeing the change;
- Be clearly separated from business-as-usual;
- Branded internally and externally as a change management project; and
- Start with a detailed bottom-up design, using "Lean" principles, of the desired future state for IPONZ, in terms of processes and organisational structure.

Recommendation 2

In undertaking the business transformation project, put value to the IP owner at the heart of the transformation.

- Design the new process (and hence supporting IT systems) in consultation with customers, with a primary objective of minimising the total costs of IP registration. Of particular relevance is customers' views on ensuring:
 - Consistency of examinations;
 - Greater resources applied to the first examination; and
 - Less focus on quick turnarounds in patents.
- Explore options for self-service and automation. Much of this is being considered already through Project Compass:
 - Self-service for administrative matters (eg changes of address, names, contact details, extensions of time, assignments); and
 - On-line provision of information that would pre-empt the need for correspondence (eg queue positions and progress, automatic calendar pop-ups and warnings).
- Seek to provide a greater level of advice and guidance that would assist customers:
 - Simple user-friendly website guidance around eg "Ten dos and don'ts of Patent Applications"; or "If you have prepared your application, and it looks like [this], it will probably not meet the test".
 - Walking occasional customers through the process or providing initial and informal advice about the merits of proceeding with an application.

- Consider service options such as allowing customers to specify turnaround times for examinations (not to the day, but within one month, in the third month after submission etc).
- Use business intelligence on the patterns of work and the passage of applications through the examination and approvals process to engage with owners and agents to identify work practices that are generating unnecessary transaction costs.

Recommendation 3

Address the staff retention issue through a career structure review and exploration of alternative employment options.

- Review career paths and other incentives and structures to improve the retention of staff. This need not simply be a matter of progression and remuneration, but also other incentives that are attractive to staff (e.g. travel and conferences, support with ongoing education and qualifications). Increased retention will come at a cost, but will also enable a reduction in FTE for a given volume of applications, or an increase in quality and attention given to each application.
- Trial alternative employment approaches, such as:
 - Use of students in relevant disciplines on a part-time basis. While only part time, there may be much better opportunities to retain them for the duration of their studies (which might be extended by the need to work) and for a few years after graduation.
 - Remote working that could allow experienced or appropriate staff to continue to work for IPONZ from different locations. Salary levels that are low by Wellington standards are likely to be far more attractive in the regions.

Recommendation 4

Increase staff numbers well in advance of the implementation of the Trademarks Amendments Bill and Patents Bill, in order to preserve business-as-usual activity throughout the Bill and IT implementation projects, and train staff in advance of the the new legislation and regulations coming into effect.

The impacts of these recommendations on staffing numbers and expected levels of expenditure are addressed in the next chapter.

9. Implications for Funding and Fees

This section considers the impact of the recommended scenario on

Resource Levels

IPONZ's expected staff levels for FY 2010 are shown in the table below.

Table 3 Current Staffing Establishment (FTE)

Team	FTE
Trademarks	19.5
Patents	24.5
PVR/Designs	4.5
Business Support	14.0
IT	3.0
Management and Other	9.5
TOTAL	75.0

Source: IPONZ

The above reflects some vacant positions, which increase the total 77.5. IPONZ is therefore currently operating with slightly lower than budgeted staff levels.

Major Initiative Impacts

The next table summarises the likely impacts of the:

- major initiatives that IPONZ must undertake over the next three years; and
- efficiency impacts arising from IT and staff structure improvements.

Table 4 Impacts on Staffing Establishment of Major Initiatives (year end headcount)

	Base 2010	2010	2011	2012	2013
Current FTE BAU	75.0	76.0	74.0	74.0	74.0
Patents Bill Implementation		4.5	8.5		
Patents Bill Additional Examiners				14.0	14.0
Trademarks Bill Implementation		1.0	2.0		
	75.0	81.5	84.5	88	88
Project Compass Impacts			-2.0	-7.0	-7.0
Staffing Structure Impacts			-2.0	-6.0	-8.0
Expected FTE	75.0	81.5	80.5	75.0	73.0

NB: In practice, the Patents Bill implementation is expected to be undertaken by existing staff, who can be expected to return to their original roles after implementation.

Volume Impacts

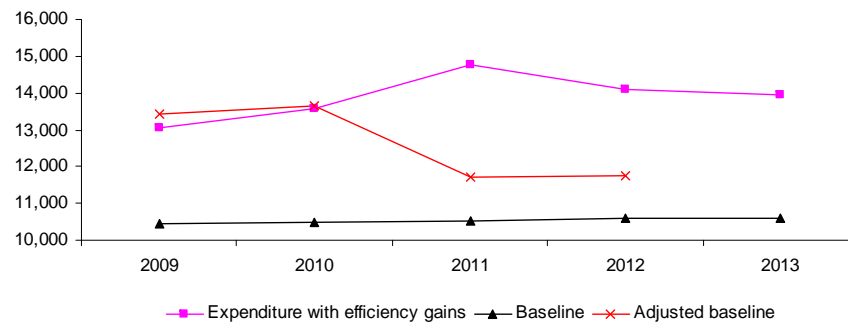
In addition to the major projects impacts, there are three much less predictable effects, arising from the expected lift in volumes as the economy picks up. Given that IPONZ is currently driving down backlogs, it should be able to accommodate some lift in business volumes when the backlogs are eliminated. The backlogs did, however, arise at current

resource levels, so a return to the volumes of 2006 and 2007 might require a small increase in staff numbers.

Expenditure Implications

The implications for expenditure and baselines of the above resource scenario are shown in the graph below, assuming current overhead allocations.

Figure 7 Projected Expenditure v's Baseline (\$000s)



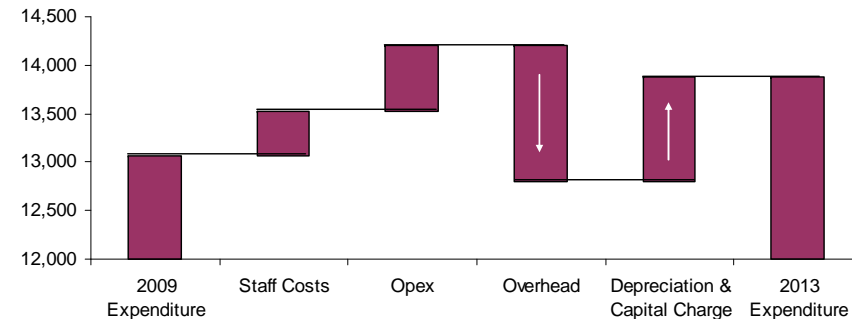
Source: PwC Analysis

Key points to note are:

- The substantial increase in 2011 is driven by the implementation of new legislation and the costs of Project Compass;
- Although the operating costs of Project Compass (approximately \$1.2 million per annum) conclude in 2011, additional depreciation and capital charges (totalling approximately \$1.1 million) phase in over 2011 and 2012.

The key movements in expenditure, compared to 2009, are shown in the table below.

Figure 8 Movements in Expenditure 2013 v's 2009 (\$000s)



Source: PwC Analysis

The increases can be summarised as resulting from:

- Staffing:
 - Salary rises over the four year period;
 - Partially mitigated by overall reductions in staff numbers.
- Opex:
 - Inflation; and
 - Ongoing costs arising from project compass (licensing and software utilisation charges).
- Depreciation and capital charges:
 - Impacts of Project Compass.

Revenues and Memorandum Account

The table below sets out the implications for revenues and net surplus. In this scenario, volumes are expected to return to prior levels over a two year period. Revenues drop sharply in 2012 due to the extension of Trademark renewal periods.

Table 5 Estimates of Future Net Surplus (\$000s)

	2010	2011	2012	2013	2014
Revenue	12,948	10,657	10,631	11,278	14,450
Expenditure	13,572	14,779	14,113	13,949	14,135
Net Surplus/Deficit	(624)	(4,122)	(3,482)	(2,671)	315

Source: IPONZ budgets; PwC Analysis

IPONZ's revenues are affected in particular by the:

- expected reduction in revenues in 2010 from lower business volumes (although volumes are expected to pick up in FY 2011);
- the impact on Trademark revenues of accession to the Madrid Protocol (Madrid filings can charge only 90% of the domestic filing fee); and
- the extension of the trademark renewal period in 2011, removing a substantial portion of revenues for a three year period (by 2014 trademark renewals revenues increase again as the 10-year renewal point is triggered – effectively, IPONZ loses the majority of its renewal revenues for three years).

The table below shows the implications for the Memorandum Account, under the same scenario.

Table 6 Memorandum Account Estimates (\$000s)

	2010	2011	2012	2013	2014
Opening Balance	9,189	8,565	4,238	756	(1,915)
Surplus/Deficit	(624)	(4,327)	(3,482)	(2,671)	315
Closing Balance	8,565	4,238	756	(1,915)	(1,600)

Source: IPONZ budgets; PwC Analysis

Once the three-year slump in trademark renewals revenue is past, total revenue returns a level which is expected to roughly match expenditure. There is however a period in which the Memorandum Account balance would be negative.

From the perspective of increasing overall revenues, there is no need to adjust fees until 2012. A review is, however, necessary from the perspective of:

- evaluating whether cross-subsidies exist or might emerge due to the changes in legislation and the increase in workload for examination of patents; and
- encourage customers into cost-minimising behaviours (use of preferred communications channels, self service etc.).

More generally, IPONZ will need to confirm the extent to which it is willing to accept moving into a negative balance on the Memorandum Account, or whether fees need to be rebalanced in 2012 to maintain a (modest) positive balance.

Recommendation on Permitted Expenditure

Given the above, we recommend that IPONZ's permitted expenditure is increased in line with expenditure requirements. This implies an increase to \$14.9 million in FY 2011, and ongoing expenditure thereafter of \$14.0 million per annum.

10. Other Matters

We have considered various other potential options for IPONZ, in the longer term, that are noted below.

Outsourcing to a Different IP Organisation

IPONZ's costs are significantly lower than those of other IP organisations. The precise details of each organisation's fee structure differ, but all maintain some form of up-front charges and then ongoing charges to maintain registration. Up-front charges are either comparable to or higher than IPONZ's fees. A comparison of the maintenance fees is provided in the table below.

Table 7 Comparison of Renewal Fees for 20 years (\$000s)

	Local Currency	NZ\$
New Zealand		2,306
Australia	AU\$7,750	9,425
European Patent Office	Euro 20,650	46,050

Source: IPONZ, IP Australia, EPO websites

This suggests that contracting to another IP organisation is likely to significantly increase customers' costs.

In the longer term, there may be value in establishing a shared services structure with other IP organisations such as IP Australia, or elsewhere in the world. In the case of patents, the value would arise from specialisation in examinations in technical subject areas.

Extension of Self Service to IP Registration

The MED has successfully moved to a self-service model in matters such as company registration and some types of radio spectrum licensing. While there are significant opportunities to shift administrative tasks from IPONZ to customers, on balance we do not consider that the fundamental role of examination should be privatised.

There is a high degree of judgement involved in the examination process, and strong commercial incentives to push the boundaries in establishing intellectual property rights. The credibility of the intellectual property is heavily underpinned by the perception of an objective and neutral examination. Systems of review and oversight of independent parties granting, for example, a trademark would likely have to replicate much of the work undertaken in the examination in any event. Further, the remedies for disputes are "legal" in nature (hearings, submissions and ultimately the courts) rather than "administrative" (e.g. an assessment of radio interference by one party on another), and likely to incur high transaction costs. The risks that independent parties would incur in undertaking examinations also appear to be substantial and would probably require insurance.

Given the above, we would expect that independent examination and approval of intellectual property would be substantially more expensive than the service provided by IPONZ, and less credible than IPONZ's service.