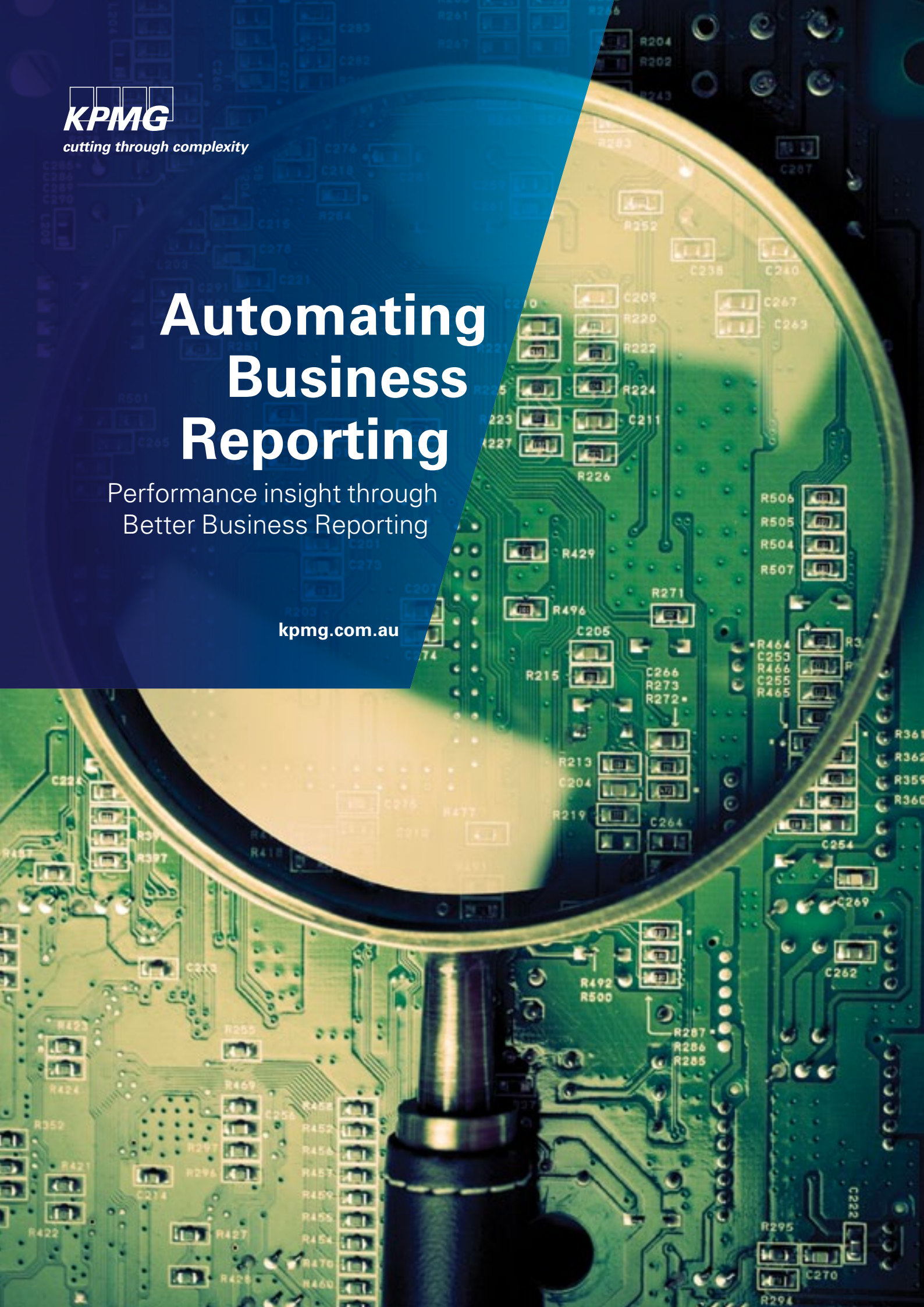**KPMG**

cutting through complexity

Automating Business Reporting

Performance insight through
Better Business Reporting

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Foreword

Attempts to improve the efficiency of business reporting have existed since the formation of the capital markets. In particular, reporting timeliness and consistency has long been a significant issue. Increasingly ambitious company lodgement dates and continuous disclosure regimes are driving many organisations towards automation of their business reporting processes.

In this paper, we explore the idea of automating aspects of current reporting obligations and how some businesses and government agencies are already embracing the concept. Automation of business reporting has the potential to shorten reporting timeframes while lowering costs, improving the integrity of information and the consistency of its delivery.

This paper should be of particular interest to CFOs as they strive to improve their reporting processes and CIOs as the use of technology in reporting continues to emerge. It is also relevant for Directors, CEOs and investor relations teams as they seek to tell their organisation's story to the market.

Automation is an important part of the journey to better business reporting. This journey will culminate in the development of an integrated report in accordance with the framework under development by the International Integrated Reporting Committee (IIRC). Such a report will utilise automation technology to provide information to the capital markets and other stakeholders in a faster and more effective way.

We focus our discussion in this paper on the increasing use of the eXtensible Business Reporting Language (XBRL), a freely available common 'language' for the classification and sharing of information. XBRL enables the automation of financial reporting and offers internal and external stakeholders opportunities to more effectively analyse and compare information across businesses and industries.

While adopting XBRL offers significant benefits, it is not without risk. This paper also discusses some of the challenges associated with implementing XBRL as well as potential strategies for dealing with these challenges.

I would like to take the opportunity to thank those organisations who have assisted in the development of our thinking by sharing their experiences in this area. The experiences of the American Institute of Certified Public Accountants and associated organisations under the US Securities and Exchange Commission's XBRL lodgement program and the Australian Government's Standard Business Reporting project team have provided valuable insights into how technology such as XBRL can improve the transfer of information between a business and its stakeholders.

If you would like to discuss any of the ideas explored here, please contact your KPMG adviser or one of the professionals listed at the back of this publication.

Duncan McLennan
National Managing Partner,
Audit

Contents

1 Executive summary

The compliance and reporting burden for business has increased steadily over the past two decades. One of the ways businesses can ease this burden while enhancing the speed and consistency of report delivery is through automation.

Global organisations subject to multiple jurisdictions and increasing layers of legislation require a significant investment to ensure reporting obligations are satisfied in a timely manner. Reporting timelines themselves are shortening and regulators around the globe are increasingly demanding quarterly reporting in addition to the continuous disclosure regimes of most equity markets.

Recently, we witnessed an effort to harmonise global financial reporting and more than 100 countries now require or permit the use of International Financial Reporting Standards (IFRS). We have also seen a move towards the increasing use of XBRL, a language for the electronic communication of business and financial data. XBRL offers a common information standard in the same way IFRS has emerged as the common financial reporting standard. These two initiatives provide an opportunity for business and the capital markets to automate and share information in a truly meaningful and comparable way.

Historically, the automation of business reporting involved placing company information and financial statements on the internet. This process has evolved into the production of 'smart' documents in which hyperlinks and references improve a user's ability to navigate within the information provided. Today, XBRL provides major benefits in relation to the preparation, communication and analysis of business information. While current use of XBRL has largely been limited to 'bolt-ons' to existing reporting processes, an opportunity exists for Australian businesses to embed XBRL into their reporting processes and automate the production and analysis of their financial reporting.

The drive towards adoption of XBRL is being led by a number of global regulatory agencies. In 2008, the US Securities and Exchange Commission (SEC) announced new requirements for mandatory filing of financial information based on interactive tagged data using XBRL. This move is consistent with many other regulators in Europe and Asia, who are all at various stages of implementing some form of XBRL enabled reporting.

The next major step in the journey towards business report automation is likely to be the production of an integrated report, which will include information on strategy, performance and future prospects in accordance with the IIRC's integrated reporting framework. Such a report will be produced and distributed using XBRL. Regulators, government agencies and private/public sector initiatives such as the World Intellectual Capital Initiative (WICI) are producing XBRL standards and reporting tools to assist in this journey.[1]

As the broader picture unfolds, there is an opportunity today for Australian businesses to achieve cost savings, financial reporting and information integrity benefits through the automation of reports using technology such as XBRL. The Australian business community has the benefit of commencing this journey after a number of other jurisdictions, notably the US, have made considerable progress in this area. The experience of our foreign counterparts will enable Australian companies to plan and derive benefits much faster than many of their foreign counterparts.

The question for today's CFO and CEO is whether to lead the change or to follow it. We advocate getting involved by establishing plans and a business case for the benefits available from report automation through XBRL. Any such initiatives will be an important step in the journey to better business reporting.

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1   These matters are explored further in Appendix A and in a related publication, *The Journey to Better Business Reporting*, KPMG in Australia, 2010

2 Introducing automated business reporting

'Automation' can be defined as the 'use of information technologies to reduce the need for human work in production'. We define 'reporting' as a 'formal account of the proceedings or transactions of a group'.

While these definitions seem simple enough, the ability to automate business reporting in a cost effective manner has long been an ideal – a nirvana espoused mainly by information technology professionals. Reaching this goal involves at least two basic issues:

- Managing change – the information needs of stakeholders are never static. How do you deal with a changing environment without constantly interfering in the very process that has been automated?

- Cost – does automation require a complete reinvention of the financial reporting framework or the organisation's business intelligence capability?

In recent decades, the growth of the internet and improvements in search engines have provided access to a vast array of information and analysis. Google Alerts, for example, offer users the opportunity to monitor the internet for new content on a range of topics at pre-determined intervals. Of course, filtering large quantities of undifferentiated information is not without its challenges. Establishing an alert for 'automated business reporting', for example, will access over eight million search results. These problems have led to the advent of so-called 'smart' search engines such as Ask.com and Wolfram Alpha, which provide users with a more tailored view of information to assist in the filtering process.

In business reporting terms the analogy is simple. Management, investors and analysts seek convenient access to information through a service similar to Google Alerts, with the ability to interpret the results with Wolfram Alpha intelligence. To achieve this, there must be a common reporting language, clarity regarding the information needs of stakeholders and a common technology 'language' to ensure comparability of data between organisations and industries.

2.1 IFRS – a common reporting language

Without common accounting standards, organisations faced a heavy reporting burden while the capital markets struggled to compare the performance of different organisations. Today, with the increasing adoption of IFRS, we are now closer to a single global set of standards. Following the adoption of IFRS throughout the European Union in 2005 (and its subsequent adoption by Australia, Hong Kong and South Africa), over 100 countries now require or permit the use of IFRS.

The US has stated its intention to converge with IFRS over time and recent reporting standards issued by the International Accounting Standards Board and the US Financial Accounting Standards Board support this intention. Ultimately, we should see one global set of common accounting standards.

2.2 XBRL – a common technology language

XBRL offers a common information standard in the way IFRS has emerged as the common accounting standard. IFRS determines what information is presented while XBRL determines how that information is presented.

XBRL offers major benefits in relation to the preparation, communication and analysis of business information, including cost savings, greater efficiency and improved accuracy, reliability and comparability. Instead of treating financial information as a block of text – as in a standard internet page or a printed document – XBRL provides an identifying tag for each item of data, which is computer readable. This provides the ability to automate the reporting of information or the analysis of standard information, across a range of sources.

2.3 The journey to better business reporting

Current reporting practices tend to be more effective in enabling the evaluation of historical financial performance than they are at providing insights into business strategies and performance prospects. The journey to better business reporting involves a move towards a report which focusses on providing meaningful information to improve capital allocation decisions. Ultimately, financial and non-financial information will be fully integrated within a flagship business report (an 'integrated report'). The integrated report will be grounded in the business strategy and delivered in an automated form. Such a report will offer the capital markets and other stakeholders true insights into the performance of the business, in a timeframe aligned with their decision-making requirements.

> **The automation of existing reporting using available technology, are the 'low-hanging fruit' available for CFOs to improve the efficiency of internal and external reporting now.**

2.4 The role of automation in the journey to better business reporting

The combination of IFRS, the move towards better business reporting and the introduction of XBRL as an automation enabler, are being embraced by regulatory agencies globally and may now provide the environment for large-scale adoption of automated business reporting.

This paper focuses on current initiatives and technologies available to assist in the transition towards automated business reporting. These initiatives, primarily the automation of existing reporting using available technology, are the 'low hanging fruit' available for CFOs to improve the efficiency of internal and external reporting now.

3 Extracting value from automation

As most CFOs will attest, one of their greatest challenges is the constant need to balance multiple priorities with limited resources. Recently, CFO attention has moved away from the heavy focus on cost control and frugality, towards supporting the business and enabling strategically-driven growth. This was seen in the 2010 IBM Global CFO Study, in which over 1,900 CFOs and senior finance leaders worldwide ranked 'providing inputs into enterprise strategy' as the most important aspect of their role in the near term.

The ability to provide inputs into strategy depends on the finance function's capacity to produce financial and performance data for management, boards and external stakeholders in a timely manner. To support decision-making, it is essential that this information gets to the right users at the right time. The challenge is to improve these activities in the current cost-constrained environment.

Progressive automation of existing reports is driving improvements in the collection and storage of basic financial data. The automation of process is a small step towards real time reporting, which can provide improved data integrity and timely access to information. Increasingly, XBRL is the technology language providing the momentum for this automation.

Figure 1 outlines the information supply chain and highlights the opportunities for XBRL to enhance the reporting process.

Figure 1: XBRL and the information supply chain
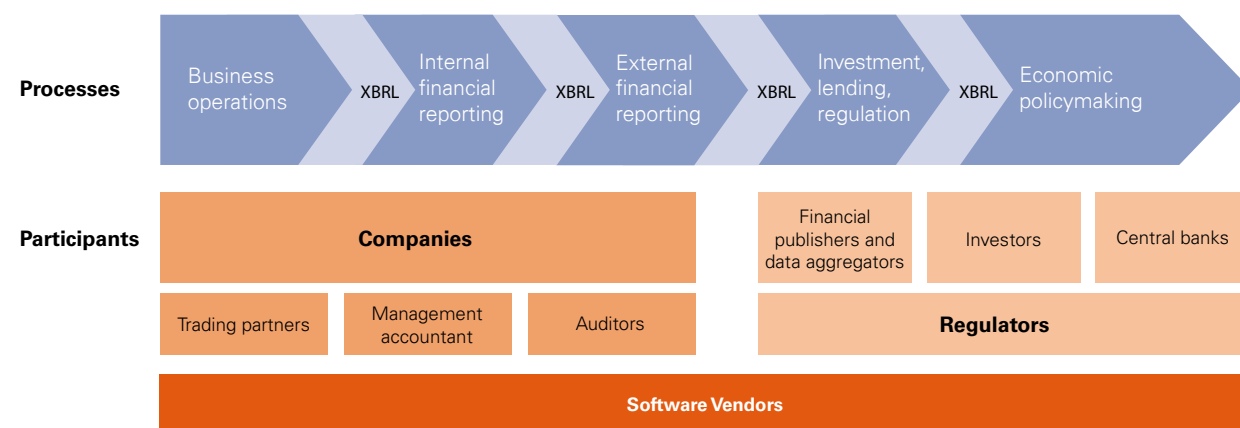
Source: US Federal Financial Institutions Examination Council, Improved Business Process from XBRL – A Use Case for Business Reporting, 2006

Figure 1 shows that XBRL can be used to enhance each stage of the information supply chain. Users and regulators can benefit from reduced costs to obtain financial information. Users of transnational data can benefit from the ease with which the data can be translated across languages and cultures, for example, by changing labels from English to Mandarin, German or Japanese, and from improved access to definitions that enhance comparability.

Preparers of reports can benefit from enhanced analytical capabilities and more accurate and timely analysis of the data needed to make decisions. They can also benefit from the cost reduction possibilities of report automation. These benefits are clearly evidenced in the experience of United Technologies, an early US adopter of XBRL.

Figure 2: United Technologies' XBRL experience

United Technologies is a diversified industrial organisation with over USD60 billion in revenue. It is one of the 25 companies that comprise the Dow Jones Industrial Index, and owns a collection of businesses that are, in most cases, number one or number two in the world marketplace. These businesses include Otis Elevators, Carrier Air Conditioning, Pratt & Whitney jet engines, Sikorsky Blackhawk, Hamilton Sundstrand and UTC Fire & Security. Any one of these businesses is large enough to be a Fortune 100 company on its own right.

United Technologies has been using XBRL for over 5 years as part of its preparatory process for the SEC's mandatory filing regime introduced in 2009. John Stantial is the Director of Financial Reporting for the group and can attest to the significant reporting cost reductions, reporting process improvements and strengthened organisational clarity from pursuing XBRL as a reporting tool.

"Now, is XBRL a cost? I can assure you that it's not a costly effort. As I said, we're a 60-billion dollar organisation and our investment to get up and running on XBRL was $300 – not $300,000, but $300. That's all it cost to get our initial tagging software, which was the only out-of-pocket cost that you need to tag financial information… So we're not talking about a dollar investment here. As I said, it's not technical; it's not an IT project. This is a business tool. This is for analytics, for accessing data, for business reporting, for all kinds of things that affect all of us along the business information food chain."

"But, right now, we're able to have all the data in our system tagged via XBRL and just export whichever format we need. If we need XBRL, we shoot off that instance document to the SEC. If we need an HTML, as we still do today, we shoot that off. If we need a Word document to circulate around to management to get their comments, then we shoot out a Word document. The effect of being able to do that took the 845 average hours per quarter spent on reporting down to 700 average hours."
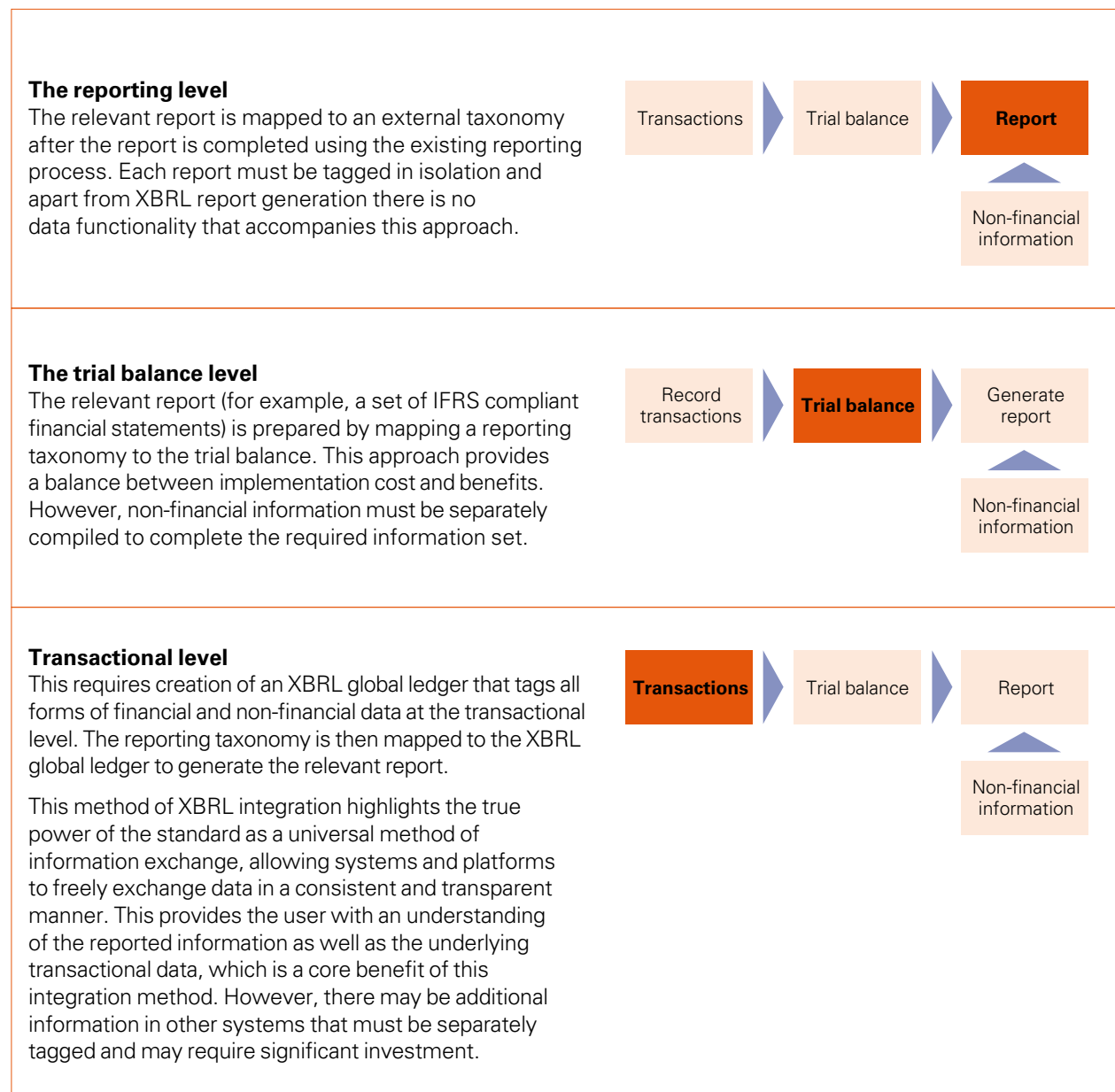
Source: United Technologies Corporation, Extracts from a presentation on business reporting trends by John Stantial, May 2009

3.1 Levels of XBRL implementation

As the United Technologies example demonstrates, XBRL implementation can be scaled to suit the level of organisational experience or desired reporting sophistication.

There are three levels at which XBRL can be used to automate financial reporting: reporting level, trial balance level and transactional level. Each level offers its own benefits and disadvantages.

Figure 3: Levels of financial reporting

The reporting level

The relevant report is mapped to an external taxonomy after the report is completed using the existing reporting process. Each report must be tagged in isolation and apart from XBRL report generation there is no data functionality that accompanies this approach.

| Transactions | Trial balance | **Report** |

Non-financial information

The trial balance level

The relevant report (for example, a set of IFRS compliant financial statements) is prepared by mapping a reporting taxonomy to the trial balance. This approach provides a balance between implementation cost and benefits. However, non-financial information must be separately compiled to complete the required information set.

| Record transactions | **Trial balance** | Generate report |

Non-financial information

Transactional level

This requires creation of an XBRL global ledger that tags all forms of financial and non-financial data at the transactional level. The reporting taxonomy is then mapped to the XBRL global ledger to generate the relevant report.

This method of XBRL integration highlights the true power of the standard as a universal method of information exchange, allowing systems and platforms to freely exchange data in a consistent and transparent manner. This provides the user with an understanding of the reported information as well as the underlying transactional data, which is a core benefit of this integration method. However, there may be additional information in other systems that must be separately tagged and may require significant investment.

| **Transactions** | Trial balance | Report |

Non-financial information

3.2 The US mandate

The US SEC mandated the filing of financial reports using XBRL in 2009. The US experience highlights the challenges of XBRL implementation and the potential data inaccuracies that may arise. Typical challenges faced by US companies were captured by a survey conducted by the Financial Executives Institute (FEI) Committee on Financial Reporting and submitted to the SEC.

Figure 4: Extract of FEI Letter on XBRL challenges

Subsequent to the 30 June 2010 XBRL filings, Committee on Corporate Reporting (CCR) surveyed its members to gain a better understanding of their experience with the detailed tagging of notes. Key findings from the original survey are included below.

- Approximately 75 percent of our member companies rely on third-party service providers to generate the required XBRL files. In the preparation of the XBRL submissions, service providers told our members that a 48-hour window was necessary to finalise a change to a filing and generate the XBRL files.

- Our member companies had a significant number of extensions (i.e. company specific additions to the base taxonomy) used in their filings, ranging anywhere from 200 to 4,500 per filing. On average, roughly 30 percent of the tags used were extensions. We understand that staff have observed cases of extensions where appropriate elements exist but filers did not identify the appropriate element. However, our experiences indicate that many extensions are still needed.

- The level of cost and resources necessary to prepare XBRL filings varied widely, from a low of 12 hours at the most simple reporting companies to 2,000 hours per quarter to tag the most sophisticated and complex financial statements. External implementation costs per quarter also varied significantly, from several thousand dollars at smaller companies to $500,000 at the largest filers.

- Roughly 25 percent of our members engaged the services of their outside auditors to review the completed filing. Of those, roughly one-third used an agreed upon procedures report as the basis for the work that was done.

- Overall, our members found the tools available to review the XBRL files to be inadequate to identify errors in the filing. Specifically, it was noted that verifying the accuracy and compliance of XBRL instance documents using the rendering tools available did not guarantee that there were no errors in the filing (e.g. signage of particular data elements in the filing).

- Of those companies that track the usage of this information on their corporate websites, none reported more than a slight interest in this information from the investor community. The number of hits ranged between three and 20 hits per quarter and some of those may have been either employees of the company or the service provider verifying the accuracy of the final XBRL data posted on the websites.

Source: FEI letter to the US SEC, 31 January 2011

Careful planning by Australian companies, including leveraging the experience in the US, can manage these challenges and focus on the benefits.

3.3 The opportunity for Australian businesses

In addition to offering significant benefits, the automation of business reporting presents a number of challenges for preparers, regulators and users alike. The opportunity for Australian CFOs is to plan up front to ensure that reporting strategies and processes are ready for XBRL.

The challenges include the usual issues associated with process automation such as the cost of investment in new technology (either through acquisition of software and hardware or management time), the redeployment of resources away from production, a loss of adaptability and potential missed opportunities for improvements, which come from human involvement. Australian businesses are used to dealing with these challenges and potential strategies for dealing with these issues are set out in Figure 5.

Figure 5: Challenges of automation through XBRL

Challenge	Possible strategy for Australian businesses
Inexperience General inexperience with XBRL as a data collection and reporting tool. The requirement to map information from existing source systems into XBRL requires both technical and business reporting knowledge, a skill set that is in short supply in Australia. In the US this problem often resulted in the outsourcing of XBRL mapping, which eroded some of the cost benefits of automation.	Australian businesses have the opportunity to learn from US companies who have experienced mandated financial reporting in XBRL. Singapore has also mandated financial reporting in XBRL. In Australia, XBRL implementation experience is available through financial institutions that have been submitting regulatory returns in XBRL for some time.
Technological limitations XBRL as a reporting language is evolving. There remain limitations in its application to areas such as internal management reporting where greater detail (or granularity) of data is required. XBRL 'tagging' of data is applied after a figure is finalised, not at the transactional capture point.	It is not necessary to start with transactional level tagging. Australian businesses might initially choose to start with trial balance level tagging, moving to transactional level tagging as XBRL application software improves and as they move along their journey to better business reporting. In this way, the 'bolt-on' experience of some US companies (report level tagging) can be avoided.
Potential lack of transparency Whilst XBRL is designed to improve comparability and transparency, in many ways the automation of reporting hides the production process and internal controls from those involved in reporting. This lack of transparency may reduce confidence in XBRL generated reports (in the absence of an assurance process).	Changes in audit trails and the automation of internal controls are not themselves reasons for not choosing to implement XBRL. Many aspects of internal control structures are changing, often through technology, and often with effectiveness and cost reduction opportunities. Auditors, both external and internal, deal regularly with changes in internal control structures and can provide assurance thereon.
Coexistence challenges Addressing 'coexistence challenges' between current data platforms that support management reporting, analytics (for example, data warehouses, context-specific data marts) and newly implemented XBRL-based data stores.	As noted earlier, XBRL can be applied at different levels to existing reporting processes. The integration of XBRL based data stores and existing data warehouses can be achieved over time, or XBRL reporting can be applied at a later stage in the reporting process.

Challenge	Possible strategy for Australian businesses
Change management and security XBRL is an open standard and the reporting 'taxonomies' are constantly updated to reflect changes in reporting requirements. This creates the risk of error through inadvertent misclassification or deliberate manipulation of the XBRL templates.	This risk of error also exists in the manual reporting environment. It can be mitigated by appropriate planning for change and by ensuring that internal controls are changed as appropriate.
Cost As we discuss later in this paper, there are a number of options available when implementing XBRL, from light to heavy touch. These options require upfront tagging of financial information and the labour time associated with this process may be quite onerous.	Net benefits are likely to be available for all businesses, provided they plan carefully for implementation and have a supporting business case. Many Australian businesses will be best placed by adopting trial balance level tagging, moving to transactional level tagging as they progressively develop their integrated report. United Technologies has demonstrated the significant benefits on offer.

The automation of business reporting processes appears to be a relatively cost effective way to progress along the broader better business reporting continuum. However, this journey is not without its risks. The question for many Australian businesses will be one of timing. That is, whether to adopt these initiatives now, or wait for the inevitable regulator mandate. While this is a matter for individual businesses to decide, the time to think about this is now.
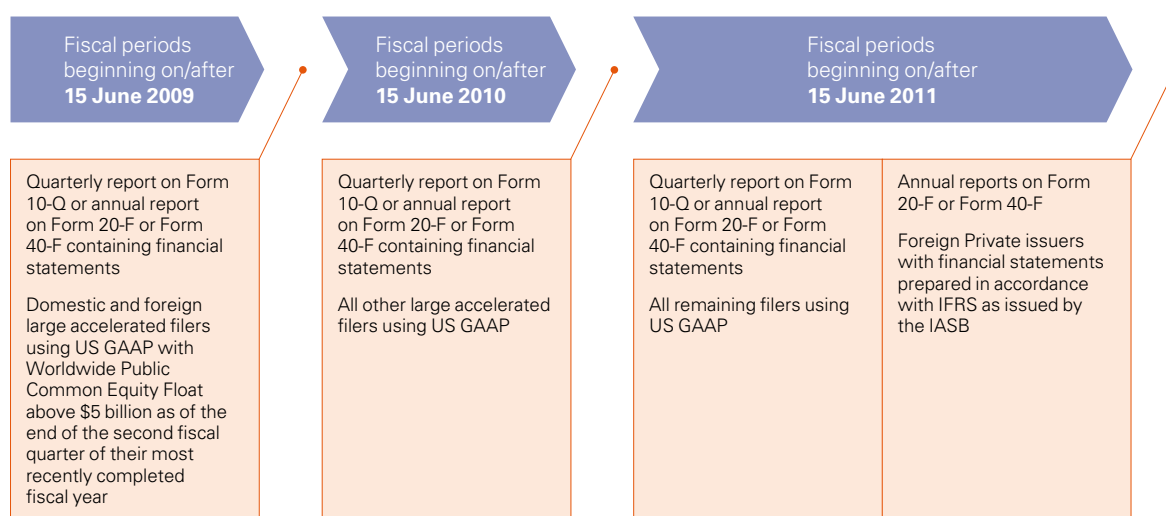
4 The regulatory demand for XBRL

Regulators want timely information that can be used to make comparisons between individual businesses, industry sectors and countries. In 2006, the US Federal Financial Institutions Examination Council (FFIEC) issued a call to action 'to implement XBRL solutions into business reporting processes to achieve cleaner more accurate data and increased productivity and greater efficiency and measurable ROI and bottom line impact'. On 14 May 2008, the SEC announced its recommendation for mandatory filing of financial information based upon interactive tagged data using XBRL.

The SEC's rules apply to domestic and foreign companies using US GAAP. They began in 2009 for the largest companies and will apply to remaining public companies by 2012. Foreign private issuers using IFRS must also progressively lodge their financial reports with the SEC using XBRL. The US rules mandate XBRL as a supplementary filing format, in addition to the present electronic filing in ASCI and HTML format.

Figure 6 outlines the progressive implementation of XBRL by the SEC. The SEC has signalled its desire to expand the scope of reporting via XBRL from financial statements to management commentary (that is, the Management Discussion and Analysis, or MD&A).

Figure 6: Implementation of XBRL by the US SEC

Fiscal periods beginning on/after **15 June 2009**	Fiscal periods beginning on/after **15 June 2010**	Fiscal periods beginning on/after **15 June 2011**	
Quarterly report on Form 10-Q or annual report on Form 20-F or Form 40-F containing financial statements	Quarterly report on Form 10-Q or annual report on Form 20-F or Form 40-F containing financial statements	Quarterly report on Form 10-Q or annual report on Form 20-F or Form 40-F containing financial statements	Annual reports on Form 20-F or Form 40-F
Domestic and foreign large accelerated filers using US GAAP with Worldwide Public Common Equity Float above $5 billion as of the end of the second fiscal quarter of their most recently completed fiscal year	All other large accelerated filers using US GAAP	All remaining filers using US GAAP	Foreign Private issuers with financial statements prepared in accordance with IFRS as issued by the IASB

Source: KPMG

Regulatory bodies around the world have been implementing similar XBRL programs, some at a pace far exceeding the US program. The Netherlands is leading the way on the use of XBRL and IFRS. Since January 2007, Dutch companies and financial institutions have been able to deliver their financial reports to a number of Dutch government authorities using XBRL-tagged data. The Dutch project is focused on assisting companies using XBRL for financial reporting to reduce their compliance costs by 25 percent and has already succeeded in reducing the number of reporting 'elements' (i.e. items of data) that companies have to keep from 200,000 to 4,500. On establishment of the program, lodgement of information in XBRL was not mandated. However, companies that filed reports under XBRL were exempt from having to lodge traditional (paper-based) documents. The Dutch government has recently announced that the Standard Business Reporting program and XBRL of the Netherlands will be the exclusive standard for delivering income tax and corporate tax returns effective 1 January 2013.

In Australia, our own Standard Business Reporting (SBR) program was implemented in July 2010 with the goal of reducing the compliance burden for business by $800 million over the next 4 years. Figure 7 provides an outline of the SBR program currently in place in Australia.

Figure 7: Standard Business Reporting program

On 1 July 2010, the Australian Government launched its SBR platform in conjunction with the Department of Treasury. The program commenced in 2006 to address the high costs of reporting to government agencies by small, medium and large businesses.

SBR aims to reduce inefficiencies and achieve consistency for entities that report to government agencies. It achieves this through the development of a common reporting language between business and government and within different government agencies. This reporting language is XBRL. For users of SBR enabled accounting software, this will:

- pre-fill reporting information

- allow editing and further data entry to complete forms

- let the user send the report to the relevant agency

- provide a receipt confirming the report was delivered.
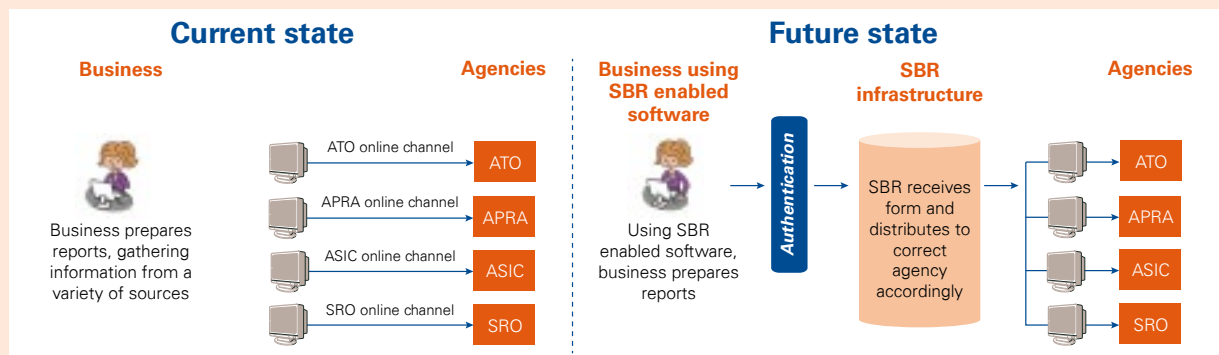
The compelling case

In October 2005, the Productivity Commission established a taskforce for reducing the regulatory burdens on business (The Banks Review). Recommendation 6.3 of The Banks Review was for the government to develop and adopt a business-reporting standard to address, amongst others, the following issues:

- regulatory reporting requirements that have grown piecemeal with little or no coordination between government agencies

- financial and accounting terms that are inconsistent across government agencies. For example, a study by the Institute of Chartered Accountants in Australia found that the term 'Australian Business Number' was defined in seven different ways across eight different government agencies.

Reporting requirements impose a significant burden on business through inefficient activity and unnecessary cost. Studies in Australia and the Netherlands have estimated that the administrative burden imposed on business by government reporting amounts to roughly 2.5 percent of GDP. These studies estimate that SBR related savings could reduce these costs by at least 8 percent, or around A$800 million each year when fully implemented.

The benefits of SBR

The benefits of SBR extend beyond a business regulatory reporting process to the broader economy. These include:

- enhanced business confidence regarding the integrity of regulatory reporting and simplicity of lodgement with the government

- opportunities for business to reconsider existing reporting practices and to better align internal and external reporting

- improved productivity by allowing businesses to focus less on reporting and more on commercial activities

- simplification of the information requirements of different government agencies. The simplification process completed by the SBR program reduced the number of information fields required by participating agencies by a staggering 76 percent

- higher reporting standards and reduction in time spent resolving non-compliance issues

- increased standardisation of data and improved ability to exchange data among government agencies.

Regulatory bodies in Europe, Asia and the US are at various stages of implementing some form of XBRL enabled reporting. Some key projects reported by XBRL International include:

- **UK** – the UK has two main XBRL projects, run by HM Revenue and Customs (HMRC) and Companies House. The use of XBRL for the filing of company accounts and tax returns to HMRC has been mandatory since April 2011 and Companies House has been receiving simple accounts from small companies in XBRL for several years. It will soon start accepting all accounts in XBRL. Filing of accounts in XBRL to Companies House remains voluntary.

- **Germany** – a number of German regulatory agencies, including the Deutsche Bundesbank, Deutsche Borse AG and BaFin (banking regulator) have XBRL projects in place with some XBRL reporting now mandated.

- **China** – China is well advanced in the implementation of XBRL, having established projects as early as 2002 to implement XBRL reporting in regulatory bodies, including the Shenzhen Stock Exchange, Ministry of Finance of the People's Republic of China and Shanghai Stock Exchange. In 2004, China was the first country in the world to formally require XBRL for all public company financial reporting.

- **Canada** – the Canadian Securities Administrators began accepting XBRL filings from issuers participating in its XBRL filing program in May 2007.

- **Japan** – the Japanese Financial Services Ministry is developing Japanese GAAP taxonomies to facilitate XBRL submissions under their statutory disclosure system. The Tokyo Stock Exchange collects XBRL earnings digest information from over 80 percent of listed companies.

- **Singapore** – the Singapore Accounting & Corporate Regulatory Authority mandated company reports using XBRL in November 2007 (IFRS reporting).

The regulatory push towards XBRL will create a business imperative to provide certain information in an XBRL format. While in their early stages, most regulatory reporting programs have tended not to mandate the use of XBRL, the Dutch and UK experience demonstrates how an initial voluntary position can soon move to a mandatory one. Such a transition raises important questions:

- At what stage will Australian regulators decide to mandate the use of technology such as XBRL and which businesses will be well placed to benefit from the change?

- How will XBRL financial reporting taxonomies be maintained in a regulatory environment as IFRS changes?

One truth remains clear, organisations that develop XBRL reporting interfaces based on prescribed regulatory standards must have the ability to respond to reporting changes as they emerge. In a poorly designed XBRL environment, these changes can be very expensive and erode the value offered by automation.

There are over 100 projects underway across more than 40 nations regarding the implementation of XBRL in business and in government/ regulator reporting.

5   Understanding XBRL

XBRL is an 'open standard' computer language and there is no fee for using it. It was developed and is maintained by a not-for-profit organisation called XBRL International, created in 1999 with funding from the American Institute of CPAs.

The language itself is structured yet adaptable enough to solve a specific problem. The data in traditional reports (in HTML and other web-compliant formats) typically cannot be processed directly by the recipient's software due to differences in formats between filer's reports. This is not helpful in the quest for timely reporting of usable financial information. An HTML report is relatively self-contained and its information cannot automatically be identified or retrieved for computerised analysis or further processing. Instead, the reported data must be re-keyed in a form acceptable to the application software, or customised software must be used to perform the equivalent of re-keying. The full advantage of computerised delivery is thus lost, because the transmitted text must be used the same way a paper report is used, by transforming the data into a format that the user's computer application can understand.

XBRL solves this problem by 'tagging' individual items of data in such a way that other computers can understand the information and work with it. Tagging is the process of assigning standard or customised identifiers to information in a financial accounting source file, such as a financial statement. A fully tagged electronic document retains its identity and can be read by a user's application software, meaning the user's application would be able to interact directly with the reported data.

It is immediately possible to see how XBRL can help enable timely automated reporting between business and the capital markets. The classification of information into a readable form allows the capital markets to receive, analyse and compare business reports in a way which was not previously available.

XBRL did not create data tagging. Data tagging has been employed for a long time because it is fundamental to the software that enables computers to perform their tasks.

Tags are read by the computer, by programmers and by other parties who need or want to see the tags. As shown in Figure 8, the tagging itself is complex. Users typically get what they need from printouts and the interfaces created by their software applications. The most fundamental step in developing an XBRL report is tagging the data. To assist in this process a range of software providers offer tagging tools to 'drag and drop' data between source information and an XBRL taxonomy. These tools offer significant savings in terms of time and cost.

Figure 8: XBRL tagging code

The tagging process is governed by the XBRL Specification, a detailed description of how to go about complying with the XBRL language. It governs how to create taxonomies, which are lists of coded identifiers or tags, along with their meanings and their relationships to other tags.

Taxonomies may be thought of as tagging dictionaries as illustrated by Figure 9. Preparers of XBRL reports will use a published taxonomy (for example, the International Accounting Standards Board has released an IFRS compliant taxonomy) and may also create their own extension taxonomies (for example, a financial institution or a mining company may expand the IFRS taxonomy to allow additional information on geographic or business segments). The result of tagging financial data is an XBRL report known as an instance document which is essentially a file containing relevant categorised information.

Figure 9: XBRL tagging dictionaries
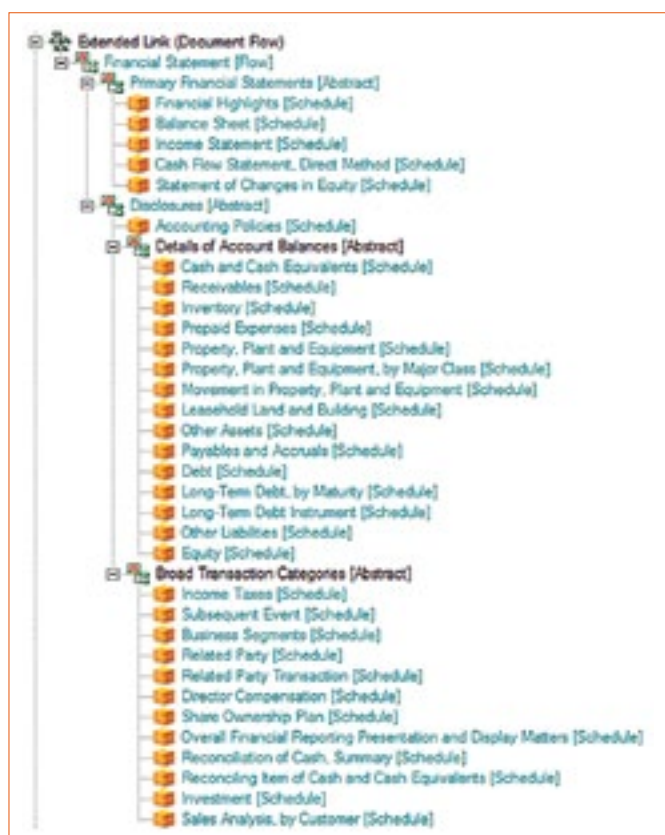
A rendering program can be used to convert the XBRL files into a viewable format so that a traditional set of financial statements and notes can be presented.

XBRL is a member of the family of XML (Extensible Markup Language[2]) languages used to exchange data between businesses and on the internet. XBRL is a form of XML focused on what is needed for business reporting although it does not prescribe or limit what might be disclosed in a business report. It neither adds to the information that businesses must disclose, nor does it change the content of financial statements. Like other XML languages, XBRL is 'extensible', meaning it can be extended beyond what is specified (for example, adding new company specific items to a standard industry reporting template). The tagging process can include creating tags in an extension taxonomy to include information unique to a particular reporting entity such as additional tags for a financial institution's geographic segments or a mining company's commodity segments. This is XBRL's primary claim to adaptability.

However, XBRL is adaptable in two other senses. It can be used by virtually any computer hardware setup including computer, mobile phone, PDA or tablet device, and can be used for a variety of tasks. It can support all standard tasks in compiling, storing and using business data. It can be used for storing and exchanging non-financial information such as customer names, addresses and operational KPIs, as well as financial information such as sales revenue and taxes for internal managerial reports. It can also be used for transferring general ledger transactions from one accounting application to another.

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2   A set of rules for encoding documents in machine (i.e. computer) readable form

Figure 10 summarises some of the uses of XBRL at the different implementation levels and their associated benefits and costs.

Figure 10: XBRL – uses, benefits and costs

	Example uses	Benefits		Costs
		Preparer	User	
Report level	• financial reports • regulatory returns • US companies usually started here and largely outsourced in early years	• minimal business disruption	• XBRL readable report for each report produced	• separate/ duplicate tagging for each report each year • incentive to outsource
Trial balance level	• financial reports • regulatory returns • sustainability reports (partial) • a likely target for Australian companies on initial adoption	• balance between XBRL production of variety of reports and cost of implementation	• increased number of XBRL reports available	• increased time mapping trial balance to taxonomies • medium-term benefits from upfront investment
Transactional level	• enhanced financial reports • regulatory returns • enhanced sustainability reports • integrated management commentary • integrated reports	• increased ability to analyse information • ability to include more non-financial information • most likely to support improved basis for capital allocation	• access to greater levels of data analytics above reporting produced	• significant time investment and change management process • most likely to maximise net cost reduction over time

As is evident from Figure 10, more detail in relation to data tagging involves higher levels of effort, but can lead to greater potential benefits. The level of detail a preparer chooses to tag will depend on the complexity of the organisation and the expected benefits. Generally, XBRL efforts initially focus on the report level and move to the level of detail required to simplify preparation and internal sign-off on reported figures.

As noted, XBRL permits the automatic exchange and reliable extraction of financial information across all software formats and technologies, including the internet. This means it can:

• improve efficiency by allowing tagged financial information to be transmitted in many formats and be deployed with various analytical tools

• improve access to financial information and make it possible to extract information more accurately, reliably and quickly.

These improvements are potential sources of reduced costs.

6 A view of the future

The delivery and content of business reporting in 2020 will look significantly different to the information prepared today.

In terms of delivery, XBRL is evolving as a result of increasing use of the language globally. The next generation of XBRL is iXBRL, which enables a user to view the tagged information in web browser format by combining XBRL and HTML. There are benefits and disadvantages with this type of XBRL implementation. However, the debate has moved away from the issue of whether XBRL is the correct mechanism to facilitate automated reporting, to focusing on ways to improve the user experience. This shift is a clear sign that XBRL is here to stay.

In relation to content, the capital markets are already witnessing a drive towards the provision of broader non-financial information through sustainability reporting, corporate governance and diversity disclosures, accounting standards concerning financial risk management policies and management commentary on financial performance. Taxonomies have been or are being developed for sustainability reporting. In the US the SEC is considering further application of XBRL to the Management Discussion and Analysis.

Society now receives and shares social information in real time. The increasing use of sites such as Facebook, YouTube and Twitter are in effect, the social equivalent of automated business reporting. Languages such as XBRL are the enablers of information sharing platforms for the capital markets. The IIRC released its discussion paper on integrated reporting in September 2011. An early stage XBRL taxonomy has been built for the integrated reporting framework through the *World Intellectual Capital Initiative*, which is also developing a number of industry specific KPI libraries that can be attached to the XBRL taxonomy.

What this means for business is that the move towards the automation of business reporting has already begun as the momentum for integrated reporting gathers pace. In Australia, we have direct evidence of this trend in the government's SBR program. The program is already considering expansion into other areas such as health and education in addition to integrating with similar government initiatives globally.

Why not start now?

Appendix A: The journey to better business reporting

Communication focus

**Integrated reporting –
better reporting for capital allocation**

→ Integrated strategic, financial and non-financial performance information

→ Future performance focussed

→ Fit for purpose

→ 'Real-time' information

Enhanced financial and non-financial reports and automated delivery mechanisms and channels

Current reporting portfolio

Reporting on sustainability
- Sustainability reports
- NGERS reports
- ESG reports

Voluntary capital markets reports
- Press releases
- Analyst reports
- Corporate governance statement

Financial reports
Annual financial report including financial statements and note disclosures

Value of reporting to capital markets stakeholders

'Stop gap' focus

Compliance focus

Value of reporting to company

Reward focus

Appendix B: Global XBRL initiatives

XBRL International

- XBRL International is a non-for-profit consortium of approximately 550 companies and agencies worldwide working together to build the XBRL language and promote and support its adoption. The consortium members meet periodically in international conferences, conduct committee work regularly via conference calls, and communicate in email and phone calls.
- This collaborative effort began in 1998 and has produced a variety of specifications and taxonomies to support the goal of providing a standard, XML-based language for digitising business reports in accordance with the rules of accounting in each country or with other reporting regimes such as banking regulation or performance benchmarking.

Americas

- The SEC has mandated that companies file XBRL in addition to paper-based financial reports with the SEC (phased implementation from June 2009). This will ultimately impact Australian SEC registrants.
- The US has also flagged it will mandate Management Commentary (i.e. MD&A) be submitted in XBRL shortly.
- Canada has an XBRL filing arrangement in place.

Latin America

- Brazil (Minister of Finance), Argentina (Central Bank of Argentina) and Chile (Superinterdencia de Valores) all have XBRL financial reporting program under development or in place.

Europe

- Significant take up of XBRL reporting by a number of government or semi-government agencies across Europe including UK (HMRC), Ireland (FSRA), Greece (Bank of Greece), Belgium (Commission of Finance), Norway (Oslo Stock Exchange), Germany (Bundesbank).
- Netherlands implemented a business to government reporting program 4-5 years ago. The use of XBRL taxonomies has now extended to the development of a credit taxonomy implemented by the top three financial institutions for business to business reporting.
- Mixed use of mandatory and voluntary filing. Mandatory fillings include German Bundesbank, UK HMRC, Belgium Commission of France.

Middle East

- Dubai Stock Exchange has a project in development to use XBRL filings for financial information.

ASPAC

- Australian Government implemented Standard Business Reporting program effective 1 July 2010 utilising XBRL for voluntary reporting.
- Singapore financial reporting lodgements already in XBRL (mandatory)
- China mandated XBRL reporting for public companies in 2004 and has other projects in development for specific reporting purposes
- Japan, Thailand, India, Hong Kong all have projects under development or in place for voluntary or mandatory filing.

Related publications

This is the fourth paper in a series of better business reporting publications covering developments in financial reporting, management commentaries, sustainability reporting and automated business reporting:

Other KPMG publications that may also be of interest include:

- *Better Business Reporting: Enhancing Financial Reporting,* KPMG in Australia, 2010

- *Capital Markets in the Dark – An unsustainable state of play,* KPMG in Australia, 2011

- *The Journey to Better Business Reporting,* KPMG in Australia, 2010

- *Enhancing Management Commentary – review of practice,* KPMG in Australia, 2011

- *Underlying profits survey,* KPMG in Australia, 2011

For further information, or to obtain copies of these publications, please contact your KPMG adviser or one of the professionals listed at the back of this publication.

About the authors

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Shaun is involved with the Australian Government's Standard Business Reporting Project and is a participant in the SBR Financial Report Working group. He has advised local and international corporations on XBRL and related regulatory developments along with the automation initiatives outlined in this paper.

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Michael Bray is a KPMG partner with over 30 years experience providing audit and advisory services to a range of clients. He is leader of KPMG in Australia's Better Business Reporting group.

Michael has a long-standing interest in business reporting matters. He is a foundation member of the Broad Based Business Reporting Panel for the Institute of Chartered Accountants in Australia (ICAA), and represents KPMG on the *Business Reporting Leaders Forum*. Michael is also the author of the publication *The Journey to Better Business Reporting,* KPMG in Australia, 2010 and *Capital markets in the dark: an unsustainable state of play,* KPMG in Australia, 2011.

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