Accounting for innovation*
The impact on technology companies of accounting for R&D activity under IFRS

Executive summary
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The heart of the matter

A new way of accounting for innovation is on the horizon
Innovation drives differentiation and enables success in the technology sector, so naturally many technology companies invest heavily in research and development (R&D) activities. But how do companies account for innovation? How do they determine how much value they derive from R&D? Company leaders need clear, robust internal reporting about R&D to help them make effective decisions about performance and strategy.

Under US GAAP, R&D costs are generally expensed as they are incurred with certain exceptions related to elements of costs for the development of software (for internal use or to be sold) and website development costs. This accounting model has been well accepted, and capitalization is neither common nor preferred. Alternative measures of performance are used to assess the investment in and returns from R&D activity. However, in the bigger picture, the current US GAAP accounting treatment creates some disparity in the accounting for tangible and intangible assets, as tangible assets are generally capitalized regardless of whether they are acquired or developed internally, whereas intangible assets are generally capitalized only when they are acquired.

For US technology companies, the eventual shift from US GAAP to IFRS will bring more consistency in recognizing assets, specifically internally developed intangible assets, by requiring certain development costs to be capitalized when they meet the definition and recognition criteria for intangible assets. This will require companies to closely consider R&D activities, beyond development costs related to software, to evaluate what other development costs may be eligible for capitalization.

Experience has shown that companies that are in the process of making this transition find it is best to plan early and thoroughly, as the impact may be significant across a number of areas within the company. This executive summary addresses the differences between US GAAP and IFRS for R&D, the impact of the changes, and how companies can begin to address these changes.
An in-depth discussion

Determine the impact on your business
An in-depth discussion

PricewaterhouseCoopers

There are several ways in which this change to reporting R&D will affect technology companies—from rate of capitalization to income taxes, systems, and the overall R&D cycle. These areas are specifically addressed in the sections below.

**Capitalization by peers reporting under IFRS**

What degree of R&D capitalization will US technology companies face when they adopt IFRS? While it is not possible to predict exact capitalization rates, given that each company has unique factors that determine the amount capitalized, examples from IFRS filers in Europe may provide some early indication of the potential impact in the US.

PricewaterhouseCoopers (PwC) considered the 2008 public filings of 29 listed European companies that broadly fell into the technology sector. With R&D budgets ranging from just a few million dollars to almost $8 billion, the results provide some color to the extent of capitalization by subsector classification.

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<th>Subsector</th>
<th>(number of companies observed)</th>
<th>Capitalization Rate†</th>
<th>R&amp;D Spend‡</th>
<th>Comments</th>
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<td>Software/Internet</td>
<td>(12)</td>
<td>0 to 61%</td>
<td>$30M to $2.1Bn</td>
<td>Diverse practices driven by business specifics, such as customer specific software development and software implementation.</td>
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<tr>
<td>Computer &amp; Networks</td>
<td>(7)</td>
<td>0% to 14%</td>
<td>$150M to $7.8Bn</td>
<td>Diverse practices regarding capitalization rates due to a myriad of business activities (hardware and electronics solutions, networks, and mobile phones).</td>
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<td>Semiconductors</td>
<td>(6)</td>
<td>17% to 48%</td>
<td>$5M to $2.3Bn</td>
<td>In general, companies had relatively high capitalization rates. A few outliers had rates of 6% or less.</td>
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<td>Alternative Energy</td>
<td>(4)</td>
<td>23% to 94%</td>
<td>$30M to $1.1Bn</td>
<td>Relatively high capitalization rate compared with other subsectors because these are emerging technologies that require significant R&amp;D.</td>
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† Capitalization rate is equal to the amount of capitalized development cost divided by the total R&D spend in a year.
‡ R&D spend is R&D expense plus capitalized R&D for fiscal year 2008.

The above table demonstrates the diversity in practice when it comes to capitalizing development costs. The rates vary between and even within subsectors because of different factors:

- Each company’s unique R&D processes and activities
- How each company defines R&D costs and activities
- The nature and range of products and services in each subsector
- The characteristics of the subsector
- The maturity of the business, as a more established environment may experience less technological innovation
- The size of each company, as larger, more sophisticated businesses may face fewer hurdles in satisfying capitalization criteria under IFRS
While many factors affect the capitalization threshold, all businesses must be able to clearly determine, justify, and support their decisions regarding capitalization under IFRS, even if companies decide not to capitalize any development costs.

What happens to the value of intangible assets when companies file financial information under both IFRS and US GAAP? Some of the European company filings that PwC reviewed to compile the chart on the previous page did, in fact, provide financial information under both accounting frameworks. In those cases, significant increases emerged, showing a range up to $700 million in the value of the intangible assets capitalized under IFRS.

Looking in Europe beyond the technology sector, capitalization rates for R&D-intensive sectors seem to vary based on a number of factors. For example, the automotive sector capitalizes a large percentage of R&D costs, reflecting spending on technologies and development. In comparison, the pharmaceutical industry capitalizes a smaller percentage of R&D costs, primarily because regulatory approval comes late in the R&D cycle.

**Accounting and financial reporting considerations**

As US technology companies assess the impact of IFRS on accounting for R&D activity, they should understand that they might no longer be able to expense all of their R&D costs. IFRS requires capitalization of certain elements of costs associated with successful development activity, as these costs result in the creation of an intangible asset with future economic benefits to an entity.

For a typical R&D life cycle, IFRS differentiates between the research element and the development element. Costs considered research-related are expensed as incurred; costs related to development are expensed until the creation of an intangible asset commences. This capitalization point is determined when the organization can demonstrate that it has met all of the following six criteria:

- The technical feasibility of completing the intangible asset so that it will be available for use or sale
- The intention to complete the intangible asset and use or sell it
- The ability to use or sell the intangible asset
- How the intangible asset will generate probable future economic benefits (among other things, the organization can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset)
- The availability of adequate technical, financial, and other resources to complete the development and the use or sale of the intangible asset
- The organization’s ability to measure reliably the expenditure attributable to the intangible asset during its development
Determining when an R&D project meets these six criteria requires facts and some judgment. The determination can vary not just by project but also among companies, as it is influenced by size, maturity of the technology, funding level, and other factors. However, in our experience, some broad trends remain. For example, established companies typically may find it easier to meet some of the criteria, while others must be reviewed more closely. For instance, established companies generally have the resources to complete the development of the asset, along with the ability to use or sell the intangible asset created because of existing capacity or capabilities. Hence, they tend to focus more on the remaining four recognition criteria, which involve a greater degree of analysis and use of sound judgment—along with consideration of wider business factors. In implementing these requirements, companies realize that there are nuances to consider and there is a need for a robust cross-functional information and decision-making process.

Capitalized costs should be directly attributable to the development activity. Determining what is directly attributable requires a thorough understanding of the R&D function, supporting information, and use of judgment. Active and contemporaneous analysis of the R&D life cycle is necessary to determine the point of capitalization because amounts that are initially expensed cannot be subsequently capitalized. After completing the development activity, the new intangible asset is amortized on a systematic basis over the life of the technology.

Companies also will have to assess the new intangible assets for impairment. The difference in accounting for impairment under US GAAP and IFRS results in different considerations and potentially divergent results (differences could arise in timing, level, and method of testing). The timing of assessing the intangible asset for impairment depends on the stage of completion. When there is ongoing development work it is considered an indefinite lived intangible asset to be tested annually, unless a triggering event occurs. Once it is completed, it is considered a definite lived intangible asset that is assessed only when a triggering event occurs. The level where such intangible assets are tested for impairment would depend on how the asset is associated with other existing assets, and determining this requires some analysis and judgment. Methods differ because IFRS directly compares the recoverable value (which is the higher of fair value or value in use) to the book value of such intangible assets, whereas US GAAP starts with comparing an undiscounted cash flow model to the book value to determine if there is an impairment. Therefore, impairment tends to occur earlier under IFRS.

Companies also need to consider the financial impact on their stakeholders and take steps to communicate changes. The financial reporting impacts include:

- Different income statement and cash flow geography for R&D expenses
- Results in the year of transition are affected
- Volatility from potential impairment of amounts capitalized, or the reversal of that impairment
Income tax considerations
Companies need to assess the impact of IFRS adoption on tax deductions, deferred taxes, and tax strategies. In many states and countries, companies receive a credit related to R&D expenses. Some authorities may measure the credit based on actual spending on R&D during a year, while others may base it on amounts actually expensed. Additionally, companies will need to determine whether there is any impact on their transfer pricing strategies, as there may be an impact on their cost sharing arrangements from certain development costs being capitalized. Overall, there are impacts on the taxes paid and credits received, and cash flows that will need to be understood and actively managed.

Impact on information systems and the R&D cycle
Accounting for R&D under IFRS presents a number of information system and process challenges. Companies should prepare to deal with technical issues, such as testing and integration of new software and hardware, but also with human resource issues, as employees adapt to the new rules and processes designed to capture activity and cost information in greater detail. These are critical matters because IFRS requires companies to gather information in sufficient detail to support the analysis necessary to determine capitalization. While these changes may lead to significant implementation, monitoring, and reporting costs, they may also provide greater visibility into the R&D activities, giving management more insight that could turn into greater return on investment.

Companies use a variety of enterprise resource planning systems to capture financial data for both operational analysis and public reporting. One of the capitalization criteria under IFRS is the ability to reliably measure expenditures during the development phase. This does not mean that companies will be able to avoid capitalizing costs if they do not have the system capabilities to analyze the data. Rather, companies will be expected to implement the appropriate systems and processes to enable the proper analysis of the costs for capitalization. Implementing a manual process would be expected in the absence of adequate system functionality.
What companies can learn from IFRS adopters

Many companies around the world have already adopted IFRS, all employing different levels of planning. Some of the important steps for a company planning to assess its R&D cycle in preparation for IFRS adoption include:

• Establish a clear vision and then start early, as this is an area that has a longer lead time, based on the duration of the R&D life cycle

• Ensure thorough understanding of the accounting guidance for R&D under IFRS, and consider who needs training

• Affirm the company’s R&D strategies and objectives

• Evaluate and understand the company’s R&D cycle, the business culture within the R&D organization, and the current systems and processes that support and capture R&D activity

• Consider the broader impacts of conversion across the entire business including taxes, planning and budgeting, and stakeholder communications

Companies can also experience benefits from a detailed implementation of processes and controls to support the R&D function:

• Increased visibility and accountability into R&D activity and spending through detailed tracking of time and costs at the project level

• Better management and utilization of resources across an organization leading to better informed decisions whether to continue or abandon R&D projects

• Improved support for evaluation of R&D tax credit eligibility

• Managing and meeting stakeholder expectations by providing relevant, reliable, and timely information
What this means for your business

Prepare for change
Technology companies will need to consider the effects of a change in R&D accounting well in advance of the actual transition to IFRS. The following factors will help determine when a company should begin to focus on these issues:

- The typical duration of the R&D cycle
- The requirements for gathering the necessary information for the analysis
- The timing of the decision to capitalize costs needs to be contemporaneous with when costs are incurred. Costs cannot be subsequently capitalized if they are initially expensed under IFRS.

There are initiatives underway to converge US GAAP and IFRS in areas such as revenue recognition and leases; however, there is no formal project currently underway to converge US GAAP and IFRS in the area of R&D. Nonetheless, other developments demonstrate a trend of US GAAP moving toward IFRS, such as the change to business combination standards under US GAAP, which now requires the recognition of acquired in-process R&D as an intangible asset of the acquirer. With this in mind, companies should consider several internal and external challenges.

**Internal considerations**

- When to initiate the process for determining capitalization of eligible development costs?
- What existing enterprise resource planning components can be leveraged or updated to capture and report R&D costs?
- What new processes and systems are needed to capture, analyze, and report costs related to phases in the R&D cycle?
- How to communicate changes in processes, such as new methods for recording time and expenses, to employees? How to make these cultural changes acceptable and sustainable?
- What additional intangible assets need to be monitored and measured for impairment?
- How does the change affect R&D that is either done jointly with other parties or outsourced?
- How to deal with R&D accounting when its foreign subsidiaries may already be adopting IFRS for local reporting? (Companies should exercise oversight on non-US IFRS adoption.)
- What strategies can be adopted to reduce the impact of this change?
External considerations

• How to prepare for, and then communicate the change in financial performance on transition? (This should be more predictable over time unless there are impairments and changes in the amortization periods, spending, rate of capitalization, etc.)

• What adjustments would have to be made in future external communications?

• What are the potential changes in income statement geography of R&D expenses and amortization of capitalized costs?

• What impact will IFRS have on presentation of cash flows?

• Who are the other stakeholders (e.g., tax authorities)? How to manage the impact on them?

• What are the strategies that peers are considering?

These challenges should be addressed with respective stakeholders well in advance of implementation to ensure a smooth transition and minimize any confusion.

The next several years will bring major changes to US financial reporting. Whether changes arrive through convergence, an SEC-mandated move to IFRS, or continued IFRS adoption by subsidiaries and counterparties, the effect on US businesses will be considerable. In February 2010, the Securities and Exchange Commission (SEC) published a Commission Statement in Support of Convergence and Global Accounting Standards, which provides an update regarding its consideration of a global set of accounting standards and its continued support for conversion. The SEC has also included a work plan that it will execute in order to enhance its analysis and understanding of the implications of a change to IFRS.

The SEC expects to be in a position to make a determination about the use of IFRS in 2011. If the SEC determines in 2011 to incorporate IFRS into the US domestic reporting system, the first time US issuers would report under that system would be in 2015 or 2016. The implementation dates may continued to be staggered and will be evaluated as part of the work plan.

The conversion to IFRS will change the way technology companies approach and account for one of their most important functions: R&D. Technology companies should stay focused on the changes that IFRS will bring to their organizations, and should start to consider the impact to ensure a thoughtful, well managed transition.
To have a deeper conversation about how IFRS may affect your business, please contact:

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