This IFRS Supplement provides expanded discussions of accounting guidance under International Financial Reporting Standards (IFRS) for the topics in Intermediate Accounting. The discussions are organized according to the chapters in Intermediate Accounting (13th or 14th Editions) and therefore can be used to supplement the U.S. GAAP requirements as presented in the textbook. Assignment material is provided for each supplement chapter, which can be used to assess and reinforce student understanding of IFRS.

**INTERNALLY CREATED INTANGIBLES**

Businesses frequently incur costs on a variety of intangible resources, such as scientific or technological knowledge, market research, intellectual property, and brand names. These costs are commonly referred to as research and development (R&D) costs. Intangible assets that might arise from these expenditures include patents, computer software, copyrights, and trademarks. For example, Nokia (FIN) incurred R&D costs to develop its cell phones, resulting in patents related to its technology. In determining the accounting for these costs, Nokia must determine whether its R&D project is at a sufficiently advanced stage to be considered economically viable. To perform this assessment, Nokia evaluates costs incurred during the research phase and the development phase.

Illustration 12-1 indicates the two stages of research and development activities, along with the accounting treatment for costs incurred during these phases.

As indicated, all costs incurred in the research phase are expensed as incurred. Once a project moves to the development phase, certain development costs are capitalized. Specifically, development costs are capitalized when certain criteria are met, indicating that an economically viable intangible asset will result from the R&D project. In essence, economic viability indicates that the project is far enough along in the process such that the economic benefits of the R&D project will flow to the company. Therefore, development costs incurred from that point forward meet the recognition criteria and should be recorded as an intangible asset.

In summary, companies expense all research phase costs and some development phase costs. Certain development costs are capitalized once economic viability criteria are met. IFRS identifies several specific criteria that must be met before development costs are capitalized (which we discuss in more detail later in the chapter).\(^1\)

\(^1\)IFRS also prohibits recognition of intangible assets such as internally generated brands, mastheads, and customer lists. These expenditures are similar to other costs to develop the business as whole; therefore, they do not meet the separately identifiable criterion. [1]
IMPAIRMENT OF INTANGIBLE ASSETS

An intangible asset is impaired when a company is not able to recover the asset’s carrying amount either through using it or by selling it. As discussed in Chapter 11, to determine whether a long-lived asset (property, plant, and equipment or intangible assets) is impaired, a review is made of the asset’s cash-generating ability through use or sale. If the carrying amount is higher than recoverable amount, the difference is an impairment loss. If the recoverable amount is greater than the carrying amount, no impairment is recorded. [2] The specific procedures for recording impairments depend on the type of intangible asset—limited-life or indefinite-life (including goodwill).

Impairment of Limited-Life Intangibles

The rules that apply to impairments of property, plant, and equipment also apply to limited-life intangibles. At each statement of financial position date, a company should review limited-life intangibles for impairment. Information indicating that an impairment test should be performed might be internal (e.g., physical damage or adverse changes in performance) or external (e.g., adverse changes in the business or regulatory environment, or technological or competitive developments). If there is an indication that an intangible asset is impaired, the company performs an impairment test: compare the carrying value of the intangible asset to the recoverable amount.

Recall that recoverable amount is defined as the higher of fair value less costs to sell or value-in-use. Fair value less costs to sell means what the asset could be sold for after deducting costs of disposal. Value-in-use is the present value of cash flows expected from the future use and eventual sale of the asset at the end of its useful life. The impairment loss is the carrying amount of the asset less the recoverable amount of the impaired asset. As with other impairments, the loss is reported in profit or loss. Companies generally report the loss in the “Other income and expense” section.

To illustrate, assume that Lerch, Inc. has a patent on how to extract oil from shale rock, with a carrying value of $5,000,000 at the end of 2010. Unfortunately, several recent non-shale-oil discoveries adversely affected the demand for shale-oil technology, indicating that the patent is impaired. Lerch determines the recoverable amount for the patent, based on value-in-use (because there is no active market for the patent). Lerch estimates the patent’s value-in-use at $2,000,000, based on the discounted expected net future cash flows at its market rate of interest. Illustration 12-2 shows the impairment loss computation (based on value-in-use).

ILLUSTRATION 12-2
Computation of Loss on Impairment of Patent

<table>
<thead>
<tr>
<th>Carrying value of patent</th>
<th>$5,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recoverable amount (based on value-in-use)</td>
<td>(2,000,000)</td>
</tr>
<tr>
<td>Loss on impairment</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>

Lerch records this loss as follows:

<table>
<thead>
<tr>
<th>Loss on Impairment</th>
<th>3,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents</td>
<td>3,000,000</td>
</tr>
</tbody>
</table>

After recognizing the impairment, the recoverable amount of $2,000,000 is the new cost basis of the patent. Lerch should amortize the patent’s recoverable amount (new carrying amount) over its remaining useful life or legal life, whichever is shorter.

Reversal of Impairment Loss

What happens if a review in a future year indicates that an intangible asset is no longer impaired because the recoverable amount of the asset is higher than the carrying
amount? In that case, the impairment loss may be reversed. To illustrate, continuing the Lerch patent example, assume that the remaining life of the patent is five years with zero residual value. Recall the carrying value of the patent after impairment is $2,000,000 ($5,000,000 – $3,000,000). Thus, Lerch’s amortization is $400,000 ($2,000,000 ÷ 5) over the remaining five years of the patent’s life. The amortization expense and related carrying amount after the impairment is shown in Illustration 12-3.

<table>
<thead>
<tr>
<th>Year</th>
<th>Amortization Expense</th>
<th>Carrying Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$400,000</td>
<td>$1,600,000</td>
</tr>
<tr>
<td>2012</td>
<td>400,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>2013</td>
<td>400,000</td>
<td>$800,000</td>
</tr>
<tr>
<td>2014</td>
<td>400,000</td>
<td>$400,000</td>
</tr>
<tr>
<td>2015</td>
<td>400,000</td>
<td>0</td>
</tr>
</tbody>
</table>

Early in 2012, based on improving conditions in the market for shale-oil technology, Lerch remeasures the recoverable amount of the patent to be $1,750,000. In this case, Lerch reverses a portion of the recognized impairment loss with the following entry.

\[
\text{Patents (} \frac{1,750,000}{1,600,000} \text{)} \quad 150,000 \\
\text{Recovery of Impairment Loss} \quad 150,000
\]

The recovery of the impairment loss is reported in the “Other income and expense” section of the income statement. The carrying amount of the patent is now $1,750,000 ($1,600,000 + $150,000). Assuming the remaining life of the patent is four years, Lerch records $437,500 ($1,750,000 ÷ 4) amortization expense in 2012.

**Impairment of Indefinite-Life Intangibles Other Than Goodwill**

Companies test indefinite-life intangibles (including goodwill) for impairment annually. The impairment test for indefinite-life assets other than goodwill is the same as that for limited-life intangibles. That is, compare the recoverable amount of the intangible asset with the asset’s carrying value. If the recoverable amount is less than the carrying amount, the company recognizes an impairment.

To illustrate, assume that Arcon Radio purchased a broadcast license for $2,000,000. The license is renewable every 10 years if the company provides appropriate service and does not violate Government Communications Commission (GCC) rules. Arcon Radio has renewed the license with the GCC twice, at a minimal cost. Because it expects cash flows to last indefinitely, Arcon reports the license as an indefinite-life intangible asset. Recently, the GCC decided to auction these licenses to the highest bidder instead of renewing them. Based on recent auctions of similar licenses, Arcon Radio estimates the fair value less costs to sell (the recoverable amount) of its license to be $1,500,000. Arcon therefore reports an impairment loss of $500,000, computed as follows.

\[
\begin{align*}
\text{Carrying value of broadcast license} & \quad $2,000,000 \\
\text{Recoverable amount (based on fair value less costs to sell)} & \quad (1,500,000) \\
\text{Loss on impairment} & \quad $500,000
\end{align*}
\]

\(^2\text{As with impairments of property, plant, and equipment, the amount of the recovery of the loss is limited to the carrying value amount that would result if the impairment had not occurred.}\)

\(^3\text{Note that the impairment test is performed every year (not only when there is an impairment indicator). This more stringent impairment model for indefinite-life intangibles (and goodwill) is used because these assets are not amortized and the recognized amounts may be subject to significant judgment.}\)
Impairment of Goodwill

The timing of the impairment test for goodwill is the same as that for other indefinite-life intangibles. That is, companies must test goodwill at least annually. However, because goodwill generates cash flows only in combination with other assets, the impairment test is conducted based on the cash-generating unit to which the goodwill is assigned. Recall from our discussion in Chapter 11 that companies identify a cash-generating unit based on the smallest identifiable group of assets that generate cash flows independently of the cash flows from other assets. Under IFRS, when a company records goodwill in a business combination, it must assign the goodwill to the cash-generating unit that is expected to benefit from the synergies and other benefits arising from the business combination.

To illustrate, assume that Kohlbuy Corporation has three divisions. It purchased one division, Pritt Products, four years ago for $2 million. Unfortunately, Pritt experienced operating losses over the last three quarters. Kohlbuy management is now reviewing the division (the cash-generating unit), for purposes of its annual impairment testing. Illustration 12-5 lists the Pritt Division’s net assets, including the associated goodwill of $900,000 from the purchase.

| Property, plant, and equipment (net)  | 800,000 |
| Goodwill                             | 900,000 |
| Inventory                            | 700,000 |
| Receivables                          | 300,000 |
| Cash                                 | 200,000 |
| Accounts and notes payable           | (500,000) |
| Net assets                           | $2,400,000 |

Kohlbuy determines the recoverable amount for the Pritt Division to be $2,800,000, based on a value-in-use estimate. Because the fair value of the division exceeds the carrying amount of the net assets, Kohlbuy does not recognize any impairment.

However, if the recoverable amount for the Pritt Division were less than the carrying amount of the net assets, then Kohlbuy must record an impairment. To illustrate, assume that the recoverable amount for the Pritt Division is $1,900,000 instead of $2,800,000. Illustration 12-6 computes the amount of the impairment loss to be recorded. Kohlbuy makes the following entry to record the impairment.

| Recoverable amount of Pritt Division   | $1,900,000 |
| Net identifiable assets               | (2,400,000) |
| Loss on impairment                    | $500,000 |

Following this entry, the carrying value of the goodwill is $400,000.

If conditions change in subsequent periods, such that the recoverable amount of the Pritt Division’s assets other than goodwill exceeds their carrying value, Kohlbuy may reverse an impairment loss on the Pritt Division assets other than goodwill. Goodwill impairment loss reversals are not permitted. [3]

Because there is rarely a market for cash-generating units, estimation of the recoverable amount for goodwill impairments is usually based on value-in-use estimates.
RESEARCH AND DEVELOPMENT COSTS

Research and development (R&D) costs are not in themselves intangible assets. However, we present the accounting for R&D costs here because R&D activities frequently result in the development of patents or copyrights (such as a new product, process, idea, formula, composition, or literary work) that may provide future value.

As discussed earlier IFRS requires that all research costs be expensed as incurred. Development costs may or may not be expensed as incurred. Once a project moves to the development phase, certain development costs are capitalized. Capitalization begins when the project is far enough along in the process such that the economic benefits of the R&D project will flow to the company (the project is economically viable). For purposes of homework, assume that all R&D costs are expensed as incurred unless stated otherwise.

AUTHORITATIVE LITERATURE

Authoritative Literature References


QUESTIONS

1. Braxton Inc. is considering the write-off of a limited-life intangible because of its lack of profitability. Explain to the management of Braxton how to determine whether a write-off is permitted.

2. Last year Zeno Company recorded an impairment on an intangible asset. Recent appraisals indicate that the asset has increased in value. Should Zeno record this recovery in value?

3. Explain how losses on impaired intangible assets should be reported in income.

4. Simon Company determines that its goodwill is impaired. It finds that its recoverable amount is $360,000 and its recorded goodwill is $400,000. The fair value of its identifiable assets is $1,450,000. What is the amount of goodwill impaired?

5. What is the nature of research and development costs? Can development costs be capitalized? Explain.

\[5\] All of the following criteria must be met to begin capitalizing development costs into the carrying value of the related intangible: (1) The project achieves technical feasibility of completing the intangible asset so that it will be available for use or sale; (2) the company intends, and has the ability, to complete the intangible asset and use or sell it; (3) the intangible asset will generate probable future economic benefits (there is a market for the asset or the output of the asset); (4) the company has adequate technical, financial, and other resources to complete the development of the intangible asset; and (5) the company can measure reliably the development costs associated with the intangible asset to be developed. [4]
**BRIEF EXERCISES**

**BE12-1** Kenoly Corporation owns a patent that has a carrying amount of $300,000. Kenoly expects future net cash flows from this patent to total $210,000 over its remaining life of 10 years. The recoverable amount of the patent is $110,000. Prepare Kenoly’s journal entry, if necessary, to record the loss on impairment.

**BE12-2** Use the information in BE12-1. Assume that at the end of the year following the impairment (after recording amortization expense), the estimated recoverable amount for the patent is $130,000. Prepare Kenoly’s journal entry, if needed.

**BE12-3** Waters Corporation purchased Johnson Company 3 years ago and at that time recorded goodwill of $400,000. The Johnson Division’s net assets, including the goodwill, have a carrying amount of $800,000. The recoverable amount of the division is estimated to be $1,000,000. Prepare Waters’ journal entry, if necessary, to record impairment of the goodwill.

**BE12-4** Use the information provided in BE12-3. Assume that the recoverable amount of the division is estimated to be $750,000. Prepare Waters’ journal entry, if necessary, to record impairment of the goodwill.

**BE12-5** Treasure Land Corporation incurred the following costs in 2010.

| Cost of laboratory research aimed at discovery of new knowledge | $120,000 |
| Cost of testing in search for product alternatives | 100,000 |
| Cost of engineering activity required to advance the design of a product to the manufacturing stage | 210,000 |
| Prototype testing subsequent to meeting economic viability | 75,000 |
| **Total** | **$505,000** |

Prepare the necessary 2010 journal entry or entries for Treasure Land.

**BE12-6** Indicate whether the following items are capitalized or expensed in the current year.

(a) Purchase cost of a patent from a competitor.

(b) Research costs.

(c) Development costs (after achieving economic viability).

(d) Organizational costs.

(e) Costs incurred internally to create goodwill.

**EXERCISES**

**E12-1** (Copyright Impairment) Present below is information related to copyrights owned by Botticelli Company at December 31, 2010.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$8,600,000</td>
</tr>
<tr>
<td>Carrying amount</td>
<td>4,300,000</td>
</tr>
<tr>
<td>Recoverable amount</td>
<td>3,400,000</td>
</tr>
</tbody>
</table>

Assume that Botticelli Company will continue to use this copyright in the future. As of December 31, 2010, the copyright is estimated to have a remaining useful life of 10 years.

**Instructions**

(a) Prepare the journal entry (if any) to record the impairment of the asset at December 31, 2010. The company does not use accumulated amortization accounts.

(b) Prepare the journal entry to record amortization expense for 2011 related to the copyrights.

(c) The recoverable amount of the copyright at December 31, 2011, is $3,500,000. Prepare the journal entry (if any) necessary to record the increase in fair value.
The purpose of the Mischa division (cash-generating unit) is to develop a nuclear-powered aircraft. If successful, traveling delays associated with refueling could be substantially reduced. Many other benefits would also occur. To date, management has not had much success and is deciding whether a write-down at this time is appropriate. Management estimated its future net cash flows from the project to be $400 million. Management has also received an offer to purchase the division for $335 million (fair value less costs to sell). All identifiable assets' and liabilities' book and fair value amounts are the same.

Instructions
(a) Prepare the journal entry (if any) to record the impairment at December 31, 2010.
(b) At December 31, 2011, it is estimated that the division’s recoverable amount increased to $345 million. Prepare the journal entry (if any) to record this increase in fair value.

E12-3 (Accounting for R&D Costs) Margaret Avery Company from time to time embarks on a research program when a special project seems to offer possibilities. In 2009 the company expends €325,000 on a research project, but by the end of 2009 it is impossible to determine whether any benefit will be derived from it.

Instructions
(a) What account should be charged for the €325,000, and how should it be shown in the financial statements?
(b) The project is completed in 2010, and a successful patent is obtained. The R&D costs to complete the project are €130,000 (€36,000 of these costs were incurred after achieving economic viability). The administrative and legal expenses incurred in obtaining patent number 472-1001-84 in 2010 total €24,000. The patent has an expected useful life of 5 years. Record these costs in journal entry form. Also, record patent amortization (full year) in 2010.
(c) In 2011, the company successfully defends the patent in extended litigation at a cost of €47,200, thereby extending the patent life to December 31, 2018. What is the proper way to account for this cost? Also, record patent amortization (full year) in 2011.
(d) Additional engineering and consulting costs incurred in 2011 required to advance the design of a new version of the product to the manufacturing stage total €60,000. These costs enhance the design of the product considerably, but it is highly uncertain if there will be a market for the new version of the product. Discuss the proper accounting treatment for this cost.

E12-4 (Goodwill Impairment) On July 31, 2010, Mexico Company paid $3,000,000 to acquire all of the ordinary shares of Conchita Incorporated, which became a division (cash-generating unit) of Mexico. Conchita reported the following statement of financial position at the time of the acquisition.

<table>
<thead>
<tr>
<th>Non-current assets</th>
<th>$2,700,000</th>
<th>Equity</th>
<th>$2,400,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>800,000</td>
<td>Non-current liabilities</td>
<td>500,000</td>
</tr>
<tr>
<td>Total assets</td>
<td>$3,500,000</td>
<td>Current liabilities</td>
<td>600,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total equity and liabilities</td>
<td>$3,500,000</td>
</tr>
</tbody>
</table>

It was determined at the date of the purchase that the fair value of the identifiable net assets of Conchita was $2,750,000. Over the next 6 months of operations, the newly purchased division experienced
operating losses. In addition, it now appears that it will generate substantial losses for the foreseeable future. At December 31, 2010, Conchita reports the following statement of financial position information.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current assets</td>
<td>$450,000</td>
</tr>
<tr>
<td>Non-current assets (including goodwill recognized in purchase)</td>
<td>2,400,000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>(700,000)</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>(500,000)</td>
</tr>
<tr>
<td>Net assets</td>
<td>$1,650,000</td>
</tr>
</tbody>
</table>

It is determined that the recoverable amount of the Conchita Division is $1,850,000.

Instructions
(a) Compute the amount of goodwill recognized, if any, on July 31, 2010.
(b) Determine the impairment loss, if any, to be recorded on December 31, 2010.
(c) Assume that the recoverable amount of the Conchita Division is $1,600,000 instead of $1,850,000. Determine the impairment loss, if any, to be recorded on December 31, 2010.
(d) Prepare the journal entry to record the impairment loss, if any, and indicate where the loss would be reported in the income statement.

CONCEPTS FOR ANALYSIS

CA12-1  (Development Costs)  Dogwood Electronics has been working to develop a patented technology for backing up computer hard drives. Dogwood had the following activities related to this project.

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1</td>
<td>Dogwood incurred €10,000 in legal and processing fees to file and record a patent for the technology.</td>
<td></td>
</tr>
<tr>
<td>April 5</td>
<td>Laboratory and materials fees to identify a working system, €23,000.</td>
<td></td>
</tr>
<tr>
<td>May 15</td>
<td>Prototype development and testing, €34,000.</td>
<td></td>
</tr>
<tr>
<td>June 1</td>
<td>Dogwood meets the economic viability threshold, upon receiving a firm contract for the product.</td>
<td></td>
</tr>
<tr>
<td>June 30</td>
<td>Final development of product based on earlier tests, €45,000.</td>
<td></td>
</tr>
</tbody>
</table>

Instructions
(a) Prepare a schedule indicating Dogwood R&D costs to be expensed and Dogwood R&D costs to be capitalized.
(b) Briefly discuss how the accounting for these costs will impact the information presented in Dogwood’s income statement and statement of financial position. Discuss the effects in current and future periods.
(c) Identify the criteria for determining “economic viability.”

USING YOUR JUDGMENT

FINANCIAL REPORTING

Financial Reporting Problem
Marks and Spencer plc (M&S)
The financial statements of M&S can be accessed at the book’s companion website, www.wiley.com/college/kiesoifrs.

Instructions
Refer to M&S’s financial statements and the accompanying notes to answer the following questions.
(a) Does M&S report any intangible assets and goodwill in its financial statements and accompanying notes? Briefly explain.
(b) How much selling and marketing expenses does M&S report in 2007 and 2008? Briefly discuss the significance of these expenses to M&S’s operating results.
BRIDGE TO THE PROFESSION

Professional Research
King Company is contemplating the purchase of a smaller company, which is a distributor of King’s products. Top management of King is convinced that the acquisition will result in significant synergies in its selling and distribution functions. The financial management group (of which you are a part) has been asked to prepare some analysis of the effects of the acquisition on the combined company’s financial statements. This is the first acquisition for King, and some of the senior staff insist that based on their recollection of goodwill accounting, any goodwill recorded on the acquisition will result in a “drag” on future earnings for goodwill amortization. Other younger members on the staff argue that goodwill accounting has changed. Your supervisor asks you to research this issue.

Instructions
Access the IFRS authoritative literature at the IASB website (http://eifrs.iasb.org/). When you have accessed the documents, you can use the search tool in your Internet browser to respond to the following questions. (Provide paragraph citations.)
(a) Identify the accounting literature that addresses goodwill and other intangible assets.
(b) Define goodwill.
(c) Is goodwill subject to amortization? Explain.
(d) When goodwill is recognized by a subsidiary, should it be tested for impairment at the consolidated level or the subsidiary level? Discuss.