

## International Accounting Standard 16

# Property, Plant and Equipment

*This version includes amendments resulting from IFRSs issued up to 31 December 2009.*

IAS 16 *Property, Plant and Equipment* was issued by the International Accounting Standards Committee in December 1993. It replaced IAS 16 *Accounting for Property, Plant and Equipment* (issued in March 1982). IAS 16 was revised in 1998 and further amended in 2000.

The Standing Interpretations Committee developed three Interpretations relating to IAS 16:

- SIC-6 *Costs of Modifying Existing Software* (issued May 1998)
- SIC-14 *Property, Plant and Equipment—Compensation for the Impairment or Loss of Items* (issued December 1998)
- SIC-23 *Property, Plant and Equipment—Major Inspection or Overhaul Costs* (issued July 2000).

In April 2001 the International Accounting Standards Board (IASB) resolved that all Standards and Interpretations issued under previous Constitutions continued to be applicable unless and until they were amended or withdrawn.

In December 2003 the IASB issued a revised IAS 16. The revised standard also replaced SIC-6, SIC-14 and SIC-23.

Since then, IAS 16 has been amended by the following IFRSs:

- IFRS 2 *Share-based Payment* (issued February 2004)
- IFRS 3 *Business Combinations* (issued March 2004)
- IFRS 5 *Non-Current Assets Held for Sale and Discontinued Operations* (issued March 2004)
- IFRS 6 *Exploration for and Evaluation of Mineral Resources* (issued December 2004)
- IAS 23 *Borrowing Costs* (as revised in March 2007)\*
- IAS 1 *Presentation of Financial Statements* (as revised in September 2007)\*
- IFRS 3 *Business Combinations* (as revised in January 2008)†
- *Improvements to IFRSs* (issued May 2008).‡

The following Interpretations refer to IAS 16:

- SIC-21 *Income Taxes—Recovery of Revalued Non-Depreciable Assets* (issued July 2000)
- SIC-29 *Service Concession Arrangements: Disclosures* (issued December 2001 and subsequently amended)
- SIC-32 *Intangible Assets—Web Site Costs* (issued March 2002 and subsequently amended)

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\* effective date 1 January 2009

† effective date 1 July 2009

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- IFRIC 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities* (issued May 2004 and subsequently amended)
- IFRIC 4 *Determining whether an Arrangement contains a Lease* (issued December 2004)
- IFRIC 12 *Service Concession Arrangements* (issued November 2006 and subsequently amended)
- IFRIC 18 *Transfers of Assets from Customers* (issued January 2009).\*

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\* effective date 1 July 2009

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APPROVAL BY THE BOARD OF IAS 16 ISSUED IN DECEMBER 2003

BASIS FOR CONCLUSIONS

## IAS 16

International Accounting Standard 16 *Property, Plant and Equipment* (IAS 16) is set out in paragraphs 1–83 and the Appendix. All the paragraphs have equal authority but retain the IASC format of the Standard when it was adopted by the IASB. IAS 16 should be read in the context of its objective and the Basis for Conclusions, the *Preface to International Financial Reporting Standards* and the *Framework for the Preparation and Presentation of Financial Statements*. IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

## Introduction

IN1 International Accounting Standard 16 *Property, Plant and Equipment* (IAS 16) replaces IAS 16 *Property, Plant and Equipment* (revised in 1998), and should be applied for annual periods beginning on or after 1 January 2005. Earlier application is encouraged. The Standard also replaces the following Interpretations:

- SIC-6 *Costs of Modifying Existing Software*
- SIC-14 *Property, Plant and Equipment—Compensation for the Impairment or Loss of Items*
- SIC-23 *Property, Plant and Equipment—Major Inspection or Overhaul Costs*.

## Reasons for revising IAS 16

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IN2 The International Accounting Standards Board developed this revised IAS 16 as part of its project on Improvements to International Accounting Standards. The project was undertaken in the light of queries and criticisms raised in relation to the Standards by securities regulators, professional accountants and other interested parties. The objectives of the project were to reduce or eliminate alternatives, redundancies and conflicts within the Standards, to deal with some convergence issues and to make other improvements.

IN3 For IAS 16 the Board's main objective was a limited revision to provide additional guidance and clarification on selected matters. The Board did not reconsider the fundamental approach to the accounting for property, plant and equipment contained in IAS 16.

## The main changes

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IN4 The main changes from the previous version of IAS 16 are described below.

### Scope

IN5 This Standard clarifies that an entity is required to apply the principles of this Standard to items of property, plant and equipment used to develop or maintain (a) biological assets and (b) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources.

### Recognition: subsequent costs

IN6 An entity evaluates under the general recognition principle all property, plant and equipment costs at the time they are incurred. Those costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service an item. The previous version of IAS 16 contained two recognition principles. An entity applied the second recognition principle to subsequent costs.

### **Measurement at recognition: asset dismantlement, removal and restoration costs**

- IN7 The cost of an item of property, plant and equipment includes the costs of its dismantlement, removal or restoration, the obligation for which an entity incurs as a consequence of installing the item. Its cost also includes the costs of its dismantlement, removal or restoration, the obligation for which an entity incurs as a consequence of using the item during a particular period for purposes other than to produce inventories during that period. The previous version of IAS 16 included within its scope only the costs incurred as a consequence of installing the item.

### **Measurement at recognition: asset exchange transactions**

- IN8 An entity is required to measure an item of property, plant and equipment acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets, at fair value unless the exchange transaction lacks commercial substance. Under the previous version of IAS 16, an entity measured such an acquired asset at fair value unless the exchanged assets were similar.

### **Measurement after recognition: revaluation model**

- IN9 If fair value can be measured reliably, an entity may carry all items of property, plant and equipment of a class at a revalued amount, which is the fair value of the items at the date of the revaluation less any subsequent accumulated depreciation and accumulated impairment losses. Under the previous version of IAS 16, use of revalued amounts did not depend on whether fair values were reliably measurable.

### **Depreciation: unit of measure**

- IN10 An entity is required to determine the depreciation charge separately for each significant part of an item of property, plant and equipment. The previous version of IAS 16 did not as clearly set out this requirement.

### **Depreciation: depreciable amount**

- IN11 An entity is required to measure the residual value of an item of property, plant and equipment as the amount it estimates it would receive currently for the asset if the asset were already of the age and in the condition expected at the end of its useful life. The previous version of IAS 16 did not specify whether the residual value was to be this amount or the amount, inclusive of the effects of inflation, that an entity expected to receive in the future on the asset's actual retirement date.

**Depreciation: depreciation period**

- IN12 An entity is required to begin depreciating an item of property, plant and equipment when it is available for use and to continue depreciating it until it is derecognised, even if during that period the item is idle. The previous version of IAS 16 did not specify when depreciation of an item began and specified that an entity should cease depreciating an item that it had retired from active use and was holding for disposal.

**Derecognition: derecognition date**

- IN13 An entity is required to derecognise the carrying amount of an item of property, plant and equipment that it disposes of on the date the criteria for the sale of goods in IAS 18 *Revenue* would be met. The previous version of IAS 16 did not require an entity to use those criteria to determine the date on which it derecognised the carrying amount of a disposed-of item of property, plant and equipment.
- IN14 An entity is required to derecognise the carrying amount of a part of an item of property, plant and equipment if that part has been replaced and the entity has included the cost of the replacement in the carrying amount of the item. The previous version of IAS 16 did not extend its derecognition principle to such parts; rather, its recognition principle for subsequent expenditures effectively precluded the cost of a replacement from being included in the carrying amount of the item.

**Derecognition: gain classification**

- IN15 An entity cannot classify as revenue a gain it realises on the disposal of an item of property, plant and equipment. The previous version of IAS 16 did not contain this provision.

## **International Accounting Standard 16**

### ***Property, Plant and Equipment***

#### **Objective**

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- 1 The objective of this Standard is to prescribe the accounting treatment for property, plant and equipment so that users of the financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment. The principal issues in accounting for property, plant and equipment are the recognition of the assets, the determination of their carrying amounts and the depreciation charges and impairment losses to be recognised in relation to them.

#### **Scope**

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- 2 **This Standard shall be applied in accounting for property, plant and equipment except when another Standard requires or permits a different accounting treatment.**

- 3 This Standard does not apply to:

- (a) property, plant and equipment classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*;
- (b) biological assets related to agricultural activity (see IAS 41 *Agriculture*);
- (c) the recognition and measurement of exploration and evaluation assets (see IFRS 6 *Exploration for and Evaluation of Mineral Resources*); or
- (d) mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources.

However, this Standard applies to property, plant and equipment used to develop or maintain the assets described in (b)–(d).

- 4 Other Standards may require recognition of an item of property, plant and equipment based on an approach different from that in this Standard. For example, IAS 17 *Leases* requires an entity to evaluate its recognition of an item of leased property, plant and equipment on the basis of the transfer of risks and rewards. However, in such cases other aspects of the accounting treatment for these assets, including depreciation, are prescribed by this Standard.
- 5 An entity using the cost model for investment property in accordance with IAS 40 *Investment Property* shall use the cost model in this Standard.

#### **Definitions**

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- 6 **The following terms are used in this Standard with the meanings specified:**
- Carrying amount* is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses.**

**Cost** is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction or, where applicable, the amount attributed to that asset when initially recognised in accordance with the specific requirements of other IFRSs, eg IFRS 2 *Share-based Payment*.

**Depreciable amount** is the cost of an asset, or other amount substituted for cost, less its residual value.

**Depreciation** is the systematic allocation of the depreciable amount of an asset over its useful life.

**Entity-specific value** is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a liability.

**Fair value** is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

**An impairment loss** is the amount by which the carrying amount of an asset exceeds its recoverable amount.

**Property, plant and equipment** are tangible items that:

- (a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- (b) are expected to be used during more than one period.

**Recoverable amount** is the higher of an asset's fair value less costs to sell and its value in use.

The **residual value** of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

**Useful life** is:

- (a) the period over which an asset is expected to be available for use by an entity; or
- (b) the number of production or similar units expected to be obtained from the asset by an entity.

## Recognition

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- 7 The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:
- (a) it is probable that future economic benefits associated with the item will flow to the entity; and
  - (b) the cost of the item can be measured reliably.

- 8 Spare parts and servicing equipment are usually carried as inventory and recognised in profit or loss as consumed. However, major spare parts and stand-by equipment qualify as property, plant and equipment when an entity expects to use them during more than one period. Similarly, if the spare parts and servicing equipment can be used only in connection with an item of property, plant and equipment, they are accounted for as property, plant and equipment.
- 9 This Standard does not prescribe the unit of measure for recognition, ie what constitutes an item of property, plant and equipment. Thus, judgement is required in applying the recognition criteria to an entity's specific circumstances. It may be appropriate to aggregate individually insignificant items, such as moulds, tools and dies, and to apply the criteria to the aggregate value.
- 10 An entity evaluates under this recognition principle all its property, plant and equipment costs at the time they are incurred. These costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it.

### **Initial costs**

- 11 Items of property, plant and equipment may be acquired for safety or environmental reasons. The acquisition of such property, plant and equipment, although not directly increasing the future economic benefits of any particular existing item of property, plant and equipment, may be necessary for an entity to obtain the future economic benefits from its other assets. Such items of property, plant and equipment qualify for recognition as assets because they enable an entity to derive future economic benefits from related assets in excess of what could be derived had those items not been acquired. For example, a chemical manufacturer may install new chemical handling processes to comply with environmental requirements for the production and storage of dangerous chemicals; related plant enhancements are recognised as an asset because without them the entity is unable to manufacture and sell chemicals. However, the resulting carrying amount of such an asset and related assets is reviewed for impairment in accordance with IAS 36 *Impairment of Assets*.

### **Subsequent costs**

- 12 Under the recognition principle in paragraph 7, an entity does not recognise in the carrying amount of an item of property, plant and equipment the costs of the day-to-day servicing of the item. Rather, these costs are recognised in profit or loss as incurred. Costs of day-to-day servicing are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is often described as for the 'repairs and maintenance' of the item of property, plant and equipment.
- 13 Parts of some items of property, plant and equipment may require replacement at regular intervals. For example, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe. Items of property, plant and equipment may also be acquired to make a less frequently recurring replacement, such as replacing the interior walls of a building, or to make a nonrecurring replacement. Under the recognition principle in paragraph 7, an

entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions of this Standard (see paragraphs 67–72).

- 14 A condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognised in the carrying amount of the item of property, plant and equipment as a replacement if the recognition criteria are satisfied. Any remaining carrying amount of the cost of the previous inspection (as distinct from physical parts) is derecognised. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the item was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired or constructed.

## Measurement at recognition

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- 15 **An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.**

### Elements of cost

- 16 The cost of an item of property, plant and equipment comprises:
- (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
  - (b) any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
  - (c) the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.
- 17 Examples of directly attributable costs are:
- (a) costs of employee benefits (as defined in IAS 19 *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant and equipment;
  - (b) costs of site preparation;
  - (c) initial delivery and handling costs;
  - (d) installation and assembly costs;

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- (e) costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and
  - (f) professional fees.
- 18 An entity applies IAS 2 *Inventories* to the costs of obligations for dismantling, removing and restoring the site on which an item is located that are incurred during a particular period as a consequence of having used the item to produce inventories during that period. The obligations for costs accounted for in accordance with IAS 2 or IAS 16 are recognised and measured in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.
- 19 Examples of costs that are not costs of an item of property, plant and equipment are:
  - (a) costs of opening a new facility;
  - (b) costs of introducing a new product or service (including costs of advertising and promotional activities);
  - (c) costs of conducting business in a new location or with a new class of customer (including costs of staff training); and
  - (d) administration and other general overhead costs.
- 20 Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Therefore, costs incurred in using or redeploying an item are not included in the carrying amount of that item. For example, the following costs are not included in the carrying amount of an item of property, plant and equipment:
  - (a) costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;
  - (b) initial operating losses, such as those incurred while demand for the item's output builds up; and
  - (c) costs of relocating or reorganising part or all of an entity's operations.
- 21 Some operations occur in connection with the construction or development of an item of property, plant and equipment, but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management. These incidental operations may occur before or during the construction or development activities. For example, income may be earned through using a building site as a car park until construction starts. Because incidental operations are not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, the income and related expenses of incidental operations are recognised in profit or loss and included in their respective classifications of income and expense.

- 22 The cost of a self-constructed asset is determined using the same principles as for an acquired asset. If an entity makes similar assets for sale in the normal course of business, the cost of the asset is usually the same as the cost of constructing an asset for sale (see IAS 2). Therefore, any internal profits are eliminated in arriving at such costs. Similarly, the cost of abnormal amounts of wasted material, labour, or other resources incurred in self-constructing an asset is not included in the cost of the asset. IAS 23 *Borrowing Costs* establishes criteria for the recognition of interest as a component of the carrying amount of a self-constructed item of property, plant and equipment.

### Measurement of cost

- 23 The cost of an item of property, plant and equipment is the cash price equivalent at the recognition date. If payment is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest over the period of credit unless such interest is capitalised in accordance with IAS 23.
- 24 One or more items of property, plant and equipment may be acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets. The following discussion refers simply to an exchange of one non-monetary asset for another, but it also applies to all exchanges described in the preceding sentence. The cost of such an item of property, plant and equipment is measured at fair value unless (a) the exchange transaction lacks commercial substance or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. The acquired item is measured in this way even if an entity cannot immediately derecognise the asset given up. If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.
- 25 An entity determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:
- (a) the configuration (risk, timing and amount) of the cash flows of the asset received differs from the configuration of the cash flows of the asset transferred; or
  - (b) the entity-specific value of the portion of the entity's operations affected by the transaction changes as a result of the exchange; and
  - (c) the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

For the purpose of determining whether an exchange transaction has commercial substance, the entity-specific value of the portion of the entity's operations affected by the transaction shall reflect post-tax cash flows. The result of these analyses may be clear without an entity having to perform detailed calculations.

- 26 The fair value of an asset for which comparable market transactions do not exist is reliably measurable if (a) the variability in the range of reasonable fair value estimates is not significant for that asset or (b) the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair

value. If an entity is able to determine reliably the fair value of either the asset received or the asset given up, then the fair value of the asset given up is used to measure the cost of the asset received unless the fair value of the asset received is more clearly evident.

- 27 The cost of an item of property, plant and equipment held by a lessee under a finance lease is determined in accordance with IAS 17.
- 28 The carrying amount of an item of property, plant and equipment may be reduced by government grants in accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*.

### Measurement after recognition

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- 29 **An entity shall choose either the cost model in paragraph 30 or the revaluation model in paragraph 31 as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.**

#### Cost model

- 30 **After recognition as an asset, an item of property, plant and equipment shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses.**

#### Revaluation model

- 31 **After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.**
- 32 The fair value of land and buildings is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers. The fair value of items of plant and equipment is usually their market value determined by appraisal.
- 33 If there is no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of a continuing business, an entity may need to estimate fair value using an income or a depreciated replacement cost approach.
- 34 The frequency of revaluations depends upon the changes in fair values of the items of property, plant and equipment being revalued. When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is required. Some items of property, plant and equipment experience significant and volatile changes in fair value, thus necessitating annual revaluation. Such frequent revaluations are unnecessary for items of property, plant and equipment with only insignificant changes in fair value. Instead, it may be necessary to revalue the item only every three or five years.

- 35 When an item of property, plant and equipment is revalued, any accumulated depreciation at the date of the revaluation is treated in one of the following ways:
- (a) restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount. This method is often used when an asset is revalued by means of applying an index to determine its depreciated replacement cost.
  - (b) eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset. This method is often used for buildings.

The amount of the adjustment arising on the restatement or elimination of accumulated depreciation forms part of the increase or decrease in carrying amount that is accounted for in accordance with paragraphs 39 and 40.

- 36 **If an item of property, plant and equipment is revalued, the entire class of property, plant and equipment to which that asset belongs shall be revalued.**

- 37 A class of property, plant and equipment is a grouping of assets of a similar nature and use in an entity's operations. The following are examples of separate classes:

- (a) land;
- (b) land and buildings;
- (c) machinery;
- (d) ships;
- (e) aircraft;
- (f) motor vehicles;
- (g) furniture and fixtures; and
- (h) office equipment.

- 38 The items within a class of property, plant and equipment are revalued simultaneously to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates. However, a class of assets may be revalued on a rolling basis provided revaluation of the class of assets is completed within a short period and provided the revaluations are kept up to date.

- 39 **If an asset's carrying amount is increased as a result of a revaluation, the increase shall be recognised in other comprehensive income and accumulated in equity under the heading of revaluation surplus. However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.**

- 40 **If an asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognised in profit or loss. However, the decrease shall be recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset. The decrease recognised in other comprehensive income reduces the amount accumulated in equity under the heading of revaluation surplus.**

- 41 The revaluation surplus included in equity in respect of an item of property, plant and equipment may be transferred directly to retained earnings when the asset is derecognised. This may involve transferring the whole of the surplus when the asset is retired or disposed of. However, some of the surplus may be transferred as the asset is used by an entity. In such a case, the amount of the surplus transferred would be the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost. Transfers from revaluation surplus to retained earnings are not made through profit or loss.
- 42 The effects of taxes on income, if any, resulting from the revaluation of property, plant and equipment are recognised and disclosed in accordance with IAS 12 *Income Taxes*.

### Depreciation

- 43 **Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.**
- 44 An entity allocates the amount initially recognised in respect of an item of property, plant and equipment to its significant parts and depreciates separately each such part. For example, it may be appropriate to depreciate separately the airframe and engines of an aircraft, whether owned or subject to a finance lease. Similarly, if an entity acquires property, plant and equipment subject to an operating lease in which it is the lessor, it may be appropriate to depreciate separately amounts reflected in the cost of that item that are attributable to favourable or unfavourable lease terms relative to market terms.
- 45 A significant part of an item of property, plant and equipment may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be grouped in determining the depreciation charge.
- 46 To the extent that an entity depreciates separately some parts of an item of property, plant and equipment, it also depreciates separately the remainder of the item. The remainder consists of the parts of the item that are individually not significant. If an entity has varying expectations for these parts, approximation techniques may be necessary to depreciate the remainder in a manner that faithfully represents the consumption pattern and/or useful life of its parts.
- 47 An entity may choose to depreciate separately the parts of an item that do not have a cost that is significant in relation to the total cost of the item.
- 48 **The depreciation charge for each period shall be recognised in profit or loss unless it is included in the carrying amount of another asset.**
- 49 The depreciation charge for a period is usually recognised in profit or loss. However, sometimes, the future economic benefits embodied in an asset are absorbed in producing other assets. In this case, the depreciation charge constitutes part of the cost of the other asset and is included in its carrying amount. For example, the depreciation of manufacturing plant and equipment is included in the costs of conversion of inventories (see IAS 2). Similarly, depreciation of property, plant and equipment used for development activities may be included in the cost of an intangible asset recognised in accordance with IAS 38 *Intangible Assets*.

### Depreciable amount and depreciation period

- 50 **The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.**
- 51 **The residual value and the useful life of an asset shall be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*.**
- 52 Depreciation is recognised even if the fair value of the asset exceeds its carrying amount, as long as the asset's residual value does not exceed its carrying amount. Repair and maintenance of an asset do not negate the need to depreciate it.
- 53 The depreciable amount of an asset is determined after deducting its residual value. In practice, the residual value of an asset is often insignificant and therefore immaterial in the calculation of the depreciable amount.
- 54 The residual value of an asset may increase to an amount equal to or greater than the asset's carrying amount. If it does, the asset's depreciation charge is zero unless and until its residual value subsequently decreases to an amount below the asset's carrying amount.
- 55 Depreciation of an asset begins when it is available for use, ie when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with IFRS 5 and the date that the asset is derecognised. Therefore, depreciation does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated. However, under usage methods of depreciation the depreciation charge can be zero while there is no production.
- 56 The future economic benefits embodied in an asset are consumed by an entity principally through its use. However, other factors, such as technical or commercial obsolescence and wear and tear while an asset remains idle, often result in the diminution of the economic benefits that might have been obtained from the asset. Consequently, all the following factors are considered in determining the useful life of an asset:
- (a) expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.
  - (b) expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle.
  - (c) technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset.
  - (d) legal or similar limits on the use of the asset, such as the expiry dates of related leases.

- 57 The useful life of an asset is defined in terms of the asset's expected utility to the entity. The asset management policy of the entity may involve the disposal of assets after a specified time or after consumption of a specified proportion of the future economic benefits embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets.
- 58 Land and buildings are separable assets and are accounted for separately, even when they are acquired together. With some exceptions, such as quarries and sites used for landfill, land has an unlimited useful life and therefore is not depreciated. Buildings have a limited useful life and therefore are depreciable assets. An increase in the value of the land on which a building stands does not affect the determination of the depreciable amount of the building.
- 59 If the cost of land includes the costs of site dismantlement, removal and restoration, that portion of the land asset is depreciated over the period of benefits obtained by incurring those costs. In some cases, the land itself may have a limited useful life, in which case it is depreciated in a manner that reflects the benefits to be derived from it.

#### **Depreciation method**

- 60 **The depreciation method used shall reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity.**
- 61 **The depreciation method applied to an asset shall be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with IAS 8.**
- 62 A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method and the units of production method. Straight-line depreciation results in a constant charge over the useful life if the asset's residual value does not change. The diminishing balance method results in a decreasing charge over the useful life. The units of production method results in a charge based on the expected use or output. The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits.

#### **Impairment**

- 63 To determine whether an item of property, plant and equipment is impaired, an entity applies IAS 36 *Impairment of Assets*. That Standard explains how an entity reviews the carrying amount of its assets, how it determines the recoverable amount of an asset, and when it recognises, or reverses the recognition of, an impairment loss.
- 64 [Deleted]

### Compensation for impairment

- 65 **Compensation from third parties for items of property, plant and equipment that were impaired, lost or given up shall be included in profit or loss when the compensation becomes receivable.**
- 66 Impairments or losses of items of property, plant and equipment, related claims for or payments of compensation from third parties and any subsequent purchase or construction of replacement assets are separate economic events and are accounted for separately as follows:
- (a) impairments of items of property, plant and equipment are recognised in accordance with IAS 36;
  - (b) derecognition of items of property, plant and equipment retired or disposed of is determined in accordance with this Standard;
  - (c) compensation from third parties for items of property, plant and equipment that were impaired, lost or given up is included in determining profit or loss when it becomes receivable; and
  - (d) the cost of items of property, plant and equipment restored, purchased or constructed as replacements is determined in accordance with this Standard.

### Derecognition

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- 67 **The carrying amount of an item of property, plant and equipment shall be derecognised:**
- (a) on disposal; or
  - (b) when no future economic benefits are expected from its use or disposal.
- 68 **The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in profit or loss when the item is derecognised (unless IAS 17 requires otherwise on a sale and leaseback). Gains shall not be classified as revenue.**
- 68A However, an entity that, in the course of its ordinary activities, routinely sells items of property, plant and equipment that it has held for rental to others shall transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale. The proceeds from the sale of such assets shall be recognised as revenue in accordance with IAS 18 *Revenue*. IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.
- 69 The disposal of an item of property, plant and equipment may occur in a variety of ways (eg by sale, by entering into a finance lease or by donation). In determining the date of disposal of an item, an entity applies the criteria in IAS 18 for recognising revenue from the sale of goods. IAS 17 applies to disposal by a sale and leaseback.

- 70 If, under the recognition principle in paragraph 7, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of a replacement for part of the item, then it derecognises the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired or constructed.
- 71 **The gain or loss arising from the derecognition of an item of property, plant and equipment shall be determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.**
- 72 The consideration receivable on disposal of an item of property, plant and equipment is recognised initially at its fair value. If payment for the item is deferred, the consideration received is recognised initially at the cash price equivalent. The difference between the nominal amount of the consideration and the cash price equivalent is recognised as interest revenue in accordance with IAS 18 reflecting the effective yield on the receivable.

## Disclosure

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- 73 **The financial statements shall disclose, for each class of property, plant and equipment:**
- (a) **the measurement bases used for determining the gross carrying amount;**
  - (b) **the depreciation methods used;**
  - (c) **the useful lives or the depreciation rates used;**
  - (d) **the gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period; and**
  - (e) **a reconciliation of the carrying amount at the beginning and end of the period showing:**
    - (i) **additions;**
    - (ii) **assets classified as held for sale or included in a disposal group classified as held for sale in accordance with IFRS 5 and other disposals;**
    - (iii) **acquisitions through business combinations;**
    - (iv) **increases or decreases resulting from revaluations under paragraphs 31, 39 and 40 and from impairment losses recognised or reversed in other comprehensive income in accordance with IAS 36;**
    - (v) **impairment losses recognised in profit or loss in accordance with IAS 36;**
    - (vi) **impairment losses reversed in profit or loss in accordance with IAS 36;**
    - (vii) **depreciation;**

- (viii) the net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and
  - (ix) other changes.
- 74 **The financial statements shall also disclose:**
- (a) the existence and amounts of restrictions on title, and property, plant and equipment pledged as security for liabilities;
  - (b) the amount of expenditures recognised in the carrying amount of an item of property, plant and equipment in the course of its construction;
  - (c) the amount of contractual commitments for the acquisition of property, plant and equipment; and
  - (d) if it is not disclosed separately in the statement of comprehensive income, the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost or given up that is included in profit or loss.
- 75 Selection of the depreciation method and estimation of the useful life of assets are matters of judgement. Therefore, disclosure of the methods adopted and the estimated useful lives or depreciation rates provides users of financial statements with information that allows them to review the policies selected by management and enables comparisons to be made with other entities. For similar reasons, it is necessary to disclose:
- (a) depreciation, whether recognised in profit or loss or as a part of the cost of other assets, during a period; and
  - (b) accumulated depreciation at the end of the period.
- 76 In accordance with IAS 8 an entity discloses the nature and effect of a change in an accounting estimate that has an effect in the current period or is expected to have an effect in subsequent periods. For property, plant and equipment, such disclosure may arise from changes in estimates with respect to:
- (a) residual values;
  - (b) the estimated costs of dismantling, removing or restoring items of property, plant and equipment;
  - (c) useful lives; and
  - (d) depreciation methods.
- 77 **If items of property, plant and equipment are stated at revalued amounts, the following shall be disclosed:**
- (a) the effective date of the revaluation;
  - (b) whether an independent valuer was involved;
  - (c) the methods and significant assumptions applied in estimating the items' fair values;

- (d) **the extent to which the items' fair values were determined directly by reference to observable prices in an active market or recent market transactions on arm's length terms or were estimated using other valuation techniques;**
  - (e) **for each revalued class of property, plant and equipment, the carrying amount that would have been recognised had the assets been carried under the cost model; and**
  - (f) **the revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders.**
- 78 In accordance with IAS 36 an entity discloses information on impaired property, plant and equipment in addition to the information required by paragraph 73(e)(iv)–(vi).
- 79 Users of financial statements may also find the following information relevant to their needs:
- (a) the carrying amount of temporarily idle property, plant and equipment;
  - (b) the gross carrying amount of any fully depreciated property, plant and equipment that is still in use;
  - (c) the carrying amount of property, plant and equipment retired from active use and not classified as held for sale in accordance with IFRS 5; and
  - (d) when the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount.

Therefore, entities are encouraged to disclose these amounts.

### **Transitional provisions**

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- 80 **The requirements of paragraphs 24–26 regarding the initial measurement of an item of property, plant and equipment acquired in an exchange of assets transaction shall be applied prospectively only to future transactions.**

### **Effective date**

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- 81 An entity shall apply this Standard for annual periods beginning on or after 1 January 2005. Earlier application is encouraged. If an entity applies this Standard for a period beginning before 1 January 2005, it shall disclose that fact.
- 81A An entity shall apply the amendments in paragraph 3 for annual periods beginning on or after 1 January 2006. If an entity applies IFRS 6 for an earlier period, those amendments shall be applied for that earlier period.
- 81B IAS 1 *Presentation of Financial Statements* (as revised in 2007) amended the terminology used throughout IFRSs. In addition it amended paragraphs 39, 40 and 73(e)(iv). An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. If an entity applies IAS 1 (revised 2007) for an earlier period, the amendments shall be applied for that earlier period.

- 81C IFRS 3 *Business Combinations* (as revised in 2008) amended paragraph 44. An entity shall apply that amendment for annual periods beginning on or after 1 July 2009. If an entity applies IFRS 3 (revised 2008) for an earlier period, the amendment shall also be applied for that earlier period.
- 81D Paragraphs 6 and 69 were amended and paragraph 68A was added by *Improvements to IFRSs* issued in May 2008. An entity shall apply those amendments for annual periods beginning on or after 1 January 2009. Earlier application is permitted. If an entity applies the amendments for an earlier period it shall disclose that fact and at the same time apply the related amendments to IAS 7 *Statement of Cash Flows*.
- 81E Paragraph 5 was amended by *Improvements to IFRSs* issued in May 2008. An entity shall apply that amendment prospectively for annual periods beginning on or after 1 January 2009. Earlier application is permitted if an entity also applies the amendments to paragraphs 8, 9, 22, 48, 53, 53A, 53B, 54, 57 and 85B of IAS 40 at the same time. If an entity applies the amendment for an earlier period it shall disclose that fact.

### **Withdrawal of other pronouncements**

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- 82 This Standard supersedes IAS 16 *Property, Plant and Equipment* (revised in 1998).
- 83 This Standard supersedes the following Interpretations:
- (a) SIC-6 *Costs of Modifying Existing Software*;
  - (b) SIC-14 *Property, Plant and Equipment—Compensation for the Impairment or Loss of Items*; and
  - (c) SIC-23 *Property, Plant and Equipment—Major Inspection or Overhaul Costs*.

## **Appendix**

### **Amendments to other pronouncements**

*The amendments in this appendix shall be applied for annual periods beginning on or after 1 January 2005. If an entity applies this Standard for an earlier period, these amendments shall be applied for that earlier period.*

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*The amendments contained in this appendix when this Standard was issued in 2003 have been incorporated into the relevant pronouncements published in this volume.*