



# **ACCA Strategic Business Reporting (SBR)**

## **(INT)**

### **Education Book**

**(SAMPLE)**

# Introduction to This Book

ACCA is a professional qualification for an accounting career. Having this is an indication that you are a good fit to fill the roles of experts in banking, management, consulting, and accounting. However, you need to pass the exam.

The pass rates of SBR exam are only between 48% and 52%.

This is a problem—the low pass rate is an indication that something has to be done to improve the pass rate of students who take the exam. If you succeed, you have better chances of taking senior roles in accounting and business management firms.

Our book is a great fit for those who need support for IFRS exams such as SBR exam.

After talking to many students, we realised that they needed more practical examples of what they have learned in theory.

As such, the book has:

- Many illustrated examples of how IFRSs are implemented in practice
- More details about IFRS rules
- Exercise questions in preparation for the exam

In this book, you will be studying ACCA—you will receive a refresher training in the fundamentals of what you have learned in school. We have combined several principles and theories that you will find helpful in preparing you for your exam.

You can consider this book as a SBR pilot exam. It has lots of practical examples of how IFRSs are applied in various industries—something that some educational institutions miss.

We structured the book in such a way that the range of questions asked is done in a way similar to an exam. If you are a student, you will be able to familiarise yourself with how exams are presented to you by the time you take a certification test.

To give you a better perspective, here are some of the contents of the book:

- **Sketch** – a refresher on what chapter knowledge is, what it is used for, and what industries you can apply these principles to.
- **Exam rehearsal question** – these are interactive resources where you get sample tests. These tests emulate what you will go through in your actual exam. These tests will help you identify your key strengths and your opportunities before you take the exam.
- **Case study** – this book has guides and resources to help you understand expectations of you in ACCA and how you can use them in real life. You can use this guide to explain how you can contribute to a company or institution where you are applying for.

We collaborated with several experienced accounting experts, all of whom had experience in accountancy. They all have a long history of expertise in the field.

The book is also reviewed by a body of professional examiners, thus giving credibility to the theories and content of the lessons.

Throughout the training, we hope to enrich the skills that you already have. We have presented several tips to help you become successful, and you can visit the other resources that we recommend to help you further improve your skillset.

Overall, you should be adequately prepared to take the exam by the time you are done.

More power to you!

**Strategic Business Reporting (SBR) Education Book**

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# Introduction to the SBR Exam

## Paper format

### Section A (All compulsory questions):

**Q1:** Consolidation and other IFRS questions – 30 marks, with 14 marks being the prepopulated spreadsheet requiring students to draft consolidated SFP, P/L or Cash flows.

- Calculative and comment style question

**Q2:** Accounting and ethical issues – 20 marks with 2 professional marks for ethics

- IFRS and ethics analysis

### Section B (All compulsory questions):

**Q3:** IFRS questions – 25 marks

- Mixture of different IFRSs

**Q4:** IFRS questions and performance measurement (such as ratios) – 25 marks (2 professional marks here)

- Mixture of different IFRSs

## Time allowed

3 hours and 15 minutes

## Time management

- 1.95 minutes/mark and put a deadline to each question as you are planning the question.
- For example, Q1 (a) is 10 marks, x 1.95 min/mark = 19 min, ie when time clocks down from 195 min to 176 min, you should finish the requirement and move on.

## Style of your answer

- Avoid essay style, keep simple sentences (with a line and a half for each point)
- Leave a space between each paragraph

## During the exam

- Use highlight function – in different colours – when plan and actually answer the question.
- Use copy and paste function to copy the requirement first into your answer box (Control + C and Control + V).
- Do read every exhibit in the question.
- Bring your Casio Fx-82 calculator in the exam hall.
- Answer in the ‘word processor’ if the answer is in narrative format.
- Answer in the ‘Spreadsheet’ if the answer is in numbers.
- Layout the working such as ‘working 5’ and refer this back to the word processor answer clearly.
- Always put narrative discussion in each question as in this paper, the focus MUST be on discussion, generally 1 mark per point.
- Irrelevant IFRS knowledge reproduction = no marks.
- Professional marks are subjective marks, however, you should present your answer in a clear way following the above steps, and you can gain those marks more easily.

## Screenshot of the exam

Strategic Business Reporting - International (SBR - INT) 1 of 4

Symbol Highlight Strikethrough Calculator Scratch Pad Close All Flag for Review

**Exhibits**

- 1. Crotchet Co: functional currency
- 2. The acquisition of Crotchet Co
- 3. The acquisition of Quaver Co
- 4. Impairment of bonds

**Requirements**

- Requirements (30 marks)

**Response Options**

- Word Processor
- Spreadsheet

Hummings Co is the parent company of a multinational listed group of companies. Hummings Co uses the dollar (\$) as its functional currency. Hummings Co acquired 80% of the equity shares of Crotchet Co on 1 January 20X4 and 100% of Quaver Co on the same date. The group's current financial year end is 31 December 20X4.

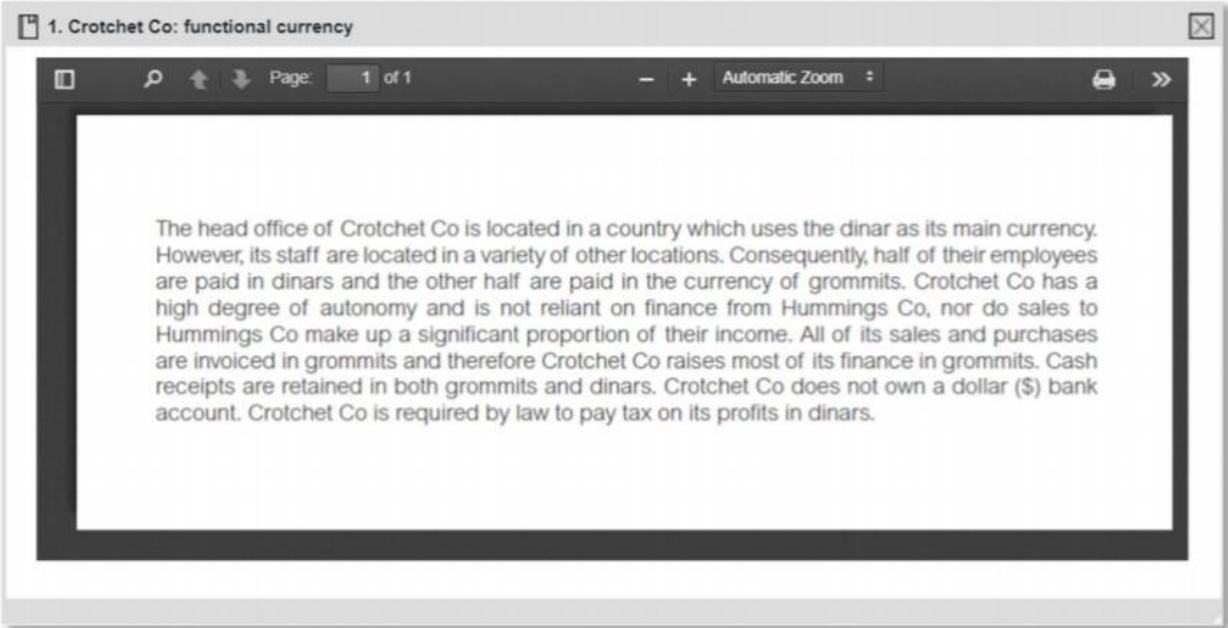
The following **exhibits**, available on the left-hand side of the screen, provide information relevant to the question:

1. Crotchet Co: functional currency – provides information which should be used to determine the functional currency of Crotchet Co.
2. The acquisition of Crotchet Co – describes the purchase of Crotchet Co on 1 January 20X4, including contracts that it has with its customers at the date of acquisition.
3. The acquisition of Quaver Co – provides information that relates to the purchase of Quaver Co on 1 January 20X4.
4. Impairment of bonds – explains the purchase of bonds in Stave Co on 31 December 20X3 and provides further information about their potential impairment.

This information should be used to answer the question **requirements** within your chosen **response option(s)**.



Exhibit 1



## Course structure

IFRSs in this course has been divided into:

### **Assets standards:**

- IAS 2 Inventories
- IAS 16 Property, Plant & Equipment
- IAS 23 Borrowing Costs
- IAS 36 Impairment of assets
- IAS 38 Intangible Assets
- IAS 40 Investment Property
- IFRS 5 Non-Current Assets Held for Sale and Discontinued Operations
- IAS 41 Agriculture
- IFRS 16 Leases
- IFRS 9 Financial instruments (including IFRS 7, IAS 32)

### **Income Standards:**

- IAS 20 Government Grants and Disclosure of Government Assistance
- IFRS 15 Revenue from Contracts with Customers

### **Expenses Standards:**

- IAS 12 Income Taxes
- IAS 37 Provisions, contingent liabilities and contingent assets
- IAS 19 Employee benefits
- IFRS 2 Share-Based Payment

### **Disclosure Standards:**

- IAS 8 Accounting policies, changes in accounting estimates and errors
- IAS 10 Events after the Reporting Period
- IAS 24 Related Party Disclosures
- IAS 34 Interim Financial Reporting
- IFRS 8 Operating Segments
- IFRS 13 Fair Value Measurement

- The IFRS for SMEs Standard
- Practice Statements
- Integrated report

### **Conceptual Framework**

#### **Group reorganisation:**

- IAS 27 Separate Financial Statements

#### **Group consolidation:**

- IFRS 10 Consolidated Financial Statements
- IFRS 3 Business Combinations
- IAS 28 Investment in associate
- IFRS 11 Joint Arrangements
- IAS 21 The effects of changes in foreign exchange rates

# Chapter 1 IAS 2 Inventories

## Sketch:

### Inventories are assets:

1. Held for sale in the ordinary course of business.
2. Raw materials, work in progress and finished goods.

### Important concept: substance over form

A car dealer has several test drive vehicles in the car showroom. These vehicles can not be returned back to the manufacturer. The car dealer usually keeps three test drive vehicles in the showroom to improve sales of similar models. When these cars are finally sold to customers, usually at a 20% off discount to the normal selling price.

These cars are not frequently sold to customers, unless there are not enough cars in the warehouse to be delivered to customers.

### Required:

Accounting treatment about test drive vehicles.

### Answer:

Asset definition (IAS 2) - A present economic resource controlled by an entity as a result of a past event. The definition is met here as the dealer (consignee) controls those vehicles as these can not be returned to the manufacturer (consignor).

Inventory definition (Conceptual framework) – assets which are held for sale in the ordinary course of business.

- Legal form: the definition may be met as vehicles may be sold if there are not enough brand new models in the warehouse.
- Substance – sale of these vehicles does not take place on a frequent basis; these vehicles are usually to stimulate sales of brand new models.

PP&E definition (IAS16) – assets which are held for supply of goods. In substance, cars may better to be classified as PP&E rather than inventories in this case.

Further evidence is needed in terms of:

1. The frequency of sales – less frequent (PP&E) and more frequent (inventories)
2. Price of the transaction – close to selling price of brand new models (inventories), otherwise (PP&E)
3. Total revenue % from sales of such models – significant (inventories), otherwise (PP&E).

## Initial Measurement

### **Purchase Costs:**

- Initial purchase price
- Non-refundable import duties
- Transportation
- Handling cost
- Specific storage costs

### **Conversion costs:**

- Labour and production overheads

## Subsequent Measurement

- Total inventories value should be the lower of costs and net realisable value.
- Net realisable value (NRV) is calculated by using the inventory expected selling price\* and to subtract the costs to complete and sell the inventory, such as advertising and commission fees.
- \*IFRS 13 Fair value measurement cannot be applied in determining the expected selling price for inventories.

## Reasons why costs are higher than NRV

Obsolete or damaged inventories.

### **Below are common ways done to overstate NRV (unethical behaviours):**

- Hiding the actual selling price by issuing invoices late to customers;
- Overstating the estimated selling price of those inventories which does not agree with its past sales;
- Excluding additional costs to complete the inventories. For instance, if the stock is returned by the customer, there might be additional repair costs or packaging costs to turn the stock into a resalable condition again;
- Understating selling expenses such as advertising and commission fees. This could be detected by analysing and comparing the selling expense to sales revenue ratio to confirm whether this is reasonable.

## Reversal of write-down of inventories

The amount of any reversal of any write-down of inventories, arising from an increase in NRV, is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

### Exam Rehearsal Question:

At the end of the first year, the cost of the inventory item A is \$15 and its net realisable value is \$12.

At the end of the second year, the cost of the inventory item A is still \$15 but its net realisable value is revised to \$18.

### Required:

Accounting entry.

### Answer:

The first year:

<b>Dr</b>	Costs of sales	\$3
<b>Cr</b>	Inventory	\$3

### The second year:

<b>Dr</b>	Inventory	\$3
<b>Cr</b>	Costs of sales	\$3

## Consistency requirement– different cost formulas for inventories

IAS 2 provides that an entity should use the same cost formula (such as FIFO, Average cost methods) for all inventories having similar nature and use to the entity. For inventories with different nature or use, for instance, certain commodities used in one business segment and the same type of commodities used in another business segment, different cost formulas may be justified.

A difference in geographical location of inventories and in the respective tax rules are not sufficient to justify the use of different cost formulas.

### **Exam rehearsal question - Housing Department (DEC 2012 Q3)**

The local government organization supplements its income by buying and selling property. The housing department regularly sells part of its housing inventory in the ordinary course of its operations as a result of changing demographics. Part of the inventory, which is not held for sale, is to provide housing to low-income employees at below market rental. The rent paid by employees covers the cost of maintenance of the property.

#### **Required:**

Comment on the above accounting treatment. (2 marks)

#### **Answer:**

##### **Sales**

Sales of property are in the ordinary course of its operations and therefore, the housing stock held for sale will be classified as inventory per IAS 2 inventories.

##### **Low-income employees**

The part of the inventory held to provide housing to low-income employees at below market rental, this is held to provide housing services rather than rentals. Therefore, they can't be classified as investment property but as PP&E per IAS 16.



### **Exam rehearsal question - Internal plc (Dec 2012 Q2)**

Internal plc receives lots of certificates from government (free) which can be sold to other companies. But these certificates are not sold as at the year end.

#### **Required:**

How to account for them? (2 marks)

#### **Answer:**

##### **Initial measurement**

Certificates should be accounted for inventories as they are sold in the normal course of operation. A corresponding deferred income liability should be recognised when certificates are received but not sold.

##### **IAS 20 Government grant**

The standard permits either a notional amount of fair value of certificate can be recognised when they are received.

##### **On sale of certificate**

Deferred income liability should be reduced with the inventory charged to costs of sales.

##### **Gains or losses**

Gains or losses of the sale of certificate are recognised in the statement of profit or loss.

### **Exam rehearsal question – Fill (Dec 2018 Part (a))**

Fill is a coal mining company and sells its coal on the spot and futures markets. On the spot market, the commodity is traded for immediate delivery and, on the forward market, the commodity is traded for future delivery. The inventory is divided into different grades of coal. One of the categories included in inventories at 30 November 20X6 is coal with a low carbon content which is of a low quality. Fill will not process this low quality coal until all of the other coal has been extracted from the mine, which is likely to be in three years' time. Based on market information, Fill has calculated that the three-year forecast price of coal will be 20% lower than the current spot price.

#### **The directors of Fill would like advice on two matters:**

- (i) whether the Conceptual Framework affects the valuation of inventories;
- (ii) how to calculate the net realisable value of the coal inventory, including the low quality coal. (7 marks)

#### **Answer:**

##### **Part (a) (i)**

The Framework acknowledges a variety of measurement bases including historical cost, current cost, net realisable value (NRV) and present value. It refers to NRV as a settlement value which will be determined by a future transaction. Thus in order to determine NRV, the directors would need to refer to IAS 2 Inventories for the definition and IAS 10 Events after the Reporting Date. The directors should consider any adjusting events which provide evidence of conditions which existed at the end of the reporting period in order to determine NRV.

IAS 2 defines NRV as the estimated selling price in the ordinary course of business less the costs of completion and costs of sale. In this case, the NRV will be determined on the basis of conditions which existed at the date of the statement of financial position. IFRS 13 Fair Value Measurement does not apply to IAS 2 as regards NRV even though the measurement method is very similar.

Any future price movements will be considered if they provide information about the conditions at the date of the statement of financial position but normally these movements would reflect changes in the market conditions after that date and therefore would not affect the calculation of NRV.

The NRV will be based upon the most reliable estimate of the amounts which will be realised for the coal. The year-end spot price will provide good evidence of the realisable value of the inventories and where the company has an executory contract to sell coal at a future date, then the use of the forward contract price may be appropriate.

However, if the contract is not executory but is a financial instrument under IFRS 9 Financial Instruments or an onerous contract recognised as a provision under IAS 37 Provisions, Contingent Liabilities and Contingent Assets, it is unlikely to be used to calculate NRV.

##### **Part (a) (ii)**

Fill should calculate the NRV of the low carbon coal using the forecast market price based upon when the inventory is expected to be processed and realised. Future changes in the forecast market price or

the processing and sale of the low carbon coal may result in adjustments to the NRV.

As these adjustments are changes in estimates, IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors will apply with the result that such gains and losses will be recognised in the statement of profit or loss in the period in which they arise.

### **Accounting standards considerations:**

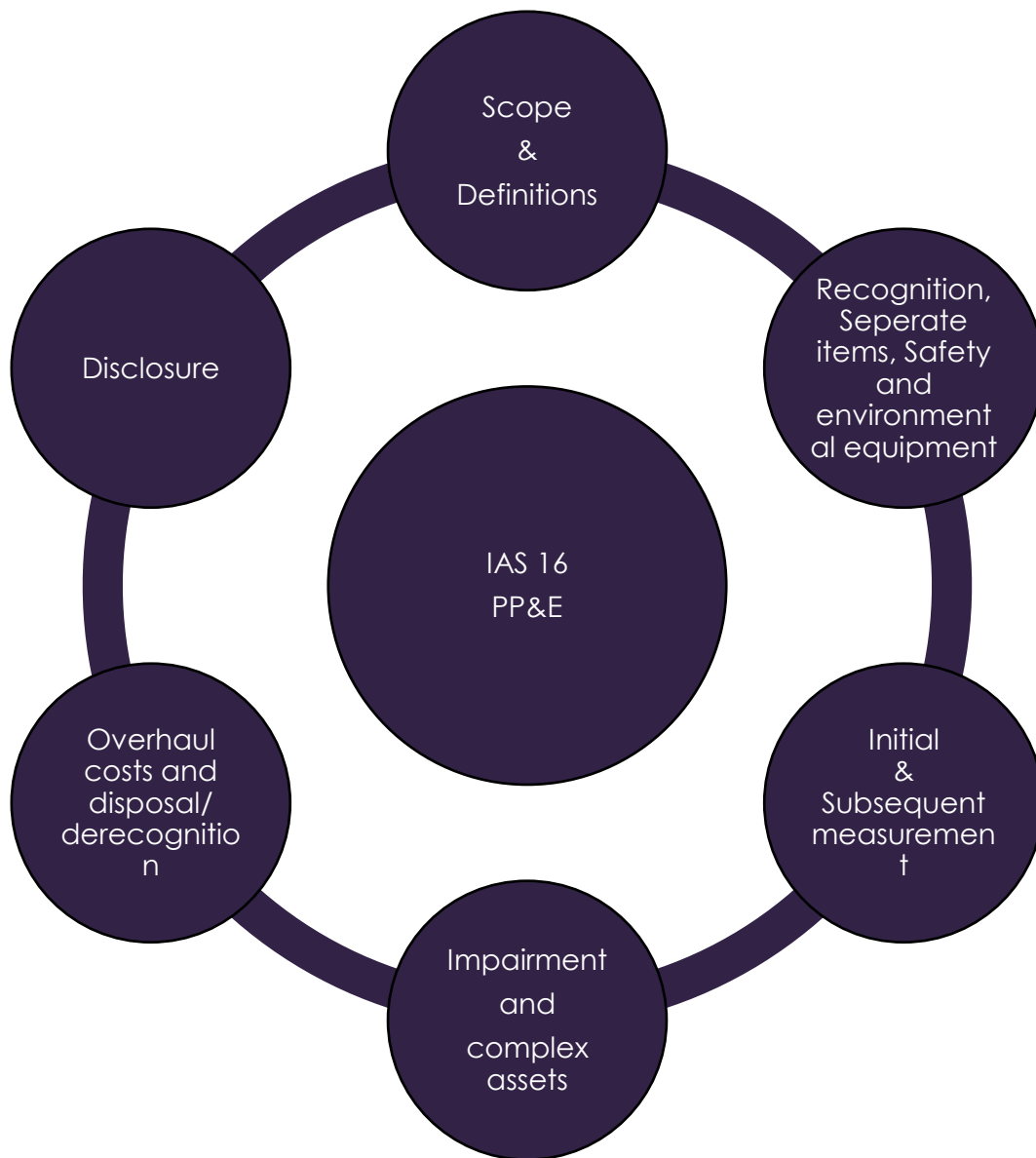
- **IAS 8** Accounting policies, changes in accounting estimates and errors – changes in NRV results in profits or losses to be recognised in the P/L which is a prospective adjustment.
- **IAS 10** Events after the reporting period – whether transaction takes place after the financial statements year end should be accounted for as an adjusting (accounting entries required) or non adjusting event (disclosure required).

### **Conceptual framework requirements considerations:**

- **Substance over form concept** – determine whether it is an inventory
- **Prudence concept** – potential inventory write down where  $NRV < Cost$
- **Accruals concept** – closing inventories reduce costs of sales
- **Consistency concept** – accounting policies for determining inventory costs (such as using FIFO) should be consistent year on year unless a change for that improves relevance of the transaction; similar nature of inventories should apply similar inventory costing formulae.

# Chapter 2 IAS 16 Property, Plant & Equipment

## Topic outline:



## Scope

IAS 16 also applies to bearer biological assets such as grape vines (measured at accumulated cost until maturity and then subject to depreciation and impairment charges.)  
(IAS 16: para. 2-5)

### **PP&E:**

- Held for:
  - use in production;
  - supply of goods or services;
  - rental to others;
  - administrative purposes.
- For more than one period.

### **Cost:**

- Cash/cash equivalents
- Fair value of other consideration

**Residual value:** this is the net amount expected to collect.

**Entity specific value:** present value of continuing to use the PP&E.

**Fair value:** per IFRS 13. For PP&E such as land, it normally refers to as market value

**Carrying amount:** Cost – Accumulated depreciation – Accumulated impairment loss

**Impairment loss:** Carrying value > Recoverable amount

**(IAS 16: para. 6)**

## Recognition

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.

(IAS 16: para. 7)

## Separate items

- Smaller parts/components: expense
- Major parts/components: PP&E
- Very large and specialised items such as ship/aircraft, different parts have different useful lives (different depreciation applies) – Exam rehearsal question below

- In determining whether the value is small or major, IAS 16 does not specifically give us guidance on this area. However, we could base our conclusion on the aggregate value of the item for this, for instance, if each item of part is worth at \$5, individually, it is not material to the account. However, if there are 1 million parts, total/aggregate value is therefore \$5m, then it might be material to the account, hence we could treat this as major part.

**(IAS 16: para. 44)**

**Exam rehearsal question – Traveler (Dec 2011 Q1)**

Traveler acquired a new factory on 1 December 2010. The cost of the factory was \$50 million and it has a residual value of \$2 million. The factory has a flat roof, which needs replacing every five years. The cost of the roof was \$5 million. The useful economic life of the factory is 25 years. No depreciation has been charged for the year. Traveler wishes to account for the factory and roof as a single asset and depreciate the whole factory over its economic life. Traveler uses straight-line depreciation.

**Answer:**

**Depreciation**

Roof (\$5m/5 years)	\$1m
Factory (\$50m - \$5m - \$2m)/25 years	<u>\$1.72m</u>
	\$2.72m

**Dr** Depreciation expense (P/L) \$2.72m

**Cr** PP&E at carrying value \$2.72m

## Safety and environmental equipment

Items of property, plant and equipment may be acquired for safety or environmental reasons.

**(IAS 16: para. 11)**

### Example 1:

AA company installed the filter equipment to comply with the safety and environmental law of the machine. The carrying value of the machine was \$10 million, the cost of the filter equipment was \$3 million. The filter equipment did not directly increase its future economic benefit because this is for compliance reason.

#### Required:

Accounting treatment.

#### Answer:

We should capitalise the \$3 million as part of PP&E because the item is necessary for AA company to obtain future economic benefits from its machine, ie to produce products.

<b>Dr</b>	PP&E	\$3m
<b>Cr</b>	Cash	\$3m

### Example 2:

The recoverable amount of the machine after the filter was installed was \$12 million.

#### Required:

Accounting treatment.

#### Answer:

We should perform the impairment review test for the machine by comparing its carrying value with the recoverable amount. If the carrying value of the machine is higher than its recoverable amount, the impairment loss should be recognised and this is according to the IAS 36 Impairment of Assets.

In this case, the original assets plus the safety equipment gives us the total value of \$13 million and this is greater than its recoverable amount, hence the impairment loss of \$1m should be recognised.

<b>Dr</b>	Impairment expense	\$1m
<b>Cr</b>	PP&E	\$1m

### Example 3:

Local environmental laws require heavily polluting businesses to have at least 60% of their surrounding areas green to absorb dust and other harmful gases.



If the standards are not met, the factory's production license can not be obtained.

For this reason, the factory incurred \$30m for afforestation and landscape in and around the main plant area, including trees and flowers.

Grass, pools and underground pipes

**Required:**

Accounting treatment.

**Answer:**

**Dr** PP&E \$30m

**Cr** Cash \$30m

Per IAS 16 PP&E paragraph 11, items of property, plant and equipment may be acquired for safety or environmental reasons. \$30 million could be capitalized as PP&E as these are necessary expenditure to obtain the factory license.

### **Capital expenditure: acquisition or improve PP&E costs (Capitalise as PP&E)**

- Purchase price, includes any import duties paid, but excludes any trade discount and reclaimable sales tax paid.
- Directly attributable costs of bringing the asset to working condition for its intended use, for example:
  - The cost of site preparation, ie levelling the floor of the factory so the machine can be installed
  - Initial delivery and handling costs
  - Installation and assembly costs
  - Professional fees (costs of lawyers, architects, engineers)
  - Costs of testing whether the asset is working properly, after deducting the net proceeds from selling samples produced when testing equipment (see the Test Co example later)
  - Staff costs arising directly from the construction or acquisition of the asset
- Dismantling costs

### **Revenue expenditure: maintain PP&E for trading purposes (Expense in P/L)**

- Operations expenses that are incidental to the construction or development of the item (incidental income being recognised into the P/L: see the Inci Co example later)
- Administration and other general overhead costs
- Start-up and similar pre-production costs (such as pre testing costs)
- Initial operating losses before the asset reaches planned performances
- Staff training costs
- Maintenance and repair expenses

**Note:** for self constructed assets, abnormal costs should be expensed.

**(IAS 16: para. 16-22)**

## Subsequent expenditure

Same rules applied to the subsequent measurement as in initial measurement (capital and revenue expenditure)

### **Subsequent expenditure on replacement/renew:**

- Expenditure in replacing/renewing the item of PP&E should be capitalised.
- The old item of PP&E should be derecognised, with the balancing figure going into the profit or loss.

***(IAS 16: para. 12-14)***

## Components of costs

### **Example: Test Co: Directly attributable costs**

Test Co incurred \$100,000 testing expenses to test the machine to ensure it functions properly. A few samples of products were produced during the testing process and the net proceeds from selling these sample products are \$10,000.

#### **Required:**

Identify the total testing costs to be capitalised as PP&E.

#### **Answer:**

\$90,000.

The directly attributable costs (testing costs) should deduct the net proceeds from selling any items produced when bringing the asset to its location and condition.

*(IAS 16: para. 16)*

### **Example: Inci Co - Income and related expenses operations:**

Inci Co develops a building and rent it to the employees as apartments. The building is partly finished and Inci Co rents part of the space in the building to the employees and it incurs electricity and maintenance costs. Inci Co gets rental income from employees also and the car park income.

#### **Required:**

Accounting treatment for the incidental costs and income.

#### **Answer:**

The incidental costs and income should be recognised in the statement of profit or loss. This is because income and related expenses of operations that are incidental to the construction or development of an item of PP&E should be recognised in the profit or loss. These costs and income are not necessary for the building to be completed.

**Integrated example 1 on initial measurement:**

Company A incurred the following costs regarding an item of its new PP&E:

	\$
Purchase price including VAT of 14% (the VAT is refundable)	570,000
Import duties not refundable	100,000
Installation costs	30,000
Transportation costs – fuel	45,000
Staff party to celebrate the acquisition of the PP&E & staff training costs	14,000
Administrative expenses	12,000
Testing to ensure plant fully operational before start of production	10,980
Proceeds from sale of samples during testing	13,000
Advertising fee	50,000
Initial operating losses due to relocation to another place	35,000
Estimated costs of dismantling/removal costs at the end of its useful life (future costs discounted at 10% discount rate)	27,020

**Answer:**

	\$
Purchase price excluding VAT of 14% $570,000/114\%$	500,000
Import duties not refundable	100,000
Installation costs	30,000
Transportation costs – fuel	45,000
Staff party to celebrate the acquisition of the PP&E and staff training costs	-
Administrative expenses	-
Testing to ensure plant fully operational before start of production	10,980
Minus: Proceeds from sale of samples during testing	(13,000)
Advertising fee	-
Initial operating losses due to relocation to another place	-

Estimated costs of dismantling/removal costs at the end of its useful life (future costs discounted at 10% discount rate)	27,020 (present value)
Total value of PP&E to be capitalised	700,000

**Note:**

The refundable VAT would go into the Dr side, ie to debit the VAT liability account. If the VAT is not refundable, it should be capitalised as an item of PP&E.

The dismantling costs would need to be unwound at the end of each year per IAS 37 Provisions, Contingent Liabilities and Contingent Assets, the next year finance costs would be  $\$27,020 \times 10\% = \$2,700$

<b>Dr</b>	Finance costs	\$2,700
<b>Cr</b>	Provision	\$2,700

## Exchange of assets

This is where an entity exchanges the item of PP&E with another item of PP&E or inventories/cash. Same principles would be applied in IAS 38 Intangible Assets (depreciation should be replaced with amortisation in IAS 38)

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.

**(IAS 16: para. 24)**

### Example: Old item replacement

Company A spent \$100 million in replacing the item of PP&E in the production process. The carrying value of the old item of PP&E in the process was \$50 million (its costs were \$80 million and the accumulated depreciation were \$30 million).

#### Required:

Accounting treatment.

#### Answer:

#### Replace the new item of PP&E:

<b>Dr</b>	PP&E	\$100m
<b>Cr</b>	Cash	\$100m

#### Old item of PP&E:

<b>Dr</b>	Accumulated depreciation	\$30m
<b>Dr</b>	Expense	\$50m
<b>Cr</b>	Cost	\$80m

**Example:**

Company A exchanges an item of the PP&E (cost is \$60 million and the accumulated depreciation were \$40 million, and the fair value at the date of exchange is \$15 million) with another item of PP&E with the fair value being \$15 million. Company A also needs to pay the cash of \$3 million. The transaction has commercial substance.

**Required:**

Accounting entries.

**Answer:**

<b>Dr</b>	New asset (fair value of the new asset) \$15m +\$3m	\$18m
<b>Cr</b>	Cash	\$3m
<b>Cr</b>	Old asset (PP&E) at cost	\$60m
<b>Dr</b>	Accumulated depreciation	\$40m
<b>Dr</b>	(balancing figure) loss on exchange	\$5m



## Special situatio: (very rare!)

If the transaction lacks commercial substance, ie after the entity exchange, there will be no changes to the entity's future benefits. Alternatively, the fair value difference of the assets being exchanged is not material/significant (for instance, asset A (fair value is \$100m) exchanged for asset B (fair value is \$99.9m)), and in this case, no profit or loss should be recognised.

**(IAS 16: para. 24)**

### Example:

Company A exchanges an item of the PP&E with the carrying value being \$100 million and fair value being \$120 million with the item of the new PP&E (fair value is \$80 million and the company A receives additional \$40 million cash).

### Required:

Accounting entry.

### Answer:

In this case, after the exchange has taken place, the fair value of the asset would not change, ie before the exchange, the fair value of the old asset is \$120 million. After the exchange, the new asset fair value is \$80 million plus the cash paid of \$40 million and in total, \$120 million.

In this case:

<b>Dr</b>	Cash	\$40m
<b>Dr</b>	New PP&E*	\$60m
<b>Cr</b>	Old PP&E (carrying value)	\$100m

\* Balancing figure is \$60m because the transaction has no commercial substance.

## Subsequent measurement

### Accounting policies:

- Policy one: Cost model (Cost – accumulated depreciation and impairment losses)
- Policy two: Revaluation model (Revalued amount – new depreciation)

A change in the above policy does **not** require retrospective adjustment per IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors.

*(IAS 16: para. 30-31)*

## Revaluations

1. Whole class of assets should be revalued and the revaluation should be done at the same time.
2. Frequency of valuation depends of fair value volatility.
3. New depreciation is based on the revalued amount (because the revalued amount is the new cost of PP&E).
4. Revaluation gain goes to revaluation surplus not retained earnings.
5. Excess depreciation may be transfer from revaluation reserve to retained earnings by entities so they wish to.

*(IAS 16: para. 34-42)*

### Accounting for revaluation:

**Dr** Cost (Revalued amount – Original Cost)

**Dr** Accumulated depreciation (Remove all of them)

**Cr** Revaluation reserve (in Statement of financial position, statement of changes in equity and other comprehensive income)

### Reversing a previous decrease in value:

**Dr** Cost (New value – old value)

**Dr** Accumulated depreciation

**Cr** Revaluation reserve (in Statement of financial position, statement of changes in equity and other comprehensive income)

### Revaluation decrease:

**Dr** Revaluation surplus (in Statement of financial position, statement of changes in equity and other comprehensive income)

**Cr** PP&E (New value – Old value)

**Dr** Accumulated depreciation (Remove it)

**Dr** Impairment expense (balancing figure)

## Revaluation and depreciation:

### Excess depreciation:

**Dr** Revaluation reserve (in statement of financial position and statement of changes in equity but not in other comprehensive income)

**Cr** Retained earnings

### Exam rehearsal question - Ashanti (June 2010 Q1 (VI))

Ashanti owned a piece of property, plant and equipment (PPE) which cost \$12 million and was purchased on 1 May 2012. It is being depreciated over 10 years on the straight-line basis with zero residual value. On 30 April 2013, it was revalued to \$13 million and on 30 April 2014, the PPE was revalued to \$8 million. The whole of the revaluation loss had been posted to other comprehensive income and depreciation has been charged for the year. It is Ashanti's company policy to make all necessary transfers for excess depreciation following revaluation.

### Answer:

	\$m
Cost (1.5.2012)	12
Depreciation(12/10yrs)	<u>(1.2)</u>
CV on 1.5.2013	10.8
Revaluation reserve (Balance)	<u>2.2 *</u>
Revalued at 1.5.2013	13
Depreciation(13/9yrs)	<u>(1.4)</u>
CV on 1.5.2014	11.6
Impairment of PP&E	<u>(3.6)**</u>
Revalued on 1.5.2014	8

\* **Dr** PP&E \$2.2m

**Cr** Revaluation reserve \$2.2m

\* Excess depreciation = Excess revaluation reserve (2.2)

9 years

= \$0.2m

**Dr** Revaluation reserve \$0.2m

**Cr** Retained earnings \$0.2m

\*\* **Dr** Revaluation reserve (\$2.2m - \$0.2m) \$2m

**Dr** Loss in P/L (Balance) \$1.6m

**Cr** PP&E at carrying value \$3.6m

## Depreciation

### Review the useful life/depreciation method:

- Change in accounting estimate – applies prospective adjustment method;
- Depreciation method should be reviewed at least at each financial year end.

(IAS 16: para. 61)

## Impairment of carrying amounts of non-current assets

If the carrying value of the PP&E is higher than its recoverable amount, the impairment loss should be recognised per IAS 36 Impairment of assets.

The revaluation increase should be recognised as income to the extent that it reverses an impairment loss expense. This should adjust any decrease in depreciation expense as a result of the impairment loss being recognised.

(IAS 16: para. 63)

### Example:

The cost of an item of the PP&E is \$10,000 and the accumulated depreciation were \$3,000 (suppose each year, the depreciation expense charged was \$520). As at the current Financial Statements year end, the recoverable amount of the PP&E is now \$6,000.

### Required:

Accounting entries.

### Answer:

<b>Dr</b>	Accumulated depreciation	\$3,000
<b>Cr</b>	Cost (\$10,000-\$6,000)	\$4,000
<b>Dr</b>	Impairment loss	\$1,000

### Example of reversal of impairment loss:

Continuing with the previous example, the cost of the asset is \$6,000. During the year, \$500 of depreciation expenses were charged. As at the year end, the PP&E is now revalued to \$20,000.

### Required:

Accounting entries.

### Answer:

<b>Dr</b>	Cost (\$20,000-\$6,000)	\$14,000
<b>Dr</b>	Accumulated depreciation	\$500

<b>Cr</b>	Impairment loss*	\$980
<b>Cr</b>	Revaluation reserve**	\$13,520

\*Previously recognised impairment loss – saved depreciation expense: \$1,000-\$(520-500)

\*\* Both in equity and OCI as the balancing figure

The revaluation increase should be recognised as income to the extent that it reverses an impairment loss expense. This should adjust any decrease in depreciation expense as a result of the impairment loss being recognised.

(IAS 16: para. 63)

## Complex assets

Different parts should be depreciated separately.

*(IAS 16: para. 43)*

## Overhauls

Overhauls costs should be capitalised as a part of PP&E.

*(IAS 16: SIC 23)*

## Retirement (not use the PP&E) and disposals

**In the exam, the following shortcut approach could be used:**

**Dr** Bank (considerations received)

**Cr** PP&E at carrying value (Costs – Accumulated depreciation)

**Dr/Cr** Loss or gain on disposal (P/L)

### **Example:**

According to the national government overcapacity reduction policy, a 600 cubic meters of blast furnace needs to be mothballed and the company is uncertain when it can be put into use again.

### **Required:**

Whether the blast furnace should cease to be depreciated?

### **Answer:**

There are no plans to dispose of the furnace and should not be classified as assets held for sale, ie they are still PP&E.

Furnace is still subject to obsolescence and natural wear and tear.

Depreciation should cease at the earlier of the date of the asset is classified as held or sale or the date when it is derecognised.

Therefore, depreciation should continue in this case.

## Derecognition

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.

The gain on disposal of the PP&E should be separately presented on the face of the P/L but not mixed with revenue.

But we need to determine whether this meets the criteria for the sale of PP&E in accordance with IFRS 15 Revenue from Contracts with Customers. For instance, if the probability to get the payment from the buyer from the sale of the PP&E is remote, no gain on disposal should be recognised.

**(IAS 16: para 67-71)**

## Disposal of a revalued asset

This would be the same as the above journals. One additional journal should be made:

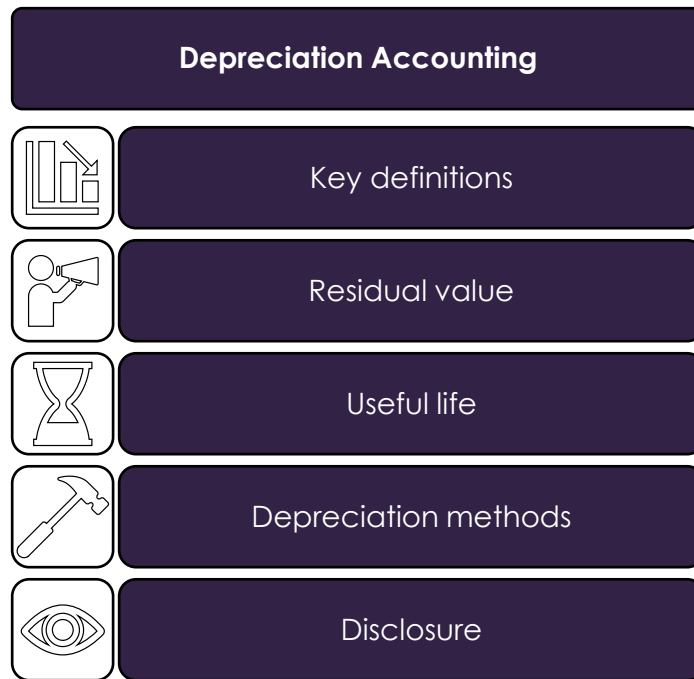
**Dr** Revaluation reserve  
**Cr** Retained earnings

## Disclosure

- Cost
- Depreciation methods
- Useful lives
- Accumulated depreciation
- Reconciliations from additions/disposals etc.
- Revalued assets including who; when and the valuation figures.

**(IAS 16: para. 73)**

## Topic outline:



*(IAS 16: para. 43-66)*



## Key definitions

### Depreciable amount =

$$\frac{\text{Historical cost / Substituted Cost (Revalued amount)} - \text{Residual Value}}{\text{Years/number of units expected to obtain}}$$

This is based on accruals concept or matching principle, ie to match the benefits earned from using the PP&E with the costs that the entity thinks it might incur.

The depreciation expense here is just an 'accounting depreciation' and this is not 'economic depreciation or actual depreciation'. Therefore, a change in depreciation methods is a change in accounting estimate, the current and future years' Financial Statements would be affected. This is known as a prospective adjustment.

## Residual value

If the residual value is significant, it must be estimated at the date of purchase or in any subsequent revaluation.

Net residual value = Gross residual value – expected costs of disposal

The value of the PP&E after fully depreciated can either be:

- a) Residual value (if the residual value is available)
- b) Nil (if the residual value is not available)

## Useful life

### Consider the following factors:

- Expected physical wear and tear (this depends on number of shifts or the entity's repair and maintenance programmes)
- Obsolescence (such as changes in technological factors and market demand)
- Legal or other limits on the use of the assets (An example could be the length of a related lease, ie in the lease contract, it states the asset can only be used for 5 years, however, it is likely that the lessee would exercise the option to extend the lease contract to another 3 years, therefore, the asset should be depreciated over 8 years.)

**Exam rehearsal question – Rose (June 2011 Q1 (5))**

Rose purchased a plant for \$20 million on 1 May 2007 with an estimated useful life of six years. Its estimated residual value at that date was \$1.4 million. On 1 May 2010, the estimated residual value changed to \$2.6 million. The change in the residual value has not been taken into account when preparing the financial statements as at 30 April 2011.

**Answer:**

	\$m
Cost on 1.5.07	20
Accumulated depreciation to 1.5.10 $(\$20m - \$1.4m) / 6 \text{ years} \times 3 \text{ years}$	<u>(9.3)</u>
	10.7

New depreciation:  $(\$10.7m - \$2.6m) / 3 \text{ years} = \$2.7m$

Old depreciation  $(\$10.7m - \$1.4m) / 3 \text{ years} = \underline{\$3.1m}$

Save depreciation  $\$0.4m$

**Dr** PP&E \$0.4m

**Cr** Retained earnings \$0.4m

**Tutorial note:** A change in residual value should be accounted for as a prospective adjustment.

## Depreciation methods

### 1. Straight line method:

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Residual Value}}{\text{Years}}$$

This method assumes that depreciation expense would be the same in each financial year.

### 2. Reducing balance method:

$$\text{Depreciation expense} = \text{Carrying value} \times \text{depreciation rate}$$

This method assumes that more depreciation expenses would be provided in earlier years than in subsequent years.

### 3. Sum-of-digit method:

**Step 1:** Plus all the years together such as  $5+4+3+2+1=15$ ;

**Step 2:** Depreciate the asset at  $5/15$ , then  $4/15$ ,  $3/15$ ,  $2/15$ ,  $1/15$  year at the depreciable amount (Cost – Residual Value).

### 4. Machine hour method:

$$\text{Depreciation expense} = \frac{\text{Cost} - \text{Residual Value}}{\text{Machine hours}}$$

This method assumes the depreciation expense would be more if more machine hours are used and would be less if less machine hours are used.

## Two methods:

### Method 1: Full in the year of acquisition and none in the year of disposal:

- This means that a full year depreciation expense is charged irrespective when the asset was acquired, for instance, even though the asset was acquired on 15th March in the first year, we do not charge 9 months and 15 days depreciation expenses, but instead, we charge the full 12 months depreciation expenses. However, in the year of disposal, we do not charge depreciation expense for this. Therefore, more depreciation expense in the year of acquisition and less in the year of disposal and the effects would cancel each other out.

### Method 2: Proportional method:

- This means that a full year depreciation expense is charged irrespective when the asset was acquired, for instance, even though the asset was acquired on 15th March in the first year, we do charge 9 months and 15 days depreciation expenses instead of the full 12 months depreciation expenses.

## Disclosure

- Depreciation methods
- Useful lives
- Total depreciation for the year
- Cost and accumulated depreciation

### **Exam rehearsal question – Fill (Dec 2018 (b))**

At 30 November 20X6, the directors of Fill estimate that a piece of mining equipment needs to be reconditioned every two years. They estimate that these costs will amount to \$2 million for parts and \$1 million for the labour cost of their own employees.

The directors are proposing to create a provision for the next reconditioning which is due in two years' time in 20X8, along with essential maintenance costs. There is no legal obligation to maintain the mining equipment. (6 marks)

#### **Answer:**

#### **Replacing cost**

The cost of replacing parts should be capitalized as PP&E if the recognition criteria are met.

#### **Recognition criteria**

It is probable that future economic benefits associated with the item will flow to the entity; and

The cost of the item can be measured reliably.

#### **Criteria are met**

In this case, \$2m for parts replacement and \$1m for labour costs are directly attributable costs for the mining equipment replacement and therefore, \$3m in total should be capitalized as PP&E.

#### **Revenue expenditure**

Revenue expenditure such as routine maintenance costs which are not directly related to the replacement of components should be expensed to the statement of profit or loss as expenses.

#### **Provision**

Per IAS 37 Provisions, contingent liabilities and contingent assets, a provision is recognised if it is probable that the present obligation will result in future economic outflows.

#### **Provision in the case**

There is no present obligation for Fill to recondition the equipment, therefore, it is not acceptable to create a provision liability.

#### **Motive**

A provision liability will result in expenses to be recognised in each accounting period following the recognition which decrease profits. However, the depreciation on the equipment also results in similar expenses to be recognised which have similar impacts on Financial Statements.

### **Exam rehearsal question – Calendar (Specimen paper 2)**

The new accountant has been reviewing Calendar's financial reporting processes. She has recommended all purchases of property, plant and equipment below \$500 should be written off to profit or loss. The accountant believes that this will significantly reduce the time and cost involved in maintaining detailed financial records and producing the annual financial statements.

#### **Required:**

**With reference to the concept of materiality, discuss the acceptability of the above two proposals.**

**Note: Your answer should refer to the Exposure Draft on the IFRS Practice Statement: Application of Materiality to Financial Statements. (5 marks)**

#### **Answer:**

##### **Materiality**

An item is material if its omission or misstatement might influence the economic decisions of the users of the financial statements.

Materiality is not a purely quantitative consideration; an item can be material if it triggers non-compliance with laws and regulations, or bank covenants.

Calendar should consider materiality throughout the process of preparing its financial statements to ensure that relevant information is not omitted, misstated or obscured.

##### **Property, plant and equipment (PPE)**

IAS 16 Property, Plant and Equipment states that expenditure on PPE should be recognised as an asset and initially measured at the cost of purchase. Writing off such expenditure to profit or loss is therefore not in accordance with IAS 16.

According to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors, financial statements do not comply with International Financial Reporting Standards if they contain material errors, or errors made intentionally in order to present the entity's financial performance and position in a particular way.

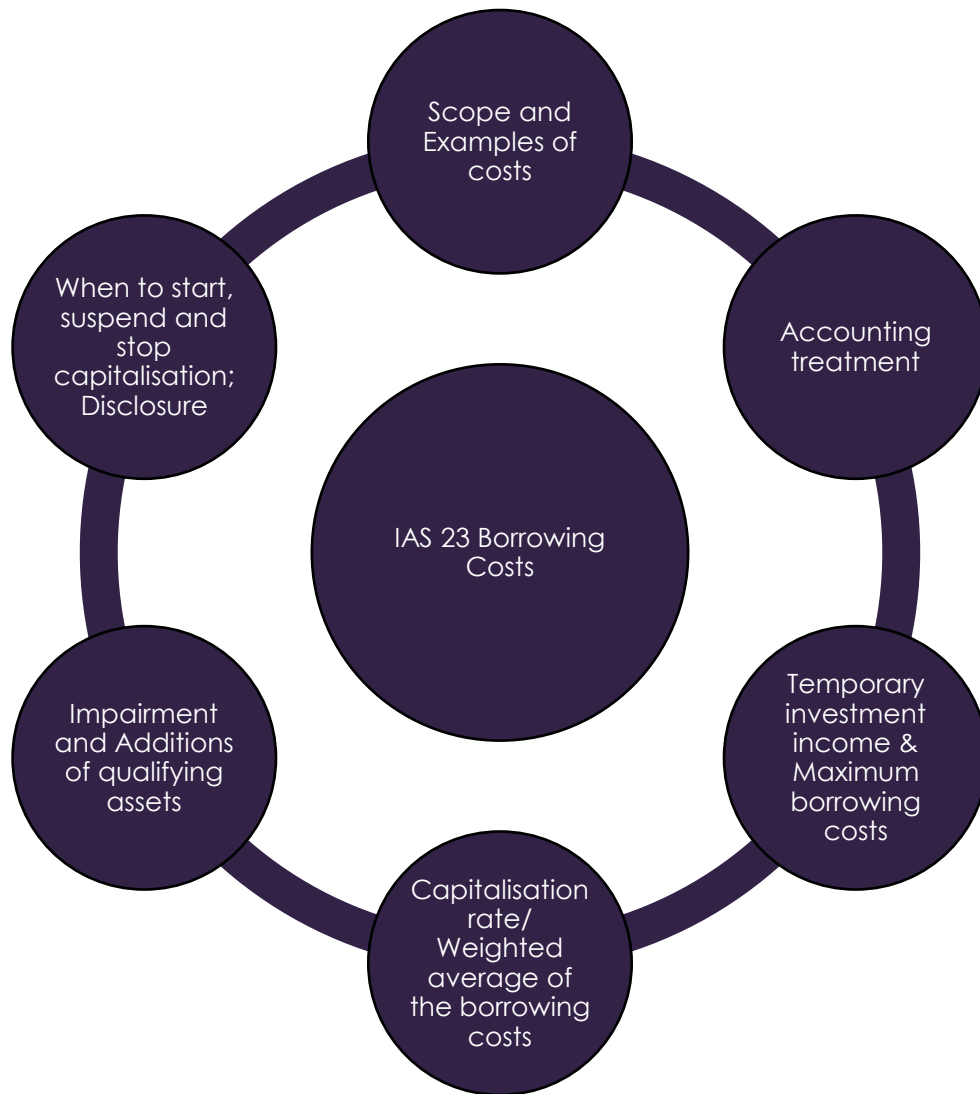
However, assuming that the aggregate impact of writing off small PPE purchases to profit or loss is not material, then the financial statements would still comply with International Financial Reporting Standards.

Moreover, this decision seems to be a practical expedient which will reduce the time and cost involved in producing financial statements, rather than a decision made to achieve a particular financial statement presentation.

If implemented, this policy must be regularly reassessed to ensure that PPE and the statement of profit or loss are not materially misstated.

# Chapter 3 IAS 23 Borrowing Costs

## Topic outline:



## Borrowing for what?

### **Core principle:**

Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset form part of the cost of that asset. Other borrowing costs are recognised as an expense.

**(IAS 23: para. 1)**

### **Examples of qualifying assets (substantial time to get ready for its intended use or sale):**

- Inventories. For large quantities of inventories which are produced in large quantities on a repetitive basis such as cheese, wine and aircrafts (substantial time to produce). The standard allows an option (accounting policy) for the entity to either to capitalise the borrowing cost or not capitalising it. But inventories produced/manufactured over a short period of time are not qualifying assets.

**(IAS 23: para. 4)**

- Manufacturing plants
- Power generation facilities
- Intangible assets such as development costs
- Investment properties
- Bearer plants
- For biological asset (if it is a qualifying asset) acquired at fair value, the entity is not required to apply this standard to borrowing cost.

**(IAS 23: para. 4)**

Financial assets are not qualifying assets.

Assets that are ready for their intended use or sale when purchased are not qualifying assets. This means that management should assess the intention of the use and sale of the asset when it is acquired. Management should combine assets together to determine whether it is ready for their intended use or sale.

**(IAS 23: para.5)**



### **Example 1: The intention of management 1**

A telecom company acquired a 5G licence. The licence could be sold or licensed to a third party. However, management intends to use it to operate a wireless network. Development of the network starts when the licence is acquired.

#### **Required:**

Should borrowing costs on the acquisition of the 5G licence be capitalised until the network is ready for its intended use?

#### **Answer:**

The answer is yes. This is because the licence has been exclusively acquired to operate the wireless network.

The acquisition of the licence is the first step in a wider investment project (developing the network). It is part of the network investment, which meets the definition of a qualifying asset.

The fact that the licence can be used or licensed to a third party when purchased is irrelevant.

### **Example 2: The intention of management 2**

A company incurred borrowing costs regarding the government permit to build a building and an equipment which can be used to build lots of buildings in the future.

#### **Required:**

Whether the borrowing costs for the government permit and equipment can be capitalised per IAS 23?

#### **Answer:**

- Yes for the building because this is the necessary step for the building to be built and the building is a qualifying asset. Therefore, we should consider the permit and building together, and the borrowing costs on the permit can be capitalised.
- No for the equipment. Because the equipment will be used to build future buildings, hence at the time that the equipment was acquired, it is ready for its intended use.

## What are included in borrowing costs

1. Interest expense
2. Finance charges for leases. For example, a crane or a dockyard is leased for the purpose of constructing a ship. The ship is a qualifying asset. The interest on the lease of the crane or dockyard is capitalised as borrowing costs.
3. Exchange differences from foreign currency loan\* (accounting policy)

**(IAS 23: para. 6)**

### Example for exchange differences from foreign currency loan:

A business based in the USA took a foreign currency loan in Japanese Yen of 100 million at the year start for the construction of its own factory and the loan is for one year.

The interest expense in Yen translated back to the US dollar is \$0.45 million during the year.

The Japanese Yen of 100m translated back to the USD at the time that the loan was taken out and as at the Financial Statements year end are \$0.9 million and \$0.8 million.

#### Required:

Accounting treatment.

#### Answer:

The borrowing costs include:

Interest expense : (in our functional currency: USD)	\$0.45m
Foreign exchange differences adjustment: gain (\$0.9m - \$0.8m)	\$(0.1)m *
Hence the net borrowing costs = \$0.45m - \$0.1m =	\$0.35 m

\* This is an exchange gain because instead of owing \$0.9m to the bank but now it only owes \$0.8m to the bank because of exchange rate differences. Hence the gain from foreign exchange rate differences should offset the interest expense. If there are foreign exchange losses, the interest expense should increase by the loss on retranslation.

## Accounting Treatment

An entity shall capitalise borrowing costs that are directly attributable to the acquisition (such as the interest expense on the loan in order to get the government permit or license before producing outputs), construction or production of a qualifying asset as part of the cost of that asset.

This means that entities must capitalise all eligible borrowing costs except in some situations such as the optional treatment for large and repetitive quantities of inventories to be produced.

Capitalised borrowing costs should be added to the cost of the asset. Other borrowing costs which are not eligible should be recognised as expenses.

**(IAS 23: para. 8)**

### Example:

As at the year start, a business began to construct a building with an estimated useful life of 40 years. The building costs are \$35 million. The construction was completed in 9 months and brought into use in 12 months.

To complete the project, the business borrowed \$20 million at the year start with the loan interest rate being 10%. The loan will be repaid in 12 months.

### Required:

Accounting treatment.

### Answer:

First 9 months: capitalise the borrowing costs:  $\$20\text{m} \times 10\% \times 9/12 = \$1.5\text{m}$

Dr	PP&E	\$1.5m
Cr	Accrued expense/Interest payable/Cash	\$1.5m

Last 3 months: expense the borrowing costs:  $\$20\text{m} \times 10\% \times 3/12 = \$0.5\text{m}$

Dr	Interest expense/Finance costs	\$0.5m
Cr	Accrued expense/Interest payable/Cash	\$0.5m

## Temporary investment income

Borrowing costs available for capitalisation = Actual borrowing costs LESS investment income

(IAS 23: para. 12)

### Example:

On 1 January, the business borrowed \$1.5 million to finance the production of its two ships and each is expected to be completed in one year. Work has started during this year and the loan facility was drawn down and incurred on 1 January. The remaining funds are invested temporarily.

\$000	Ship X	Ship Y
1 January	250	500
1 July	250	500
<b>Total</b>	500	1,000

The loan rate was 10% and the business can invest surplus funds at 8%.

### Required:

Calculate the capitalised borrowing costs for each asset. Ignore compound interest in the calculation.

### Answer:

\$000	Ship X		Ship Y
Borrowing costs From 1 January to 31 December \$500,000 x 10%	50,000	Borrowing costs	100,000
<u>Minus:</u> Temporary investment income From 1 January to 30 June \$250,000 x 8% x 6/12	<u>(10,000)</u>	<u>Minus:</u> Temporary investment income From 1 January to 30 June \$500,000 x 8% x 6/12	<u>(20,000)</u>
Capitalised borrowing costs	40,000	Capitalised borrowing costs	80,000

## Capitalisation rate/Weighted average of the borrowing costs

Borrowings are obtained generally and applied in part to obtain a qualifying asset, we should use the 'capitalisation rate'

Exclude borrowings for specific qualifying assets.

**(IAS 23: para 14)**

### Example:

The business has three types of loans during the year:

\$million	1 January	31 December
9% Bank loan repayable in 2 years' time	130	130
8.5% Bank loan repayable in 3 years' time	90	90
7.5% Loan notes repayable in 1 year's time	0	120

The 7.5% loan notes was issued to fund the construction of a building and the construction has begun this year.

At the start of this year, the business began construct a piece of equipment which is a qualifying asset using the existing borrowings. Expenditure drawn down for the construction was: \$40 million at the start of this year and \$30 million in October.

### Required:

Calculate the capitalised borrowing costs.

### Answer:

$$\text{Capitalisation rate} = 9\% \times (130/220^*) + 8.5\% \times (90/220) = 8.8\%$$

\*This is calculated using the average bank loan during the year: \$130 million and \$90 million together to be a total \$220 million.

$$\text{Capitalised borrowing costs} = (\$40\text{m} \times 8.8\% \times 12/12) + (\$30\text{m} \times 8.8\% \times 3/12) = \$4.18\text{m}$$

## Maximum borrowing costs

The maximum borrowing costs to be capitalised should not exceed actual borrowing costs incurred. This happens when the expenditure on qualifying asset is greater than its borrowings.

**(IAS 23: para. 14)**

### **Example:**

Expenditure spent on the building is \$100m but it only took \$80m debt with the interest rate being 10%. The loan is for one year.

### **Required:**

Determine the amount to be capitalised.

### **Answer:**

Only \$8m to be capitalised.

The maximum borrowing costs ( $\$100\text{m} \times 10\% = \$10\text{m}$ ) should not exceed actual borrowing costs incurred ( $\$80\text{m} \times 10\% = \$8\text{m}$ ).

## Impairment

Sometimes, the qualifying assets may be impaired (PP&E impairment or inventories where costs are lower than the net realisable value), the calculation of the capitalised borrowing costs should be based on the impaired qualifying asset.

**(IAS 23: para.16)**

## When to capitalise

All three events/transactions happen:

1. Incur expenditure
2. Incur borrowing costs
3. Activities to prepare the asset for its intended use or sale such as obtaining permits but do not include holding an asset when no production or development that changes the asset's condition is taking place such as the land is held without any associated development activity – does not meet with the third criteria.

**(IAS 23: para. 17)**

## Additions (increase qualifying assets) during the year

IAS 23 allows the average carrying amount of the asset during a period to be used as an approximation to the expenditure to which the capitalisation rate is applied in the period.

**(IAS 23: para. 14)**

Date	Additions	Cumulative carrying amount	Weighted average carrying amount
From 1 Jan – 1 April: 3/12	\$300	\$300	$3/12 \times \$300 = \$75$
From 1 April – 1 Sept: 5/12	\$500	\$800 (\$300+\$500)	$5/12 \times \$800 = \$333$
From 1 Sept – 31 Dec: 4/12	\$600	\$1,400 (\$800+\$600)	$4/12 \times \$1,400 = \$467$
			Total =
			\$875

### Example:

The capitalisation rate may be applied to the weighted average carrying amount above of \$875 instead of the simple average carrying amount of \$850  $((\$300+\$1,400)/2)$ .

## Suspension of capitalisation

If the reason is normal, we should continue to capitalise the borrowing costs:

- Factory closed down during holiday season
- Production process is slow
- High water levels delay construction of a bridge (if such high water levels are common during the construction period in the geographical region involved) then capitalisation of borrowing costs should not be suspended
- Periods when engineers improve the technical specifications of the asset

If the reason is abnormal, we should suspend to capitalise the borrowing costs:

- Workers go on strike
- Fire damage
- Flood

**(IAS 23: para. 20-21)**

## Cessation of capitalisation

Substantially all the activities to prepare the qualifying asset for its intended use or sale are completed.

Normally when physical construction of the asset is completed, although minor modifications may still be outstanding.

Assets completed in parts or stages (capitalisation should cease for each part as it is completed such as business part consisting of many buildings).

**(IAS 23: para. 22-25)**

### **Example:**

#### **1. Investment property for sale:**

Investment property has been completed but the business needs time to find new tenants. Hence when the investment property is completed, the borrowing costs should cease to be capitalised.

#### **2. Building complete - fire safety approval is outstanding:**

An entity has completed the physical construction of a building but is not permitted to use it until fire approval is obtained. Often it is a formality to obtain the necessary approval for fire safety. In such cases it is appropriate to cease capitalisation on physical completion. If the building fails the inspection, and substantial additional work is then required, it may be necessary to resume capitalisation of borrowing costs.

#### **3. Shopping centre:**



Major construction work on the shopping centre is completed first but the fit-out work (which is essential for the intended use) continues. At this stage the building is not ready for use and the entity continues to capitalise borrowing costs. When the fit-out is substantially complete the entity ceases to capitalise borrowing costs on the shopping centre.

**4. Late completion of the car park:**

The multi-storey car park is capable of being used independently. If construction of the car park continues after work on the shopping centre is complete, borrowing costs continue to be capitalised on the car park. The treatment of the shopping centre is not affected by the later completion of the car park.

Amount of borrowing costs capitalised during the period  
Capitalisation rate

**(IAS 23: para. 26)**

**Exam rehearsal question – Emcee – June 2016 Q3 (a)**

Emcee, a public limited company, is a sports organisation which owns several football and basketball teams. It has a financial year end of 31 May 2016. Emcee needs a new stadium to host sporting events which will be included as part of Emcee's property, plant and equipment. Emcee therefore commenced construction on a new stadium on 1 February 2016, and this continued until its completion which was after the year end of 31 May 2016. The direct costs were \$20 million in February 2016 and then \$50 million in each month until the year end. Emcee has not taken out any specific borrowings to finance the construction of the stadium, but it has incurred finance costs on its general borrowings during the period, which could have been avoided if the stadium had not been constructed. Emcee has calculated that the weighted average cost of borrowings for the period 1 February–31 May 2016 on an annualised basis amounted to 9% per annum. Emcee needs advice on how to treat the borrowing costs in its financial statements for the year ending 31 May 2016. **(6 marks)**

**Answer:**

**IAS 23 requirement:**

IAS 23 Borrowing Costs requires such borrowing costs to be capitalised if the asset takes a substantial period of time to be prepared for its intended use or sale.

The definition of borrowing costs includes interest expense calculated by the effective interest method, finance charges on finance leases and exchange differences arising from foreign currency borrowings relating to interest costs.

Borrowing costs should be capitalised during construction and include the costs of funds borrowed for the purpose of financing the construction of the asset, and general borrowings which would have been avoided if the expenditure on the asset had occurred.

The general borrowing costs are determined by applying a capitalisation rate to the expenditure on that asset. The capitalisation rate will be the weighted average of the borrowing costs applicable to the general pool.

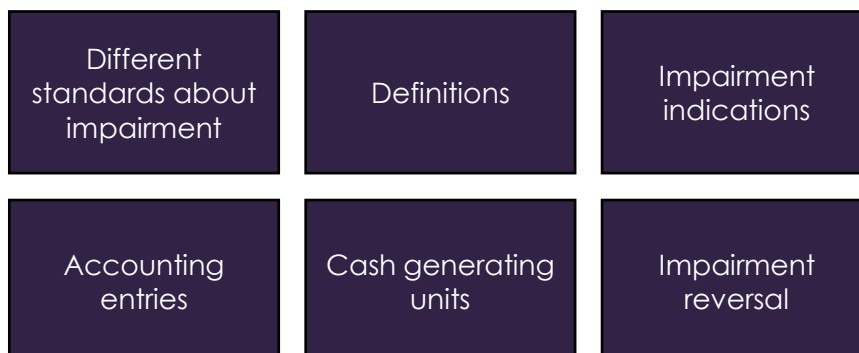
**Application:**

The weighted-average carrying amount of the stadium during the period is  $\$(20 + 70 + 120 + 170)$  million/4, that is \$95 million.

The capitalisation rate of the borrowings of Emcee during the period of construction is 9% per annum, therefore the total amount of borrowing costs to be capitalised is the weighted-average carrying amount of the stadium multiplied by the capitalisation rate. That is  $(\$95 \text{ million} \times 9\% \times 4/12)$  \$2.85 million.

## Chapter 4 IAS 36 Impairment of Assets

### Topic outline:



### Different standards dealing with impairment

- Inventories (IAS 2);
- Contract assets and assets arising from costs to obtain or fulfil a contract that are recognised (IFRS 15);
- Deferred tax assets (IAS 12);
- Assets arising from employee benefits (IAS 19);
- Financial assets within the scope of IFRS 9;
- Investment property measured at fair value (IAS 40);
- Biological assets related to agricultural activity measured at fair value less costs to sell (IAS 41);
- Other tangible and intangible assets (IAS 36 Impairment of assets)

### Definitions

#### Impairment loss:

- An impairment loss is the amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount.

#### Recoverable amount:

- The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use.

**(IAS 36: para. 6)**

**Example: Calculate an impairment loss expense:**

A business has a piece of equipment and the management believes that this is impaired. The cost of the equipment is \$30,000 and the carrying value at the date when the impairment review test has been performed was \$17,000.

The fair value of the equipment is \$25,000 and the commission costs to be paid to sell this equipment are expected to be \$13,000. The value in use of this equipment is estimated to be \$11,000.

**Required:**

Calculate the impairment loss expense of this equipment.

**Answer:**

Carrying value \$17,000.

Recoverable amount is the higher of value in use (\$11,000) and the fair value less costs of disposal (\$25,000-\$13,000=\$12,000). Therefore, the recoverable amount is \$12,000. Since the carrying value of the equipment is higher than its recoverable amount, the \$5,000 impairment loss expense should therefore be recognised (\$17,000-\$12,000).

**Value in use:**

Value in use is the present value of the future cash flows expected to be derived from an asset or cash-generating unit. The net cash flows to be received or paid for the disposal of assets at the end of its useful life should also be included.

*(IAS 36: para. 6)*

**Cash flows include:**

- o Cash inflows from continuing use the asset.
- o Necessary and directly attributable expenses such as overheads and day to day servicing.
- o Net cash flows from disposal from selling the assets or paying for any expenses at the end of the useful life of assets.
- o Inflation could or need not to be included. However, consistency concept must be applied.
- Cash flows do not include:
  - o Expenses to improve future performance of the asset as these are not obligations.
  - o Future restructuring costs which not committed.
  - o Any cash flows from financing activities because they have been considered in the discount rate.
  - o Any income tax receipt or paid because discount rate is determined on a pre-tax basis

and future tax law may change.

- o Any financial assets and liabilities such as receivables, payables.

#### **4. Discount rate:**

- Pre-tax discount rate should be used;
- The rate is the entity would pay in a current market transaction to borrow funds to acquire the asset; if this is not available (for example, when there is not active market for the asset), the entity's Weighted Average Cost of Capital (WACC) should be used, other adjustments including country, currency and cash flow risks should be considered.

#### **5. Fair value less costs of disposal:**

- The value is calculated by assuming the business disposes of the asset now rather than it continues to use the asset in the foreseeable future.

#### **6. Fair value:**

- Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.
- If active market exists for the asset: fair value should be based on market price or recent transaction price in similar assets.
- If active market does not exist for the asset: estimate the fair value using best estimate of what market participants might pay in an orderly transaction.

**(IFRS 13)**

#### **7. Costs of disposal:**

- Costs of disposal are incremental costs directly attributable to the disposal of an asset or cash-generating unit, excluding finance costs and income tax expense.

**(IAS 36: para. 6)**

#### **Note:**

- Future cash flows shall be estimated for the asset in its current condition. Estimates of future cash flows shall not include estimated future cash inflows or outflows that are expected to arise from:
  - a. a future restructuring to which an entity is not yet committed; or
  - b. improving or enhancing the asset's performance.
- Costs of disposal, other than those that have been recognised as liabilities, are deducted in measuring fair value less costs of disposal.

**(IAS 36: para. 44 and 28)**

**Example: Costs of disposal liability**

A company operates a mine with the cost of \$100 million. The estimated costs of removal the mine at the end of its useful life is are \$10 million.

The company receives a quote from one of the buyers to be \$80 million if the mine is sold.

The value in use of the mine after considering the removal costs is \$50 million.

**Required:**

Calculate the impairment loss expense of the mine if:

- The \$10 million removal costs can be capitalised in the mine costs and the provision liability;
- The \$10 million removal costs cannot be capitalised in the mine costs and the provision liability.

**Answer:****If the \$10 million removal costs have been capitalised:**

<b>Dr</b>	PP&E	\$10m
<b>Cr</b>	Provision	\$10m

The carrying value is therefore \$110 million (\$100m+\$10m).

The fair value less costs of disposal = \$80 million (in this case, we can not include \$10 million removal costs in the calculation because \$10 million liability has been recognised). Therefore, the recoverable amount is the fair value less costs of disposal being \$80 million as this is higher than its value in use.

Therefore, the impairment expense = \$110 million - \$80 million = \$30 million.

**1. If the \$10 million removal costs have not been capitalised:**

The carrying value of the mine is \$100 million.

The fair value less costs of disposal = \$80 million - \$10 million = \$70 million (the removal costs should be included in the fair value less costs of disposal calculation).

Therefore, the impairment expense = \$100 million - \$70 million = \$30 million.

**Conclusion:**

In whatever cases, the impairment expense is \$30 million.

## Identifying a potentially impaired asset

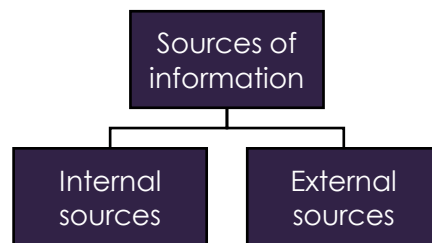
If there are impairment indicators of the asset, formal estimate of the assets' recoverable amount is required:

The mandatory annual impairment test can be at any time during an annual period, provided the test is performed at the same time of the year.

There is no requirement for an entity to test all these assets at the same time (including individual CGU's).

If the asset is tested for impairment before the end of the reporting period, an additional test is required if there are indicators of impairment at the reporting date.

**(IAS 36: para. 8)**



**1. Evidence of obsolescence or physical damage.**

**2. Asset becomes idle, plans to discontinue or restructure the operation to which an asset belongs, or Plans to dispose of an asset before the previously expected date.**

For instance, the machine is now idle due to a change in consumer needs.

**3. Reassessing the useful life of an asset as finite rather than indefinite.**

For instance, government now changes the law regarding the broadcasting right (intangible asset) to be renewed at a large rather than a small cost. The business should therefore reassess its useful life as finite rather than indefinite.

**4. Evidence is available from internal reporting that indicates that the economic performance of an asset is, or will be, worse than expected.**

For instance:

- Cash flows needed for acquiring, operating or maintaining the assets are significantly higher than originally budgeted.
- Actual net cash flows or operating profit resulting from the asset are significantly worse than budgeted.

**(IAS 36: para. 12)**



- 1. Changes in import duty or sales tax affecting the use of machines to produce products;**
- 2. The entry of a major competitor into the market;**
- 3. Nationalisation of the firm by the local government;**
- 4. A change in consumer demand due to improvement in technology that the business cannot handle;**
- 5. Economic downturn such as:**
  - Fall in index (such as FTSE, Dow Jones, Hang Seng index)
  - Tightening credit (an increase in interest rate) and less disposable income to citizens
  - Government increases rescue spending in saving companies in financial crisis
  - Impacts on commodity (materials/fuel) prices
- 6. Changes in foreign exchange rates (affecting business's imports or exports).**
- 7. The carrying amount of the net assets of the entity is more than its market capitalisation.**
  - For instance, the market capitalisation of different companies can be found in real time in different websites such as <https://ycharts.com/>. The carrying amount of net assets include those tangible and intangible assets subtracting liabilities. Market may believe those assets are overvalued, or companies may find it very difficult to pay those liabilities back to creditors, and therefore the market capitalisation of the company is less than its net assets carrying value. We can often refer to the market to book (price to book) ratio for different companies, ie if the ratio is less than one, this could suggest impairment indicator exists.

**(IAS 36: para. 12)**

## Accounting entries

An asset or a cash generating unit (CGU) is impaired:

### **Normal accounting treatment:**

**Dr** Impairment expense

**Cr** Asset at cost

**Dr** Accumulated depreciation

### **Or in SBR exam:**

**Dr** Impairment expense

**Cr** Asset at carrying value

## Cash-generating units (CGUs)

### **Definition:**

A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

**(IAS 36: para. 6)**

## Examples of CGUs

1. An entire entity (parent or subsidiary entities within a group).
2. Departments or business units within an entity: for instance, each store in a retail business.
3. Production lines within a department, or within an entity: for instance, each magazine titles of a publisher.
4. Groups of items of property, plant and equipment within a production line, within a department, or within an entity: for instance, a plant or aircraft.

## Considerations to determine a CGU

1. If the business is run on a unit by unit basis (such as store by store basis) and the internal management report is organised to measure performance on a unit by unit (such as store by store basis), each unit is identified as a CGU.
2. If an active market exists for the output produced by the asset or a group of assets (such as assets combined in each factory), this asset or group should be identified as a CGU, even if some or all of the output is used internally.

In simple words, if an active market exists, each unit does not need to completely/ partly depend on the other unit's demand and therefore, each unit is independent.

3. CGUs should be identified consistently from period to period for the same type of asset unless a change is justified. For instance, if there is a change in economic factors and there is no active market for the produced product, the original assessment of CGU should change.

**(IAS 36: para. 72)**

4. If the asset is used to serve the business, the asset itself can not be identified as a CGU.

## Practical examples to determine a CGU

### Practical example 1: Retail store chain:

Store ABC belongs to retail store chain M. ABC makes all its retail purchases through M's purchasing centre. Pricing, marketing, advertising and human resources policies (except for hiring ABC's cashiers and sales staff) are decided by M. M also owns five other stores in the same city as ABC (although in different neighbourhoods) and 20 other stores in other cities. All stores are managed in the same way as ABC. ABC and four other stores were purchased five years ago and goodwill was recognised.

#### Required:

What is the cash-generating unit for ABC (ABC's cash-generating unit)?

#### Answer:

In identifying ABC's cash-generating unit, an entity considers whether, for example:

Internal management reporting is organised to measure performance on a store-by-store basis; and

The business is run on a store-by-store basis on a region/city basis.

All M's stores are in different neighbourhoods and probably have different customer bases. So, although ABC is managed at a corporate level, ABC generates cash inflows that are largely independent of those of M's other stores. Therefore, it is likely that X is a cash generating unit.

### Practical example 2: Factory for an intermediate step in a production process:

A significant raw material used for plant Y's final production is an intermediate product bought from plant X of the same entity. X's products are sold to Y at a transfer price that passes all the margins to X.

Eighty per cent of Y's final production is sold to customers outside of the entity. Sixty per cent of X's final production is sold to Y and the remaining forty per cent is sold to customers outside of the entity.

#### Required:

For each of the following cases, what are the cash-generating units for X and Y?

**Scenario 1:** X could sell the product it sells to Y in an active market. Internal transfer prices are higher than market prices.

**Scenario 2:** There is no active market for the products that X sells to Y.

#### Answer:

##### Case 1:

X could sell its products in an active market and, so, generate cash inflows that would be largely independent of the cash flows from Y. Therefore, it is likely that X is a separate cash-generating unit, although part of its production is used by Y. It is likely that Y is also a separate cash-generating-unit. Y sells

eighty per cent of its products to customers outside of the entity. Therefore, its cash inflows can be regarded as largely independent.

Internal transfer prices do not reflect market prices for X's output. Therefore in determining value in use of both X and Y, the entity adjusts financial budget/forecasts to reflect management's best estimate of future prices that could be achieved in arm's length transactions for those of X's products that are used internally.

**Case 2:**

It is likely that the recoverable amount of each plant cannot be assessed independently of the recoverable amount of the other plant because:

The majority of X's production is used internally and could not be sold in an active market. So, cash inflows of X depend on demand for Y's products. Therefore, X cannot be considered to generate cash inflows that are largely independent of those of Y.

The two plants are managed together.

As a consequence, it is likely that X and Y together are the smallest group of assets that generates cash inflows that are largely independent.

**Practical example 3: Building half-rented to others and half-occupied for own use:**

M is a manufacturing company. It owns a headquarters building that used to be fully occupied for internal use. After downsizing, half of the building is now used internally and half rented to third parties. The lease agreement with the tenant is for five years.

**Required:**

What is the cash-generating-unit for the building?

**Answer:**

The primary purpose of the building is to serve as a corporate asset, supporting M's manufacturing activities. Therefore, the building as a whole cannot be considered to generate cash inflows that are largely independent of the cash inflows from the entity as a whole.

So, it is likely that the cash-generating-unit for the building is M as a whole.

**Practical example 4: Mining company and railway:**

A mining company owns a private railway that it uses to transport output from one of its mines. The railway now has no market value other than as scrap, and it is impossible to identify any separate cash inflows with the use of the railway itself.

**Required:**

How to determine the CGU for the mining company.

**Answer:**

The railway itself should not be treated as a CGU because:

The mining company is not managed using a unit by unit basis such as revenue streams from mining and from railway.

The railway is used to serve the mining company, ie, to transport output from one of its mines.

And therefore, the mine as a whole should be treated as a cash generating unit.

**Practical example 5: Bus routes:**

A bus company has an arrangement with a town's authorities to run a bus service on five routes in the town. Separately identifiable assets are allocated to each of the bus routes, and cash inflows and outflows can be attributed to each individual route. Four routes are running at a profit and one is running at a loss.

**Required:**

How to determine the CGU for bus mining company.

**Answer:**

Four profitable routes cash inflows depend on the loss-making route because without the loss making route, the bus company cannot proceed with the project. Hence all five bus routes together should be treated as a CGU.

## Impairment test for CGU

### Allocation order:

1. Specific asset which has been impaired
2. Reduce goodwill down to zero
3. Remaining balance on a pro-rata basis to the remaining unimpaired assets carrying amount (exclude current assets)

(IAS 36: para. 60, 104)

### Example:

A plant has been defined as a cash generating unit with the following information:

	\$'000
Allocated goodwill	2,400
Land	6,000
Plant and equipment	6,000
Intangible assets	2,000
Current assets (cash, inventories and receivables)	<u>1,400</u>
Carrying value =	17,800

Due to changes in laws, the intangible asset has been subject to impairment review test and the recoverable amount of the intangible asset is now \$1.5 million. The recoverable amount of the CGU is now \$9.8 million.

### Required:

Accounting entries for the impairment expense on this CGU.

### Answer:

Total impairment expense = Carrying value – CGU Recoverable amount = \$17.8m-\$9.8m=\$8m

The \$7 m should be allocated using the following order:

\$'000	Order	Carrying value	Recoverable amount	Impairment expense
Allocated goodwill	2	2,400		2,400
Land	3	6,000		50% x 4,100=2,050
Plant and equipment	3	6,000		50% x 4,100=2,050
Intangible assets	1	2,000	1,500	500

Carrying value		17,800	9,800	7,000
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<b>Dr</b>	Impairment expense	\$8,000
<b>Cr</b>	Intangible assets	\$500
<b>Cr</b>	Goodwill	\$2,400
<b>Cr</b>	Land*	\$2,550
<b>Cr</b>	Plant and equipment**	\$2,550



## Allocated goodwill

Goodwill arising from a business combination must be allocated to each of the acquirer's CGUs which are expected to benefit from synergies after business combination, this is because the goodwill itself does not generate cash flows independently of other assets.

**(IAS 36: para. 80)**

**2.** For example, a business operating in financial services industry acquired a company with three product lines including automobile, aircraft and retail businesses.

The goodwill arising from business acquisition was \$30 million and this must be allocated into the four product lines including financial services, automobile, aircraft and retail businesses based on their weightings of projected cash flows, changes in net assets values or carrying amounts of the CGUs.

## 'Consistency' rule

**1.** The carrying amount of a cash-generating unit shall be determined on a basis consistent with the way the recoverable amount of the cash-generating unit is determined.

**2.** If the disposal of a cash-generating unit would require the buyer to assume the liability. In this case, the fair value less costs of disposal of the cash-generating unit is the price to sell the assets of the cash-generating unit and the liability together (this means that the price the buyer pays include both the asset and liabilities purchased), less the costs of disposal.

**3.** To perform a meaningful comparison between the carrying amount of the cash-generating unit and its recoverable amount, the carrying amount of the liability is deducted in determining both the cash-generating unit's value in use and its carrying amount.

**(IAS 36: para 75 and 78).**

### **Example: (Adjusted from IFRS illustrative example)**

A company operates a mine and it determines the whole mine to be a CGU. The carrying value of the CGU is \$1,000 million.

The fair value less costs of disposal is estimated to be \$800 million.

The value in use of the mine is estimated to be \$1,200 million excluding restoration costs of \$500 million.

The restoration costs have been recognised as a provision liability when the mine was first operated.

#### **Required:**

Whether the above CGU is impaired?

#### **Answer:**

No.

Carrying amount = \$1,000 million - \$500 million (restoration costs should be deducted here for comparison purposes) = \$500 million

(IAS 36: para.78)

Recoverable amount is the higher of value in use and fair value less costs of disposal:

Value in use = \$1,200 million - \$500 million (necessary restoration costs) = \$700 million

Fair value less costs of disposal = \$800 million (The \$800m to be paid by the buyer is for both the asset and the liabilities that the buyer will bear)

Hence the recoverable amount is \$800 million which is more than its carrying amount of \$500 million and therefore, the CGU is not impaired.

### Situations causing impairment reversal to take place:

#### External sources of information:

- there are observable indications that the asset's value has increased significantly during the period.
- significant changes with a favourable effect on the entity have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the entity operates or in the market to which the asset is dedicated.
- market interest rates or other market rates of return on investments have decreased during the period, and those decreases are likely to affect the discount rate used in calculating the asset's value in use and increase the asset's recoverable amount materially.

#### Internal sources of information:

- significant changes with a favourable effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, the asset is used or is expected to be used. These changes include costs incurred during the period to improve or enhance the asset's performance or restructure the operation to which the asset belongs.
- evidence is available from internal reporting that indicates that the economic performance of the asset is, or will be, better than expected.

#### Rule:

- The increased carrying amount of an asset other than goodwill attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior years.
- For depreciated asset using cost model, the reversal of impairment loss should go to 'gain' in the P/L.
- For revalued asset, the reversal of impairment loss should go to 'Revaluation reserve' in equity and OCI.
- Impaired goodwill is never reversed.

**(IAS 36: para 111-121)**

**Example:**

A company acquired a building on 1 January 2011 at a cost of \$300,000 with the estimated useful life being 10 years. The cost model is used for subsequent measurement. On 31 December 2012, the recoverable amount of the building is \$160,000 after the impairment review test has been carried out.

On 31 December 2015, the market interest rate decreased, the resulting recoverable amount is now \$40,000.

**Required:**

Accounting entries.

**Answer:**

	\$
Cost on 1 January 2011	300,000
-Accumulated depreciation (1 January 2011 – 31 December 2012) \$300,000/10 years x 2 years	<u>(60,000)</u>
Carrying amount on 31 December 2012	240,000
Impairment loss	<u>(80,000)</u>
Recoverable amount on 31 December 2012 – become the new cost	160,000
-Accumulated depreciation (31 December 2012-31 December 2015) \$160,000/remaining 8 yearsx 3 years	<u>(60,000)</u>
Carrying value on 31 December 2015	100,000

On 31 December 2015, the recoverable amount is \$40,000 which is higher than its carrying amount of \$100,000, and therefore, the impairment loss can be reversed.

The amount of impairment loss can be reversed shall not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years.

If there are no impairment loss expenses of \$8,000 recognised, we depreciate the asset using the original cost of \$300,000 up to 31 December 2015 as follows:

**If there were no impairment losses:**

	\$
Cost on 1 January 2011	300,000
-Accumulated depreciation (1 January 2011 – 31 December 2015) \$300,000/10 years x 5 years	<u>(150,000)</u>

Carrying value on 31 December 2015	150,000
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Hence we can:

<b>Dr</b>	PP&E (carrying value) <u>(\$150,000-\$100,000)</u>	\$50,000
<b>Cr</b>	Gain	\$50,000

Please note, if the asset has been subject to revaluation before, we should credit 'Revaluation reserve' account in equity with the corresponding figure going to the 'OCI-Other comprehensive income'.

**The above way is what we could use in the SBR exam. However, the whole disclosure in real business is as follows (this is not required from the SBR exam's perspective):**

**After the impairment has taken place:**

	Year 3	Year 4	Year 5
Cost	\$160,000	\$160,000	\$160,000
-Accumulated depreciation \$160,000/8years	<u>\$(20,000)</u>	<u>\$(40,000)</u>	<u>\$(60,000)</u>
Carrying value	\$140,000	\$120,000	\$100,000

**If the impairment has not taken place:**

	Year 3	Year 4	Year 5
Cost	\$300,000	\$300,000	\$300,000
-Accumulated depreciation \$300,000/10 years and for year 3-5	<u>\$(90,000)</u>	<u>\$(120,000)</u>	<u>\$(150,000)</u>
Carrying value	\$210,000	\$180,000	\$150,000

**Hence we should:**

<b>Dr</b>	Accumulated depreciation	\$60,000
<b>Cr</b>	PP&E at cost*	\$10,000
<b>Cr</b>	Gain	\$50,000

\*(\$150,000-\$160,000) – the depreciation should be based on the adjusted amount of \$150,000 over its remaining useful life.

### **Exam rehearsal question – Fill (b) (Dec 2018)**

At 30 November 20X6, the directors of Fill estimate that a piece of mining equipment needs to be reconditioned every two years. They estimate that these costs will amount to \$2 million for parts and \$1 million for the labour cost of their own employees.

As explained above, it is expected that there will be future reductions in the selling prices of coal which will affect the forward contracts being signed over the next two years by Fill.

The directors of Fill require advice on how to treat the reconditioning costs and whether the decline in the price of coal is an impairment indicator. (4 marks)

#### **Answer:**

#### **Impairment**

IAS 36 Impairment of Assets states that at the end of each reporting period, an entity is required to assess whether there is any indication that an asset may be impaired. IAS 36 has a list of external and internal indicators of impairment. If there is an indication that an asset may be impaired, then the asset's recoverable amount must be calculated.

#### **Impairment indicator**

Past and future reductions in selling prices may indicate that the future economic benefits which relate to the asset have been reduced. Mining assets should be tested for impairment whenever indicators of impairment exist. Impairments are recognised if a mine's carrying amount exceeds its recoverable amount.

#### **Impairment in the case**

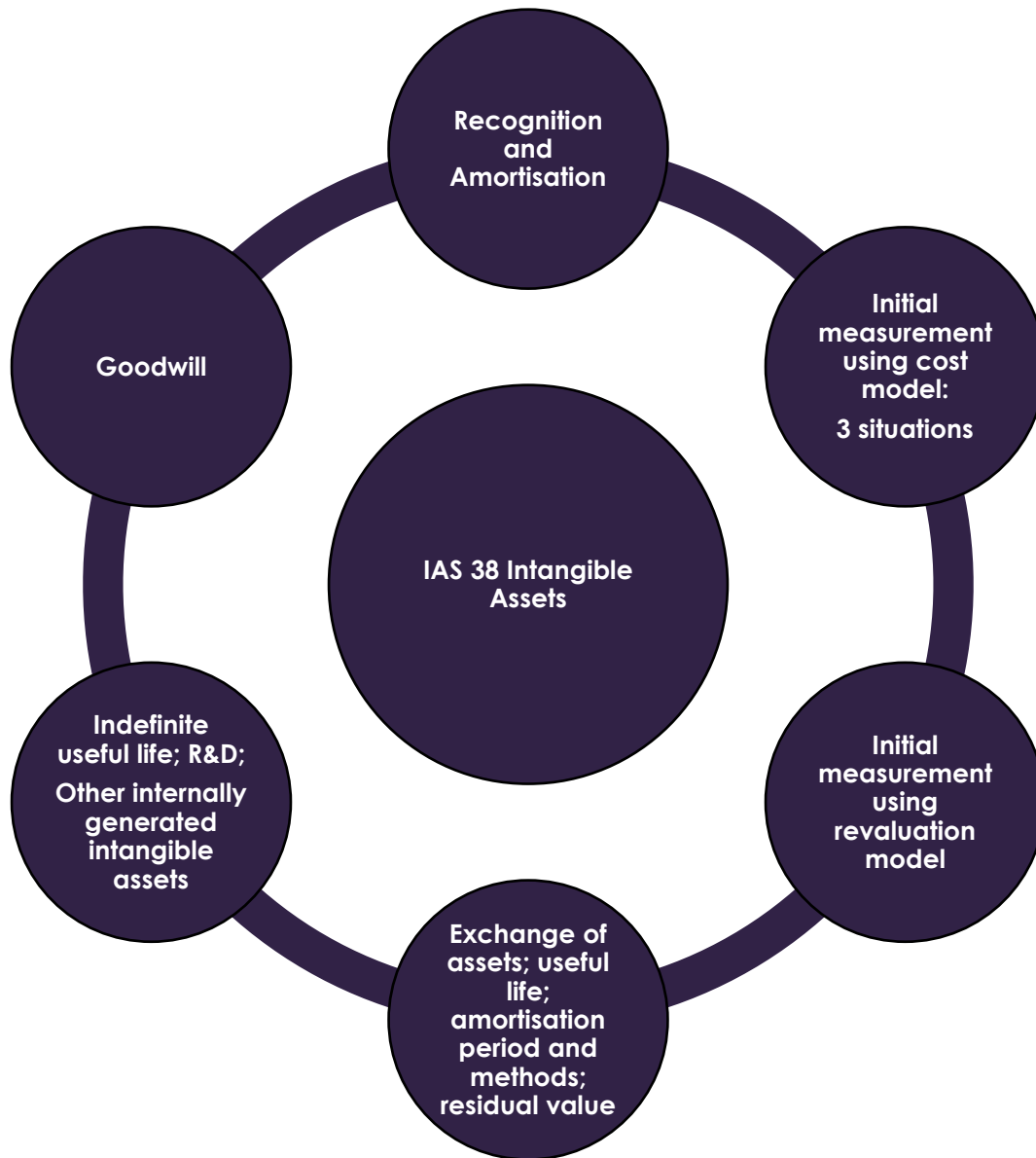
However, the nature of mining assets is that they often have a long useful life. Commodity prices can be volatile but downward price movements are more significant if they are likely to persist for longer periods. In this case, there is evidence of a decline in forward prices. If the decline in prices is for a significant proportion of the remaining expected life of the mine, this is more likely to be an impairment indicator.

It appears that forward contract prices for two years out of the three years of the mine's remaining life indicate a reduction in selling prices. Based on market information, Fill has also calculated that the three-year forecast price of coal will be 20% lower than the current spot price (part (a) of question).

Short-term market fluctuations may not be impairment indicators if prices are expected to return to higher levels. However, despite the difficulty in making such assessments, it would appear that the mining assets should be tested for impairment.

# Chapter 5 IAS 38 Intangible Assets

Topic outline:



## Recognition and Amortisation

An intangible asset (meet the control\* definition) is an identifiable\*\* (acquired/rented/sold separately) non-monetary asset (not shares/debts) without physical substance\*\*\*.

### **Examples of intangible assets into different classes:**

- a) brand names;
- b) mastheads and publishing titles;
- c) computer software;
- d) licences and franchises;
- e) copyrights, patents and other industrial property rights, service and operating rights;
- f) recipes, formulae, models, designs and prototypes; and
- g) intangible assets under development.

**(IAS 38: para. 119)**



**\*Control:**

**Condition 1: The entity can enjoy future economic benefits\*\* from the asset;**

Economic benefits could arise from one of the following situations:

- Use the intangible asset to increase sales
- Use the intangible assets to reduce costs
- Use the intangible assets to reduce market competition

*External evidence should be considered in determining the future economic benefits:*

- a business is well known for its intangible assets such as secret formulae or brand to reduce competition or increase sales revenue;
- the business may have received several quotes from others who want to acquire the intangible assets;
- the business has been using its brand to charge a premium when products are sold.

**Condition 2: The entity can restrict others from benefiting it.**

- An evidence of control is the legally enforceable right such as when the entity bought the license or signed the contract. This evidence is not always a necessary condition.
- Another evidence of control is where an entity develops a software and use it to control its sales revenue.

**No Control:**

The following items are not deemed to be controlled by the entity:

- **Staff technical knowledge** – failed the condition 2 since staff may leave the business. However, if the technical knowledge is protected by a legal right, it meets with the above conditions.
- **Market share and customer loyalty** – failed the condition 2 since customers may buy things from competitors.
- **Long term staff training benefits** – failed the condition 2 since staff may leave the business.

**(IAS 38: para. 13-17)**

**\*\*Identifiable:**

**An asset is identifiable if it either:**

- a) is separable, ie is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; **or**
- b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

**(IAS 38: para. 12)**

**\*\*\*Physical substance:**

An intangible asset may have physical form such as a certificate (to a patent), or compact disc storing videos.

But these physical forms are less important than the knowledge itself included in the asset, hence the substance of the asset is primarily intangible rather than intangible.

**(IAS 38: para. 8)**

### **Example of intangible assets:**

A company has a special recipe to produce a special drink which is very popular around the world. The recipe is protected by a patent. Some competitors have approached the company to buy the recipe but were rejected.

### **Required:**

Can this recipe be capitalised as an intangible asset?

### **Answer:**

Yes. Referring back to the definition of an intangible asset:

#### **1. Control:**

- Condition 1: future economic benefits: Met. Since sales may be improved if the special recipe is used.
- Condition 2: Restrict others from using it. The recipe is protected by a patent.

#### **2. Identifiable:**

The recipe is not acquired separately but it can be sold separately to others. Therefore, these criteria is met.

**3. Non-monetary asset:** this is neither currency held nor asset received in a fixed amount of money, ie, not debt or equity. Hence this criteria is met.

**4. Without physical substance:** it may have physical form such as documents detailing the recipe, but the substance of the recipe is about the knowledge and therefore, it is intangible.

### **\*Note:**

However, if the recipe is not protected by the patent but only controlled by the three key managers in the business, then this is the staff technical knowledge and it should not be capitalised as an intangible asset.

## Initial measurement

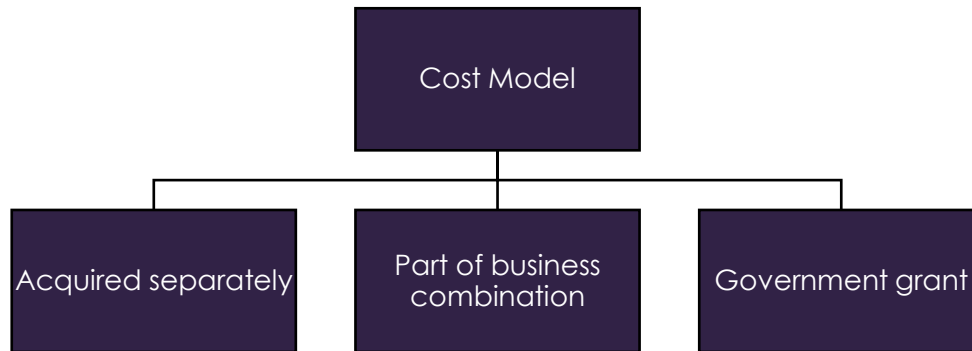
### **Step 1: Choose accounting policy:**

- Cost model (Initially carried at cost – accumulated amortisation and impairment); or
- Revaluation model (Initially carried at cost (subsequently update to fair value)- accumulated amortisation and impairment)

### **Step 2: Subsequent measurement:**

For intangible assets which are carried at either cost or revaluation model, the subsequent measurement depends on whether the life of the intangible asset is finite (amortise) or indefinite (impairment reviewed each year).

**(IAS 38: para. 72)**



### Situation 1: if the intangible asset is acquired separately

**1. Initial/historical costs which **can** be included in the intangible asset value include:**

- Purchase price, including any import duties paid, but excluding any trade discount and reclaimable sales tax paid;
- Legal fees in drafting the intangible asset contract;
- Employee benefits costs bringing the asset to its working condition (employ extra staff specifically for obtaining the intangible asset);
- Costs of testing whether the asset is functioning properly (such as testing the software).

**2. Initial/historical costs **can not** be included in the intangible asset value include:**

- Start up costs;
- Costs of introducing a new product or service (including costs of advertising and promotional activities);
- Costs of conducting business in a new location or with a new class of customer (including costs of staff training);
  - Administration and other general overhead costs.

## Situation 2: if the intangible asset is acquired as part of a business combination

We should use the fair value at the date of the acquisition as the initial cost of the intangible asset.

**(IAS 38: para. 10)**

### Example:

Company A acquired 100% shares in company B. At the date of purchase, the independent valuer provides a value of the company B's brand at \$10 million. The brand is not recognised as an intangible asset in the individual company B's account.

Company A paid \$18 million to acquire company B's net assets, the fair value of company B's equity at the date of acquisition was \$6 million without its brand value.

### Required:

1. Accounting treatment of company B's brand at the date of acquisition in the group account.
2. Goodwill amount shown in the group account.

### Answer:

#### 1. Accounting treatment:

<b>Dr</b>	Intangible asset	\$10 million
<b>Cr</b>	Fair value of company B's equity	\$10 million

- This is also known as 'fair value adjustment' in the consolidated account. The intangible asset can subsequently be measured at cost or revaluation model (in very rare situations), and the subsequent measurement can either be to amortise the intangible asset or to test whether the asset is impaired at each reporting date.
- The intangible asset value of \$10 million should be recognised separately from goodwill.

**(IFRS 3: para. B31)**

#### 2. Goodwill:

Consideration paid	\$18 million
-Fair value of company B's equity (\$6 million + \$10 million)	\$(16) million
Goodwill at the date of acquisition	\$2 million

### Situation 3: if the intangible asset is acquired by way of government grant

The rest of the content will be shown in the course package.