Chapter Outcomes

- Understand definition of PPE
- Know when to record purchase & disposal of PPE
- How to record purchase and disposal of PPE
- Understand and be able to calculate depreciation
- Know how to adjust carrying value of PPE for changes in value
- Record subsequent expenditure after purchase
- Calculate and disclose effects of a change in estimate in depreciation
- Present PPE in AFS in terms of GAAP
Assets

- **Definition** - An asset is a resource
  - Controlled by entity
  - As a result of past events
  - From which future economic benefits will flow
- **Future economic benefits** = potential to contribute directly or indirectly to the flow of cash and cash equivalents of the entity.
  - Used in the production of goods & services to be sold
  - Exchanged for other assets
  - Used to settle a liability
  - Distributed to the owners of the entity
- **Recognition Criteria**
  - Assets must have monetary value (reliably measured) and must be controlled by entity.
  - Probable that economic benefits will flow.
PPE - IAS 16

- **Tangible Assets**
  - physical substance - must be able to see and touch them

- **Uses**
  - in the production or supply of goods or services, for rental to others, or for administrative purposes
  - Expected to be used during more than one period (financial year) could be used for six months, but over two financial periods.
Intangible Assets - IAS 38

- Intangible Assets
  - Has no physical substance - Copyright, license, trade mark or contract
Inventory - IAS 2

An asset which a business buys to:

- Resell during the normal everyday activity of the business
- Use in the production of assets sold during normal course of business or performing of a service normally provided during activities of a business
Initial recognition

When PPE meets definition and recognition criteria

- Resource - which we control - from a past event (date of transfer of risks and rewards of ownership)
- Substance over form e.g. Lease agreement
- FOB shipping and FOB destination points
- Payment and control - only if control. Even if item is paid for, but Risks and rewards have not passed to purchaser. Nature of assets will be different. E.g. Prepayment.
- Must be able to measure cost or value reliably
Initial Measurement of PPE

- Cost Price - is fair value or payment of PPE
- If exchanged for other asset - fair value of other asset given up
- If paid later - Interest component to be separately recognised
- Initial cost
  - includes all expenditure incurred in bringing asset into a working condition and location so that it can be used for purpose for which purchased. All additional costs (wages, transport, installation, dismantling, removal and overhead) are capitalised.
Example

Janet purchased equipment for R855 000 (VAT inclusive) with the intention of using it to produce gloves to sell to customers. The supplier is in Pretoria, and Janet had to pay for transport from the supplier to her factory in Cape Town. This cost R11 400 (VAT inclusive). The workers had to offload the equipment and carry it to the correct location; wages paid for this task were R500.

• The purchase cost of R750 000 (R855 000 × 100/114) would normally be regarded as the cost of the asset.
• The transport cost of R10 000 (R11 400 × 100/114) is part of the cost of the equipment.
• The wages of R500 is part of the cost of the equipment.
• The equipment will be recognised at an initial cost of R760 500 (R750 000 + R10 000 + R500).
• All paid for in cash
Journal Entries

- **Equipment @ Cost** (Purchase)
  - VAT Control (Input VAT)
  - Bank
  - Debit: 750,000
  - Credit: 855,000

- **Equipment @ Cost** (Transport)
  - VAT Control (Input VAT)
  - Bank
  - Debit: 10,000
  - Credit: 11,400

- **Equipment @ Cost** (Wages)
  - Bank
  - Debit: 500
  - Credit: 500

OR

- **Equipment @ Cost** (All costs)
  - VAT Control (Input VAT)
  - Bank
  - Debit: 760,500
  - Credit: 866,900
Decreases in Carrying Amt of PPE due to use

- Accrual Basis - Matching is achieved which enhances comparability
- Residual Value - value of PPE at end of useful life - Not recorded - ONLY used for Depreciation calculation
- Depreciation - systematic method of the allocating of cost of PPE over its expected useful life - expensed - closed off to Profit and Loss SPLOCI
- Depreciable amount - cost less residual value
- Accumulated depreciation - total of all depreciation for that asset (group of assets) - SFP
- Carrying amount of an asset is cost less accumulated depreciation (for that asset) - SFP
Depreciation

- Assets with a limited useful life - depreciated e.g.
  - Machinery - Plant - Equipment
- Assets with no limited useful life - NO depreciation e.g. - Land
- Useful Life - how long business intends using asset
- Change in Useful life = change in estimate
- Change in Residual value = change in estimate
- Methods - Based on depreciable amt.
  - Straight line - (Cost-RV)/Useful life
  - Diminishing balance - CA x Rate
  - Units of production - Actual production/Estimate production over life x Depreciable amount
- Calculated from DATE READY FOR USE
Example - Full year

Janet purchased machinery for R1 425 000 (VAT inclusive) on 1 January 2016 to make clothing products for 5 years. The machine is expected to produce sales with a present value of R70 million, earned evenly each year of the 5-year period.

• Prepare the journal entry to record the cost of using the machinery during the financial year ended 31 December 2016.

• Depreciation - Accumulated Depreciation - Carrying Amount
Depreciation

31 December 2016

Debit Credit
Depreciation (P/L) 250 000
Accumulated depreciation: Machinery 250 000

Depreciation for the year
Calculation: \( \frac{1 250 000}{5} \times \frac{12}{12} \) = R250 000

Why:
Cost - (R1 425 000/1.14) = R1 250 000

Estimated useful life is 5 years

Financial period is from 1 January to 31 December which is 12 months and the financial yearend is 31 December, therefore calculated for 12 months.
Example - Part year

- What happens if we use the asset for only a part of a year?
- Let's consider the purchase of the machine, which was expected to be used for 5 years. The depreciation method was straight line. Assume we purchase the machine on 1 January 2016 but the machine is ready to produce gloves on 1 April 2016. The current financial year ended on 31 December 2016. The cost of the machine was R1 250 000 and the residual value was R45 000. Can you calculate the depreciation charge for the current year?
- First, we have to calculate the depreciable amount for the machine.
- The depreciable amount is R1 250 000 − R45 000 = R1 205 000.
- The depreciation charge for the current year is R1 205 000/5 × 9/12 = R180 750. We multiply the amount by 9/12 because we have used the machine for only 9 of the 12 months.
PPE - Disclosure

- Managers chose depreciation methods and rates
- Accounting Policy - notes to financials disclose method and rate of depreciation.

Landslide Limited
Notes to the financial statements as at 31 December 2016
1. Accounting policies
1.5 Property, plant and equipment

The cost less the residual value of property, plant and equipment is recognized in profit and loss as depreciation over the period that management expects to benefit from the use of the assets.

Plant is depreciated on the straight line basis at a rate that will reduce the cost to estimated residual value over the anticipated useful life of 15 years.

Vehicles are depreciated on the diminishing balance method at a rate of 25% per annum on the carrying amount.
Subsequent expenditure on PPE

- Any expenditure after first use
- Capitalised or expensed?
- Does it meet asset definition and recognition criteria?
Example

- Janet started to use machinery on 1 January 2016. During the year 2016 Janet incurred two different items of expenditure.

1. On 1 April 2016 Janet incurred expenditure of R15 846, including VAT, paid in cash, because she had to clean and oil the machinery.

2. On 1 December 2016 Janet incurred a further R18 468, including VAT, on credit, for a new part for the machine that contributes to the production of the gloves being sold.

### Journals

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Repairs and maintenance(P/L)</td>
<td>13 900</td>
</tr>
<tr>
<td>VAT Control (VAT input) (SFP)</td>
<td>1 946</td>
</tr>
<tr>
<td>Bank (SFP)</td>
<td>15 846</td>
</tr>
<tr>
<td>2: Equipment @ Cost (SFP)</td>
<td>16 200</td>
</tr>
<tr>
<td>VAT Control (VAT input) (SFP)</td>
<td>2 268</td>
</tr>
<tr>
<td>Other payables (SFP)</td>
<td>18 468</td>
</tr>
</tbody>
</table>
Measurement of PPE

- Depreciation - covered
- Decreases in value
  - Impairment
  - Value - reversal of impairment losses
- Increases in value
  - Additions
  - Cost vs Revaluation model
  - Revaluation surplus
Measurement of PPE - continued

• Decrease in value of asset after acquisition - impairment
  • If carrying value greater than expected future benefits (Value of Asset), carrying value to be reduced to maximum future benefits. Asset is then IMPAIRED. Reduction in value is IMPAIRMENT LOSS (expense).

• Value of Asset
  • Use - Value in Use - Present value of future net cash flows
  • Sale - Net selling Price
  • Value of Asset = Recoverable amount i.e. higher of value in use and net selling price.
  • Recoverable amount is maximum possible benefit that can be obtained from the asset.

• Reversal of impairment losses
  • Limited to historical carrying amount - accounting for depreciation
Example - Impairment

- An asset, for example a plant with a carrying amount of R2 450 000.
- Can be used to generate profits in present-day terms (the profits in the future years are discounted back to today to get the value today of the profits) of R1 990 000.
- The asset could be sold for R1 950 000 after paying all the selling costs.

REMEMBER > Higher of the Lower VIU - R1 990 000

CA - Was - R2 450 000, NOW

Therefor - Impairment NSP - R1 950 000

(2 450 000 - 1 990 000 = 460 000)
Example - Impairment

Remember that the recoverable amount of the plant is the greater of the value in use (R1 990 000) and the net selling price (R1 950 000). The recoverable amount is therefore R1 990 000, whereas the carrying amount is R2 450 000. R460 000 of the carrying amount will not give rise to future benefits and should therefore be recognized as an impairment loss.

To increase expenses, we debit the impairment expense account.

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment loss (P/L)</td>
<td>460 000</td>
</tr>
<tr>
<td>Accumulated impairment: Plant (SFP)</td>
<td>460 000</td>
</tr>
</tbody>
</table>

Writing the value of the plant down to the recoverable amount.
Measurement of PPE - continued

- Increases in value of PPE after acquisition.
- One approach to be chosen by business and applied to all assets in same asset class
- Cost Model vs Revaluation Model
- Cost Model
  - carrying amount of PPE NOT adjusted for increase in value, only for reversal of impairment.
  - Recorded at Cost
  - Carrying amount reduced if useful life limited (reduced) or if impaired
Measurement of PPE - Continued

- Revaluation Model
  - Carrying amount may be increased when value of PPE increases through ASSET REVALUATION
  - Carrying Amount = Net Replacement Cost = Fair Value
  - Fair Value = amount for which exchanged between knowledgeable willing parties in an arm’s length transaction.
  - Assets to be re-valued frequently so CA not too dissimilar from FV. All assets in class must be re-valued. Accounting policy cannot be changed regularly, if so, disclose in financial statements and comparative figures to be adjusted.
  - Revaluation gain - income - NOT in P&L - other comprehensive income (SOPLCI) - year-end, gain closed off to Revaluation surplus in the Equity Account.
Measurement of PPE - Continued

Janet purchased a piece of land on 1 January 2016 for a purchase price of R8 732 400 (VAT inclusive). The journal entry to recognize this purchase is as follows:

1 January 2016

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land at Cost (SFP)</td>
<td>7 660 000</td>
</tr>
<tr>
<td>VAT Control (VAT input) (SFP)</td>
<td>1 072 400</td>
</tr>
<tr>
<td>Bank</td>
<td>8 732 400</td>
</tr>
</tbody>
</table>

Purchase of land

Let’s assume that on 1 January 2017 we could sell the land to a third party, who is a willing buyer and knows the property market, for R9 918 000 (R8 700 000 plus VAT of R1 218 000). This selling price is called the **fair value** of property. The increase in value if we are using the revaluation basis of accounting for land in the general ledger will amount to R1 040 000. (R8 700 000 - R7 660 000)

1 January 2017

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land at Value (SFP)</td>
<td>1 040 000</td>
</tr>
<tr>
<td>Revaluation gain (OCI)</td>
<td>1 040 000</td>
</tr>
</tbody>
</table>

Increase in the value of land to the fair value of R8 700 000

The closing entry at the end of the financial year is as follows:

31 December 2017

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revaluation gain (OCI)</td>
<td>1 040 000</td>
</tr>
<tr>
<td>Revaluation surplus (OCI)</td>
<td>1 040 000</td>
</tr>
</tbody>
</table>
Measurement of PPE - Revaluations

Imagine we bought land for R1 million on 1 January 2015. On 1 January 2016 the fair value of this land was R1 500 000. On 31 December 2016 the recoverable amount of the land was estimated at R900 000. We have chosen the revaluation model.

1. Prepare the journal entry for the revaluation of the asset on 1 January 2016.
2. Prepare the journal entry for the impairment of the asset on 31 December 2016.

1. 1 January 2016
   Debit    Credit
   Dr Land (SFP)  500 000
   Cr Revaluation Surplus (OCI)  500 000
   Revaluation of the land to fair value on 1 January 2016

2. 31 December 2016
   Debit    Credit
   Dr Revaluation Surplus (OCI)  500 000
   Dr Impairment (P/L)  100 000
   Cr Accumulated Impairment (SFP)  600 000
Disposal of PPE

Disposal can occur as a result of sale/scrapping/theft or donation.

- Calculate depreciation up to date of disposal.
- Transfer all existing balances relating to Asset to Asset Disposal Account
  - Cost/FV
  - Accumulated depreciation
  - Accumulated impairment
  - Disposal Amount (sales price - exclusive)
  - Profit or Loss on Disposal (balancing figure to SOPLCI)
Disclosure of PPE

To be disclosed in Financials

• Accounting Policy (Managers chose)
  • Cost or Revaluation Method (Per class of asset)
  • Depreciation Rates and Methods (Per class of asset)

• Gross Carrying Amount
  • At beginning of year
    • All movements during year
  • At end of year
Other Disclosure

- Revaluation method
  - Basis of revaluation/date/by whom - to determine reliability of information
  - Also show carrying amount using cost method for comparison
  - Reconcile Revaluation Reserve if changed during year.

- Impairment Loss
  - To be disclosed separately in Profit and Loss
PPE - Disclosure

Name of company

Notes to the financial statements as at 28 February 2017

1. Accounting policies

1.5 Property, plant and equipment

The cost or fair value less the residual value of property, plant and equipment is recognized in profit and loss as depreciation over the period that management expects to benefit from the use of the assets.

Machinery is measured using the revaluation model. It is revalued annually to fair values and is carried at fair value less accumulated depreciation and impairment losses. Machinery is depreciated on the straight line basis at a rate that will reduce the cost to estimated residual value over the anticipated useful life of 10 years.

Delivery Vehicles are measured using the cost model. Depreciation is provided on the diminishing balance method at a rate of 15% per annum on the carrying amount.
Name of Company

Notes to the financial statements for the year ended 28 February 2017

2. Property, Plant and Equipment

<table>
<thead>
<tr>
<th></th>
<th>Machinery</th>
<th>Delivery</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Carrying amount - Beginning of year</td>
<td>3 600 000</td>
<td>650 000</td>
<td>4 250 000</td>
</tr>
<tr>
<td>Gross carrying amount</td>
<td>4 200 000</td>
<td>1 100 000</td>
<td>5 300 000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(600 000)</td>
<td>(450 000)</td>
<td>(1 050 000)</td>
</tr>
</tbody>
</table>

Current year

<table>
<thead>
<tr>
<th></th>
<th>Machinery</th>
<th>Delivery</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Additions</td>
<td>9 000 000</td>
<td>0</td>
<td>9 000 000</td>
</tr>
<tr>
<td>Impairment</td>
<td>0</td>
<td>(122 500)</td>
<td>(122 500)</td>
</tr>
<tr>
<td>Revaluation gain</td>
<td>600 000</td>
<td>0</td>
<td>600 000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>(1 450 000)</td>
<td>(97 500)</td>
<td>(1 547 500)</td>
</tr>
</tbody>
</table>

Carrying amount - End of year

<table>
<thead>
<tr>
<th></th>
<th>Machinery</th>
<th>Delivery</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td></td>
<td>11 750 000</td>
<td>430 000</td>
<td>12 180 000</td>
</tr>
</tbody>
</table>
Name of Company

Notes to the financial statements for the year ended 28 February 2017 (Continued)

2. Property, Plant and Equipment (Continued)

<table>
<thead>
<tr>
<th></th>
<th>Machinery</th>
<th>Delivery Vehicles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Made up as follows:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross carrying amount</td>
<td>13 200 000</td>
<td>1 100 000</td>
<td>14 300 000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(1 450 000)</td>
<td>(547 500)</td>
<td>(1 997 500)</td>
</tr>
<tr>
<td>Accumulated impairment</td>
<td>0</td>
<td>(122 500)</td>
<td>(122 500)</td>
</tr>
<tr>
<td></td>
<td>11 750 000</td>
<td>430 000</td>
<td>12 180 000</td>
</tr>
</tbody>
</table>

Cost Model - Made up as follows:

<table>
<thead>
<tr>
<th></th>
<th>Machinery</th>
<th>Delivery Vehicles</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>Gross carrying amount</td>
<td>14 000 000</td>
<td>1 100 000</td>
<td>15 100 000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(3 250 000)</td>
<td>(547 500)</td>
<td>(3 797 500)</td>
</tr>
<tr>
<td>Accumulated impairment</td>
<td>0</td>
<td>(122 500)</td>
<td>(122 500)</td>
</tr>
<tr>
<td></td>
<td>10 750 000</td>
<td>430 000</td>
<td>11 180 000</td>
</tr>
</tbody>
</table>

The revaluation performed on machinery on 1 March 2016 was done by an independent sworn appraiser to its fair value. The fair value adjustment was recorded on the net replacement value basis.
Change in Estimate

- Depreciation is based on
  - Useful life of Asset
  - Residual value
  - Depreciation method (when economic benefits will occur)
- If useful life changes then depreciation to be calculated over remaining useful life.
- Reallocation method
  - Calculate carrying amount of asset
  - Reallocate depreciable amount over remaining period (similar to when using revaluation method)
- Disclosure - Nature and amount of change in estimate with material effect on current year.
Change in Estimate - Example

- Purchase a machine for R114 000 (VAT inclusive) on 1 January 2015 and the machine is ready for use on 1 February 2015. This machine is used to make gloves that we will sell to customers. On the date we start using the machine we estimate that we can use it to make gloves for 5 years and that the sale of the gloves will be more or less the same over the 5-year period. At the end of the 5 years we will sell the machine for R15 960 (VAT inclusive). We are registered VAT vendors.

- Depreciation on 31 December 2015

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation (P/L)</td>
<td>15 767</td>
</tr>
<tr>
<td>Accumulated depreciation – Machine(SFP)</td>
<td>15 767</td>
</tr>
</tbody>
</table>

Workings: Cost (114 000/1.14) = R100 000,

Residual value (15 960/1.14) = R14 000

Depreciable amount = R100 000 – R14 000 = R86 000

Depreciation - R86 000/5 × 11/12 = R15 767
On 30 June 2016 and we have a meeting with the production manager. The manager tells us that, based on information obtained, he is reasonably sure that the machine’s residual value should be estimated at R18 240 (VAT inclusive).

- Depreciation on 31 December 2016

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation (P/L)</td>
<td>16 710</td>
</tr>
<tr>
<td>Accumulated depreciation – Machine (SFP)</td>
<td>16 710</td>
</tr>
</tbody>
</table>

Workings: New residual value \(\frac{18 240}{1.14}\) = R16 000

Depreciable amount = (R100 000 - R15 767) = R84 233

Depreciation R84 233 – R16 000 = R68 233

Depreciation - R68 233/49 × 12 = R16 710
## Change in Estimate - Disclosure

**Workings:**

<table>
<thead>
<tr>
<th>Depreciation</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old estimate</td>
<td>17 200</td>
<td>17 200</td>
<td>17 200</td>
<td>17 200</td>
<td>1 433</td>
</tr>
<tr>
<td>New estimate</td>
<td>16 710</td>
<td>16 710</td>
<td>16 710</td>
<td>16 710</td>
<td>1 393</td>
</tr>
<tr>
<td>Difference</td>
<td>490</td>
<td>490</td>
<td>490</td>
<td>490</td>
<td>40</td>
</tr>
</tbody>
</table>

- **Decreases in depreciation – Current year:**
  - Future years: Decrease in depreciation - R1 510

- **Calculation of old depreciation**
  
  \[
  (86\ 000/5) \\
  = \\
  17\ 200
  \]
Change in Estimate - Disclosure

Landslide Limited

Statement of Profit or Loss and Other Comprehensive Income

for the year ended 31 December 2016

Depreciation – Machinery Note 12 R16 710

• Part of operating expenses

Landslide Limited

Notes to the financial statements for the year ended 31 December 2016

12. Change in estimate

After further investigation it was determined that the original estimate of the machine’s residual value of R15 960 (VAT inclusive) was incorrect. The residual value has subsequently been reassessed and it is estimated that the machine’s residual value should be R18 240 (VAT inclusive).

**Effect of the change in estimate:**

- Decrease in depreciation and increase in profit in the current year R 490
- Decrease in depreciation and increase in profit in future years R1 510
Control of PPE

- Asset register - Agrees to financial statements
  - Control system - Detail of PPE per class
  - Insurance mechanism