Intangible assets: Characteristics

• Intangible assets
  – do not physically exist,
  – are long-term in nature, and
  – are non-monetary assets.

• Common types of intangibles
  – patents, copyrights, trademarks or trade names
  – franchises, licenses
  – quality of management
  – knowledge of workforce
  – customer loyalty
Accounting for intangible assets

• Most relevant standard: **IAS 38**
  – Is applicable to intangible assets that are not dealt with in another standard

**Recognition criteria:**
• In order to be capitalized an intangible asset needs to qualify as an asset according to IAS 38.8:
  • An asset is a resource
    – Controlled by an entity as a result of past events; and
    – From which future economic benefits are expected to flow to the entity
• In addition
  – Identifiability
  – Cost can be measured reliably ……..is required

**Intangible assets are either:**
  – Self created
  – Acquired separately
  – Acquired in a business combination
Recognition criteria

Costs incurred to acquire/create intangible assets

Is it identifiable? no

Was it internally created? yes

Is it identifiable? no

definite life? no

capitalize as goodwill or other intangible asset / annual impairment test

yes

capitalize as intangible asset / amortize over asset’s useful life

Is it identifiable? no

definite life? no

capitalize as goodwill or other intangible asset / annual impairment test

development cost? yes

Is it identifiable? yes

capitalize as goodwill or other intangible asset / amortize over asset’s useful life

development cost? no

expense as incurred
Initial Valuation of Intangibles

• If acquired separately
  – Valuation of intangibles similar to that for tangible assets
  – Historical cost
• If acquired in a business combination
  – Identifiable intangibles are valued at fair value at acquisition date
  – Goodwill results from difference in purchasing cost and net fair value of tangible assets acquired less identifiable intangible assets
• If self created
  – Entities need to classify the generation of the asset into a research phase and a development phase
  – Intangible assets arising from the research phase are to be expensed
  – An intangible asset arising from the development phase shall be recognized if and only if the entity can demonstrate that several conditions are fulfilled
Idea of distinction between research and development cost

- R&D creates intangible assets → patents, copyrights
  - Research is defined as activities aimed at the discovery of new knowledge.
  - Development is the translation of research findings into a plan or design for a new product or process, or for a significant improvement to an existing product or process.
Recognition criteria for development cost

• Capitalization if only if the entity can demonstrate:
  – The technical feasibility of completing the intangible asset so that it will be available for the use or sale
  – Its intention to complete the asset and use or sell it
  – How the intangible asset will generate probable future economic benefits
  – The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset
  – Its ability to measure reliably the expenditure attributable to the intangible asset during its development

• Capitalization is not formulated as being subject to choice but it is de facto
Subsequent valuation of intangibles

• **Cost model:**
  – asset is valued at historical cost less any accumulated depreciation and any accumulated impairment losses

• **Revaluation model:**
  – an asset whose fair value can be measured reliably shall be measured at its fair value at the date of the revaluation less any accumulated depreciation and any accumulated impairment losses
  – Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period
  – If an item is revalued, the entire class of assets shall be revalued (consistency principle)
  – An increase in value is recognized in “other comprehensive income”

• Revaluation model is permitted only if an active market for the intangible exists
Subsequent valuation of intangibles

- The company needs to assess whether the useful life of the intangible is
  - Finite or
  - Indefinite
- If an intangible asset has a finite life, the depreciable amount is to be amortized over the useful life systematically.
- Residual value of an intangible shall be assumed to be zero unless:
  - There is a commitment of a third party to purchase the asset
  - There is an active market that can be used to determine the residual value
  - The market is expected to exist at the end of the useful life of the intangible
- If there is no foreseeable limit for the period over which cash inflows are generated by the intangible, its useful life is indefinite.
  - No amortization but an annual impairment test is required.
Goodwill

• some intangible assets are not specifically identifiable
  → those assets are considered „goodwill“
• only purchased goodwill is recorded (IAS 38.48)
  → arises in business combinations
  identifiable only with the business as a whole

\[
\text{Goodwill} = \text{cost of business acquired} - \text{fair value of identifiable net assets}
\]

• Origin: price to be paid for a business has to compensate the seller for the future economic benefits given up
  – Expected future benefits usually higher than book value of the equity
Note: Not all intangible assets that are acquired are „goodwill“!
Goodwill – an example

- The balance sheet of CityCable, an imaginary local cable provider, looks as follows:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash 15,000</td>
<td>Current liabilities 80,000</td>
</tr>
<tr>
<td>Receivables 8,000</td>
<td>Owners' capital 45,000</td>
</tr>
<tr>
<td>Office equipment, net 35,000</td>
<td>Retained earnings 25,000</td>
</tr>
<tr>
<td>Property 90,000</td>
<td></td>
</tr>
<tr>
<td>Licenses 2,000</td>
<td></td>
</tr>
<tr>
<td>150,000</td>
<td>150,000</td>
</tr>
</tbody>
</table>

- CountyCable wants to acquire CityCable. The offer of €120,000 goes to the owners of CityCable.
- How much goodwill is involved, if any?
Accounting for goodwill

The following alternative treatments are reasonable:

1. writing-off goodwill against reserves
   – very conservative
   – does an asset exist at all?
   – arguments in favor of this view:
     • quite a number of M & As faced serious problems when they tried to unite different corporate cultures
     • useful life is difficult to determine

2. amortize goodwill over its useful life

3. retain goodwill infinitely but test for impairment and charge it to expense, if necessary
Amortize goodwill over its useful life?

• goodwill clearly has potential future benefits
• value of goodwill, however, eventually disappears
• arguments to support this view:
  – expected synergies do materialize (even if not to the full extent)
  – matching cost and revenues
  – current earnings opportunities disappear; they have to be replaced by new ones in order to maintain earnings power
• argument against this view:
  – difficult determination of useful life

Note: Amortization of goodwill over its useful life – with the rebuttable presumption of a limit of 20 years – used to be the treatment under IFRS.

Now IFRS prescribes an annual impairment test, i.e. goodwill is assumed to have an indefinite life.
Retain goodwill indefinitely unless reduction in value occurs

• goodwill is not considered an asset subject to wear out
• at least annual tests for impairment
• arguments to support this view
  – some form of goodwill will always be an asset
  – avoids (questionable) determination of useful life
• arguments against this view
  – reduced usefulness of financial statements because of extraordinary write-offs
  – accounting manipulation
Annual impairment test for Goodwill according to IFRS

• Goodwill needs to be allocated to CGUs (Cash Generating Units) of the firm
  – CGU is defined as 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
• Impairment of goodwill if the book value (carrying amount) of the CGU (including goodwill) is higher than the recoverable amount
• Recoverable amount is calculated as the maximum of:
  – Value in use
  – Fair value less costs of disposal

  – Fair value is an ambiguous term:
    • market value (what could be recovered from disposing the asset today)
    • replacement cost (current cost)
    • Discounted value of future cash flows from the asset
CityCable Example cont’d

- Fair value of CityCable Division now assumed to be € 100.000
- Step 1

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>€ 15.000</td>
</tr>
<tr>
<td>Receivables</td>
<td>5.000</td>
</tr>
<tr>
<td>Office equipment (net)</td>
<td>23.000</td>
</tr>
<tr>
<td>Property</td>
<td>120.000</td>
</tr>
<tr>
<td>Licenses</td>
<td>2.000</td>
</tr>
<tr>
<td>Goodwill</td>
<td>35.000</td>
</tr>
<tr>
<td>Less: Liabilities</td>
<td>80.000</td>
</tr>
</tbody>
</table>

- **Net assets** 120.000

Fair value of reporting unit lower than book value including goodwill:

€ 100.000 < € 120.000

Impairment because implied value less than carrying amount of goodwill.
Where does all the equity come from to absorb such a loss?

- consider two corporations, GIANT and DWARF. GIANT intends to acquire DWARF by issuing additional shares.
- Situation before the acquisition:

GIANT has 200,000 shares, €1 par value, outstanding. These shares were issued at par. GIANT also has bank debt of €800,000.

<table>
<thead>
<tr>
<th>GIANT</th>
<th>DWARF</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 1,000,000</td>
<td>L = 800,000</td>
</tr>
<tr>
<td></td>
<td>OE = 200,000</td>
</tr>
<tr>
<td>A = 300,000</td>
<td>L = 200,000</td>
</tr>
<tr>
<td></td>
<td>OE = 100,000</td>
</tr>
</tbody>
</table>
• DWARF‘s research department seems to have found a drug that fosters rapid growth and that‘s why GIANT is eager to acquire DWARF. DWARF‘s stock price is up to € 40, while GIANT‘s stock price is noted at € 8. The acquisition price for DWARF is € 400.000 and to finance the acquisition GIANT issues 50.000 new shares, € 1 par value, at € 7 over par.

• Assuming, for simplicity, that the book value of DWARF‘s assets is equal to their market value we note that GIANT acquires net assets of € 100.000 for a price of € 400.000, i.e. goodwill of € 300.000 is involved here (assuming that no other intangible asset is identifiable).

<table>
<thead>
<tr>
<th>&quot;NEW&quot; GIANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 1.000.000</td>
</tr>
<tr>
<td>300.000</td>
</tr>
<tr>
<td>300.000</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
• A year passes. Assume „NEW“ GIANT‘s revenues just were equal to expenses from transactions with customers.
• An impairment test for DWARF Division of GIANT at year-end revealed the following, assuming the book value of net assets remained unchanged but the fair value of the division dropped to €250.000

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair value of DWARF Division:</td>
<td>€250.000</td>
</tr>
<tr>
<td>Less assumed FV of individual net assets</td>
<td>100.000</td>
</tr>
<tr>
<td>Implied fair value of goodwill</td>
<td>150.000</td>
</tr>
<tr>
<td>Book value of goodwill</td>
<td>300.000</td>
</tr>
<tr>
<td>Goodwill impairment</td>
<td>150.000</td>
</tr>
</tbody>
</table>
• Goodwill impairment loss will be reported as a separate line on the income statement, and „NEW“ GIANT reports goodwill totaling €150,000 on the balance sheet.

• The corresponding reduction on the equities side goes to additional paid-in capital (share premium) → no cash effects