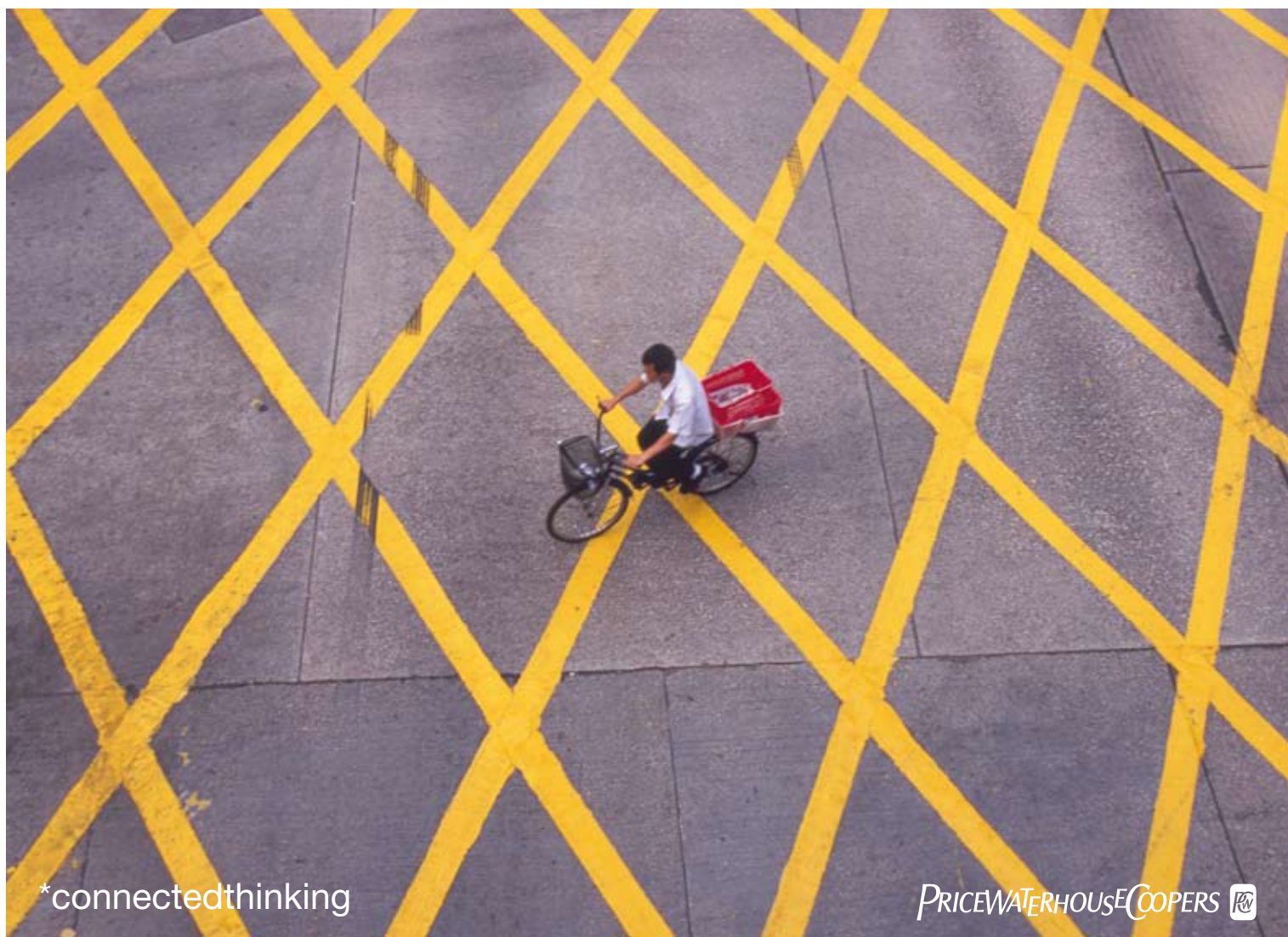


# Making sense of a complex world\*

## IAS 36 Impairment of Assets

A discussion paper on the impact on the telecoms industry



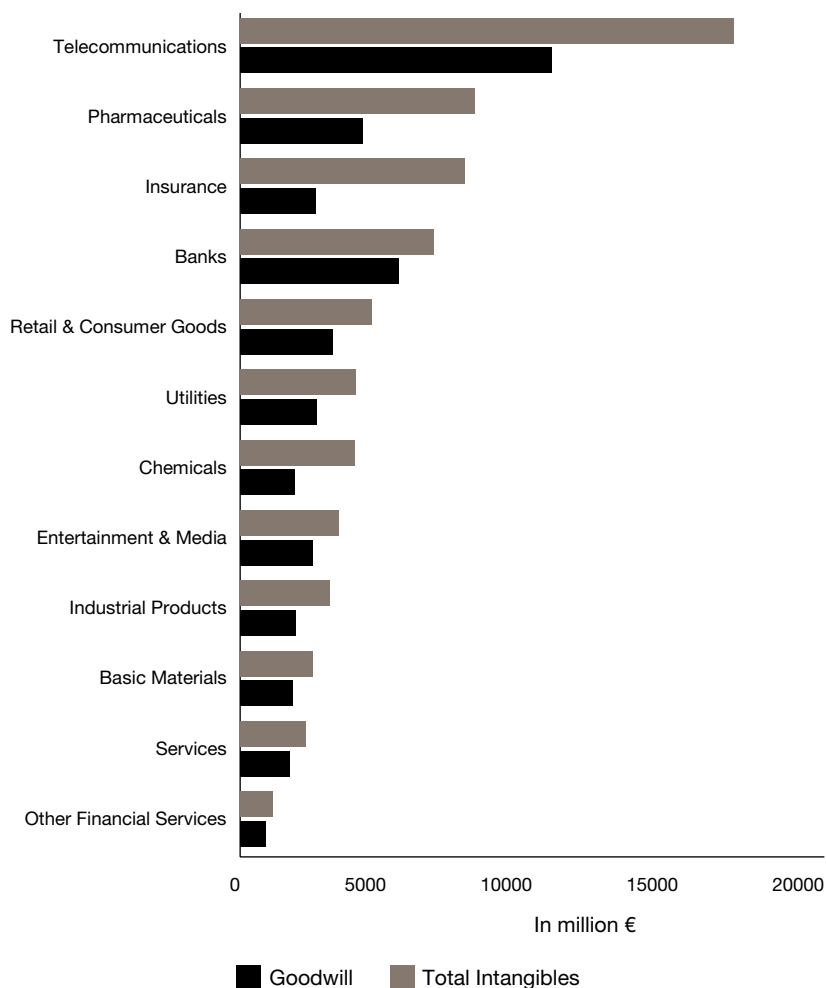


# Introduction

This paper considers the accounting issues related to impairment tests under IAS 36 *Impairment of Assets* in the telecommunications industry.

According to comprehensive analysis of annual reports of about 350 “blue chip” European companies, those in the telecoms industry had by far the largest average balances for total intangible assets and for goodwill<sup>1</sup>:

## Average goodwill and average intangibles (including goodwill) by industry sector



<sup>1</sup> PricewaterhouseCoopers (2009): *Making Acquisitions Transparent – An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2007*, p. 43. The sample comprised 23 telecom companies with a total sample size of 358 leading European “blue-chip” companies.

Compared with the results of the same analysis two years earlier, the intangibles balances of telecom companies grew strongly during those years, from €12.6 billion in 2005 to €16.9 billion in 2007 in the case of total intangibles and from €8.3 billion to €10.7 billion in the case of goodwill, despite the large goodwill write-offs that took place in this industry. Comparing the companies' goodwill positions to shareholders' equity also demonstrates the high relative importance of goodwill within the telecoms industry, with a ratio of nearly 65%<sup>2</sup>.

This data demonstrates the significance of annual goodwill and asset impairment tests for the telecoms industry. Furthermore, as a consequence of the recent economic downturn, the number and value of goodwill write-downs is likely to increase. For recent examples of significant goodwill write-downs in the telecom industry of €6.1 billion and €1.8 billion see the annual report of Vodafone, and the first quarter of 2009 report from Deutsche Telekom. In times of recession, there is an increased likelihood of so-called "triggering events", which are indications that an asset may be impaired. In the economic downturn at the beginning of the decade, it was the telecoms sector that was responsible for some of the largest goodwill and intangible asset write-downs, and there is every possibility that the position will be the same in the current recession.

#### **This paper:**

- Introduces the relevant IFRS pronouncements
- Examines the procedures required when conducting impairment tests (particularly in relation to goodwill)
- Explains the major financial statement disclosures related to impairment testing
- Gives relevant examples from the industry

The International Accounting Standards Board (IASB) recently published an exposure draft with respect to fair value measurement, which is similar to the US GAAP Standard FAS 157 *Fair Value Measurements*. In the future, this IASB standard will provide more guidance on measuring fair value. This paper does not address this in detail.

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<sup>2</sup> PricewaterhouseCoopers (2009): *Making Acquisitions Transparent – An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2007*, p. 45: The average percentage of goodwill relative to total equity per company was only higher in 2007 for entertainment and media companies and for services companies with 102.5% and 102.3%, respectively.

## Overview of the standard

IAS 36 *Impairment of Assets* sets out the procedures that an entity should follow to ensure that it carries its assets at no more than their recoverable amount. Recoverable amount is the higher of the amount to be realised through using or selling the asset. Where the carrying amount exceeds the recoverable amount, the asset is impaired and an impairment loss must be recognised. The standard details the circumstances when an impairment loss should be reversed, and also sets out required disclosures for impaired assets, impairment losses, reversals of impairment losses as well as key estimates and assumptions used in measuring the recoverable amounts of cash-generating units (CGUs) that contain goodwill or intangible assets with indefinite lives.

The standard does not apply to assets that are covered by other standards:

In scope of IAS 36	Excluded from scope of IAS 36
Property, plant and equipment	<ul style="list-style-type: none"> <li>• Inventories (IAS 2)</li> <li>• Assets arising from construction contracts (IAS 11)</li> <li>• Assets arising from employee benefits (IAS 19)</li> <li>• Deferred tax assets (IAS 12)</li> <li>• Financial assets within the scope of IAS 39</li> <li>• Investment property measured at fair value (IAS 40)</li> <li>• Biological assets (IAS 41)</li> <li>• Insurance contracts (IFRS 4)</li> <li>• Non-current assets classified as held for sale (IFRS 5)</li> </ul>
Intangible assets, including goodwill	
Financial assets classified as <ul style="list-style-type: none"> <li>• Subsidiaries</li> <li>• Associates</li> <li>• Joint ventures</li> </ul>	

IAS 36 requires at least annual impairment tests for goodwill, other intangible assets assigned an indefinite useful life, and intangibles not yet available for use. Moreover, for any asset, an impairment test has to be carried out at each reporting date if there is any indicator of impairment (a triggering event):

	Standard	Test basis	Impairment test
Tangible assets	<b>IAS 16</b> <b>IAS 36</b>	<b>Asset or CGU</b>	Test for impairment only after “triggering event”: <b>recoverable amount compared to carrying amount</b>
Intangible assets with definite useful life	<b>IAS 36</b>		
Intangible assets with indefinite useful life	<b>IAS 36</b>	<b>Asset or CGU</b>	Test at least annually and after “triggering event”: <b>recoverable amount compared to carrying amount</b>
Goodwill	<b>IAS 36</b>		

With regard to triggering events, IAS 36 gives a list of common indicators of impairment from external and internal sources of information that should be considered, such as: increases in market interest rates, market capitalisation falling below net asset carrying value or the economic performance of an asset being worse than projected in internal budgets. Other specific indicators for telecom companies might be:

- Adverse trends in performance indicators such as network utilisation rates, average revenue per user (ARPU), the number of customers, churn and cost per gross addition
- Network operating or maintenance expenditure significantly in excess of the original budget
- Technological developments that may reduce the economic performance of an operating licence (i.e. the technology related to the licence becomes obsolete)
- Market entries of new competitors (e.g. auction process for additional licences)
- Impact of changes in regulation and deregulation

The standard states that the impairment test should be carried out at the level of individual assets, where practical, or as part of a CGU. A CGU is the smallest identifiable group of assets, including the asset under review, that generates cash inflows that are largely independent from other assets or groups of assets. However, goodwill does not generate cash flows independently of other assets or groups of other assets. Goodwill, therefore, has to be tested at the level of either a CGU or group of CGUs.

## Asset impairment tests

Typical intangible assets at telecom companies, besides goodwill, are telecom licences, internally developed software, subscriber acquisition costs<sup>3</sup> and customer relationships, brands and trademarks acquired in a business combination. Generally, except for brands, these assets have a definite useful life.

A definite useful life means the assets are amortised on a regular basis and are tested for impairment only if there is an indication that the asset might be impaired. In the past, the useful life of company brands was often classified as indefinite. However, market evidence shows that telecom companies often rebrand acquired companies within a few years of the acquisition. Thus, in recent purchase price allocations it can be observed that a definite life is generally chosen. In some cases, telecom licences have an indefinite useful life and have to be tested at least annually for impairment.

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3 See also PricewaterhouseCoopers (2008): *Making sense of a complex world – Accounting for handsets and subscriber acquisition costs*.

## Telecommunications licences

Telecom licences, in general, should be amortised on a systematic basis over the best estimate of their useful lives. The presumption for intangible assets is that straight-line is the most appropriate basis of amortisation. Telecom licences are underpinned by a legal agreement and a stated term. The useful life of a telecom licence generally will be the period from when the licence becomes available for use to the end of either its remaining legal term or the period over which the licence is expected to bring economic benefits, whichever is earlier. Where telecom licences have a history of being renewed at insignificant cost, it may be possible for the useful life to extend beyond the contract term, but that would be unusual.

Many mobile network operators have paid significant amounts for licences, particularly for 3G licences. Some mobile network operators have recognised impairment losses because related data services were launched later than expected or customers have not embraced them, and revenues were lower than initially expected. Continued technological developments in the future may lead to licences becoming obsolete, although there is a general trend towards licensing authorities issuing 'technology neutral' licences.

In practice, the impairment test for licences is often performed by deriving multiples from comparable licence auctions or transactions (the market approach) or by applying the 'greenfield', or build-out, approach. The greenfield approach is a specific income approach that assumes a company has only one asset (the licence) as the basis for building up its business. Although the market values derived from comparable auctions or transactions may have fallen significantly in many cases, the carrying amount of the licence may still be supported on the basis of the value in use derived from the expected future cash flows generated from operating the network. Thus, when applying a value in use approach, telecom licences should be assessed for impairment together with the related network assets, as the licences do not generate independent cash flows.

## Acquired customer relationships

Acquired customer relationships should be amortised on a systematic basis. Sharp decreases in ARPU, however, or an unusually high level of churn may be triggering events that necessitate an impairment test.

In the past, the valuation of customer relationships of mobile network operators, broadband access or internet services companies in purchase price allocations has been based on high revenues per customer. That approach has resulted in comparatively high carrying amounts. Customer relationships are more frequently valued by applying the multi-period-excess-earnings method (MEEM).

The MEEM approach requires projecting the future revenues and expenses attributable to the customer relationships, which generally are considered the main asset. The main asset generates earnings and is essential to a company's ability to compete in the industry. MEEM also considers the contributing assets, such as the network, by way of so-called contributory asset charges in the derivation of the fair value.

If the fair value of customer relationships is determined during the purchase price allocation based on the MEEM approach, then when conducting impairment testing, the fair value less the costs to sell can generally be determined for the individual asset (i.e. the customer relationships). If the resulting fair value less the costs to sell is below the carrying amount, a value in use calculation of the customer relationships together with the appropriate network assets should generally be performed, as customer relationships do not generate cash flows that are independent of other assets of the business.

### **Acquired brands and trademarks**

In the telecoms industry, acquired brands and trademarks are generally amortised based on an estimated remaining useful life, which is often limited by when the acquirer plans to rebrand the acquired company. However, the launch of new brands by competitors or a worsening of the company's market perception could be triggering events which would require an impairment test. Brands or trademarks may be considered to have an indefinite useful life, in which case they are tested at least annually for impairment.

Typically, brands are valued in the course of purchase price allocations by applying the relief-from-royalty method (income approach). That method determines the present value of royalties saved due to the ownership of the brand over its useful life. For impairment test purposes, the fair value less the costs to sell of the brand and trademarks can be determined in a similar manner to the purchase price allocation based on the relief-from-royalty method. However, if the resulting fair value less the costs to sell is below the carrying amount, a value in use calculation has to be carried out at the CGU level, as brands and trademarks generally do not generate cash flows that are independent of other assets of the business.



## Goodwill impairment test

According to our recent analysis of annual reports, the impact of impairment losses on intangible assets (except for goodwill) on the earnings of telecom companies does not seem that significant. Thirteen companies reported an average €31 million impairment loss on intangible assets with definite useful lives, and two companies reported an average €19 million impairment loss on intangible assets with indefinite useful lives - based on a total sample of 23 companies<sup>4</sup>.

In contrast, goodwill impairments are much more significant, as six companies from this sample reported an average €530 million impairment loss. This average was skewed due to a single impairment charge of €2.7 billion by a French operator. However, an earlier analysis of annual reports also found significant levels of goodwill impairment in the telecoms industry, with nine of 26 companies reporting goodwill impairment losses of, on average, €4.0 billion<sup>5</sup>. In 2005 the average value was driven by two individually significant cases of a United Kingdom and a German telecom operator writing down their goodwill positions by €34.2 billion and €1.9 billion, respectively.

### Test level

The standard requires that “for the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer’s CGUs, or groups of CGUs, that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units” (paragraph 80). Besides having largely independent cash inflows, the unit or group of units to which the goodwill is allocated shall meet the following criteria:

- Be the lowest level within the entity at which the goodwill is monitored for internal management purposes
- Not be larger than an operating segment, as defined in IFRS 8<sup>6</sup>

The independence of cash inflows will be indicated by the way management monitors the business’ activities, for example by product lines or locations. Network operators need to consider whether the network can be treated as a single CGU; whether fixed and mobile businesses are monitored separately as a single CGU; and whether the 2G business is independent of the 3G business. Based on the analysis of annual reports, CGUs generally follow legal entities but are often further differentiated between fixed and mobile businesses. For (external) reporting purposes these CGUs are often summarised into geographical clusters in accordance with the respective segments<sup>7</sup>.

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4 PricewaterhouseCoopers (2009): *Making Acquisitions Transparent – An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2007*, p. 49.

5 PricewaterhouseCoopers (2007): *Making Acquisitions Transparent – An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2005*, p. 45.

6 See also PricewaterhouseCoopers (2009): *Making sense of a complex world – IFRS 8 Operating Segments*.

7 We analysed the annual reports, 2007 or 2008, of Deutsche Telekom, Telefónica, Vodafone, France Telecom, Telecom Italia, TeliaSonera, Telenor, KPN, Portugal Telecom, Swisscom, Telekom Austria and Tele2.

In light of increasing convergence, (particularly increased product bundling of fixed and mobile services or internet and voice services), the identification of CGUs is becoming more complex. Thus, there is an increasing tendency in the market for telecom companies to aggregate mobile and fixed business<sup>8</sup>. Some, for example Swisscom, avoid this complexity altogether by differentiating their CGUs based on customer type, for example: consumers, small and medium enterprises, large companies and wholesale<sup>9</sup>.

Most publicly available data, such as annual reports, does not include the exact level at which the goodwill impairment test has been performed, as IFRS does not require companies to disclose such detailed information. However, the segments reported represent the maximum level to which goodwill can be allocated, because IAS 36 requires that a CGU cannot be larger than an operating segment determined in accordance with IFRS 8<sup>10</sup>.

When IFRS 8 was initially published, differing opinions emerged as to whether goodwill should be allocated to an operating segment as defined in IFRS 8.5 or to a potential aggregation of operating segments as set out in IFRS 8.12. In August 2008 the IASB issued Improvements to IFRS, which (when approved) will amend IAS 36. This proposed amendment clarifies that the largest unit permitted for goodwill impairment is the lowest level of operating segment as defined in paragraph 5 of IFRS 8 – and, thus, before the aggregation permitted by paragraph 12 of IFRS 8. For some telecom operators, complying with this amendment could involve pushing goodwill down to a lower level than in the past, which could lead to additional impairment risk. Companies should, therefore, be reviewing the potential impact on a timely basis.

It should be noted that any changes to segments and goodwill allocation when a company adopts IFRS 8 requires an opening balance sheet test for impairment and treating any impairment identified at that time as a prior year adjustment. By contrast, the prospective amendment to IAS 36, which will require that goodwill be pushed down to operating segments before aggregation, is not yet in application. Companies that wait until the amendment is adopted (likely to be for financial years starting 1 January 2010) to push goodwill down to operating segments before aggregation will record any resulting impairment charge through earnings. This might be avoided if they push goodwill down to those same operating segments upon adopting IFRS 8.

## Carrying amount

Goodwill impairment testing requires a comparison of the carrying amount of the CGU which contains the goodwill with its recoverable amount. The carrying amount of a CGU shall be determined on a basis consistent with the way the recoverable amount of the CGU is determined (IAS 36.75).

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<sup>8</sup> See for example the annual reports for 2007 of Telefónica S.A., presenting a geographical breakdown (Latin America, Europe and Spain) of fixed, internet, mobile, pay-TV and wholesale accesses; and of Deutsche Telekom AG, showing the operating segments mobile business USA, mobile business Europe, broadband/fixed line business, enterprise services and shared services.

<sup>9</sup> See the annual report for 2008 of Swisscom, p. 171.

<sup>10</sup> With IFRS 8 coming into effect for financial years starting 1 January 2009, the management approach requires companies to define their (externally reported) segments to be fully in line with their internal reporting.

The following chart gives an overview of how to determine the carrying amount of a CGU:

	Net working capital
+	Directly attributable assets (tangibles and intangibles)
+	Allocated goodwill (100% basis)
+	Allocated share of corporate assets
-	Attributable liabilities where applicable
=	<b>Carrying amount of a CGU</b>

The allocated carrying amount of goodwill needs to be grossed up on an acquisition of less than 100% of the shares, to include the goodwill attributable to the minority interest.

The revised version of IFRS 3 *Business Combinations*, issued by the IASB in January 2008, will have to be applied for acquisitions that take place from the first annual reporting period that begins on or after 1 July 2009. The revision gives entities the option, on a transaction-by-transaction basis, to measure non-controlling interests (previously minority interest) either at the value of their proportion of identifiable assets and liabilities (partial goodwill or purchased goodwill approach) or at full fair value (full goodwill approach).

The first choice will result in the same amount of goodwill as the existing IFRS 3. The second choice will record goodwill on the non-controlling interest as well as on the acquired controlling interest. Recognising full goodwill will increase reported net assets on the balance sheet. Although measuring non-controlling interest at fair value may prove difficult in practice, a simplified grossing up of goodwill – resulting from transactions where the full goodwill method was applied for impairment test purposes – will no longer be necessary.

Where the full goodwill method is applied, any impairment of goodwill related to non-controlling interests will also have to be recognised, and any future impairment of goodwill will therefore be greater. In general, though, impairments of goodwill should not occur any more frequently, as the current impairment test is already adjusted by the grossing-up of partial goodwill for a less than wholly owned subsidiary. Indeed, if the purchaser paid a control premium, the partial goodwill approach may overestimate potential impairment losses due to the simplified grossing up of (partial) goodwill for impairment test purposes.

## Recoverable amount

The recoverable amount of an asset is defined as the higher of the fair value less costs to sell (FVLCTS) and its value in use (VIU). IAS 36.19 emphasises that it is not necessary to determine both values: if either of the two measures exceeds an asset's carrying amount, the asset is not impaired, and the company is not required to estimate the other measure.

### Fair value less costs to sell

IAS 36 describes the hierarchy to derive the FVLCTS as follows (paragraphs 25-29):

1. **Best evidence:** arm's length transaction less cost of disposal
2. **Otherwise:** market price less cost of disposal
3. **Otherwise:** best information available to reflect the amount an entity could obtain (in an unforced transaction)

Fair value for the purpose of estimating the FVLCTS is defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. Due to the frequent lack of comparable transactions for single assets or CGUs, the FVLCTS for an impairment test in practice is often approximated by using discounted cash flow techniques, applying a market-based measurement<sup>11</sup>. This method requires eliminating all owner-specific synergies from the cash flow projections other than those synergies that any market participant (hypothetical buyer) would be able to realise. The cash flow projections should be adjusted so that the assumptions are consistent with those of market participants. However, the standard provides no further specific guidance to applying discounted cash flow techniques when deriving the FVLCTS.

To ensure that the FVLCTS is determined on a basis consistent with the assumptions of market participants, comparisons with analysts' estimates and the observable market values of comparable companies should be performed. For most telecom operators, estimates of the main key performance indicators (KPIs) - e.g. market share, ARPU, EBITDA (earnings before interest, taxes, depreciation and amortisation) margins - and of discounted cash flow values are covered by analysts' reports and other market studies. Such information should therefore be used to validate the company's cash flow projections and the resulting FVLCTS.

The FVLCTS should generally be further checked for reliability by performing a comparative market analysis. In the telecoms industry, "multiple" approaches can be applied which determine the enterprise value as a multiple of, for example, subscribers, sales or EBITDA. These multiples generally should be derived from the same peer group as that on which the company's cost of capital is based.

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<sup>11</sup> This approach is accepted by the standard (see IAS 36.27 and IAS 36.BCZ11 and BCZ32.)

According to the standard, the hypothetical costs to sell the asset or CGU have to be deducted from its determined fair value. In practice, the costs to sell often are estimated as a percentage of fair value (e.g. deducting 1.0% from the discounted cash flow value). These costs reflect incremental costs directly attributable to the disposal of an asset or CGU, excluding finance costs and income tax expense (IAS 36.6). Examples of such costs are legal costs, stamp duty and similar transaction taxes, costs of removing the asset and direct incremental costs to bring an asset into condition for its sale. However, termination benefits (as defined in IAS 19 *Employee Benefits*) and costs associated with reducing or reorganising a business following the disposal of an asset are not direct incremental costs to dispose of the asset (IAS 36.28).

### Value in use

Value in use, or VIU, is the net present value of the future cash flows expected to be derived from the continuing use of an existing asset or CGU and its disposal at the end of its economical useful life. VIU therefore reflects the company's view using company-specific valuation parameters. This includes recognising all identified synergies. The standard gives much more guidance regarding VIU valuations than FVLCTS.

Cash flow projections should be based on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the asset's remaining useful life or in the CGU (IAS 36.33). The projections should be based on management's most recently approved financial budgets or forecasts and should not exceed a period of five years, unless a longer period can be justified. Projections beyond that point should be extrapolated by using a steady or declining growth rate. These projections should be extrapolated over the remaining useful life of the primary asset in the CGU. In the case of an indefinite useful life of the CGU, specific care has to be applied when deriving both the sustainable cash flows after the detailed planning period and the terminal value.

In practice, reasons for telecom companies to extend the planning period beyond five years could include the duration of licence agreements or anticipated regulatory decisions with expected significant impact on future cash flows. In general, however, operating cash flows are difficult to forecast beyond a period of five years due to the rapid pace of development of the industry. Many telecom companies state in their annual reports that they have based VIU calculations on management-approved business plans of five years or less, extrapolated to up to 10 years by using steady or declining growth rates<sup>12</sup>.

The standard sets out specific conditions relating to the cash flows to be used in determining the VIU. Future cash flows have to be estimated for the CGU in its current condition (IAS 36.44). The effect of planned restructurings for which no provision (in accordance with IAS 37) has been made should be eliminated from the financial projections (IAS 36.44a). Estimates of future cash flows should also not include amounts expected to arise from improving or enhancing the CGU's current performance.

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<sup>12</sup> We analysed the annual reports, 2007 or 2008, of Belgacom, BT Group, Deutsche Telekom, France Telecom, KPN, Portugal Telecom, Swisscom, Tele2, Telecom Italia, Telefónica, Telekom Austria, Telekomunikacja Polska, Telenor and Vodafone.

Most network operators have significant capital expenditure programmes in place. It is often difficult to determine whether items of capital expenditure complete, maintain or enhance the network asset. Furthermore, the realisation of synergies related to goodwill is very often significantly dependent on new products or enhanced services to be offered in the future. As these may require significant investments in the network, such new products and services can only be eliminated from cash flow projections by revising the underlying business plan as a whole. Maintenance cash flows are permitted to be included in the VIU calculation. Estimated cash outflows required to prepare for use an asset or CGU in the course of construction together with any expected cash inflows should also be included in calculating the VIU. However, future capital expenditure that extends the network's reach or enhances its performance may not be included.

In light of the current economic recession, cash flow projections should be carefully analysed, both as to whether and how the implications of the financial crisis are reflected in expectations. For example changes in estimates for revenue, growth rates, margins and capital expenditures might be expected, as the demand for new products and technologies, greater capacity and higher bandwidth might have declined.

Given the significant level of volatility in the financial markets and in the expectations of telecom companies' performance since the crisis began, the date when the projections were prepared should also be considered, along with other external factors, such as foreign exchange rates. In particular, international telecom groups that were anticipating significant growth in emerging markets should perform a thorough review of their expectations regarding the short- and mid-term development of the market opportunity and of the country's currency. Forecasts should, where possible, be compared to market evidence and are likely to reflect a much higher probability of a weak economy in the short to medium term. If necessary, projections need to be adjusted to reflect current market expectations.

In addition, long-term interest rates used in the projections should reflect market participants' long-term estimates concerning inflation and economic growth. Thus, the growth rate assumption for terminal value should be consistent with the interest rate used. Given the significant impact of terminal value calculations on the overall discounted cash flow valuations, an extension of the projection horizon - or at least a performance of sanity checks - may be appropriate.

With respect to calculating terminal value, any investments required to secure licence renewals should be considered when estimating long-term cash flows. Many operators assume that future renewals will be at amounts significantly lower than those paid initially. Moreover, assumptions regarding sustainable margins have to reflect the long-term expectations of performance, especially with regards to regulation and the competitive landscape. Due to the significant impact that the terminal value can have on the overall enterprise value, these assumptions should be reviewed particularly carefully.

## Cost of capital

The interest rate applied to discount the expected future cash flows to their present value is a key factor in impairment tests, as small changes in the discount rate can have substantial effects on the estimated value of a CGU. In practice, the discount rate is usually based on the weighted average cost of capital, which is determined by using techniques such as the Capital Asset Pricing Model.

In determining the VIU, the standard generally requires using pre-tax cash flows (IAS 36.50b). Deriving pre-tax discount rates is not always possible, though, as observable performance measures in the market are based on earnings, which include corporate taxes. Thus, in practice the VIU is generally calculated on a post-tax basis - assuming that pre- and post-tax calculations deliver the same results by using the company's weighted average cost of capital and estimating the pre-tax discount rate by reflecting the specific amount and timing of the future tax cash flows. This approach is supported in the standard (IAS 36 A17, A20 and BCZ85).

The discount rate generally should be determined using the WACC of the CGU or of the company of which the CGU is currently part as a starting point. However, CGUs in some businesses may require the use of a beta derived from a peer group. Using a company's weighted average cost of capital for all CGUs is appropriate only if the specific risks associated with the specific CGUs do not diverge materially from the remainder of the group.

Where the FVLCTS is derived by a discounted cash flow approach, the discount rate should be derived from the perspective of a hypothetical buyer. To ensure conformity with the market participants' view, it is best practice to derive the discount rate based on a representative peer group. Market participants might expect a different rate of return from a mobile network operator to that of an internet services or broadband access company, and they may also expect a different rate of return on the same business across different geographies due to country specific risks. The weighted cost of capital is calculated as a post-tax rate.

In general, components of the cost of capital may need to be adjusted in the current recession to take into account industry-, geographic- or company-specific risks arising from current market conditions. The question of whether to apply current debt margins in determining an appropriate cost of debt can be answered only on a case-by-case basis. Factors which might influence the decision include whether the company is funded for the short term or the long term, the necessity of any future (re)financing, promised versus expected yield and volatility in observed spreads. Overall, any decreases in discount rates should be carefully scrutinised because, given recent events in the capital markets and the increase in risk premia and credit spreads, the cost of capital is likely to have increased.

## Summary of the key concepts: fair value less cost to sell and value in use

The following table summarises the differences in the concepts of fair value less costs to sell (FVLCTS) and value in use (VIU):

	Fair value less costs to sell	Value in use
Perspective	<ul style="list-style-type: none"> <li>Hypothetical buyer – market participants' perspective</li> </ul>	<ul style="list-style-type: none"> <li>Internal value - company perspective</li> </ul>
Valuation hierarchy	<ul style="list-style-type: none"> <li>Market approach</li> <li>Income approach</li> </ul>	<ul style="list-style-type: none"> <li>Income approach only</li> </ul>
Cash flow projections	<ul style="list-style-type: none"> <li>Eliminate all owner-specific synergies</li> <li>Adjust all projections such that assumptions are consistent with those of market participants</li> <li>Consider restructurings as well as enhancing investments if usual in the market</li> <li>Consider cash flows related to financing and taxes</li> </ul>	<ul style="list-style-type: none"> <li>Recognise all synergies</li> <li>Eliminate all effects from restructurings, if no provision in accordance with IAS 37 has been made</li> <li>Eliminate all effects from enhancing investments; only maintenance investments should be incorporated</li> <li>Exclude cash inflows or outflows from financing activities</li> <li>Exclude income tax receipts or payments</li> </ul>
Cost of capital	<ul style="list-style-type: none"> <li>Post-tax weighted average cost of capital (WACC) considering market participants' view</li> <li>A peer group should reflect the market participants (hypothetical buyer)</li> </ul>	<ul style="list-style-type: none"> <li>Generally, IAS 36.55 requires applying a pre-tax discount rate; regularly in practice, post-tax rate is used to determine an appropriate pre-tax rate</li> <li>Discount rate to be determined using the WACC of the CGU or company as a starting point</li> <li>Some CGUs may require the use of WACC derived from a peer group</li> </ul>

When the FVLCTS is derived by using estimation techniques such as a discounted cash flow, some of the restrictions imposed by IAS 36 on the VIU approach do not apply. For example, the cash flow projections can include the



effect of restructurings, reorganisations or future investments in the network. This is because all rational market participants would be expected to undertake these expenditures and reorganisations in order to extract the best value from the purchase and, hence, they would have been factored into the acquisition price. Thus, in cases where a restructuring is anticipated but has not yet been provided for, a valuation based on the FVLCTS might be higher than one based on the VIU.

It is important that when comparing the carrying amount with the recoverable amount, entities ensure that the carrying amount of the CGU being tested for impairment is calculated on a consistent basis with the cash flows included in either the FVLCTS or the VIU calculation. A FVLCTS valuation, therefore, should be compared with the assets of the CGU including any tax balances, whereas a VIU recoverable amount would be compared to assets excluding the associated tax.

According to our analysis of the 2007 and 2008 annual reports, a majority of the European incumbents performed goodwill impairment tests using VIU<sup>13</sup>. Only Deutsche Telekom, KPN and Telenor disclosed that they used FVLCTS or both VIU and FVLCTS. However, none of the companies explained in detail how they had derived cash flows from the underlying business plan. Some operators disclosed they had occasionally used the FVLCTS based on a discounted cash flow approach, stock prices or EBITDA multiples if applicable.

From the various pieces of research mentioned above, it appears that while the majority of telecom companies use VIU in their impairment testing, around 40% of telecom companies use FVLCTS. This compares to about 70% of companies across all industries using VIU<sup>14</sup>.



13 We analysed the annual reports, 2007 or 2008, of Belgacom, BT Group, Deutsche Telekom, France Telecom, KPN, Portugal Telecom, Swisscom, Tele2, Telecom Italia, Telefónica, Telekom Austria, Telekomunikacja Polska, Telenor and Vodafone.

14 PricewaterhouseCoopers (2009): *Making Acquisitions Transparent - An Evaluation of M&A-Related IFRS Disclosures by European Companies in 2007*, p. 56.

## Disclosures required with respect to impairment tests

IAS 36 contains extensive disclosure requirements. Among others, for each CGU that contains goodwill or intangible assets with indefinite useful lives - and for which the amounts of such assets are significant in relation to the entity's total goodwill or intangible assets with indefinite lives - the standard requires disclosure of:

- The carrying amount of goodwill allocated to the CGU
- The carrying amount of intangible assets with indefinite useful lives allocated to the CGU
- The basis on which the CGU's recoverable amount has been determined, i.e. VIU or FVLCTS
- If recoverable amount is based on a discounted cash flow calculation:
  - A description of each key assumption
  - A description of how management has determined the values assigned to each key assumption, for example whether the values reflect past experience or, if appropriate, are consistent with external sources of information
  - The period over which management has projected cash flows, using approved budgets and forecasts; and when a period of more than five years has been used, an explanation as to why the longer period is justified
  - The growth rate used to project cash flows beyond the period covered by management-approved budgets and forecasts
  - The discount rate used in the cash flow projections

The level of detail given with regards to the required information varies considerably in the annual reports of telecom entities.

Information about individual CGUs, descriptions of key assumptions and information about the consistency of values with external resources are often not very detailed. The period of cash flow projections approved by management is generally between three and five years, and this may be extrapolated to up to 10 years for purposes of the valuation, depending on the stage of development of the business.

Growth rates applied for the terminal value calculation generally vary between 1% and 2.5% depending on the business segment, location and macroeconomic data (e.g. projections of inflation rate and growth in population)<sup>15</sup>. However, the derivation of these growth rates is rarely explained despite the significant impact this has on the VIU calculation.

None of the annual reports discloses a rate of reinvestment, which could be performed by taking current depreciation charges and future expenditure for licence renewals as indicators of long-term capital expenditure requirements. This is a matter which has previously been raised by external analysts who would find this kind of disclosure helpful.

Those entities that apply the discounted cash flow method to determine the FVLCTS generally do disclose that they have compared their valuation results or cash flow projections with external valuation reports and data from comparable companies or transactions<sup>16</sup>. This comparison should also be done for any KPIs underlying the cash flow projections (e.g. ARPU, customers, profit margins or capital expenditure).

In this period of market turbulence and economic downturn, financial analysts and regulators want detailed and current information. The critical disclosures for the upcoming year-end reporting cycle will be related to sensitivity analyses – that is, the effect of changes to key assumptions on the carrying amount of assets, including goodwill. These key assumptions are not only discount rates or growth rates but also include expected profit margins and other highly sensitive assumptions that can have a significant impact on future cash flows. In our review of annual reports, sensitivity analyses were sometimes provided – for example by KPN (with respect to the discount rate and the rate of sales growth<sup>17</sup>), or by Telenor (stating a negative variance in revenue growth and EBITDA margin<sup>18</sup>). However, there is significant scope for enhanced disclosures in this area.

If a reasonably possible change in the key assumptions would result either in an impairment charge or in the headroom (the difference between the recoverable amount and the carrying amount) being reduced to nil, then additional disclosures about those sensitivities may be required. These additional disclosures include:

- Quantification of the headroom in the current impairment calculation
- Quantification of all the key assumptions made
- Quantification of by how much the key assumptions would have to change in order to remove the remaining headroom

In any year when there is an impairment charge on a material element of the goodwill or indefinite-lived intangible assets, disclosure of the key assumptions made will be required.

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15 Outliers of this range are by Telekom Austria (2007), p. 107, and Telecom Italia (2008), p. 130, estimating, respectively, a growth rate of -1.0% for the domestic fixed line operations in Austria and 4.5% for Telecom Italia's operations in Brazil.

16 See the annual reports of Deutsche Telekom (2008), p. 126; Telenor (2007), p. 50; or KPN (2008), p. 100.

17 See KPN (2008), p. 101.

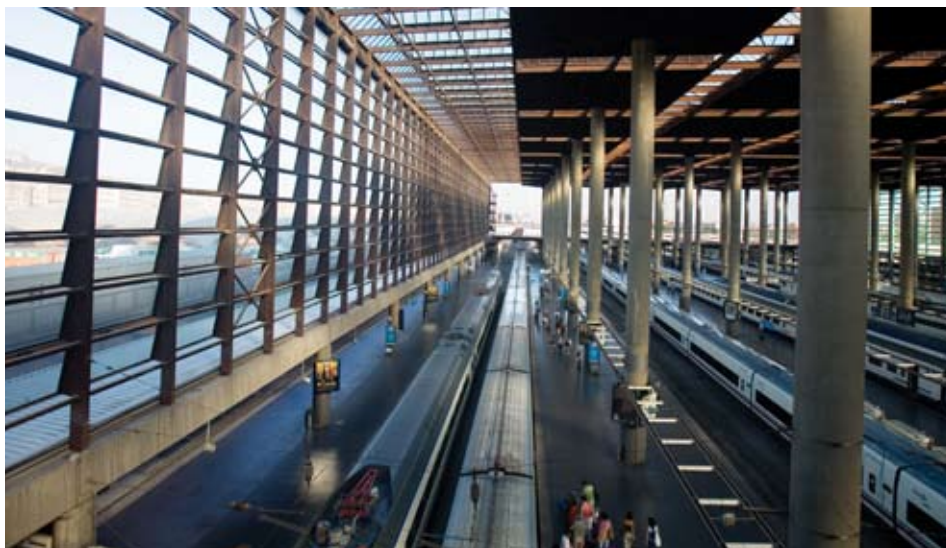
18 See Telenor (2007), p. 50.

# Conclusion and outlook

High values of intangibles and goodwill in the telecoms industry lead to an increased risk of impairment given the current economic situation and outlook. The assumptions used in business plans should be consistent with market evidence, such as independent macroeconomic forecasts and reports from industry analysts, brokers and other third-party experts.

In times of uncertainty, assessing the discount rate also becomes more difficult. Components of the cost of capital may need to be adjusted to take into account industry, geography or company-specific risks arising from current market conditions.

The critical disclosures in the forthcoming reporting cycle will be related to sensitivity analyses of those key assumptions that give rise to a significant risk of a material adjustment to the carrying amount of assets, including goodwill. These disclosures will be a key area of focus for investors and market regulators.



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