

## STAFF PAPER

April 2012

## IASB Meeting

Previous meetings:  
IFRS IC: Nov 2011 and March 2012

<b>Project</b>	<b>Annual Improvements 2011-2013 cycle</b>		
<b>Paper topic</b>	<b>Revenue-based depreciation method</b>		
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This paper has been prepared by the staff of the IFRS Foundation for discussion at a public meeting of the IASB and does not represent the views of the IASB or any individual member of the IASB. Comments on the application of IFRSs do not purport to set out acceptable or unacceptable application of IFRSs. Technical decisions are made in public and reported in IASB *Update*.

## Introduction

1. At its November 2011 meeting, the IFRS Interpretations Committee (the Committee) discussed a request to clarify the meaning of the term ‘consumption of the expected future economic benefits embodied in the asset’ when determining the appropriate amortisation method for intangible assets of service concession arrangements (SCA) that are within the scope of IFRIC 12 *Service Concession Arrangements*. The issue relates to the application of paragraphs 97 and 98 of IAS 38 *Intangible Assets*.
2. In the fact pattern sent by the submitter, which was the description of a toll road:
  - (a) the rate chargeable to users is agreed in the contract; and
  - (b) a lower tariff is imposed at the beginning of the concession and increases periodically in line with the grantor’s practice so as not to burden consumers.
3. At that meeting the Committee members considered whether:
  - (a) a revenue-based amortisation method better reflects the economic reality of the underlying contractual terms;

- (b) a time-based amortisation method is most appropriate, because it reflects the duration of the SCA and the fact that the entity received a licence to operate the infrastructure; or
  - (c) a units-of production method of amortisation is adequate, because it reflects the physical wearing out of the underlying asset granted to the operator.
4. At the November 2011 meeting, a majority of the Committee members noted that for the specific fact pattern, in which the use of a toll road may be low in early periods and high in later periods, an amortisation method based on the expected number of cars using the road (a units-of-production approach) might be more appropriate to reflect the consumption of the expected future economic benefits that are embodied in the intangible asset.
  5. In addition, the Committee noted that even though the selection of an amortisation methodology involves the use of judgement, a revenue-based method is not considered to be an appropriate manifestation of consumption. This is because revenue represents the generation of expected economic benefits rather than the consumption of economic benefits. Consequently, the Committee directed the staff to propose an amendment to clarify this.
  6. The staff had originally proposed an amendment to IFRIC 12 *Service Concession Arrangements* (refer to Appendix B in IFRS IC [agenda paper 13 of November 2011](#)). The Committee members noted that the amendment should be included in IAS 38 and IAS 16 instead of in IFRIC 12 to emphasise that methodologies that reflect a pattern of generation of expected future economic benefits are not consistent with the requirement to reflect the pattern of consumption of the expected future economic benefits.
  7. At the Committee's March 2012 meeting (refer to IFRS IC [Agenda paper 6](#)) the Committee discussed the proposed amendments to IAS 16 *Property Plant and Equipment* and IAS 38 (by adding paragraphs 62A and 98A, respectively) and recommended to the Board that they should be included within the next exposure draft of *Improvements to IFRSs* (2011-2013 cycle).

## Purpose of this paper

8. The purpose of this paper is to ask the Board whether it approves the proposed annual improvements to IAS 16 and IAS 38, which will have the effect of clarifying the guidance in paragraphs 62 in IAS 16 and paragraph 98 in IAS 38 when selecting an appropriate depreciation and/or amortisation method.

## Structure of the paper

9. This paper will therefore:
  - (a) provide a brief explanation of the issue (a summary of previous discussions held by the Board or by the Committee can be found in Appendix A);
  - (b) provide an assessment of the proposed amendments against the criteria for inclusion in Annual Improvements (refer to Appendix B);
  - (c) make a recommendation for the proposed amendment to IAS 16 and IAS 38 as presented in Appendix C and Appendix D; and
  - (d) ask the Board whether they agree with the recommendation.

## Explanation of the issue

10. As shown in the records of past discussions held by the Board and/or the Committee (refer to the table in Appendix A), there have often been requests from constituents to provide further guidance:
  - (a) on the meaning of 'consumption of economic benefits' for tangible and intangible assets; and
  - (b) on the selection of amortisation methods that best reflect the pattern of consumption of future economic benefits.
11. At those past discussions, the Board and the Committee:

- (a) have not specifically discussed the meaning of the term ‘consumption of the expected future economic benefits embodied in the asset’; and
- (b) have noted that the selection of an amortisation method is a matter of judgement and that any assistance that they could provide would be in the nature of application guidance rather than an interpretation.

### ***What do we mean by a revenue-based methodology?***

12. The application of this method involves an amortisation formula that uses a ratio of actual revenue to estimated revenue as the amortisation basis. Revenue is derived from an interaction between quantity (volume) and price.
13. Based on our research in accounting literature<sup>1</sup>, some of the main features of a method based on ‘sales’ or ‘revenue’ are:
  - (a) it correlates costs and results;
  - (b) the charge for depreciation is spread out over the useful life of an asset in terms of the asset’s relative productivity.
14. Consequently, the depreciation or amortisation charge to profit or loss varies with the productivity of the asset, with the result that years with low productivity are not so greatly affected by a depreciation charge as opposed to years of intense productivity when the charge increases in direct proportion to a higher level of activity which is affected by price changes.

### ***Examples in practice of the use of this methodology***

#### ***Service concession arrangements***

15. The submission discussed at the November 2011 meeting did not include an example of a revenue-based methodology. However we subsequently examined

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<sup>1</sup> We referred to academic literature in: W.A Paton, *Accountants’ handbook* (3<sup>rd</sup> edition) The Ronald Press Company (1943) pages 711-763.

an annual report of a concessionaire that employs this methodology to amortise an intangible asset under a service concession arrangement.

16. We observed that revenue is a function of projected traffic volumes (quantity) and toll rates (price). Toll rates increase gradually during the concession period and different toll rates are charged depending on the type of vehicle. If the government (grantor) reduces the toll rates below the agreed rates, the concession agreement establishes that the government must compensate the operator for any reduction in toll collections.
17. A revenue-based methodology allows this concessionaire to spread out the amortisation charge in close connection with the productivity of the toll road, which is reflected by the movement of the toll rates.

#### *Media industry*

18. One of the Committee members at the November 2011 meeting mentioned that in the United States, amortisation methods based on revenue are allowed for amortising non-monetary assets in some industries (for example, film rights in the film/broadcasting industry) but clarified that these rights are not viewed as intangibles and instead are classified as part of inventory.
19. It is our understanding that Topic 920 *Entertainment–Broadcasters* in the *FASB Accounting Standards Codification*<sup>®</sup> or (formerly Statement No.63 *Financial Reporting by Broadcasters*, issued in 1982) does not prohibit the use of a flow of revenue, number of airings or the straight-line method for amortisation purposes.
20. Even though we found some merit in the use of revenue-based approaches by broadcasters (because there seems to be a need for more rapid extinguishing of the cost of an asset, for example when initial airings for a certain programme result in higher advertising revenues), we maintain that in IFRSs revenue-based approaches are not permitted, on the basis of the current guidance for depreciation and amortisation in IAS 16 and in IAS 38.

***Is a revenue-based methodology compatible with other methodologies in IAS 16 and IAS 38?***

*Some think that it does not represent a systematic allocation*

21. Paragraph 6 of IAS 16 defines depreciation, and paragraph 8 of IAS 38 defines amortisation, as a systematic allocation of the cost of the depreciable/amortisable amount of a tangible or intangible asset, over its estimated useful life.
22. A ‘systematic’ method is characterised by the use of order and planning; ie by a method that is methodical, regular and efficient. There are some who think that a revenue-based methodology does not represent a systematic form of allocation, because projected revenues might not be forecast in a reasonable or expedient way. We do not agree entirely with this view, because we think that there is also a high degree of estimation involved for many assets when determining the future number of physical units.
23. Some others also object to the use of a revenue-based method because the resulting charge is viewed as a provision of funds for asset replacements (because depreciation is a process of allocation and not of valuation); they also object to the use of a revenue-based method when it is used to stabilise profit rather than to reflect the pattern of consumption of the asset’s future economic benefits.

*It is not consistent with the pattern of consumption of an asset*

24. Paragraph 60 of IAS 16 and 97 of IAS 38 clarify that the allocation should “reflect the pattern in which the asset’s future economic benefits are expected to be consumed by the entity”.
25. We think that the objective of a depreciation method is to approximate the pattern in which the bundle of economic benefits (which is inherent in every asset) is used over time.
26. Paragraph 56 of IAS 16 states that a common way to identify a pattern of consumption of an asset is through the expected usage of the asset.
27. The ‘usage’ of an asset can be assessed by reference to the asset’s expected capacity or physical output in accordance with paragraph 56(a). Other factors that

are mentioned in paragraph 56(a)–(d) of IAS 16 to assist in the determination of a pattern of consumption of an asset, namely:

- (a) expected physical wear and tear;
- (b) technical or commercial obsolescence; and
- (c) limits on the use of an asset (eg legal limits).

28. Similar factors are mentioned in paragraph 90 of IAS 38, as follows:

- (a) the expected usage of the asset by the entity and whether the asset could be managed efficiently by another management team;
- (b) typical product life cycles for the asset and public information on estimates of useful lives of similar assets that are used in a similar way;
- (c) technical, technological, commercial or other types of obsolescence;
- (d) the stability of the industry in which the asset operates and changes in the market demand for the products or services that are output from the asset;
- (e) expected actions by competitors or potential competitors;
- (f) the level of maintenance expenditure required to obtain the expected future economic benefits from the asset and the entity's ability and intention to reach such a level;
- (g) the period of control over the asset and legal or similar limits on the use of the asset, such as the expiry dates of related leases; and
- (h) whether the useful life of the asset is dependent upon the useful life of other assets of the entity.

29. From the lists of factors considered in paragraph 56(a)–(d) of IAS 16 and paragraph 90 of IAS 38, we could not identify any allowing the use of a revenue-based methodology.

30. We think that a revenue-based approach has little bearing on the use of an asset, because:

- (a) it is a function of the level of productivity of an asset, which is clearly different from an asset's capacity or physical output (eg the number of operations or units of work for a particular machine) and is much more difficult to determine;
- (b) variations in productivity for a particular asset might not necessarily coincide with the way in which an asset is being used up (ie the quantity of production);
- (c) the ageing or waste of an equipment might have no relation with the projected business activity for that equipment; and
- (d) price changes (such as inflation) have no bearing upon the way in which the asset is worn out or is used up.

31. Revenue reflects a pattern of *generation* of economic benefits (net cash inflows) and does not depict a pattern of *consumption* of economic benefits. In paragraph 17 of IAS 38, the future economic benefits flowing from an intangible asset may include “revenue from the sale of products or services, cost savings, or other benefits resulting from the use of the asset by the entity”. In addition, revenue reflects the pattern of generation of economic benefits from operating a business (where an asset is only part of) and does not reflect the pattern of consumption of the benefits inherent in a particular asset.

*It is not consistent with the methodologies permitted in IAS 16 or in IAS 38*

32. Paragraphs 62 of IAS 16 and 98 of IAS 38 support a variety of depreciation/amortisation methodologies that include, among others:

- (a) the straight-line method,
- (b) the diminishing balance method; and
- (c) the units of production method.

33. The methodologies mentioned above are consistent with the definition of *useful life* in paragraph 8 of IAS 38 which states that useful life is either:

- (a) a period over which an asset is expected to be available for use; or



(b) a number of production or similar units that are expected to be obtained from the asset by an entity.

34. A revenue-based method is neither based on:

(a) a period, because it does not assume that depreciation is a uniform function of time and instead assumes that is a function of the economic benefits generated from the asset or from the asset's level of productivity; nor

(b) a number of units, because it represents an interaction of quantity (unit) *and* price.

### ***Annual Improvements criteria assessment***

35. We assessed the potential amendment to IAS 16 and IAS 38 to clarify that a method that reflects a pattern of generation of the expected future economic benefits embodied in the asset, rather than a pattern of consumption, is not considered to be an appropriate method of depreciation or amortisation. The assessment is reproduced in Appendix B.

36. On the basis of on the assessment, we recommended to the Committee that the proposed amendment should be made through Annual Improvements. The Committee agreed with this recommendation.

### **Committee's recommendation**

37. On the basis of our analysis above, the Committee recommends to the Board that it should include a clarification to paragraph 62 of IAS 16 and paragraph 98 of IAS 38 to state that a method that reflects a pattern of generation of the expected future economic benefits embodied in the asset rather than a pattern of consumption is not considered to be an appropriate method of depreciation or amortisation.

**Transition requirements**

38. We are of the opinion that transition provisions should follow the general principles in IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* and that entities should apply the proposed amendment prospectively in line with existing requirements for changes in accounting estimates in paragraphs 32–38 of IAS 8.
39. Our proposals to amend those paragraphs are shown in Appendices C and D of this paper.

**Question for the Committee—amortisation and/or depreciation based on a revenue-based approach**

1. Does the Board agree with the Committee's recommendation that a clarification is needed for paragraph 98 of IAS 38 and for paragraph 62 of IAS 16 to state that a method that reflects a pattern of generation of the expected future economic benefits embodied in the asset rather than a pattern of consumption is not considered appropriate?
2. Does the Board agree with the proposed changes shown in Appendices C and D?

## Appendix A—Summary of previous discussions held by the Board and/or the Committee

Meeting	Issue	Outcome
<p><u>Agenda paper (AP 10C)</u> Board meeting December 2006</p> <p>Annual improvements – exposure draft</p>	<p>May a method of amortisation result in a lower cumulative amortisation than the straight-line method?</p>	<p><b>Proposal to change paragraph 98 of IAS 38 to allow the use of the unit of production method and reduce the risk of inappropriate methods of amortisation.</b></p> <p>[IASB Update December 2006] <b>Paragraph 98 of IAS 38 <i>Intangible Assets</i> states that there is “rarely, if ever, persuasive evidence to support an amortisation method for intangible assets with finite useful lives that results in a lower amount of accumulated amortisation than under the straight-line method”. The Board has been informed that in practice, ‘rarely, if ever’ is interpreted as ‘never’. The IFRIC project on service concessions highlighted situations in which using the unit of production method of amortisation would be appropriate. However, even when the expected pattern of consumption of the future economic benefits in the asset is weighted to the end of the asset’s life, entities perceive paragraph 98 as restricting them from using this method. As a result, the Board tentatively decided to delete the last sentence of paragraph 98 of IAS 38 to resolve the issue.</b></p> <p><b>This sentence is shown below:</b> <del>There is rarely, if ever, persuasive evidence to support an amortisation method for intangible assets with finite useful lives that results in a lower amount of accumulated amortisation than under the straight line method.</del></p>
<p><u>AP 8B</u> Board meeting March 2008</p> <p>Comment letter analysis to AIP ED</p>	<p>Which of the following methods, the straight-line method or the units of production method best reflects the consumption pattern of the future economic benefits?</p>	<p><b>The Board did not specifically discuss the issue raised by constituents during the CL period.</b></p> <p><b>The Board confirmed the change to paragraph 98 of IAS 38 in the final AIP in 2008.</b></p>

<p><u>AP 6</u> Committee meeting November 2009</p>	<p>Constituents request guidance on the meaning of 'consumption of economic benefits' for an intangible asset with a finite useful life.</p>	<p>[Issue of tentative agenda decision]</p> <p><b>The Committee noted that the definition of useful life enables the use of both the time-based and units of production-based approaches.</b></p> <p><b>The Committee noted that the determination of the amortisation method is a matter of judgement and that this judgement should be clearly explained in the notes to the financial statements</b></p> <p><b>The Committee concluded that the guidance that it could provide would be in the nature of application guidance rather than an interpretation.</b></p>
<p><u>AP 4A</u> Committee meeting January 2010</p>	<p>Analysis of the comment letters on the Committee's November 2009 tentative agenda decision</p>	<p>[Issue of final agenda decision]</p> <p><b>The Committee confirmed its tentative decision of November 2009 that the determination of the amortisation is a matter of judgement and significant judgements made should be disclosed in the notes to the financial statements. Any guidance that the Committee would provide would be in the nature of application guidance rather than an interpretation.</b></p>
<p><u>AP 13</u> Committee meeting November 2011</p>	<p>Submitter requests guidance on the meaning of 'consumption of economic benefits' and on the selection of amortisation method for intangible assets of service concession arrangements</p>	<p><b>The Committee directed the staff to draft the proposed annual improvement that it will discuss at the meeting in January 2012</b></p> <p>[IFRIC Update November 2011]</p> <p><b>The Committee noted that the principle in IAS 38 is that an amortisation method should reflect the pattern of consumption of the expected future economic benefits and not the pattern of generation of expected future economic benefits. In particular, the Committee noted that amortisation methods based on revenue are not an appropriate reflection of the pattern of consumption of the expected future economic benefits embodied in an intangible asset.</b></p>
<p><u>AP 6</u> Committee meeting March 2012</p>	<p>Revenue-based depreciation method</p>	<p>[IFRIC Update March 2012]</p> <p><b>The Committee discussed a proposal to amend IAS 16 <i>Property, Plant and Equipment</i> and IAS 38. The Committee decided to recommend to the Board that it should amend IAS 16 and IAS 38 to prohibit the use of a depreciation and/or amortisation method that reflects the pattern of generation of economic benefits from operating the business instead of a pattern of consumption of expected future economic benefits of the asset. This amendment is proposed for inclusion in the next Annual Improvements cycle.</b></p>

## Appendix B—Annual improvements assessment criteria

Annual improvements criteria	Staff assessment of the proposed amendment
<p>(a) The proposed amendment has one or both of the following characteristics:</p> <p>(i) clarifying—the proposed amendment would improve IFRSs by:</p> <ul style="list-style-type: none"> <li>• clarifying unclear wording in existing IFRSs, or</li> <li>• providing guidance where an absence of guidance is causing concern.</li> </ul> <p>A clarifying amendment maintains consistency with the existing principles within the applicable IFRSs. It does not propose a new principle, or a change to an existing principle.</p> <p>(ii) correcting—the proposed amendment would improve IFRSs by:</p> <ul style="list-style-type: none"> <li>• resolving a conflict between existing requirements of IFRSs and providing a straightforward rationale for which existing requirements should be applied, or</li> <li>• addressing an oversight or relatively minor unintended consequence of the existing requirements of IFRSs.</li> </ul> <p>A correcting amendment does not propose a new principle or a change to an existing principle, but may create an exception from an existing principle.</p>	<p>(a) Yes. The proposed amendments clarify the application of paragraphs 62 of IAS 16 and 98 of IAS 38 in the selection of an appropriate depreciation and/or amortisation method.</p>
<p>(b) The proposed amendment is well-defined and sufficiently narrow in scope such that the consequences of the proposed change have been considered.</p>	<p>(b) Yes. We believe that the proposed amendments are well defined and are sufficiently narrow in scope such that the consequences of the proposed change have been considered. It contributes to consistent accounting for choosing depreciation and/or amortisation methods for tangible and intangible assets.</p>
<p>(c) It is probable that the IASB will reach conclusion on the issue on a timely basis. Inability to reach conclusion on a timely basis may indicate that the cause of the issue is more fundamental than can be resolved within annual improvements.</p>	<p>(c) Yes. We think that the IASB will reach a conclusion on this issue on a timely basis, because it is a clarification on the application of IAS 16 and IAS 38.</p>
<p>(d) If the proposed amendment would amend IFRSs that are the subject of a current or planned IASB project, there must be a need to make the amendment sooner than the project would.</p>	<p>(d) Yes because there are no current projects on IAS 16 or IAS 38.</p>

## Appendix C—Proposed changes (IAS 16)

C1. The proposed amendment to IAS 16 is presented below.

### **Amendment to IAS 16 *Property, Plant and Equipment***

Paragraph 62A is added. Paragraph 62 is not proposed for amendment but is included here for ease of reference.

#### **Depreciation method**

- 62 A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method and the units of production method. Straight-line depreciation results in a constant charge over the useful life if the asset's residual value does not change. The diminishing balance method results in a decreasing charge over the useful life. The units of production method results in a charge based on the expected use or output. The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits.
- 62A A method that reflects a pattern of generation of the expected future economic benefits embodied in the asset rather than a pattern of consumption is not considered to be an appropriate method of depreciation because it does not reflect the way in which the asset is being used up.

#### **Effective date**

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- 81G *Improvements to IFRSs* issued in [date] added paragraph 62A. An entity shall apply this amendment prospectively for annual periods beginning on or after [date]. Earlier application is permitted.

## **Basis for Conclusions on proposed amendments to IAS 16 *Property, Plant and Equipment***

*This Basis for Conclusions accompanies, but is not part of, the proposed amendments.*

### **Depreciation method**

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- BC1 The Board considered whether it would be appropriate for fixed assets to be depreciated using a revenue-based depreciation method (ie one that is derived from an interaction between quantity and price and that takes into account the actual revenue to projected revenue ratio as the depreciation basis) to allocate the depreciable amount of an asset. Paragraph 60 states that “the depreciation method used shall reflect the pattern in which the asset’s future economic benefits are expected to be consumed by the entity”. The Board proposes that revenue-based methods should not be permitted because they reflect a pattern of generation of economic benefits from the asset rather than the consumption of economic benefits of the asset. In addition, paragraph 56 states that “the future economic benefits embodied in an asset can be consumed by an entity principally through its use” and paragraph 56(a) states that “the usage of an asset can be assessed by reference to the asset’s expected capacity or physical output”. The Board noted that that a revenue-based approach results in a charge that is based on the asset’s productivity, which might not necessarily coincide with the way an asset in which is being used up.

## Appendix D—Proposed changes (IAS 38)

D1. The proposed amendment to IAS 38 is presented below.

### Amendment to IAS 38 *Intangible Assets*

Paragraph 98A is added. Paragraph 98 is not proposed for amendment but is included here for ease of reference.

#### Amortisation period and amortisation method

98 A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method and the unit of production method. The method used is selected on the basis of the expected pattern of consumption of the expected future economic benefits embodied in the asset and is applied consistently from period to period, unless there is a change in the expected pattern of consumption of those future economic benefits.

98A A method that reflects a pattern of generation of the expected future economic benefits embodied in the asset rather than a pattern of consumption is not considered to be an appropriate method of amortisation because it does not reflect the way in which the asset is being used up.

#### Transitional provisions and effective date

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133 *Improvements to IFRSs* issued in [date] added paragraph 98A. An entity shall apply this amendment prospectively for annual periods beginning on or after [date]. Earlier application is permitted.



## **Basis for Conclusions on proposed amendments to IAS 38 *Intangible Assets***

*This Basis for Conclusions accompanies, but is not part of, the proposed amendments.*

### **Amortisation period and amortisation method**

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- BC1 The Board considered whether it would be appropriate for intangible assets to be amortised using a revenue-based depreciation method (ie one that is derived from an interaction between quantity and price and that takes into account the actual revenue to projected revenue ratio as the depreciation basis) to allocate the depreciable amount of an asset. Paragraph 97 states that “the amortisation method used shall reflect the pattern in which the asset’s future economic benefits are expected to be consumed by the entity”. The Board proposes that revenue-based methods should not be permitted because they reflect a pattern of generation of economic benefits from the asset rather than the consumption of economic benefits of the asset. In addition, paragraph 89 states that “the accounting for an intangible asset is based on its useful life” and paragraph 90 mentions several factors that could be considered in determining the useful life of an intangible asset, among others “the expected usage of an asset” in accordance with paragraph 90(a). The Board noted that that a revenue-based approach results in a charge that is based on the asset’s productivity, which might not necessarily coincide with the way in which an asset is being used up.