Office of the Director of
Telecommunications
Regulation

Costing Methodologies
for use in
Accounting Separation

Decision Notice 8/99

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Consultation Report

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1. Introduction

The Director of Telecommunications Regulation ("the Director") is responsible for the regulation of the Irish telecommunications sector in accordance with national and EU legislation. A key issue of importance to the sector is that of facilitating and sustaining effective competition. One of the key tools available to the Director in this area is that of Accounting Separation, whose primary purpose is to ensure that charges of a Significant Market Power operator ("SMP") are cost based, transparent and non-discriminatory. In May, the ODTR issued Decision Notice 5/99 (ODTR 99/35) on how accounting separation should be developed in Ireland.

In April, the ODTR issued a consultation paper (ODTR 99/26) on costing methodologies for use in accounting separation. This paper further developed the accounting separation process.

In this paper, the ODTR sets out the report on the Consultation process, together with the decisions the Director has made to date for the effective implementation of costing methodologies for use in accounting separation.

2. Background

Both EU and Irish legislation recognise that, in the interests of developing and sustaining competition in the telecommunications industry, new entrants to the market must have the facility to interconnect to the network of an incumbent operator. Under the legislation, a telecommunications industry operator providing fixed public telephone networks and designated as having SMP, is required to publish a Reference Interconnection Offer ("RIO"). The RIO must include a statement of the rates at which other licensed operators may interconnect to the SMP operator's network. To assist in ensuring that these rates fairly reflect the associated costs, the legislation also requires transparency in and access to the accounts of such organisations. This transparency/access mandate includes accounting separation[1]. This involves the separate identification of all elements of cost and revenue related to the various activities of the organisation, so helping to ensure transparency of internal cost transfers and discouraging cross-subsidisation between activities.

Directive 97/33/EC of the European Parliament and Council establishes the legal and regulatory framework for the interconnection of telecommunications networks within the EU - a framework that includes a requirement for accounting separation. The provisions of the Directive are transposed into Irish law by Statutory Instrument No. 15 of 1998, signed by the Minister for Public Enterprise, which sets down the manner in which the Directive's principles are to apply in Ireland. Finally, EU Commission Recommendation of 8 April 1998 provides detailed guidelines to National Regulatory Authorities (NRA) on accounting separation.

The Director is engaged in the development of accounting separation arrangements in the Irish telecommunications sector. To assist in this work, the Director invited submissions from interested parties on the matters referred to in the consultation paper 'Costing Methodologies for use in Accounting Separation' (ODTR 99/10). This paper represents the report and the decisions arising from that consultation.

2.1 Legislative Background

There is a range of relevant legislation in this area; the most relevant of which is summarised below:

Interconnection Legislation

- *Council Directive 97/33/EC on interconnection in Telecommunications with regard to ensuring universal service and interoperability through application of the principles of Open Network Provision (ONP), and*

- *The European Communities (Interconnection In Telecommunication) Regulations, 1998, SI No. 15 of 1998, transposing the above directive*

[1] The drawing up by the SMP Operator of accounts separated for its different business units and, specifically, separated between interconnection and other activities

This legislation states that organisations providing the public telecommunications networks and/or publicly available services that have been designated by the Director as having Significant Market Power, and which offer interconnection services to other organisations are required to keep separate accounts for their activities relating to interconnection and 'other activities'. These accounts should identify all elements of cost and revenue, 'with the basis of their calculation and the detailed attribution methods used, related to their interconnection activity including an itemised breakdown of fixed asset and structural costs.' It is likely that major subsidiary companies of an SMP Operator may be disaggregated within ' other activities'. The ODTR is currently completing its examination of this matter.

National regulatory authorities shall ensure that a description of the cost accounting system, showing the main categories under which costs are grouped and the rules used for the allocation of costs to interconnection, is made available on request.

NRAs 'may publish such information as would contribute to an open and competitive market, while taking account of considerations of commercial confidentiality.'

An organisation providing interconnection shall ensure that its cost accounting systems are suitable for implementation of the requirements of the legislation and are documented to a sufficient level of detail.

The Director shall verify that the cost accounting systems comply with the legislation and may direct the organisation concerned to carry out adjustments to its cost accounting system.

Voice Telephony Legislation

- *Council Directive 98/10/EC on the application of open network provision (ONP) to voice telephony and on universal service for telecommunications in a competitive environment, and*
- *European Communities (Voice Telephony and Universal Service) Regulations, 1999, SI No. 71 of 1999, transposing the above directive and Directive No. 97/33/EC*

This legislation states that an organisation, which has an obligation for its tariffs to follow the principle of cost orientation in accordance with the legislation, shall operate and maintain a cost accounting system based on generally accepted accounting practices and which is suitable for compliance with the legislation's requirements.

The Director may issue directions establishing standards for cost accounting systems required pursuant to this legislation and an organisation subject to this legislation shall comply with any such directions.

Leased Lines

- *Council Directive 92/44/EC on the application of open network provision to leased lines as amended by 94/439/EC and Directive 97/51/EC*

- *European Communities (Leased Lines) Regulations, 1998, SI No. 109 of 1998, transposing the above directive*

  This legislation states that tariffs for leased lines must follow the basic principles of cost orientation and transparency, and are independent of the type of application, which the users of the leased lines implement. A notified[2] organisation shall operate and maintain a cost accounting system suitable for the implementation of these and other principles set out in the legislation.

Licence Condition

- *Pro Forma General Telecommunications Licence (ODTR Document No. 98/50R)*
  Condition 15 of the General Telecommunications Licence applies to organisations that have been designated as having SMP in the fixed telephone network and services market. The condition provides, inter alia, that the licensee shall maintain accounting records in a form which enables the activities of any business unit specified in any direction given by the Director to be separately identifiable, and which the Director considers to be sufficient to show and explain the transactions of each of those business units.

European Commission Recommendations

In addition, the Commission has published recommendations on the pricing of interconnection as well as on costing methods that could be used to calculate such prices. The relevant documents are:

- *Commission Recommendation of 8 January 1998 on interconnection in a liberalised telecommunications market (as amended) – Part 1 Interconnection Pricing (98/195/EC as amended by 98/511/EC)*

  This Recommendation states that interconnect costs should be calculated on the basis of forward-looking long run average incremental costs since these costs closely approximate those of an efficient operator employing modern technology.

- *Commission Recommendation of 8 April 1998 on interconnection in a liberalised telecommunications market – Part 2 – Accounting separation and cost accounting) (98/322/EC)*

  This Recommendation (the "Commission Recommendation") concerns the implementation of accounting separation and cost accounting systems by operators designated by their NRA as having significant market power in accordance with Article 8(2) of Directive 97/33/EC for implementation of interconnection obligations, with particular regard to the principles of transparency and cost orientation.

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[2] An organisation directed by the Director to provide at any point within a specific geographic area, a type of leased line that is specified in Annex II, as amended by Article 1 of Commission Decision 94/439, of Council Directive 92/44.

3. Scope of the Consultation

The consultation sought the views of interested parties on the cost methodologies to be used by relevant SMP operators. In particular, it considered:-

- the publication and level of detail of the description of Telecom Éireann's costing system
- the principles to be used in the cost allocation process
- the method of allocating unattributable cost
- the use of sampling techniques in cost allocations
- the relevance of costs for regulatory decision making and their treatment
- allocation of costs[3], revenues and capital employed
- asset lives and depreciation
- current cost accounting

This document sets out the Director's decisions and also provides a report on the consultation process. It sets out the substantive issues raised in the responses. On some issues there was broad agreement amongst respondents, whereas on others different perspectives or analysis led to quite different views. This document provides an overview of the responses to each set of questions, identifying the arguments and evidence the Director considered most relevant in making her decisions about costing methodologies for use in accounting separation.

The Director would like to thank the organisations that responded to the Consultation Paper. Those comments have provided valuable input into the Director's consideration of the issues raised in the consultation and have facilitated the Director in reaching solutions that maximise the potential benefit to Irish telecommunications users.

Responses were received from the following:-

- ALTO
- OCEAN Communications Ltd
- Telecom Éireann ("TE")

3.1 Description of Telecom Éireann's Costing System

A description of TÉ's costing system, together with its costs drivers must be published by TÉ in accordance with EU Legislation. TÉ intends to publish this information with its published separated accounts. The consultation paper raised the issue of whether it may be appropriate for this information to be published prior to the publication of separated accounts to enable other operators to comment on the cost allocation procedures adopted.

[3] Both operating and capital.

In its response TÉ supported the aim of the ODTR to establish transparency and non-discrimination, so as to foster effective competition in the Irish telecommunications market. TÉ stated its commitment to producing separated accounts based on the use of a robust methodology using valid costing principles and regulatory guidelines. An external party will audit these separated accounts. TÉ has committed to providing the ODTR with audited separated accounts for review by the end of August 1999, with publication of same by the end of September 1999. As a result, it believes it is not practical or reasonable for it to publish details of its costing methodology prior to presentation of the accounts to the ODTR, due to the short timescales involved..

One respondent believes that a detailed description of the costing methodology should be published prior to the publication of the separated accounts. They also believe it is important that not only the ODTR but also the rest of the industry has a description of the methodology, in order to aid the transparency and objectivity of the process.

In general, all respondents agreed with the publication of details of the costing methodology. It is the opinion of the Director that the details of the costing methodology should be made publicly available to interested parties before the publication of the separated accounts. However, given the limited time frame for producing audited separated accounts for the first time and the Director's desire not to delay the publication of these accounts, the Director has decided that the description of TÉ's costing system should be made available to interested parties when she receives it at the end of August. This will facilitate discussion on the methodology used and, subsequently, allow any valid concerns of the interested parties to be addressed in a constructive manner.

A number of valuable high level allocation principles have been established as detailed in the appendices to this document. In view of the short time frame before publication of the 1999 separated accounts, if Telecom Éireann wishes to adopt alternative allocation methods, they must notify the ODTR and gain approval for these alternative methods before 31st August 1999.

Decision 3.1

A description of TÉ's costing system, together with its costs drivers will be made available to interested parties when it has been presented to the ODTR at the end of August.

Telecom Éireann's cost, revenue and capital employed allocation principles should follow those high level principles as set out in the appendices attached. Alternative methods require prior approval by the ODTR before 31st August 1999.

3.2 Appropriate Level of Detail for Publication

The consultation paper sought views from the industry on the level of detail to be published in the description of the cost accounting system used to prepare the separated accounts.

One respondent believes that while accounting separation should ensure transparency and prevent cross subsidisation, it should not disclose commercially sensitive information that would allow competitors to gain a competitive advantage over the publishing organisation. It sees accounting separation being required only to the extent that it facilitates competition rather than as a method of publication of greater information from the publishing organisation.

Another respondent believes that the description should contain the following elements:-

- general principles;
- a detailed analysis of the hierarchy of costs being used;
- the allocation rules being used to identify revenue, costs and capital employed of each service and network component;
- a description of the transfer charging mechanism;
- information on how each individual cost category is treated;
- identification of any deviations from the accounting policies used in TÉ's statutory accounts.

The respondent sees this level of detail being necessary to enable a third party (other than TÉ and the ODTR) to form an independent view on whether the system is likely to produce fair and objective results for interconnection costs. They are of the opinion that a high level description will not satisfy operator's concerns over possible non-discrimination.

The Director believes that publication of details in relation to TÉ's costing system should be at a level of detail sufficient to allay any operator concerns over discrimination as well as to increase the transparency and assist in the understanding of the separated accounts. The nature and extent of accounting separation and the information that should be published on foot of such accounting separation has been previously considered in the Accounting Separation Consultation (ODTR 99/10[4]), after which a Decision notice (ODTR 99/35) and some additional consultative questions were published in May. The publication of the costing methodology should not lead by itself to the disclosure of commercially sensitive information such as financial results, also as the methodology should adhere to generally accepted practice in the area of accounting and costing for which there is a large body of published information.

[4] Accounting separation and publication of financial information by telecommunications operators, Consultation Paper

Decision 3.2

The appropriate level of detail to be published in relation to Telecom Éireann's costing systems is to include the following:-

- **The cost standard being used (e.g. fully distributed costs, embedded direct costs, etc.) including the cost base(s) being used (e.g. historic costs, current costs, etc.);**
- **General Principles;**
- **A detailed analysis of the hierarchy of costs being used;**
- **The allocation and apportionment rules being used to identify revenue, costs and capital employed of each service and network component;**
- **Information on how each individual cost category is treated;**
- **Identification of any deviations from the accounting policies used in TÉ's statutory accounts.**
- **The degree to which sample data has been used in each of the apportionment bases. (This is discussed in Section 4.3)**

4. The Cost Allocation Process

4.1 Principles of Cost Allocation

This section of the consultation document sought views on the guiding principles that should be followed in order to allocate costs[5], capital employed and revenues (for convenience these shall be referred to as "Costs" in the rest of this paper) for the purposes of preparing separate accounts. These principles also have relevance for the determination of interconnection and leased line charges.

The consultative document outlined a number of possible principles:-

1) **Cost causation:** the costs, capital employed and revenue should be allocated to those services or products that cause those costs or revenues to arise;
2) **Transparency:** the operator should publish updated versions of its cost allocation methodology when changes are made to it.
3) **Consistency:** the same bases of allocation should preferably be used from year to year. Where there are changes made the operator should restate the previous year's separate accounts on the new bases.
4) **Materiality:** the use of specific allocation bases may not be necessary if the effect on the allocation is not material to the outcome. Of course, it may not be possible to measure the effect without adopting an alternative basis and, in cases of doubt, the most appropriate activity related cost apportionment basis should be used.

One respondent supports the adoption of the principles of:-

1) Transparency;
2) Materiality;
3) Consistency.

In addition, it believes that an additional principle of practicality should be followed, which would reflect the need in any costing system to undertake sampling analyses, and at times use prudent and unbiased estimates of costs and volumes in order to define a robust and comprehensive costing framework.

Another respondent considers that the principle of transparency may need strengthening, to incorporate publication of the costing methodology in sufficient detail to allow interested parties to form an opinion on the allocation process and that the separated accounts should also be audited against this methodology.

In addition, the respondent believes that the following principles should be included:-
Objectivity: This principle would involve requiring that allocation methods were not designed in a way to benefit any party and that this principle should be applied to the identification and treatment of costs to product, service, component, business or disaggregated business.
Priority: This would specify the order of priority in which the adopted principles should be applied (in the event that there is any inconsistency in application of the

[5] Both operating and capital related.

principles). The respondent believes that the overriding principle should be that of cost causation.

The level of detail of the information on the costing system to be published has been considered previously in this document. In Decision Notice 5/99[6] it is stated that:-

- The separated accounts shall be based on a transparent cost apportionment methodology.
- The separated accounts shall be subject to an audit, in accordance with the relevant rules of Irish legislation.

The Director believes that an audit of the separated accounts should involve auditing the statements against the published costing methodology and that the audit report should clearly state that the separated accounting statements have been prepared in a manner consistent with the information disclosed in the description of the costing system.

The Director considers the adoption of the principle of practicality as a guiding principle that should be used when allocating costs, to be inappropriate at this time. The Director favours practicality and simplicity but not the adoption of a principle that would promote the widespread use of estimates of costs and volumes, and could lead to increases in the level of costs to be apportioned on an arbitrary basis. The widespread use of simple estimates would be inappropriate in a robust costing methodology. The respondents to the consultation have stressed the need to have a robust detailed costing system, which is in accordance with accepted costing principles. The adoption of the principle of materiality should address concerns over the costing system becoming unnecessarily detailed for immaterial items. The use of samples is discussed later on in this document, and it is considered more appropriate for sampling to be a technique available for use when operating a costing system rather than a guiding principle of that costing system.

Therefore the allocation of costs shall be in accordance with the following principles:-

i) **Cost Causation:** revenue (including transfer charges), costs (including transfer charges), assets and liabilities shall be allocated to cost components, services and businesses or disaggregated businesses in accordance with the activities which cause the revenues to be earned or costs to be incurred or the assets to be acquired or liabilities to be incurred.
ii) **Materiality:** the use of specific allocation bases may not be necessary if the effect on the allocation is not material to the outcome. Of course, it may not be possible to measure the effect without adopting an alternative basis and, in cases of doubt, the most appropriate activity related cost apportionment basis should be used.
iii) **Objectivity:** the allocation bases shall be objective and not intended to benefit the SMP operator or any other operator, product, service, component, business or disaggregated business.
iv) **Consistency:** the same bases of allocation should preferably be used from year to year. Where there are changes made the operator should restate the previous year's separate accounts on the new bases.

[6] Accounting Separation and Publication of Financial Information for Telecommunications Operators

v) **Transparency:** the operator should publish updated versions of its cost allocation methodology when changes are made to it. The audit report on the separated accounts shall state that the accounts have been based on information, which has been prepared in accordance with the costing methodology documents published with the accounting separation statements.

Decision 4.1

Allocation of costs, capital employed and revenue will be done in accordance with the principles of cost causation, materiality, objectivity, consistency and transparency, as described above. The audit report shall state that the separated accounts have been prepared in accordance with the costing methodology documents published with the accounting separation statements.

4.2 Cost Categories

Following the principle of cost causation, each item of cost and revenue should be allocated to the products and services provided by an operator. In the case of revenue most, if not all, revenues can be allocated directly to their related products or services. However, this is not the case for costs due to the relatively high proportion of the costs that are shared between different products and services. Each cost item may be considered to fall into one of the following categories:-

a) Direct and directly attributable costs[7]

b) Indirectly attributable costs[8]

c) Unattributable costs

Unattributable costs are those costs for which no direct or indirect method of apportionment can be identified. It is therefore not possible to allocate these costs to products and services on a non-arbitrary basis. These costs are likely to be of the character of 'corporate overheads'.

The consultation paper sought opinions on an appropriate method for allocating unattributable costs and mentioned two different methods Ramsey pricing and the Attributable Cost Method \ Equal Proportionate Mark-Ups ("EPMUs").

One respondent believes that unattributable costs must necessarily be allocated on an arbitrary basis, and see the key concern as being to ensure that such allocations are transparent, consistent, reasonable and unbiased.

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[7] Direct costs are those costs that can be directly and unambiguously related to a service or product and which are recorded against the relevant product or service in the operator's accounting system.

[8] Indirectly attributable costs are those costs that can be related to a service or product on a non-arbitrary basis based on the relationship of the costs to direct and directly attributable costs.

Another respondent considered that if unattributable costs are to be recovered in a general way, this should be done by some form of Equal Proportionate Mark Up, but that the key consideration is to find rational allocation bases for as much of the cost base as possible, and thereby minimise the amount of such unattributable costs. They also believed that the cost base for an EPMU approach, where used, should be carefully defined.

The Director agrees that the EPMUs method is an appropriate basis for allocating unattributable costs to products and services, and that as stated in the consultation document the rigorous application of cost causation methods may be expected to reduce substantially the proportion of costs that are truly unattributable. Unattributable costs should be clearly identified in a specific account in compliance with the principles of transparency and proportionality as outlined in the Commission Recommendation.

Decision 4.2

Unattributable costs should be allocated to products and services using an Equal Proportionate Mark-Ups method.

4.3 Sampling Techniques

Telecommunications operators may need to use sampling techniques and periodic activity reviews in order to allocate costs to the services that the operators provide and, subsequently to the businesses defined for the purposes of accounting separation. The most accurate sampling data will come from surveying the entire population of interest. However, limited resources may prevent entire populations being used for such allocations, and an operator may have to base its allocations on samples of the entire population.

The consultation paper sought views on whether some costs may have to be allocated to products and services based on sample data.

Two replies were received to this question, both agreeing that some costs may have to be allocated using sample data.

One respondent believed that in many instances, specific, well-specified sampling procedures would generate more accurate and robust data than through analysis and manipulation of existing engineering and costing data that has not been specifically designed to identify the relevant costs.

Another respondent's opinion is that comprehensive actual data should be used wherever possible, especially for product volumes, and that every attempt should be made to keep the usage of sample data to a minimum, subject to practical constraints. Their preference is firstly for direct allocation of costs wherever possible, secondly, for the allocation of indirect costs using actual data for the entire accounting period, and finally, the allocation of indirect costs which have no comprehensive allocation base. This respondent believes that it would increase transparency of the costing methodology to understand the extent of sampling within each of the apportionment bases.

The Director believes that sample data may be used for allocating indirect costs that have no comprehensive allocation base, but that a sufficiently detailed breakdown of costs should minimise the amount of costs that fall within this category. Sampling should be used only in circumstances where full year actual data is not available.

Decision 4.3

Sampling data may be used to allocate certain indirect costs, which have no comprehensive allocation base, to products and services. The use of sample data shall be kept to a minimum. The degree to which sample data has been used in each of the apportionment bases shall be disclosed in the description of the costing methodology.

Guiding Principles for Deriving Sample Data

The consultation document sought views on what guiding principles should be used when deriving sample data.

One respondent believes that, to ensure robustness, studies should be based upon representative and statistically significant samples. In addition, such samples should be updated annually and should be designed to reflect the practical and resource constraints related to significant data-gathering exercises.

Another respondent agreed with the consultation paper that samples need to be chosen so as to avoid distortion due to seasonal factors, or general changes that are taking place over time. They believe samples sizes should be assessed in a statistical way, and the results of allocations should be audited against this criterion and the cost allocation principles (especially the principle of objectivity).

Sample data is used in situations where full year actual data is not available or where it is not practicable to use the actual data for a full year. Bearing this in mind the Director does not consider it appropriate that the design of the sample should reduce the robustness of the sample data gathered, due to constraints in gathering data. This is because the sample data is used in the first place to overcome any impracticalities and resource constraints involved in using the actual data for the year in question.

The Director considers that key principles should be set out for the use of sample data for allocation purposes.

Decision 4.4

The principles governing the use of sample data are the following:-

- **it is unbiased\objective;**

- **the sample size has been assessed in a statistical manner and is statistically significant;**
- **representative of the entire population;**
- **is not skewed by seasonal or other factors;**
- **it is based on either generally accepted statistical techniques or other methods, which should result in the accurate allocation of revenue (including transfer charges), costs (including transfer charges), assets and liabilities; and**
- **be updated annually.**

4.4 Relevant Costs for Regulatory Decisions

Regulatory decision making is based on a combination of financial analysis and non-financial information. Financial analysis involves the preparation of relevant costs, which can be defined as costs arising as a direct consequence of the current decision to provide a specific product/service. While certain costs published under accounting separation may be allocated to business areas as part of the costing/pricing methodology, they may not be relevant in making certain decisions. The consultation document sought opinions from interested parties on what costs and elements of capital may not be relevant for regulatory decision purposes.

One respondent believes that all costs and elements of capital employed (including those amounts related to transfer charges) are relevant for the purposes of regulatory decision-making, and that the focus of regulation should be to mimic the characteristics of a competitive environment by ensuring that prices are cost-based, including a reasonable rate of return on capital employed. They believe that this implies that all capital and operating costs should be included in an accounting separation system but these costs should be apportioned appropriately, consistently and in an unbiased manner to services.

Another respondent believes that each item of cost should be judged on its own merits and also assessed as to its competitive effect. They believe it would be inappropriate for new entrants to be saddled with costs that relate to decisions or actions that were taken when an operator was a monopoly, if such costs are judged to have an adverse effect on competition, or sends the wrong economic signals to the market. They believe the following costs may not be appropriate:-
- corporate re-structuring charges;
- costs of excessive cash balances;
- costs related to inflated asset valuations;
- costs of artificially short asset lives;
- “blue sky” R&D;
- interest payments on long term creditors.

This respondent considers it necessary for the ODTR to decide which costs are legitimate for interconnection charges.

The Director notes that this section relates particularly to issues on interconnection pricing. Costs such as R&D amortisation, reorganisation provisions, asset revaluation, etc. may not reflect the long run trend in the organisation and hence may create short term distortions which impact on pricing decisions. Also, the costs incurred by an operator may be based on decisions (historic or current) that are not in line with the characteristics of a competitive environment, or are for the benefit of certain operating segments of the organisation. The Director believes that charges for interconnection services should be set to cover the fully justified costs of conveyance (including a contribution to relevant overheads and a return on capital employed) on this basis.

Decision 4.5

Non relevant costs shall be excluded when determining charges for services and these will be judged on a case by case basis.

Treatment of Non-Relevant Costs

One respondent considers that it is best to treat costs excluded for regulatory decision purposes as reconciling items to the accounting separation statements. Otherwise there would be a distortion of the results of one or more of the reported businesses. They also believe that the ODTR should take the lead role in deciding the treatment, and the level of disclosure, which should be done in advance of the production of Accounting Separation statements, and in time for the audit to take such decisions into account.

Another respondent considers it necessary that in order to enable reconciliation to the statutory accounts, all costs and elements of capital employed should be included in the accounting separation statements.

The Director appreciates that the actual treatment of non-relevant costs for regulatory decision purposes is important for accounting separation. She is of the view that non-relevant costs for regulatory decision purposes should be disclosed as reconciling items. She believes this to be the best approach as it is transparent, avoids further re-allocation of costs, and will enable easy reconciliation to the statutory accounts. However, due to the fact that the separated accounts will not be presented to the ODTR until the end of August and that the publication date for these is at the end of September, it may not be possible to publish the statement reconciling the costs considered for regulatory decisions purposes as part of the accounting separation statements for this first year of the separated accounts.

Decision 4.6

Non-relevant costs for regulatory decision purposes should be disclosed as reconciling items after the 1999/2000 separated accounts.

5. Operating Cost Allocation

This section of the consultation paper considered the application of the principles described in Section 4 to the operating costs, including depreciation, of operators.

Appendix III of the consultation document provided a summary of possible allocation and attribution methods for operating costs under the following headings:
- depreciation,
- provision, installation and maintenance costs,
- network planning and development costs,
- network management costs,
- marketing and sales costs,
- billing and collection costs,
- operator services costs,
- directory services costs,
- payments to other operators, and
- support costs.

The table of allocation and attribution methods was from the Commission Recommendation. Individual operators need to develop cost allocation procedures specific to the way in which they capture and record costs. These procedures would be refined over time as appropriate.

The respondents agreed that the recommendations were at a high level, and that individual operators need to develop appropriate detailed allocation bases and cost drivers for their own operations in order to develop a robust and comprehensive costing system. They believe that the recommendations provide a useful indication of cost allocation approaches.

One respondent believes that the framework and guiding principles for cost allocation should be specified by the ODTR after this consultation with interested parties, with the detailed allocation and apportionment methodologies to be identified by TÉ. Such an approach they feel ensures transparency, fairness and non-discrimination, whilst minimising the regulatory burden and incorporating the appropriate degree of flexibility to allow the system to evolve and develop as products, services and technologies change.

Another respondent also believes that TÉ are best placed to develop appropriate detailed allocation methods, based on their own detailed knowledge of their business and financial data having regard to the cost allocation principles in the previous section. They see the table in Appendix III of the consultation document concentrating on how cost categories should be apportioned between the different main business areas of an operator, and this respondent believes it will be necessary to state in more detail the mechanisms for further allocating component costs to the various conveyance and non-switched services.

This respondent also made a number of comments about items that should be addressed by the costing methodology. These are repeated below:-

- the allocation of network plant/components to services must be developed in appropriate detail as it is essential to the derivation of network conveyance charges;
- particular regard should be given to volume measurement, usage measurement, and other non-financial apportionment data used in arriving at such allocations.
- it is particularly important to be able to apportion between switched and non-switched services (e.g. the allocation of transmission costs between switched conveyance services, private circuit services, interconnect circuits and other services);
- some elements of support functions (e.g. personnel) may be closely associated with particular operational units (such as engineer work forces), whereas other elements are more in the nature of head office "support". The allocation approach should take account of organisational structure, and not simply treat each functional cost using a blanket methodology; and
- the apportionment of operating costs (e.g. support functions) in a complex organisation may often require several stages and iterations, for example personnel people support finance people, and vice-versa. The costing system can either try to model these complexities, or simplify by allocating functions in a pre-determined order. However, care will be needed to ensure this is modelled in an efficient way, whilst not resulting in material distortions.

The same respondent also suggested some changes to the table in Appendix III of the consultation document. These were as follows:-

- Operator Services and Directory services costs should be allocated to network components since these are interconnect services - this necessitates a transfer charge between network and retail to demonstrate non-discrimination with the corresponding retail services.
- Payments to Other Operators (both for outgoing international and interconnect) should be included initially in the Network account. This will enable the matching of revenues and costs, as not all such calls will originate on the TÉ network, and some will originate on other networks, the revenue for which would be allocated to the Network account. A transfer charge to retail would cover the proportion of such costs that relates to TÉ retail calls.
- Planning and Development – these costs are also incurred for developing new retail products as well as component / other plant and should therefore be allocated appropriately.

The Director has considered the above matters and concurs with the respondents views that the framework and top level allocation principles should be specified by the ODTR after this consultation with industry (this framework and principles are set out in the appendices to this document), and that the detailed allocation and apportionment methodologies within this framework should be identified by TÉ. This will allow TÉ the flexibility to develop their costing methodology as products, services and technologies change, as well as take account of the fact that TÉ are best placed to develop appropriate detailed allocation methods, based on their own detailed knowledge of their business and financial data having regard to the specified framework and guiding principles. Once TÉ has developed its detailed allocation and apportionment methodologies, the Director or a person engaged by the Director, shall review the cost accounting systems of TÉ and ensure they comply with the relevant legislation. The publication of the description of TÉ's costing system will be an important element in this approach, and the Director welcomes comments from interested parties on the costing system's methodology, after the publication of these documents, and may initiate further consultations if she deems it appropriate. Where necessary the Director may direct TÉ in accordance with the legislation, to carry out adjustments to its costing system.

The Director believes that this approach will ensure transparency, fairness and non-discrimination. The Director considers the suggested changes to the table in Appendix III of the consultation document to be appropriate and an amended table is included in Appendix II of this document.

Decision 5.1

TÉ will develop an appropriate costing methodology for its operations in accordance within the framework and principles set out in the appendices to this document (and as amended in the future by the Director) to be approved by the Director.

Additional Types of Operational Costs

The consultation document also sought views of interested parties on any additional types of operating costs that should be included in the table in Appendix III of the consultation document and their associated allocation methods.

One respondent believes that it may be worth considering the following as additional separate operating cost categories:-

- Systems Support - relating to the support functions for the provision and installation and maintenance functions – these costs are often more difficult to allocate on a time basis to particular plant or service, and a degree of apportionment may be necessary;
- Customer Service (multi-functional customer facing area covering order-taking, fault-reporting, bill queries etc.);
- Supplies - covering the purchasing, distribution, warehousing, and logistics activities;
- Transport - covering the pay and non-pay costs concerned with organising and maintaining the vehicle fleet;
- General Management;
- Redundancy;
- Other Operating Income;
- Short term interest payments;
- "Corporate" overheads (chairman's office, secretary's office, treasury function, etc.).

They believe the key point to be that all of its cost lines are analysed, with a view to understanding the causal cost driver, and that costs are separately analysed into sensible groupings which have different drivers (i.e. taking account of the principles of causation, materiality, objectivity, transparency and consistency).

The Director considers the suggested changes to the table in Appendix III of the consultation document to be appropriate and an amended table is included in Appendix II of this document. The heading of other operating income is not applicable to operating costs but to revenue. Other operating income should be matched with its relevant costs.

Decision 5.2

The operating costs allocation and attribution methods are outlined in Appendix II. They are at a high level and individual operators should develop cost allocation procedures specific to the way in which they currently capture and record costs, in line with these high level allocation principles (and as amended in the future by the Director).

6. Revenue Allocation

Generally the revenues from the provision of telephony products and services can be directly allocated to the products and services to which it relates based on accounting records and billing system information. In those instances where direct allocation based on the above is not possible, revenues should be attributed on the basis of causation.

The allocation of revenue from telephony services between the main business areas of an operator were summarised in Appendix IV of the consultation document and were from the Commission Recommendation. This table is reproduced in Appendix III of this document.

One respondent believes that all costs and capital must be included in the separated accounts, and so should all revenues. They believe this will ensure that:-

- any potential cross-subsidy can be identified;
- transparency is established in terms of ensuring services and cost-based and that business supporting ‘bottleneck’ services are not generating super-normal profits; and
- accurate business and service profitability analysis can be undertaken.

The Director believes that notwithstanding the actual approach used, the allocation of revenues and their associated costs should be consistent and match revenues\transfer charges with their related costs. Failure to do so would lead to the profits of one business area being understated and the profits of another overstated.

In accordance with the approach outlined in Section 5, the framework and top level principles for allocating revenue shall be specified by the ODTR after the consultation with industry (this framework and top level principles are set out in this document), and the detailed allocation and apportionment methodologies shall be identified by TÉ. Once TÉ has developed its detailed allocation and apportionment methodologies, the Director or a person engaged by the Director, shall review the cost accounting systems of TÉ and ensure they comply with the relevant legislation. The publication of the description of TÉ’s costing system will be an important element in this approach, and the Director welcomes comments from interested parties on the costing system’s methodology, after the publication of these documents, and may initiate further consultations if she deems it appropriate. Where necessary the Director may direct TÉ in accordance with the legislation, to carry out adjustments to its costing system.

Decision 6.1

TÉ will develop an appropriate revenue allocation methodology for its operations in accordance with the framework and high level principles set out in this document (and as amended in the future by the Director) to be approved by the Director.

7. Allocation of Capital Employed

Article 7(2) of the Interconnection Directive requires that charges for interconnection be cost-oriented, including a reasonable return on investment. The determinants of this return on capital employed ("ROCE") are:-

a) the cost of capital, and
b) a capital value (or capital employed).

In the ODTR document 99/16 'Telecom Éireann Reference Interconnect Offer' the Director welcomed comments on an appropriate approach to calculating the value to be used as the return percentage or cost of capital. This section of the consultation paper considered the application of the principles described in Section 4 to calculating the capital value.

7.1 Allocation of Capital Employed

The cost of capital must be applied to the capital employed in network components and other related assets in order to determine the return that needs to be recovered through interconnection charges. While it may be easy to identify the values of debt and equity for an operator as a whole, it is not easy to do so for each of its constituent activities. This is because decisions about debt finance are largely corporate decisions determined by a number of factors, such as historical borrowing facilities and tax planning considerations. Hence, the debt position of the corporation may not relate specifically to the funding requirements of individual activities.

Another way of determining the capital employed for activities (such as interconnection) is provided by the following balance sheet identity:-

Shareholders' funds (i.e. equity) + debt = net assets excluding debt[9]

This approach enables the capital employed in the various activities to be determined by apportioning net assets. This apportionment should be carried out on a causal basis.

Set out in Appendix IV of the consultation document was a table summarising possible allocation methods for the different items of capital employed, together with

[9] i.e. fixed assets + current assets – creditors(excluding debt) - provisions

an indication of the principal businesses to which it might be expected that the majority of each item would be allocated. These allocation methods are from the Commission Recommendation.

In the consultation document the Director sought opinions from interested parties on these high level allocation methods.

One respondent broadly agreed with the Commission's proposals for the allocation of capital employed. However, they see the recommendation as being relatively high-level and generic and, as such, regard a more-detailed and disaggregated analysis of drivers to be necessary in order to define a robust and comprehensive costing system.

Another respondent believes that the allocation methods described in Appendix IV of the consultation document are reasonable but they feel that the sections on debtors and creditors should be expanded. They believe that it should be possible to identify debtors and creditors to a greater degree of detail, than that suggested by the table, before applying the relevant apportionment drivers. They use as an example the method used by BT[10] when allocating\apportioning debtors and creditors:-

- "Debtors are analysed by type e.g. income debtors, payroll debtors) and sub-analysed where appropriate (e.g. by billing system) from information in the accounting records. At this stage the appropriate apportionment bases (e.g. relevant turnover, pay) are then applied."

- "Trade creditors are apportioned to activities and plant groups on the basis of total costs excluding pay and depreciation. Capital creditors are apportioned on the basis of the fixed asset additions. Payroll creditors are apportioned on the basis of total pay of the relevant units."

Following this approach they believe would minimise the need to use arbitrary drivers. The same respondent believes that the development of appropriate detailed allocation methods, reflecting the nature of the operator's assets, and applying the cost allocation principles, should be part of the development of a robust costing methodology. In particular, they see it as being important that the allocation of Network Plant / components to services is developed in appropriate detail and in a transparent way due to the importance of such items to the derivation of network conveyance charges for both interconnect and retail services. For example in the case of land and buildings, they see it as being important to distinguish between operational accommodation and office accommodation, so as to identify the appropriate treatment for each. They also believe that the valuation of capital employed should be done with care, in particular, for items that fluctuate (such as cash balances), and that a daily average balance may be appropriate, rather than taking the average balances at the start and end of the accounting period.

In accordance with the approach outlined in Section 5, the framework and high level principles for allocating capital employed shall be specified by the ODTR after the consultation with industry (the framework and guiding principles are set out in this document), and the detailed allocation and apportionment methodologies shall be

[10] Accounting Documents, BT, 13 November 1998.

identified by TÉ. Once TÉ has developed its detailed allocation and apportionment methodologies, the Director or a person engaged by the Director, shall review the cost accounting systems of TÉ and ensure they comply with the relevant legislation. The publication of the description of TÉ's costing system will be an important element in this approach, and the Director welcomes comments from interested parties on the costing system's methodology, after the publication of these documents, and may initiate further consultations if she deems it appropriate. Where necessary the Director may direct TÉ in accordance with the legislation, to carry out adjustments to its costing system.

The average capital employed in a period rather than capital employed at a single point in time (such as the financial year-end) shall be used for determining charges as the working capital balance of an activity at a single point in time may not be representative of average working capital requirements of that activity over an extended period of time.

The Director considers the suggested changes to the table in Appendix IV of the consultation document to be appropriate and an amended table is included in Appendix IV of this document.

Decision 7.1

TÉ will develop an appropriate costing methodology for its operations in accordance with the framework and principles set out in this document (and as amended in the future by the Director) to be approved by the Director.

7.2 Consistency of Treatment of Working Capital

Even though there may be different approaches to allocating capital employed the consultation paper suggested that there are two principles that should be applied when considering the treatment of individual items of working capital. They are as follows:-

a) there should be consistency between the treatment of assets and their associated costs and revenues, and

b) inclusion or exclusion of individual items ought, in principle, to have a corresponding impact on the return on capital employed. These two effects (i.e. the decision to include or exclude items and the corresponding adjustment to the return on capital employed) offset each other in terms of their overall effect on the absolute return required by operators.

One respondent was in agreement with the principle of consistency between the treatment of assets and their associated costs and revenues but believed that that all costs including a reasonable return on capital employed should be part of the cost calculation.

Another respondent believes the same principles should apply to fixed assets as to costs (i.e. causality, materiality, objectivity, transparency, consistency and priority), with consideration of whether each item is a relevant cost for regulatory decision purposes. In addition they also supported the principle that there should be consistency of treatment between assets and associated costs and revenues.

The Director believes that there may have been some misunderstanding on the part of the respondents. The second principle outlined above refers to the situation where taxation is not allocated as a cost in the costing system. The cost of taxation is accounted for by using a return on capital that is adjusted for the taxation effect. Also, the above principles were not intended to replace the principles that govern the allocation of costs, revenues and capital employed but to be in addition to them. The Director considers both of the above principles to be reasonable and relevant for governing the treatment of working capital.

Decision 7.2

The principles to be applied when considering the treatment of individual items of working capital are:

- **consistency between the treatment of assets and their associated costs and revenues**
- **inclusion or exclusion of individual items ought, in principle, to have a corresponding impact on the return on capital employed.**

7.3 Asset Lives

The determination of the useful economic lives of fixed assets in telecommunications is complicated by the rate of technological change in the industry. This has implications in both identifying suitable useful lives for old technology assets and ensuring the assets exhibit the same levels of functionality and capability.

Examples of technological issues for telecommunications operators include:
- Copper versus fibre cables;
- Analogue versus digital switches
- PDH transmission technology versus SDH transmission technology.

The new technologies are usually far superior to the old technologies in terms of functionality and efficiency. This needs to be reflected in the number of years over which these old and new technology assets are depreciated. It also has implications for fixed asset classes.

The consultation paper sought views from interested parties on what is an appropriate basis for depreciating assets, whether assets should be depreciated on a functional basis or a network element and component basis[11].

One respondent believes that assets should be depreciated on the basis of:-
1) the economic life of the asset in question; and
2) the estimated residual value of the asset.

and that the asset lives relevant in the context of the separated accounts must be consistent with those adopted in the preparation of the statutory accounts. This would reflect the fact that:-

a) irrespective of the method of accounting disclosure[12], the same asset would exhibit the same asset life, residual value and depreciation profile; and
b) that the accounting lives of assets should be regularly updated for the purposes of robust accounting disclosure and management accounting; the technical studies undertaken in order to ensure that asset lives are representative are equally valid for statutory and separated accounting disclosures.

This respondent also believes it is important that recognition is made of the need for interoperability between different components of the same asset. Where this is the case, even though the physical and / or technological lives of the different components may differ, they are linked by the need for interoperability and, as a consequence, may have a common asset life.

The same respondent is of the view that any form of benchmarking or comparative averaging is wholly inappropriate in determining asset lives, since the network structure and asset composition are unique to each operator and the Irish market. As a consequence, asset lives and depreciation profiles should be based upon operator - specific analyses, in order to ensure that accounting policies are relevant to the firm and the market. This is particularly true since asset lives are a function not only of estimated time to *physical* obsolescence, but also *technical* obsolescence, which occurs due to evolving market demand for newer and more advanced services. They see this as particularly true of the telecommunications industry, which is characterised by considerable technical and commercial innovation and development and, as such, asset lives should reflect not only the physical nature of the asset, but also the commercial and competitive characteristics specific to the telco and market in question. To this end, it is this operator's policy to review asset lives in each financial year to take account of:-

- technological changes;
- changes in product life cycles;
- the impact of competitive and regulatory influences; and
- asset lives adopted by other telecommunications operators.

Such reviews are performed in consultation with the technological experts of the operator.

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[11] Example of component and network element depreciation; the processor and line cards in a RCU could have different asset lives to each other even though they are part of the same asset class, while all user terminating equipment could have the same asset life.
[12] Assuming consistency in valuation methodology i.e. HCA or CCA.

Another respondent believes that for the purposes of producing HCA Accounting Separation statements, the asset lives and depreciation policies used should be those used in the published financial accounts, subject of course to audit scrutiny. They see the issue of asset lives (and valuation issues) as something that should be addressed in the context of developing CCA and LRIC costs and that any deviation from the policies used for the financial accounts may increase the scope for an operator to make strategic choices at the expense of other operators. They feel that the actual depreciation method is only one factor of importance in deciding the treatment. Other factors being the initial identification and valuation of the assets, and particularly the apportionment method used to allocate the assets over components and thence to services. Compared to these factors, they view the choice of depreciation method to be secondary. The subdivision of assets (and indeed of costs) they feel will need to be done by taking into account the cost allocation principles. However, this respondent considers that it is natural that assets which have different functions (e.g. switching versus transmission), different locations or positions in the network (e.g. local versus main exchanges) and different technologies, may have significantly different apportionment drivers and if this is not captured by the costing methodology the principle of causality would be contravened, and the principle of consistency would also be jeopardised (as asset mix may be changing over time).

The Director has considered the views of the respondents above and believes that asset lives should be set on the basis of a network element and component basis[13]. The adoption of this basis will enable sufficient detail to be recorded in the costing system so that different apportionment methods can be used to allocate costs of the assets over components and thence to services based on the different cost structure and drivers of the elements and their components. This is also in line with the principle of cost causation. The use of this method does not preclude the use of one asset life for an entire asset where it can be shown that the cost drivers, and hence the apportionment of the costs, of the components of this asset are the same, and where the asset life of one component effectively sets the asset life of the entire asset.

Adopting a basis of depreciating assets on a functional basis (e.g. All switches have the same asset life) would not take account of the fact that different asset components (e.g. line cards) may wear out or become obsolescent before the entire asset and may be replaced by newer technology or components. The issue of using different technology in the same network element is considered below. The Director believes that the life of the assets should be reviewed on a yearly basis. A comprehensive yearly review will ensure that there are no sudden or large changes in asset lives except due to major technological or economic change.

The Director believes that the benchmarking of the asset lives used by an operator with those used by other international and local operators, is a useful tool for highlighting differences in lives that may require investigation. The existence of a difference does not by itself suggest that there is an anomaly in the asset life used, as these differences may be due to legitimate differences between operators and the environments they operate in. Similarly, the non-existence of a difference does not by itself suggest there is no anomaly present. The asset lives used should be based on

[13] Example of component and network element depreciation; the processor and line cards in a RCU could have different asset lives to each other even though they are part of the same asset class, while all user terminating equipment could have the same asset life.

detailed technical and economic information. In the absence of this information, benchmarking may be the only reasonable solution to determining appropriate asset lives, while taking account of any differences in environment.

The Director believes that the asset lives used in the accounting separation statements based on historical costs should be the same as those used in the statutory accounts, this will facilitate reconciliation of both, and follow the principle of consistency. Given the possibility that assets lives could be artificially short, or based on decisions that are not in line with the characteristics of a competitive environment (and thus may distort the long run trend of costs in the organisation), the Director believes that charges for interconnection services should be set to cover the fully justified costs of conveyance (including a contribution to relevant overheads and a return on capital employed), and may be adjusted for inappropriate asset lives, when regulatory decisions are being made based on historical costs. The assets lives to be used for Current Cost accounting and LRIC shall be determined as part of the development of LRIC charges.

Decision 7.3

Asset lives should be set on the basis of a network element and component basis and should be thoroughly reviewed on a yearly basis. The assets lives used in the statutory accounts should also be used in the separated accounts. The Director may adjust for inappropriate asset lives, when regulatory decisions are being made based on historical costs.

Accounting for Differences in Technology

The consultation document sought views on whether there should be different asset lives used where the same network elements and components are of a different technology[14].

One respondent believes that assets lives should reflect the economic life of the asset, and as a consequence, it is likely that assets based upon different technologies or exhibiting differing degrees of functionality would be assigned different asset lives.

Another respondent believes that the important thing is that assets are differentiated by technology on the grounds that they have different apportionment drivers to services and that this is of as much importance in getting the costs of interconnect and retail conveyance services right as the choice of depreciation lives. However, this respondent would expect that assets that perform a particular function but have different technologies might have different lives.

The Director believes that differences in the technology used in an asset would lead to a difference in the asset life. Also, where two assets are similar but use different technologies the principle of cost causation would require that have would also

[14] Transmission links could be composed of copper, co-axial or fibre cable. They could also be radio transmission links.

different apportionment drivers. The principle of cost causation has been previously considered in this document.

Decision 7.4

Different asset lives should be calculated for similar assets based on different technology.

Year of Acquisition

The consultation paper sought the opinions of interested parties on how the depreciation on assets should be treated in the year of acquisition.

Both respondents believed that the treatment should be consistent with the treatment in the published financial statements of the operator. One of the respondents believes that this issue, and the treatment of depreciation on assets in the year of disposal, as well as depreciation on assets in the course of construction do not have a significant impact compared with the issues of asset identification and valuation, cost allocation method, and choice of depreciation life.

The Director has considered the above views and believes that the treatment should be that as adopted in the published financial statements, this approach would be in line with the principle of consistency and would enable reconciliation of the separated accounts and the published financial statements. The Director may adjust for depreciation in the year of acquisition, when regulatory decisions are being made.

Decision 7.5

In the year of acquisition the depreciation of assets shall be in accordance with the policies adopted in the statutory accounts.

Year of Disposal

The consultation paper sought the opinions of interested parties on how the depreciation on assets should be treated in the year of acquisition.

Both respondents believed that the treatment should be consistent with the treatment in the published financial statements of the operator.

The Director has considered the above views and believes that the treatment should be that as adopted in the published financial statements, this approach would be in line with the principle of consistency and would enable reconciliation of the separated accounts and the published financial statements.

Decision 7.6

In the year of disposal the depreciation of assets shall be in accordance with the policies adopted in the statutory accounts.

Changes in Asset Lives

The consultation paper sought opinions of interested parties on how excess depreciation should be accounted for where a change in asset life occurs. This excess depreciation arises from the write off of assets older than the revised asset life and a charge to bring other assets into alignment with the new depreciation policy.

One respondent believes that all excess depreciation arising as a result of a change in asset life should be charged in the year it is incurred. They believe that this reflects the true value of the asset to the company and is in line with accepted accounting policies.

Another respondent is of the opinion that changes in asset may need to be questioned, to assess the reasons for this change, and whether there are sound economic reasons for the change, as well as to examine the effect on network and interconnect charges. They believe that an operator should not have unlimited flexibility to change asset lives in a way that could distort competition, or favour its own retail business relative to interconnecting operators. To the extent that such decisions are correcting previous decisions or actions in the past, other new entrant operators should not pay for this.

The Director believes that changes in asset lives that have a major impact on costs should be thoroughly reviewed and investigated. This review would involve assessing the technical and economic reasons for this change, as well as to examine the effect on network and interconnect charges. A thorough yearly review of asset lives, as mentioned previously, should lessen the instances where a change in an asset life has a large material on the results of the period.

The Director believes that the treatment of excess depreciation in the accounting separation statements based on historical costs should be the same as that used in the statutory accounts, as this will facilitate the reconciliation of both, and follow the principle of consistency.

The Director believes that the treatment of material amounts of excess depreciation, would need to be analysed in detail when making decisions in relation to interconnection, and the effect it has on prices in the short and long run should be also considered, as well as the consideration of what parties benefited from the previously lower costs. It is expected that, with a thorough detailed review of asset lives on a yearly basis, that excess depreciation arising from changes in asset lives should be a relatively small amount. The Director may adjust for excess depreciation, when regulatory decisions are being made.

Decision 7.7

The treatment of excess depreciation shall be in accordance with the policies adopted in the statutory accounts.

Depreciation of Assets in the Course of Construction

The consultation paper sought the opinions of interested parties on the treatment of depreciation on assets in the course of construction.

One respondent believes that assets should be depreciated from the point at which the asset achieves revenue-generating status but that there is a need to be able to independently employ and separately identify the asset in question.

Another respondent believes that the treatment should be that as adopted in the published financial accounts.

The Director has considered the above views and believes that the treatment should be that as adopted in the published financial statements, this approach would be in line with the principle of consistency and would enable reconciliation of the separated accounts and the published financial statements.

Decision 7.8

Assets in the course of construction shall be depreciated on the same basis as that adopted in the statutory accounts.

8. Current Cost Accounting

The Commission Recommendation recommends that interconnection charges should be calculated on the basis of forward looking long run average incremental costs (“LRAIC”). The use of LRAIC[15] implies a cost accounting system using activity-based allocation of current costs rather than historic costs. The transition to LRIC[16] from fully allocated historical costs as the basis for determining interconnection charges would require assets to be valued at their market value (or current cost), and hence depreciation and capital employed would be on a current cost basis.

The use of current cost information is therefore a key aspect in helping to determine appropriate interconnection charges.

Current Cost Accounting (“CCA”) is a methodology originally devised for financial reporting in times of rapidly changing prices where traditional Historical Cost Accounting (“HCA”) was considered inadequate. Telecommunications is an industry that experiences a rapid rate of technological change. The new technologies are usually far superior to the old technologies in terms of functionality and efficiency and may have different cost structures.

The consultation paper sought views from interested parties on the appropriate capital maintenance concept to use when preparing current cost information. That is, the manner in which the capital of the company is viewed when determining profit.

There are two alternative approaches to CCA. The approaches differ in their approach to ‘capital maintenance’. Capital can either be viewed in operational terms (i.e. as the company's capacity to produce goods and services) or in financial terms (i.e. as the value of shareholder's equity interest). These are known as operating capital maintenance and financial capital maintenance concepts respectively:

- operating capital maintenance (“OCM”) considers the operating capability of the company. Proponents of OCM assert that capital maintenance under this approach requires the company to have as much operating capability - or productive capacity - at the end of the period as at the beginning[17],

- financial capital maintenance (“FCM”) considers the financial capital of the company is maintained in current price terms. Capital is assumed to be maintained if shareholders' funds at the end of the period are maintained in real terms at the same level as at the beginning of the period[18].

The consultation paper proposed the use of the FCM approach.

Both respondents supported the use of the FCM approach.

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[15] Long Run Average Interconnection Costs (LRAIC): The term used by the European Commission to describe LRIC with the increment defined as the total service.
[16] Long Run Incremental Costs (LRIC): The incremental costs that would arise in the long run with a defined increment to demand.
[17] In efficient terms and in a long run approach.
[18] For the capital as employed by an efficient operator.

Decision 8.1

The financial capital maintenance approach will be used when calculating current cost information.

Another key element of the current cost methodology is the valuation of assets. The consultation paper proposed using the Net Replacement Cost[19] valuation method as the methodology for valuing assets on a current cost basis. Using this approach may necessitate calculating a Modern Equivalent Asset[20] ("MEA") valuation for those assets that can no longer be simply replaced.

Both respondents supported the use of the Net Replacement Cost valuation method.

Decision 8.2

The Net Replacement Cost valuation method shall be used when valuing assets on a current cost basis.

The consultation paper on Accounting Separation (ODTR 99/10[21]) asked questions regarding the nature and extent of such accounting separation and what information should be published. However, in their response to the paper (ODTR 99/10) a number of respondents had differing views on the appropriateness of preparing separate accounts on a CCA basis.

Some respondents believed that the accounting separation statements should not include current cost accounting adjustments. They believe that this is not appropriate as statutory, management and regulatory accounts are not prepared on this basis. They further stated that the major accountancy bodies abandoned this concept many years ago as being neither appropriate nor meaningful to the interpretation of financial statements.

Other respondents believed that developing CCA accounts and calculating interconnection charges from them would be a valuable interim measure while LRIC costs are developed.

The Director's stated in the Decision Notice on accounting separation (ODTR 99/35) that "while the overall timeframe for the development of a full CCA system may be long, as stated in ODTR 99/26, the Director is of the view that it would be possible to develop a CCA approach in a number of interim stages while taking into account any likely linkages between these stages. However, she believes that the real benefit of

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[19] This is the cost of replacing the asset with another asset of similar characteristics and age.
[20] The value of an asset with the same level of capacity and functionality as the existing asset.
[21] Accounting separation and publication of financial information by telecommunications operators, Consultation Paper

CCA lies in it's use for key decision making purposes e.g. interconnect pricing rather than for purely reporting purposes. She therefore proposes that the 1998/99 regulatory accounts do not require adjustment for CCA. For 1999/2000 onwards the Director notes that CCA values will be available from Telecom Éireann's work on it's Top Down LRIC model, and therefore requires CCA adjustments together with any adjustments in operating costs resulting from TE's top down model to be shown where appropriate in the regulatory accounts. This does not preclude her from adjusting for LRIC when approving interconnection charges."

One respondent to this consultation believes that the only CCA information that will be available is that on the Core Network and on those network elements that are shared with the core network.

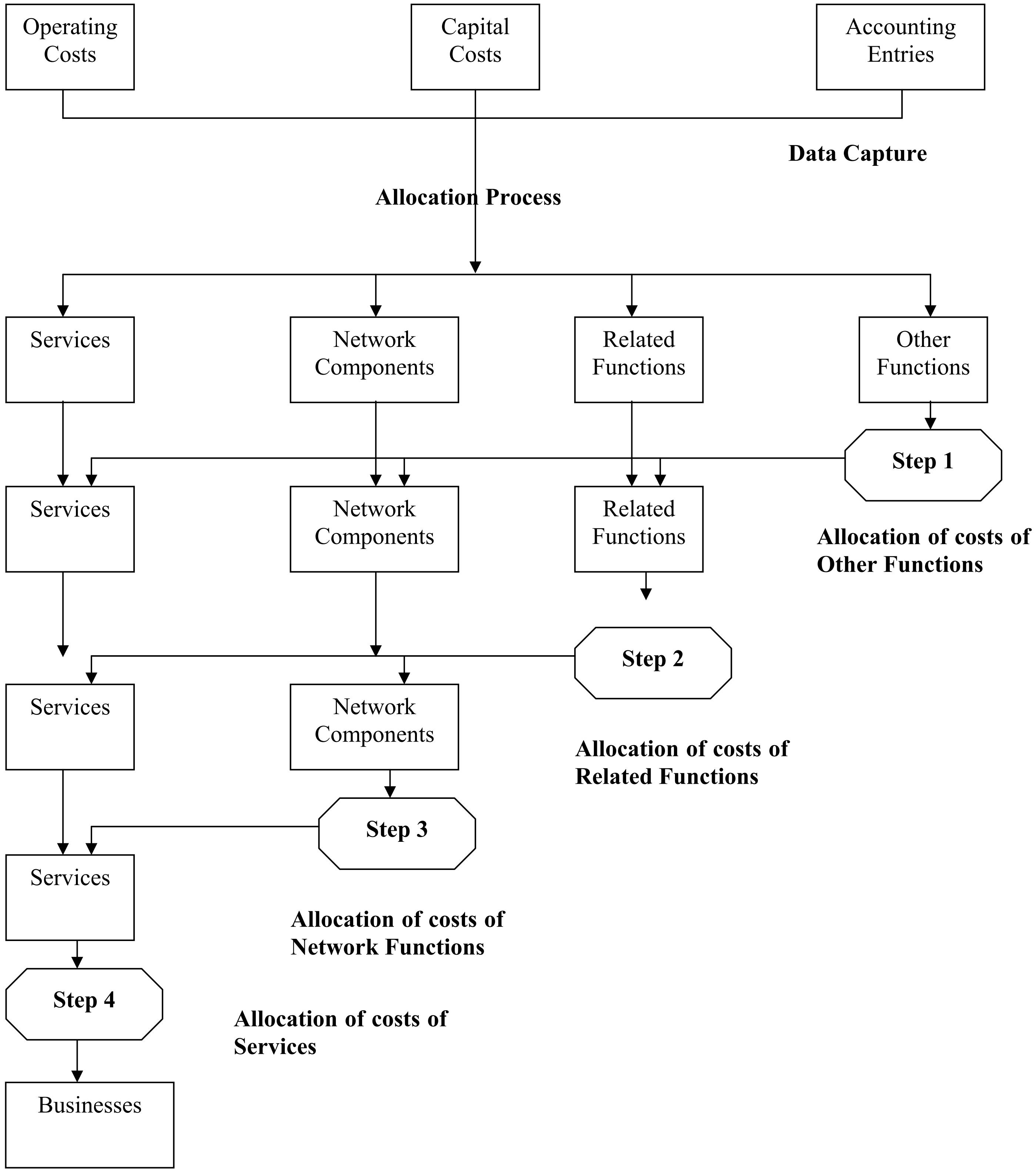
Another respondent supports the use of CCA accounts as an interim step to the production of LRIC costs and believes that statements will be needed in both formats for a while as the current information is on a historic basis. They believe it is necessary to have a functioning fully allocated historical cost accounting ("HCA") system of separated accounts before a useful set of CCA accounts can be created. However, they believe that CCA accounts provide a more appropriate basis for setting prices as they more nearly reflect the true economic value of the assets being employed to provide a particular service and that prices derived from CCA accounts will give better pricing signals to the market.

The Director believes that as current cost information becomes available, either from the calculation of LRIC rates or from other processes, that the separated accounts should be adjusted where appropriate for this information.

Decision 8.3

The separated accounts shall be adjusted for current cost information for the year 1999/2000 at a minimum for call origination, termination and transit. As additional information becomes available the accounts shall be adjusted accordingly.

Appendix I – A Typical Cost Allocation Process



The cost allocation process starts from information and data captured by the general ledger or other costing or financial systems operated by the company. The costing information held by these systems may be divided between operating costs, capital costs and accounting entries such as depreciation.

Costs may be attributed either directly to services or to cost pools called network components, related functions or other functions. These are defined as follows:

• Services	These are the costs that can be directly identified with a particular service. For these purposes, the term 'service` refers both to end-user services (e.g. the provision of payphones) and intermediate services (e.g. network services).
• Network Components	This pool contains the costs relating to the various components of transmission, switching and other network plant and systems. The costs will be in respect of network components that cannot be attributed directly to a particular service as they are utilised in the provision of a number of services.
• Related functions	This pool contains the costs of functions necessary for the provision of services to the customer such as billing, maintenance, and customer services.
• Other functions	This pool contains the costs of functions that are not related to the provision of particular services but are an important part of the operations of the company. Examples of such costs include planning, personnel and general finance.

As noted, there are a series of steps, which allocate cost pools in a tiered approach to eventually allocate costs to services. These step allocations are performed using appropriate drivers. Each step is summarised below:

Step 1	The allocation of other functions across related functions, network elements and services.
Step 2	The allocation of the related function costs to services and the network elements.
Step 3	The allocation of network components to services.
Step 4	The grouping of services into businesses (as defined for the purposes of accounting separation).

Each of the allocation steps illustrated above could involve a number of detailed sub-steps, particularly if the initial capture of cost information is at an aggregated level. Where it is possible to perform an allocation via a number of direct or indirect attributions this is preferable to allocation through a single step.

Appendix II – Methods of Allocating Operating Costs

Category of Operating cost	**Description**	**Method of Allocation**	**Principal Businesses**
Depreciation	Depreciation	The allocation of depreciation should follow the allocation of the fixed assets to which it relates.	All
Provision and installation of Equipment	Payroll costs	Direct to network components/other plant where possible; otherwise allocate based on the time spent carrying out installation work.	Core Network, Local Access-Network
	Installation, contract and maintenance costs	Direct to network components/other plant on the basis of the plant installed or maintained where possible.	Core Network, Local Access-Network
Maintenance and repair costs	Payroll costs	Direct to network component/other plant where possible; otherwise allocate based on the time spent carrying out installation work.	Core Network, Local Access-Network
	Other costs	Direct to network components/other plant where possible.	Core Network, Local Access-Network
Network planning and developments costs	Payroll and external costs	Direct to network component/other plant where possible.	Core Network, Local Access-Network
Retail planning and developments costs	*Payroll and external costs*	*Direct to product \ services where possible.*	*Retail*
Network management costs	Payroll costs	Allocate to network component/other plant on the basis of the time spent by staff to manage each type of plant.	Core Network, Local Access-Network
	Other costs	Allocate to network components/other plant on the basis of the plant managed, where possible.	Core Network, Local Access-Network

Category of Operating cost	Description	Method of Allocation	Principal Businesses
Marketing and sales costs	Payroll	Direct to products and services where possible; otherwise allocate between products based on labour time.	Retail
	Cost of sales of equipment	Allocate to customer equipment services within "Other activities".	Other Activities
	Publicity Promotions Market research Distributors fees Other costs	Direct to products and services where possible. Otherwise, for those costs where multiple services are being marketed or promoted, cost should be attributed to the related services on a reasonable basis.	Retail
Billing and collection costs	Payroll costs	Direct to products and services where possible; otherwise allocate between products based on labour time.	Retail (some costs to Core Network)
	Other billing costs (incl. Bad debts)	Direct to products and services where possible; otherwise allocate between products based on usage (e.g. number of bills produced).	Retail (some costs to Core Network)
Operator services costs	Payroll costs	Direct to services where possible. The costs of staff that carry out tasks for several operator services should be allocated to the related operator services based on time spent on different tasks.	*Core Network*
Directory services costs	Payroll and other costs	Direct to products and services.	*Core Network*
Payments to other operators	Out-payments for outgoing international traffic	Direct to products and services.	*Core Network*
	Payments for interconnection agreements	Direct to products and services.	*Core Network*

Category of Operating cost	**Description**	**Method of Allocation**	**Principal Businesses**
Support costs	Human resources function costs	HR function costs should be allocated to the staff that are overseen by the HR function and allocated using the same basis as the payroll costs of HR staff.	All
	Finance and other head office support functions	If related specifically to a product, service or business allocate accordingly.	All
	Building costs and rent	Costs should be allocated in the same, way as land and buildings.	All
	General computing/IT costs	Allocate to the applications run by the operator on the basis of the use of the computers to support each application. Costs allocated to applications can then be attributed to those products and services that they support.	All
Systems Support	*Costs of the support functions for the provision and installation and maintenance functions*	*Direct to network components/other plant or services where possible.*	*All*
Customer Services costs	*Costs of the multi-functional customer facing area covering order-taking, fault-reporting, bill queries etc.*	*Direct to network components/other plant or services where possible.*	*All*
Supplies	*Covering the purchasing, distribution, warehousing, and logistics activities*	*Direct to network components/other plant or services where possible.*	*All*
Transport	*Covering the pay and non-pay costs. concerned with organising and maintaining the vehicle fleet*	*Direct to network components/other plant or services where possible.*	*All*

Category of Operating cost	Description	Method of Allocation	Principal Businesses
General Management	*Covering the pay and non-pay costs. This category can be further sub-divided into:-* *General Management and administrative staff costs; and* *Corporate General Management*	*Direct to network components/other plant or services where possible.*	*All*
Redundancy		*Direct to network components/other plant or services where possible.*	*All*
Corporate overheads	*Chairman's office, secretary's office, treasury function.*		
Short term interest payments		*Direct to activities where a direct link can be established.*	*All*

Appendix III – Revenue Allocation

Connection charges	Charges for establishing new connections to the fixed telephone network (other than for establishing a point of interconnect) should be assigned to retail.
Customer line rental charges	Line rental charges should be assigned to retail.
Revenues from leased lines	Revenue from leased lines should be allocated to retail.
Revenues from line rental to other operators	Where provided to other market players, revenue from line rental of unbundled local loops should be assigned to local access network.
Access deficit contributions	In those Member States that operate access deficit schemes, access deficit contributions should be allocated to local access network.
Universal service contributions	In those Member States that operate schemes to finance universal service obligations, contributions from other operators should be allocated to retail.
Interconnection charges	Interconnection charges, including the one-off costs of establishing a point of interconnect and volume-related charges, should be allocated to core network.
Call charges	Revenue from call charges should be allocated to the appropriate service within the retail business.
Equipment rentals and sales	Revenue from the rental and sale of equipment such as telephones and facsimile machines should be allocated to the appropriate services within 'other activities`.
Revenue from advertising in directories	Revenue received from advertising in directories should be allocated to a directory services account in 'other activities`.
Engineering services/consultancy	Revenue from engineering services/consultancy other than for interconnection should be allocated to 'other activities`.

Appendix IV – Methods of Allocating Capital Employed

Category of assets and liabilities	Description	Method of Allocation	Principal Businesses
Tangible assets			
Primary Plant-			
Switching equipment	Local switching equipment	Direct to access or network components where possible. Otherwise allocate to Local Access-Network services and to network components on the basis of the relevant cost of the equipment dedicated to provide customer lines and of the parts dedicated to switch traffic, respectively. Local switch network components can be allocated to products and services based on seconds of use.	Core Network (some costs to Local Access-Network)
	Tandem switching equipment	Direct to network components where possible, otherwise allocate based on seconds of use.	Core Network
	International switching Equipment	Direct to network components where possible, otherwise allocate based on seconds of use.	Core Network
	Switching equipment for special services networks	Direct to core network components where appropriate/required by regulation or to the specific services provided by other networks - e.g. data transmission switching equipment should be allocated directly to data transmission services.	Core Network, Other activities
	Other switching equipment	Direct to network services where possible, otherwise allocate to other switching network components on the basis of the use of the equipment.	Core Network

Category of assets and liabilities	Description	Method of Allocation	Principal Businesses
Transmission equipment	Traffic-sensitive transmission Equipment	Direct to network components where possible, otherwise allocate based on the usage of circuits.	Core Network
Transmission equipment (contd.)	Cable and wire	Direct to access or network components where possible, otherwise allocate to components based on the amount of cable used to provide different services.	Local Access-Network, Core Network
	Local loop equipment	Direct to products where possible (e.g. separately identifiable ISDN access equipment), otherwise allocate between access services based on line usage.	Local Access-Network
	Radio and satellite equipment	Direct to network components where possible, otherwise allocate based on the usage of channels.	Core Network
	Transmission equipment for special services networks	Direct to the specific non-PSTN/non-ISDN services provided by the network - e.g. data transmission equipment directly allocated to data transmission services.	Core Network
	International/submarine cable	Direct to network components where possible, otherwise allocate based on usage.	Core Network
Other primary network assets	Special network plant	Plant and equipment that is used solely to provide one specific service should be allocated directly to the relevant services. Examples may include: Intelligent networks equipment; Data transmission equipment; Multimedia equipment.	Core Network Other activities
	Customer premises equipment	Direct to products and services.	Other activities
	Public payphones and related Equipment	Direct to service.	Retail

Category of assets and liabilities	Description	Method of Allocation	Principal Businesses
Support Plant	Ducting	Ducting can be allocated to the cable and wire that it supports and allocated to products in the same way as cable and wire.	Local Access-Network, Core Network
	Power equipment	Allocate to primary plant groups on the basis of the use of power equipment to support each plant- e.g. kilowatts per hour. Assets should then be allocated to products in the same way as the relevant primary plant groups.	Local Access-Network, Core Network
	Network management systems	Allocate to primary plant of the different networks provided on the basis of the use of the systems to support each plant - e.g. time spent to control local exchanges, tandem exchanges and international exchanges. Costs should be attributed to products and services in the same way as the related primary plant group.	Core Network
Non-network fixed assets	Land and buildings	Allocate to products, services and network components on the basis of the space occupied (i.e. floor space) to support each product, service or network component.	All
	General computers	Allocate to the applications run by the operator on the basis of the use of the computers to support each application. Costs allocated to applications can then be attributed to those products and services that they support.	All
	Motor vehicles	Allocate to the products and network components based on usage.	All
	Furniture and office equipment	Allocate to the products and network components based on usage.	All

Category of assets and liabilities	Description	Method of Allocation	Principal Businesses
Intangible fixed assets	Intangible fixed assets	Direct to products where possible. Any residual or unattributable assets will need to be allocated on an arbitrary basis, to be agreed with the NRA-	All
Working capital			
	Fixed asset investments:		
	Pure financial investments	Direct to "Other activities".	Other activities
	Investments in unrelated Activities	Direct to "Other activities".	Other activities
	Other investments	Direct to the services to which the investments are related, otherwise allocate based on usage.	All
	Short-term investments (including cash at bank and in hand)	Direct to businesses where possible, otherwise allocate based on the operational requirements of each business.	All
	Stocks	Stocks should be allocated directly to products and services.	All
	Debtors/receivables should be analysed by type and sub analysed where appropriate	*Allocated to products and services based on billing system information where possible. Unattributable balances will need to be allocated on an arbitrary basis, to be agreed with the NRA.*	*All*
	Other debtors/receivables analysed by type and sub analysed where appropriate	Other debtors/receivables should be apportioned to products and services if possible. Unattributable balances will need to be allocated on an arbitrary basis, to be agreed with the NRA.	All

Category of assets and liabilities	Description	Method of Allocation	Principal Businesses
	Creditors analysed by type.	*Creditors should be allocated directly to products and services if possible. Unattributable trade creditors will need to be allocated on an arbitrary basis, to be agreed with the NRA.*	*All*
	Long term provisions	Direct to the activities that give rise to the provisions in question,	All
	Liabilities for taxation and Dividends	No allocation required. Instead average liabilities should be taken into account when considering the operational cash requirements of each business (see "Short-term investments")	All