Office of the Director of
Telecommunications
Regulation

Significant Market Power in Telecommunications

Consultation Paper

Document No. ODTR 99/59

October 1999

Oifig an Stiúrthóra Rialála Teileachumarsáide
Office of the Director of Telecommunications Regulation
Abbey Court, Irish Life Centre, Lower Abbey Street, Dublin 1.
Telephone +353-1-804 9600 *Fax* +353-1-804 9680 *Web:*www.odtr.ie

Foreword by the Director

The telecommunications market in Europe has developed largely within the framework of State monopolies. Since the mid 1980s this framework has been dismantled and replaced with competition. However, such is the nature of the market that specific regulatory measures are required to ensure that the market is effectively open to new entrants and competition can develop. One of these regulatory measures is the designation of operators with Significant Market Power and the placing of ex-ante obligations on such operators to behave in certain ways.

Having consulted widely on the methodology to measure SMP, I made the first designation in October 1998. At that time I took note of the impending liberalisation of the Irish telecommunications market and the rapid pace of change in that market. Having reviewed the position one year on, I believe that there is a need for some modifications for the 1999 designation and these are set out for comment in this paper. I look forward to any comments on the methodology and we will then move rapidly to make the designations taking into account the information to be supplied by licencees in a questionnaire to be issued this week.

Over the last year, my Office has watched major changes happen in the Irish telecommunications market. We have monitored the implementation of the regulatory regime against that backdrop, and taken careful note of the comments and concerns of operators and other parties that are linked to the use of SMP in the regulatory regime.

One key matter that has arisen is the level of regulatory control exercised in the market and how that regulatory control is targeted. The designation of an operator as having SMP imposes certain obligations on such operators directly in law, and also in the licensing regime as is envisaged in relevant EU legislation. In this framework the regulator can take account of the weight of the incumbent operator and its synergies across key markets while at the same time, there is flexibility to give consideration to the different position of newer entrants to the market when assessing the regulatory controls that should or should not apply to them. The questions that are addressed in the latter parts of this consultation paper are how to use this tool to ensure that regulatory controls are effectively and appropriately applied and in what circumstances.

It is my belief that the second designation of SMP in the Irish market, and the further developments based on a fuller market analysis as described in the later stages of this consultation, are essential parts of the regulatory framework and will contribute to the ongoing development of competition in the Irish market.

Etain Doyle
Director of Telecommunications Regulation

1. Introduction

The Director of Telecommunications Regulation ("the Director") is responsible for the regulation of the Irish telecommunications sector. The greater part of this sector regulation is originated in the European Community legislation later transposed to national law.

The Open Network Provision (ONP) framework requires National Regulatory Authorities (NRAs) to designate certain operators as having Significant Market Power (SMP). Operators with SMP face additional obligations aimed, inter alia, at control of significant market power.[1] The Office of the Director of Telecommunications Regulation (ODTR) is the competent body in Ireland to make such designations and the Director is under obligations from both EU and national legislation to make notifications of those operators with SMP.

In October 1998, the ODTR (in Decision Notice D4/98) designated Telecom Éireann (now Eircom) as having SMP in the fixed, leased line, and interconnect markets. Eircell was designated as having SMP in the mobile market.

In D4/98 the Director signalled her intention to review the SMP notifications at regular intervals to take account of changes in competitive conditions. In setting out the ODTR's proposals for identifying operators who have SMP given this year's market conditions, this paper builds on last year's determination of SMP, proposing some modifications to the procedures and explaining the reasoning behind those proposals. It also highlights where modifications of the procedures may be needed in future years.

The Director's approach to determining operators with SMP in the Irish telecommunications market will initially follow the European Communities (Interconnection in Telecommunications) Regulations, 1998. Those regulations state that an organisation with a share of more than 25 per cent of a particular telecommunications market is to be designated as having SMP. Following this initial step, the Director may then carry out further analysis to evaluate an organization's market power where its market share is close to (above or below) 25% to determine SMP having regard to a range of criteria.

Most of this paper is concerned with the practical issues for the designation of SMP in 1999 which must be made before 1 December. In addition, some broader issues are raised. Responses to the questions posed on these issues will help speed up the making of any necessary changes to the licensing framework.

The Director has clearly stated her policy of light handed regulation and that regulatory controls should only be applied where they are appropriate and necessary. The determination of SMP and any further developments in the regulatory regime will therefore be designed to ensure effective competition in the Irish telecommunications sector and will be focused on markets which are considered to be uncompetitive and at players who have the potential to affect competition in those markets.

The ODTR now wishes to obtain the views of interested parties on the issues raised in this paper and invites interested parties to comment. The consultation period will run November from Wednesday 13th October to Tuesday 9th November 1999 during which the Director welcomes written comments on any of the issues raised in this paper. Please see section 6 for details on submitting comments on this paper.

[1] Condition 4.6 in the Annex to EU Directive 97/13/EC.

2. Background

2.1 The legislative background to SMP

2.1.1 Open network provision (ONP)

The ONP Directives contain obligations for Member States to identify the organisations that have significant market power for the purposes of implementing the relevant legislation, and to notify this information to the Commission.

The Commission may request a Member State to justify why an organisation has or has not been designated as having SMP, but the decisions as to which organisations have SMP under each directive rests with the national regulatory authority.

There is a range of obligations on operators with SMP under European directives and the corresponding regulations transposing them into Irish law. These obligations arise from:

- Council Directive 97/33/EC on Interconnection in Telecommunications (the "Interconnection Directive") as transposed by the European Communities (Interconnection in Telecommunications) Regulations, SI No. 15 of 1998 ("the Interconnection Regulations");
- Council Directive 98/10/EC on Voice Telephony and Universal Service for telecommunications in a competitive environment (the "Voice Telephony Directive") as transposed by the European Communities (Voice Telephony and Universal Service) Regulations, SI No. 71 of 1999 (the "Voice Telephony Regulations") and;
- Council Directive 97/51/EC (amending Council Directives 90/387/EEC and 92/44/EEC) on Leased Lines (the "Leased Lines Directive") as transposed by the European Communities (Leased Lines) Regulations, SI No. 109 of 1998 (the "Leased Lines Regulations").

The Interconnection Regulations are intended to limit any abuse of market power in the provision of network services by one operator to another. Therefore, it is primarily concerned with market power at the *network level*. In contrast, both the Leased Lines and the Voice Telephony Regulations are primarily concerned with limiting the possible abuse of market power at the *retail level*. In particular, these two Statutory Instruments try to ensure that key telecommunications services are generally available to customers on reasonable terms[2].

2.1.2 Relationship to EU competition law

While the ONP directives and EU competition law both employ the economic concept of market power, there are significant differences in the role of this concept under both bodies of law. This has consequences for the methods by which relevant markets are defined and how an organisation's position in a given market is evaluated.

The test for SMP in the ONP directives, which triggers specific obligations and is discussed at length in this paper, is based on a legally pre-defined set of markets. By contrast, the

[2] See appendix 1 for detail on the respective roles of each Directive.

assessment of market power in EU competition law is a necessary step before measuring the effects of particular actions on the nature and degree of competition between firms in a specific market context. The decisions of the EU Commission and the jurisprudence of the Community courts set out a broad methodology for defining markets in EU competition law cases. This methodology is applied on a case-by-case basis by the relevant authority enforcing the EU competition rules.

It should be noted that there are some direct links between the ONP directives and EU competition law[3]. The Director considers that some of the analytical approaches developed in EU competition law and policy can be helpful in assessing SMP. This consideration is discussed further in this paper.

2.2 Steps in the determination of SMP

The aforementioned Regulations establish a framework for the determination of operators with Significant Market Power in which:

- relevant markets are defined;
- the market share of each licenced operator within these markets is calculated;
- those operators with more than 25% market share are determined to have SMP, except insofar as the ODTR is allowed to take account of other relevant factors listed within the Regulations.

2.2.1 The relevant markets

Under the ONP rules the relevant market must be defined both in terms of the products and services that fall into it and in terms of its geographical extent. For the purposes of application of the ONP framework, relevant markets are defined by the specific national Regulations transposing EU directives. In contrast, relevant markets for the purposes of EU competition law enforcement are determined on a case-by-case basis according to economic principles, the result being that those products and services that are considered by customers and suppliers as being directly competing or substitutable products or services normally belong to the same relevant market.

The Interconnection Directive lists four markets:

1. *Fixed public telephone networks and services*
2. *Leased line services*
3. *Public mobile telephone networks and services*
4. *The national interconnection market*

A summary of the definitions for those markets as set out in the Interconnection Directive is provided in Appendix 2.

[3] For example, Condition 1 of the Annex to the Licensing Directive, specifies that "any conditions which are attached to authorizations must be consistent with the competition rules of the Treaty."

The Interconnection Directive as transposed by the Interconnection Regulations also determines the geographical extent of the relevant market to be the area over which operators are licensed. Since all current telecommunications licences issued in Ireland are national, the relevant markets for the purposes of the Interconnection Directive are therefore national.

The Voice Telephony and Leased Lines Directives as transposed by the Voice Telephony and Universal Service Regulations and the Leased Lines Regulations take a similar approach to geographic market definition. However, these Directives/Regulations are concerned with *retail* market power rather than *network* market power. Thus, they empower the ODTR to limit the geographical area in which some of the obligations on SMP operators apply, insofar as competition would be effective in ensuring that these obligations would be met anyway.

2.2.2 Measurement of market share

The aforementioned Regulations do not give any direction on what measurement parameters should be used to calculate market shares for the purposes of designating which organisations have SMP. The dynamic nature of the telecommunications market world-wide necessitates a flexible approach to the calculation of market share for the purposes of SMP.

2.2.3 Factors to be taken into account in making the determination

The Interconnection Regulations create a presumption that operators with a 25% share of the relevant market have significant market power. Regulation 5(1) provides that:

> *"[a]n organisation shall be designated by the Director as having significant market power when it has a share of more than 25% of a particular telecommunications market in the geographical area in the State within which it is authorized pursuant to the Act of 1983 to provide services".*

The Director is empowered by virtue of Regulation 5(2) of the Interconnection Regulations to determine how market share is to be measured for the purpose of those Regulations. Regulation 5(3) of the same Regulations provide that she has a discretion, when making a designation in relation to significant market power, to determine:

> *"that an organisation with a market share of less than 25% in the relevant market has significant market power and any such organisation shall be designated by the Director as having significant market power for the purposes of these Regulations.*
>
> *Or*
>
> *that an organisation having a market share of more than 25% in the relevant market has not significant market power"*

Regulation 5 of the Leased Lines Regulations contains a provision similar to Regulation 5(3) of the Interconnection Regulations.

Regulation 6 of the Interconnection Regulations lists the factors that the Director is obliged to take into consideration when making any determination under Regulation 5 of the Interconnection Regulations. These are:

- the turnover of the organisations concerned;
- the control exercised or capable of being exercised by the organisations concerned of the means of access to users;
- the access to financial resources of the organisations concerned;
- the experience of the organisations concerned in providing products and services in the market

Regulation 5(7) of the Interconnection Regulations provides that “market power” includes the ability of the organisation concerned to influence market conditions, while Regulation 5 of the Leased Lines Regulations specifically obliges the Director, when making a determination under that provision, to have regard to the ability of the organisation to influence leased lines conditions.

3. Calculation of SMP - 1999 modifications

Following the review of the market in 1998, the Director made the first designation of operators with SMP in October of that year. The designation was based on a Level 1 analysis of the four markets defined in the EU Directives and transposed into national legislation, as the information supplied at that level provided a sufficiently clear cut result. For 1999, some modifications to that approach[4] are needed in the light of the Explanatory Note on the determination of SMP (the "SMP Explanatory Note") issued by the European Commission in March 1999.

In addition, other modifications have been identified which the Director proposes to adopt as they will simplify the process and provide greater overall transparency. These are:

- Not to compute volume shares as well as value shares in the Level 1 analyses, but rather to proceed directly to a Level 2 analysis when value shares are sufficiently close to 25% (see Section 4.4);
- No longer to distinguish between analogue and digital mobile telephony (see Section 4.6);
- Definition of Level 2 markets using market definition principles similar to those used in competition law, with consultation to ensure that these market definitions reflect any changes that occur in competitive and technological circumstances (see Section 4.5);

3.1 The choice of measurement parameters for the relevant markets

Before discussing each relevant market, it may be useful to recall that the assessment of SMP for the purposes of the Interconnection Regulations requires four separate determinations with respect to the markets as defined in that statutory instrument;

- fixed public telephony networks and services;
- leased line services;
- mobile public telephony networks and services; and
- the national market for interconnection.

SMP in the first two of these markets has also to be determined under the Voice Telephony and Leased Lines Directives/Regulations respectively. The following table illustrates this overlap.

[4] Set out in more detail in Appendix 3

	Fixed public networks/services	Leased line services	Mobile public networks/services	National market for interconnection
Interconnection	✓	✓	✓	✓
Voice Telephony	✓			
Leased Lines		✓		

However, there is no requirement that determinations under the different Regulations should be made on the basis of common measurement parameters. Indeed, since these Regulations seek to impose different legally distinct obligations, there are good reasons for taking different approaches to the measurement of market shares for the *same* relevant market under *different* Regulations.

In particular, for the purposes of the Interconnection Regulations, it may be appropriate to use parameters best suited to measuring market power at the *network* level. In contrast, under the Voice Telephony Regulations, it may be appropriate to use parameters best suited to measuring market power at the *retail* level.

The SMP Explanatory Note recommends using a *different* basis for the assessment of SMP in fixed public telephony networks and services under the Interconnection Directive to that used under the Voice Telephony Directive. This conclusion is reached on the basis that it is considered appropriate given there is a clear distinction between markets for network access and retail services in public fixed telephony.

The Commission recommends using the *same* basis for the determination of SMP under the Leased Lines Directive and the leased lines provision of the Interconnection Directive. This is appropriate given that both Directives are concerned with protecting customers that buy or rent leased lines, regardless of whether these customers are other telecommunications operators or not.

Given the different choice of measurement parameters suggested both in the Directives and in the SMP Explanatory Note, the ODTR proposes to identify parameters best suited to measure market power at the *network* level and at the *retail* level. In so doing the ODTR proposes to consider the different obligations for a designated SMP operator that result from the different domestic Regulations transposing these directives.

3.1.1 Fixed public telephony networks and services

The SMP Explanatory Note recommends that, for the purposes of the Voice Telephony Directive, shares of the market for voice telephony services should be assessed on the basis of *retail revenues* excluding the revenues related to the supply of terminal equipment. In this case, the determination of SMP based on retail market power is appropriate given that the additional obligations imposed on SMP operators are primarily to ensure that basic telecommunications services are available on reasonable terms to customers. Shares of retail revenues provide a simple and reasonably effective measure of retail market power. In calculating market shares, it is not proposed to distinguish between operators who own network assets or those who buy in network services from operators. Given that there are regulatory measures (in particular, the Interconnection Directive transposed to national Law by the SI 15/1998) aimed at ensuring that network services are available at reasonable terms, there is no reason to distinguish between operators according to the facilities they own in the assessment of *retail* market power. This measurement parameter represents no change from that adopted in the 1998 designation.

The Interconnection Directive requires an assessment of market power at the *network level.* The SMP Explanatory Note suggests that, for the purposes of the implementation of the Interconnection Directive, it is best to use *revenues from terminating calls* to calculate market shares for both fixed public telephony networks and services. This measure should include a notional value for self-terminated own-network traffic and the termination of interconnection traffic received from other networks.

However, the SMP Explanatory Note recognises that this procedure may be complicated and that the use of shares of retail revenues is apparently simpler. Nevertheless, there are likely to be disadvantages in using retail revenues. The presence of service providers, virtual operators and other organisations that are not vertically integrated may lead to a divergence between *retail* and *network* market power. In this case, market shares of retail revenue, even if they measured retail market power approximately, would be a poor proxy for network market power.

Moreover, the practical difficulties of calculating shares of call termination revenues are likely to be modest. The relevant data on call termination volumes and values would in any case be required for the calculation of interconnection market shares, as discussed in the following section.

Alternative parameters to measure market power at the network level are likely to be substantially more complicated than the use of call termination revenues. A simple measure such as total revenue from network services (including an imputed value for self-supplied services) is not an appropriate measurement parameter since it would risk double-counting economic activity where one operator buys network services from another.

This double-counting problem can be avoided by the use of measurement parameters such as value-added in providing network services. That is:

- ♦ revenues from the sale of network services, including an imputed value for self-purchase,
- ♦ *less* the cost of services that would need to be bought from other operators to supply the services in question.

Whilst this gives a logically coherent framework for measurement, it potentially understates market power exercised through control of network termination points. For example, this measure would have the property that the market share of an operator controlling a substantial proportion of the total local loop infrastructure could fall as other operators without local loop infrastructure, but offer network services, enter the market. There would be a risk of failing to find market power as a result of agglomerating a wide range of different services in different economic markets, but lying within the overall "interconnection market" as defined by the Interconnection Regulations. This could result in an operator having a low share of the "interconnection market" measured in this way, but having a high market share of one or more of the economic sub-markets lying within the "interconnection market". For these reasons, the use of value-added is judged inappropriate.

The Director, therefore, proposes that call termination revenues should be the key measurement parameter for determining market shares for the fixed public telephony networks and services market under the Interconnection Regulations. In the long run, this is likely to be a significantly more reliable indicator of network market power than retail revenues.

Q3.1:	*Do you agree with the approach of using call termination revenues to measure market power in the fixed public telephony networks market? If not please give your reasons and suggestions for an alternative approach.*

3.1.2 The mobile public telephony networks and services market

The SMP Explanatory Note suggests that for the purposes of the Interconnection Directive, it is best to use the same approach as in the fixed public telephony networks, that is, the revenues from terminating calls. This measure should also include a notional value for self-terminated own-network traffic and the termination of interconnection traffic received from other networks. The Director proposes to adopt this approach in fulfilment of her functions under the Interconnection Regulations.

Q3.2:	*Do you agree with the approach of using revenues for terminating calls to customers on mobile networks to measure market power in the mobile public telephony networks and services market? If not please give your reasons and suggestions for an alternative approach.*

3.1.3 The Leased Lines Market

The SMP Explanatory Note recommends that for the purposes of the Leased Lines Directive, shares of the leased lines market be measured in terms *of shares of revenues from customers* (be they domestic or business customers or other operators). It is judged appropriate to consider the possible exercise of market power against a wide variety of different purchasers of leased lines.

In fulfilment of her functions under the Leased Lines Regulations, the Director proposes to adopt the Commission's suggested approach and measure market shares by revenues raised from leased lines by *network operators,* regardless of the nature of the customer. In particular, if leased lines are resold as part of a value-added package, it is not proposed to include the revenues from the resold services to the end customer, but rather to count only the original sale or rental of the leased line by the network operator.

Following the 1998 methodology, and for the purposes of the Interconnection Regulations, market shares of the leased lines market will be calculated on the same basis as under the Leased Lines Regulations, namely revenues earned by network operators as the original supplier of the leased line.

3.1.4 The National Market for Interconnection

The Interconnection Regulations requires the assessment of SMP in the national market for interconnection. In calculating the market shares of operators, the SMP Explanatory Note recommends that:

- calls terminating on networks (including fixed public telephony networks, mobile public telephony networks and leased lines) within Ireland be included regardless of their origin;
- a notional value for self-terminated calls be imputed; and
- traffic conveyed but not terminated by operators should not be counted.

This procedure has already been used for the determination of SMP in the interconnection market last year.

In most cases, where an operator controls the network termination point, that operator will offer a call termination service to other operators. The call termination rates charged to other operators give a simple basis for valuing self-terminated traffic. This calculation would take account of time of day and weekday/weekend variations in call termination rates and traffic volumes.

A possible danger of using call termination revenues is that it may focus too heavily on identifying operators with market power in call termination and too little on other interconnection services that might be subject to market power. However, this problem is largely unavoidable as the "interconnection market" consists of a wide range of products that can be considered as separate economic markets. Given that the national market for interconnection contains a number of economic sub-markets, it is appropriate to focus on those sub-markets where competitive problems are most acute, even if this inevitably leads to less emphasis being placed on other sub-markets. The alternative is to use measures such as value-added in network services which look simultaneously across *all* economic sub-markets. However, as a result of the agglomeration of different services discussed above, these risk failing to identify market power at all even though it might exist in one or more sub-markets.

Other interconnection services subject to market power that the use of call termination revenue shares would not identify may be considered in a Level 2 analysis. Here, the relevant market for interconnection services is broken down into economic sub-markets.

Thus, despite some drawbacks, the Director intends to use call termination revenue shares as the most appropriate basis for measurement at present. This methodology was previously adopted in the 1998 determination (D4/98).

3.2 Value and volume measures

Rather than calculating market shares using a variety of different parameters, the Director proposes that a Level 1 analysis be conducted by calculating market shares on the basis of revenues only, using the procedures discussed in Section 3.1. Thus, volume-based measures such as shares of call volumes or subscriber numbers will not be calculated for the purposes of the Level 1 analysis. Where market shares on a revenue basis give a result close to 25%, it is proposed to move directly to a Level 2 analysis, rather than re-examining Level 1 market shares using a different measurement parameter.

During the 1998 SMP review, volume measures were used in few occasions at the Level 1 analysis. First, they were used instead of value market shares at Level 1 if the latter were not available for any reason. Second, volume market shares were examined at Level 1 where this was considered appropriate but were not reported unless they suggested a major discrepancy in the relative sizes of operators that was not accurately reflected in the value of shares. In all cases that both the value and volume measures were used during the 1998 determination, similar results were found.

This proposed procedure somewhat streamlines the analysis of Level 1 markets, whilst strengthening the principle that operators' ability to influence market conditions should be the primary criterion to consider in any deviation from strict application of a 25% market share rule at a Level 2 analysis.

Q3.4: Do you agree with this approach of using revenue measures for the assessment of Level 1 market shares? If not please state your reasons.

3.3 Combining digital and analogue mobile markets

In last year's determination, digital and analogue mobile markets were taken as distinct Level 2 markets. In the interests of both simplicity and of better measuring market power, the Director proposes that these markets be treated as a single Level 2 market. This is consistent with the approach taken by other NRAs.

It is likely that an analogue mobile customer's existing network has considerable advantages over other operators if that customer wishes to migrate to digital. In particular, the customer can be offered largely seamless service and maintain the same billing and payment arrangements. In addition, analogue operators can take steps to encourage migration of customers to their own digital networks at a time of their choosing.

Q3.5: Do you agree with treating digital and analogue mobile as a single market? If not please give your reasons.

3.4 Level 2 market definitions

Last year's consultation document defined a number of Level 2 markets. The Director proposes to build on last year's principles, but to allow interested parties a greater opportunity to comment on the Level 2 markets which will be considered at the appropriate time.

Given the current stage of development of the telecommunications sector and the continued powerful position of the incumbent after the first year of operation of the liberalised telecommunications market, the Director expects that a Level 2 analysis will, for the most part, not be needed for her designation of operators with SMP in 1999.

A number of candidate Level 2 markets are proposed below in Section 5.2.3 which considers related future issues. These are based on general economic principles of market definition and should be considered as *candidate economic markets*.

The Director recognises that a Level 2 analysis may be required in the current year for the purposes of making a designation in the mobile public telephony and services market. Thus the following section considers Level 2 candidate markets for this sector.

3.4.1 Candidate Level 2 Markets for the mobile public telephony networks and services market

The mobile sector need not be considered at the retail level, since obligations on SMP mobile operators are all at the network level under the Interconnection Directive. Therefore, the Director does not propose to define Level 2 retail markets for mobile.

In principle, a similar set of network elements can be considered as Level 2 markets as for fixed networks (set out in section 5.2.3). However, the nature of mobile networks means that there is unlikely to be as large number of interconnection points utilised by mobile operators as utilised by fixed operators.

On outbound calls, mobile operators may provide origination, termination, switching and transmission services for other operators depending on whether there is near-end or far-end hand-over of the call.

Taking these points and the stage of development of the market into account, the Director considers that the level 1 market definition is sufficient to enable her to make a decision as to the applicability of SMP to a particular organisation operating in this market. Thus, the Director does not propose to define level 2 markets at the network level for mobile public telephony.

Q3.6: Do you agree with the Director's proposal not to define Level 2 network markets for mobile telephony? If not please state your reasons.

4. Procedure for the determination of Significant Market Power - Summary

The following sets out a summary of the approach to be adopted in 1999:

1. Four Level 1 markets as defined in the relevant legislation (see Appendix 2).
2. Market shares to be calculated for all organisations operating within these four markets according to the principles outlined above;
3. Those organisations with a market share above or sufficiently close to 25% to be designated *candidates for SMP***.**
4. Any deviation from the 25% rule (i.e. an operator being determined to have SMP if and only if its market share exceeds 25%) will be on the basis of an analysis of competitive conditions in those Level 2 markets corresponding to the Level 1 market in question. This analysis may consider a range of indicators of market power, of which Level 2 market share may be one.

It is not proposed to undertake step 4 except insofar as step 3 identifies organisations with market shares sufficiently close to 25% (above or below) to warrant further analysis. For 1999, the only market in which this may be relevant is the mobile public telephony networks and services market.

4.1 Level 1 Analysis

Relevant markets for the Level 1 analysis are defined by the legislative provisions examined in Section 2.2. The Director proposes the calculation of market shares be undertaken on the basis of revenues using the methods discussed in Section 3.1. The table overleaf summarises the overall approach including the proposed modifications.

Table 1: Summary of the procedure for determining SMP

Relevant Market Power	Specific Legislation	Proposed Principle Measure of Market Share	Comments
Fixed public telephony networks and services			
Retail market power	Voice Telephony	Share of retail revenues	➢ It is not proposed to distinguish between operators according to whether they own network assets or buy in to network services from other operators. ➢ Sales of terminal equipment should not be included in making this calculation.
Network market power	Interconnection	Revenues for terminating calls to customers on fixed networks	➢ This will include an imputed value of self terminated calls.
Mobile public telephony networks and services			
Network market power	Interconnection	Revenues for terminating calls to customers on mobile networks	➢ This will include an imputed value of self terminated calls ➢ No distinction will be made between analogue and digital mobile networks or services
Leased Lines			
Leased line market power	Interconnection Leased Lines	Shares of revenues	➢ This will include all revenues earned by network operators from the leasing of national or international capacity to any retail or wholesale customer. ➢ Revenues earned by resellers of leased lines are excluded.
National market for interconnection			
National market for interconnection market power	Interconnection	Shares of interconnect revenues from call termination	➢ Calculation should include: ♦ actual receipts from sale of call termination as an unbundled network service; ♦ an imputed value for the termination of calls originated on the same network; ♦ an imputed value for call termination where it is part of a bundled network / service sold to another operator. ➢ The price used for valuing self-terminated calls will be the price charged for call termination to other operators. ➢ If for some reason call termination is only offered as part of a bundle of other network services, the price of the bundle will be used.

4.2 Level 2 Analysis

Where Level 1 market shares are sufficiently close to 25%, the Director proposes that a Level 2 analysis will be undertaken. It is not possible to give in advance a precise range of market shares that would trigger a Level 2 analysis. However, a Level 2 analysis will be undertaken whenever there is significant doubt that a simple application of the 25% rule would correctly determine operators with SMP.

The Director expects that, except in the case of the mobile public telephony networks and services market, it is unlikely that a Level 2 analysis will be needed for her SMP designation in 1999. Thus, the process to define Level 2 markets is considered in Section 5 which considers related future steps. The remainder of this section considers the factors, which may be relevant in the assessment of competitive conditions within a market.

4.3 The assessment of competition

The Director proposes to follow similar procedures to those discussed in last year's consultation document when assessing competition within Level 2 markets. It is not proposed that a formulaic procedure for Level 2 analysis be established since a wide range of factors may be relevant in assessing competitive conditions. It is appropriate for the ODTR to give these factors due weight. Market share in Level 2 markets will be of concern, but this will be just one of a number of factors that will be considered in assessing market power.

Market power is the ability of a firm to raise its price and to earn a monopoly rent that is not eroded away in the longer term (say a year or longer). Thus, for a firm to have market power, it must be the case that:

- competitive pressure from outside the market is weak (i.e., barriers to entry exist); *and*
- competitive pressure inside the market is weak.

Therefore, *both* of these factors must be assessed in determining whether or not a firm has market power.

4.3.1 Entry barriers

Entry barriers can arise from cost advantages of incumbents over entrants. However, even where absolute cost advantages may not be material, there may be other strategic first-mover advantages that give rise to entry barriers. The Director proposes to consider a range of factors to identify such entry barriers, including:

- Legal barriers to entry (e.g. licensing and spectrum availability), including access to intellectual property;
- Economies of scale or scope not available to entrants;
- Entry barriers arising from vertical integration;
- Use of branding and product design to gain first-mover advantages;

- First-mover advantages in labour and other input markets;
- Costs to a user of moving between suppliers (particularly where these costs arise from pricing policy, such as bundling, quantity discounts or loyalty discounts).

In addition, it is possible, though not necessarily likely, that predatory behaviour may act as an entry barrier. In this case both pricing structure and an incumbent's financial strength are relevant concerns.

Q4.1: Do you agree that these are appropriate factors to consider when deciding if there is a barrier to entry into a market? If there are additional factors that should be considered, please state them and give reasons for their inclusion.

4.3.2 Competition in the market

Market shares provide a partial picture of competitive conditions. However, they may fail to indicate how intense the competition to win customers actually is. Therefore, it is appropriate to consider a range of factors:

- The level of prices compared with cost (where this is known);
- Rivalry in pricing, including movements in prices and market shares;
- The cost to a user of moving between suppliers, particularly where this may have been raised by long-term contracts, quantity discounts, loyalty schemes or bundling;
- Number portability;
- Brand loyalty;
- The information available to customers when exercising a choice of supplier;
- Regulatory constraints, both in terms of price caps and non-discrimination requirements; and
- Countervailing market power exerted by buyers.

The primary concern when considering these factors will be the identification of entrenched market power. In innovative, fast-moving markets it is possible for operators to gain *transient* market power. However, if this is short lived, it is not appropriate for consideration as a trigger for regulation.

Q 4.2: Are these appropriate factors to be taken into consideration in deciding if there are conditions of competition within markets? What additional factors could be considered?

5. Related future steps

5.1 SMP in licensing

SMP has a key role in the licensing regime for telecommunications operators. The European Communities (Telecommunications Licences) Regulations (SI 96 of 1998) (hereafter the "Licensing Regulations"), transposing Council Directive 97/13/EC on a common framework for general authorisations and individual licenses in the field of telecommunications services (hereafter the "Licensing Directive"), envisage that licenses may confer obligations that can be triggered by operators having SMP.

Part 3 of the pro-forma General Telecommunications Licence sets out conditions applying to licensees with SMP in the Fixed Telephone Network and Services Market. Among other provisions, it sets out requirements for the granting of network access, price control and publication, avoidance of cross-subsidisation, codes of conduct and access to facilities.

Part 4 applies to licensees with SMP in any market. It includes prohibitions against undue preference and unfair discrimination, as well as linked sales.

Over the past year, some operators expressed concern that the SMP designations, or the implementation of SMP obligations in the licence, were insufficient to facilitate detection or prevention of certain anti-competitive practices. At the same time, some operators have been concerned that the designations and obligations are too onerous and impose too much control.

The Director plans to conduct a review of fixed-mobile convergence and she intends to consider licence conditions for both fixed and mobile operators in that context, with particular regard to licence conditions triggered by SMP. To inform that review and a planned consultation paper early in 2000, the Director intends to consider some specific issues in the context of the present consultation. These issues are:

- Assessment of the relevant markets, within and outside those identified in Annex I of the Interconnection Directive, where provisions designed to prevent anti-competitive behaviour should apply;
- The means and method of identifying and defining such markets in the context of the data gathering exercise required for SMP; and
- The linking of such markets and positions of market players to specific obligations or conditions in the licensing framework.

In developing the licensing regime for the liberalised market on 1st December 1998, the Director stated a clear principle of light-handed regulation. In addition, the provisions of EU and national legislation on licence conditions require that such conditions must be proportionate and non-discriminatory.

In that context, parts 2 and 3 of the pro-forma General Telecommunications Licence impose a variety of obligations in respect of services supplied *in the Relevant Markets* by SMP-designated operators. These markets are defined in Annex I of the

Interconnection Directive[5]. In some cases, telecommunications services that fall outside these Relevant Markets are not captured by such obligations.

For example, if a service did not fall within the Annex I definition of the Fixed Public Telephone Network and Services, the price publication requirements imposed in Condition 13 of the licence would not apply to it. However, some licence conditions which are innately cross-market in their scope are written in such a way as to have effects on markets outside the Relevant Markets. Condition 14, for instance, prohibits unfair cross-subsidisation between a service in a Relevant Market and any Offered Service.

Since the initial development of the licensing regime, the Director is aware of a debate in the industry on whether or not licence obligations triggered by SMP should instead cover all telecommunications services offered by the SMP operator whether these are inside or outside the Relevant Market (as defined in the General Telecommunications Licence).

Anti-competitive practices affecting any telecommunications service or market are of concern to the ODTR. The Director is considering, in the context of the review mentioned above, whether the existing licence conditions and the scope of application of those conditions, particularly those in parts 3 and 4 of the General Telecommunications Licence, are appropriate and sufficient to facilitate detection and prevention of such practices while also being proportionate and objectively justifiable.

To control SMP in particular markets not covered by Annex I of the Interconnection Directive, the Director suggests that the best approach is to apply appropriate ex ante conditions to operators with SMP or another predefined test for the possession of market power in the particular market and SMP in an Annex I Relevant Market. She considers that this approach would ensure that conditions and controls are applied only where necessary and in a proportionate manner. In brief this would require:

- The identification of appropriate markets,
- The measurement of the competitiveness of those markets,
- Where the level of competition in the market is not sufficient, and an operator with SMP is active in that market, the application of appropriate conditions to that operator.

She welcomes views on this approach.

Q5.1: Do you agree that licence conditions designed to control market power in particular markets outside Annex I should apply to operators with both market power in such markets and SMP in a Relevant Market?

Q5.2: If you disagree, do you consider that there should be any change in the current regime and why?

There are a variety of possible elements that could be employed in a method for assessing market power, for example:

- Ex ante identification of markets

[5] See Appendix 2 in this paper for a description of the relevant markets based on the definitions in Directive 97/33/EC.

- Case by case identification of markets
- Measurement of competition in those markets (both actual and potential)
- Measurement of market shares in those markets
- Application of SMP conditions in the specific markets identified to operators who have SMP in the broader telecomms markets
- Application of SMP conditions in the specific markets identified to operators who have SMP in that specific market.

Q5.3: Respondents are invited to provide comments on what they consider to be the optimum approach to this issue.

To take a relevant example of how an extension of the SMP definitions might work, consider one set of services that falls outside Annex I of the Interconnection Directive, Asynchronous Transfer Mode (ATM) services, which was discussed in ODTR 99/47R.

For the purposes of SMP designation, the Director could define a new market for "broadband data services", including services such as ATM. This market might be defined with reference to internationally accepted standards, such as the ATM protocols, as well as demand and supply characteristics. Possession of SMP could then be assessed in this market, as in the other Relevant Markets. The level of competition could also be assessed in the market, both existing and potential. At this stage, changes would be needed to the General Telecommunications Licence to link existing or new licence obligations to either the designation of SMP or the relevant market defined. Such changes would also have to ensure that any overlap between the services included in this market and any other Relevant Market were taken into account.

Q5.4: Do you think that the ODTR should define a broadband data services market or any other specific market for SMP purposes? If so, why? Which services should be included and on what basis? What licence conditions should be tied to a designation of SMP in the market?

5.2 Level 2 analysis

5.2.1 Process to define Level 2 markets

The Level 2 analysis will consider competitive conditions within markets whose boundaries are defined by similar principles to those used in EU competition law.[6] The following approach to Level 2 market definition is therefore proposed by the Director:

[6] A different approach to market definitions is taken from that used in competition law since, for the purposes of this exercise, it is necessary to define candidate Level 2 markets *prior* to gathering and analysing data.

- On the basis of market definition principles used in EU competition law, this consultation document proposes *candidate Level 2 market definitions*;
- Respondents to the consultation exercise are invited to comment on these candidate Level 2 market definitions;
- The actual market definitions used in any Level 2 analysis will be reported in the determination.

This system has the advantage that it can respond to changing market definitions as the competitive environment and technology change, drawing on operators' knowledge of factors relevant in determining market boundaries. As competition develops, the Level 2 analysis will become increasingly important and the market definitions used may have a material impact on the determination. The Director considers it is both important and appropriate that there is a mechanism for incorporating operators' views about Level 2 markets.

Q5.5: Do you agree that these procedures are appropriate for the definition of Level 2 markets? If not please give your reasons.

5.2.2 Principles for definition of Level 2 markets

The Director proposes that the principles for determining the boundaries of Level 2 markets be:

- demand substitutability;
- supply substitutability; and
- homogeneity of competitive conditions.

They were discussed in last year's consultation document on the determination of SMP. In summary:

- Two services *A* and *B* are in the same market by virtue of *demand substitutability* if they are sufficiently substitutable for a significant proportion of customers. In particular, if the price of service *A* were raised by a small, but significant amount and maintained at this level for some time, then a sufficient number of customers would switch to service *B*. This means that the pricing of service *B* acts as a competitive constraint on the pricing of service *A* and both should be treated as being in the same market.
- Two services *A* and *B* are in the same market by virtue of *supply substitutability* if the supplier of service *B* could profitably, given that the price of *A* were sufficiently high, use or modify its existing facilities to offer service *A* within a sufficiently short time. The supplier of service *B* would be a potential competitor in the supply of service *A* even in the short run.

The considerations of demand and supply substitutability are relevant not just in determining which products and services should lie within the same economic market, but also the geographical scope of this market. Therefore, two services supplied or consumed at different locations are in the same market if they are substitutes on either the demand or supply side.

It is also relevant to take account of the *homogeneity of competitive conditions* when defining economic markets, particularly in regard to geographical scope. For example, access to a fixed telephony network at two different locations (say two different domestic addresses) may not be substitutes to either customers or suppliers. However, given that actual and potential suppliers compete in setting prices that do not differ across the two locations, these products should lie in the same market by virtue of the similarity of competitive conditions at the two locations. Such considerations are important in telecommunications to avoid incorrectly defining a large number of local geographical markets.

Therefore, the overall approach would be to consider those products and services lying within a Level 1 market and to divide these into separate groups where they do not fall into the same market by virtue of demand and supply substitutability or homogeneity of competitive conditions.

This will permit market definitions for the purpose of Level 2 analysis. It would also facilitate the definition of economic markets by enlarging these groups to include any other products or services lying outside the original Level 1 markets, but falling within the same economic market by virtue of demand substitutability, supply substitutability or homogeneity of competitive conditions.

It is unlikely that it would be necessary to use the second option very often. However, the approach does provide for the possibility that technological change may lead to some services lying outside the Level 1 markets defined within the legislation, but nevertheless potentially competing with services lying within them. In this case it is relevant to consider such services when assessing competitive conditions within a Level 1 market. The Director has powers to consider such factors, under the legislative provisions for determining SMP, in order to take account of an organisation's ability to influence market conditions.

Q5.6: Do you agree with this general approach to defining Level 2 markets? If not, please give your reasons and suggestions for an alternative approach.

5.2.3 Candidate Level 2 Markets

Following the principles set out in Section 5.2.2 the Director proposes the following candidate markets for a Level 2 analysis.

Fixed public telephony networks and services

For fixed public telephony, it is relevant to assess market power both at the network and at the retail level. At the **retail level**, there are a number of economic markets lying within the Level 1 market. The Director proposes the following candidate Level 2 markets:

- Access

- Local calls
- National calls
- International calls
- Directory enquiries
- Operator assisted calls and other valued-added services.

The last category may consist of a number of economic markets, but is not expected to be material in the overall determination of SMP.

At the **network level**, it is necessary to distinguish between different interconnection services according to whether they are substitutable or not. In particular, there is a range of interconnection services that an interconnecting operator could require depending on what network infrastructure it has. For example, we may distinguish:

- Double transit interconnection (hand-over of a call at a national level involving two switching layers);
- Single transit interconnection (hand-over of a call at a regional or metropolitan level involving one switching layer);
- Call termination/origination (access to the network termination/origination point without any bundled switching services);
- International hubbing (handover of domestically originated international traffic for carriage and ultimate delivery on other operators' networks).

These are *categories* of interconnection services, but they are not economic markets as such. Clearly single or double transit interconnection is a bundle of individual network *elements* of which call termination is just one. They also include switching and transmission. Therefore, it is appropriate to include call termination activities undertaken in providing single or double transit interconnection services when, say, computing a market share of call termination.

At present in Ireland, interconnection is still at a relatively early stage of development, but is anticipated to become more complex as the market develops and expands. The Director proposes to adopt the approach of looking at economic markets for various network *elements*, that is unbundled network activities. These network elements will include:

- call origination;
- call termination;
- switching;
- transmission.

Q5.6: Do you agree with these Level 2 retail and network market definitions for fixed telephony? If not please state your reasons.

Mobile public telephony networks and services

This market is discussed in Section 3.4.1

Leased lines

Leased lines vary according to:

- transmission capacity;
- location of termination points and length of connection;
- whether they are analogue or digital.

Digital leased lines have typically been available in different capacities in increments of 64kbit/sec up to 2Mbit/sec. Higher capacity permanent connections are becoming more generally available.

Low capacity lines could be put together to provide a higher capacity link, so the price of a higher capacity line will ultimately be constrained by the prices of lower capacity lines. However, in practice, the prices of higher capacity lines are likely to be below the level at which users would feel it worthwhile to switch to multiples of low capacity lines. Therefore, it is quite possible that, at competitive levels, the prices of high capacity lines could be raised somewhat without significant substitution to lower capacity lines. Therefore, from the demand side, high and low capacity lines are unlikely to be substitutes for a large number of customers.

As regards supply substitutability, it may be costly to convert multiple low capacity lines into the equivalent in a high capacity line. Low capacity leased lines can be provided over existing local loop infrastructure, whereas high capacity leased lines may not. This situation may change in the future, in which case amendment of market definitions may be required.

Therefore, the Director considers it appropriate to define separate markets according to the capacity of lines. This leaves the question of how to divide up such markets. For simplicity, the Director proposes to distinguish two categories of digital leased lines by capacity:

- digital leased lines with capacity of less than or equal to 2Mbit/s;
- digital leased lines with capacity of greater than 2Mbit/s.

Digital and analogue leased lines are unlikely to be considered to be substitutes by most users. However, it is possible that analogue lines could be converted to low capacity digital lines at low cost, and that digital lines could be used as carrier services for analogue signals. The Director proposes to gather data separately for analogue and digital lines, but analogue lines are unlikely to constitute an economic market distinct from low capacity (64kbit/s) digital lines.

In principle, it is possible that some operators may be limited in the locations of the termination points of the leased lines they can offer. For example, an operator may only be able to offer leased lines with termination points in key metropolitan areas or business districts. Under these circumstances it may be necessary to distinguish markets on a geographical basis. At present the Director proposes to make a distinction between international and national leased lines. However, views are sought on whether it might be appropriate to distinguish geographical sub-markets.

The four candidate Level 2 markets for leased lines are given in the table below.

	National	International
Analogue lines Digital lines ≤ 2Mbit/sec		
Digital lines > 2Mbit/sec		

Q5.7: Do you agree with these Level 2 market definitions for leased lines? If not please state your reasons.

The national market for interconnection

It is proposed to use the Level 2 network service markets identified for fixed and mobile public telephony as the Level 2 markets corresponding to the Level 1 market for interconnection.

Q5.8: Do you agree with these Level 2 market definitions for interconnection? If not please state your reasons.

6. Submitting comments

The ODTR now wishes to obtain the views of interested parties on SMP and invite comments on the issues addressed in this paper. The consultation period will run from Wednesday 13th October to Tuesday 9th November 1999 during which the Director welcomes written comments on any of the questions raised in this paper.

All responses pursuant to this consultation should be clearly marked "Reference: Submission re ODTR 1999/*59*" and sent by post, facsimile or e-mail before 5pm on Tuesday, 9th November 1999 to:

Mr Oliver Hogan
Office of the Director of Telecommunications Regulation
Abbey Court
Irish Life Centre
Lower Abbey Street
Dublin 1
Tel: 353 1 804 97 08
Fax: 353 1 804 96 80
Email: hogano@odtr.ie

Apart from acknowledging responses, the Director regrets that she will be unable to enter into correspondence with persons contributing comments on this consultation paper.

The Director appreciates that many of the issues raised in this paper and in the questionnaire require respondents to provide a considerable amount of commercially sensitive information. Such information will be treated as strictly confidential. Respondents are requested to identify confidential material clearly and if possible, to include it in a separate annex to the response.

All comments are welcome, but **it would make the task of analysing responses easier if comments reference the relevant question numbers from this document**. In order to promote further openness and transparency the ODTR will, in its report on the consultation, summarise the responses received. Unless marked confidential, the ODTR will make copies of the comments available for public inspection at its offices.

The following summarises the timetable for the consultation and determination:

- Interested parties should respond to this Consultation Document no later than Tuesday 9th November, 1999.
- A questionnaire gathering information for the purposes of the determination be sent to operators during the week ending Friday 15th October, 1999.
- Operators are required to respond to the questionnaire no later than Friday 12th November

- On the basis of timely receipt of responses, it is envisaged that a determination would be produced by the end of November.

This consultative document does not constitute legal, commercial or technical advice. The Director is not bound by it. The consultation is without prejudice to the legal position of the Director, or to her rights and duties under legislation to regulate the market generally.

7. Appendix 1

The Interconnection Regulations

The Interconnection Regulations give, at national levels, qualifying operators both rights and obligations to interconnect and access each others' networks. There are more onerous obligations applying to those operators having SMP in one or more of the markets for

- fixed public telephony networks/services;
- mobile public telephony networks/services;
- leased lines; and
- national interconnection.

These additional obligations for operators with SMP are summarised in the following table. Note that cost orientation obligations for mobile operators are *only* triggered by SMP in the national market for interconnection and *not* by SMP in the mobile market.

Additional obligations on interconnection arising from SMP	*Fixed and leased lines*	*Mobile*
Meet all reasonable requests for access not just at network termination points	✓	✓
Unbundling of interconnection services	✓	
Non-discrimination	✓	✓
Cost-orientation and transparency	✓	Only if SMP in the interconnection market
Accounting separation at a sufficient level to allow monitoring of compliance with cost orientation	✓	
Notification of interconnection arrangements to NRA	✓	✓
Disclosure of information to facilitate interconnection by other operators	✓	✓
Information revealed by other operators for the purpose of interconnection not to be used for commercial advantage	✓	✓
Lodging a reference interconnection offer with the NRA	✓	

The Voice Telephony and Universal Service Directive

These Regulations transpose the Voice Telephony and Universal Service Directive and establish a wide range of general obligations on providers of fixed public networks and services. There are additional obligations that are triggered by SMP in the market for fixed public telephony networks/services. These include:

- meeting performance targets, with obligations to gather and supply information to allow monitoring of compliance;
- having to supply an extended range of basic services;
- being subject to measures to prevent service degradation;
- offering cost-oriented access and retail services;
- ensuring that discounts are transparent and cost-oriented;
- ensuring access to network points other than just network termination points on cost-oriented and non-discriminatory terms, providing that this is feasible and there is no alternative to seeking such access;
- providing such accounting separation as may be necessary to monitor compliance with cost-orientation conditions.

Whilst these Regulations impose some general obligations on mobile operators, none of the conditions triggered by SMP apply to mobile operators. The Voice Telephony and Universal Service Regulations contain some measures to promote access to network services and therefore overlaps somewhat with the Interconnection Regulations. Nevertheless, the primary focus of the Regulations is on ensuring that certain basic services are available to customers at minimum quality standards and at cost-oriented prices.

The Leased Lines Regulations

The Leased Lines Regulations define a set of obligations for operators with SMP in the leased lines market.[7] These obligations are aimed at ensuring availability of basic services at reasonable terms and include that:

- a certain minimum set of technical standards be met;
- terms and conditions for leasing lines be made available and that these are cost-oriented, transparent and non-discriminatory;
- there must be sufficient accounting separation to ensure that compliance with cost-orientation obligations can be monitored.

[7] The Leased Lines Regulations allows for an operator without SMP to be designated as being subject to the obligations defined therein if this is necessary to ensure that there is at least one operator in any geographical area that is subject to its provisions.

8. Appendix 2

Summary of the definition of Relevant Markets as contained in the relevant legislation

Annex 1 of the Interconnection Directive, as referred to in the Interconnection Regulations, identifies four relevant markets and sets out the following definitions for those markets:

1. Fixed public telephone networks and services

The **fixed public telephone network** means the public switched telecommunications network which supports the transfer between network termination points at fixed locations of speech and 3,1 kHz bandwidth audio information, to support, inter alia:

- ♦ voice telephony;
- ♦ facsimile Group III communications, in accordance with ITU-T Recommendations in the "T-series";
- ♦ voice band data transmission via modems at a rate of at least 2,400 bit/s, in accordance with ITU-T Recommendations in the "V-series".

The **fixed public telephone service** means the provision to end-users at fixed locations of a service for the originating and receiving of national and international calls, and may include access to emergency (112) services, the provision of operator assistance, directory services, provision of public pay phones, provision of service under special terms and/or provision of special facilities for customers with disabilities or with special social needs. Access to the end-user's network termination point is via a number or numbers in the national numbering plan.

2. Leased lines service

Leased lines means the telecommunications facilities which provide for transparent transmission capacity between network termination points, and which do not include on-demand switching (switching functions which the user can control as part of the leased line provision). They may include systems that allow flexible use of the leased line bandwidth, including certain routing and management capabilities.

3. Public mobile telephone networks and services

A **public mobile telephony network** is a public telephone network where the network termination points are not at fixed locations. A **public mobile telephone service** is a telephony service whose provision consists, wholly or partly, in the establishment of radiocommunications to one mobile user, and makes use wholly or partly of a public mobile telephone network.

4. The national interconnection market

Interconnection is the physical and logical linking of telecommunications networks used by the same or a different organisation in order to allow the users of one organisation to communicate with users of the same or another organisation, or to access services provided by another organisation. Services may be provided by the parties involved or other parties who have access to the network.

The national market for interconnection should include all calls that terminate on networks in Ireland, having originated on the same or a different network, including international calls, regardless of whether the networks in question are fixed or mobile. It should include self-terminated traffic, that is the internal "interconnect" of vertically integrated operators. The market for interconnection excludes any traffic that is conveyed or switched by an operator but not terminated.[8]

[8] The national *market* for interconnection is not defined within the Interconnection Directive, though *interconnection* as a service is. Guidance on the definition of an interconnection *market* is provided by section 5.5 of "Determination of Organisations with Significant Market Power (SMP) for the implementation of the ONP Directives", DGXIII Explanatory Note, March 1999, referred to in this document as "the SMP Explanatory Note".

9. Appendix 3

The 1998 Approach to the designation of operators with SMP

The Consultative Paper "Significant Market Power in Telecommunications" (ODTR98/25), outlined the approach to the determination of operators with SMP last year. In particular, a two level approach was proposed in which:

- Four Level 1 markets were to be defined as required in the domestic regulations transposing relevant EU directives, market shares calculated and *candidates for SMP* established where these were close to or above 25%;
- Where appropriate, Level 1 markets would be subdivided into Level 2 markets defined in accordance with generally applicable competition rules[9]. Competitive conditions within these Level 2 markets would be assessed;
- SMP was to be determined according to Level 1 market shares and the extent of market power in Level 2 markets. Operators with more than 25% of a Level 1 market might not be designated as having SMP if it was considered that the operator did not have sufficient market power in the Level 2 sub-markets. Similarly, operators with less than 25% of a Level 1 market might be considered to have SMP if they had market power in a sufficient number of Level 2 sub-markets.

Whilst there are a number of factors that the Interconnection Regulations, the Leased Lines Regulations and the Voice Telephony and Universal Services Regulations entitle the ODTR to take into account when deviating from a straightforward application of a 25% market share rule, last year's procedures placed greatest weight on an organisation's ability to influence market conditions.
In making its determination in 1998, the ODTR found that the results it obtained from the Level 1 analysis were sufficiently clear-cut that it was not necessary to proceed to the Level 2 analysis.

[9] From the "Notice on the application of the competition rules to access agreements in the telecommunications sector" (98/C 265/02). Another description of the general practice on market definitions in the EU competition Law can be found in the Commission Notice on the Definition of the Relevant Market for the Purposes of Community Competition Law.