



**Final report**  
**for**  
**Study on pan-European market for premium rate services**

**Cullen International SA**  
**and**  
**WIK Consult GmbH**

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## Study on a pan-European market for premium rate services

### EXECUTIVE SUMMARY

#### I. PAN-EUROPEAN PRS MARKET<sup>1</sup>

The market for premium rate services (PRS) is a growing market, currently accounting for 5% to 7% of the national market volume for voice telephony services, i.e. between 4.5 and 6.5 billion euro in the European Union. At present, cross-border PRS represents only a marginal share of the overall PRS market volume, mainly because market players are focused on domestic markets that still present high growth opportunities. The market potential for pan-European PRS is however expected to be significant, with a good number of services likely to attract a pan-European audience and business opportunities for all the market players of the PRS value chain. This potential is estimated at about 0,5 to 1 billion euro in the short to medium term and more than 1 billion euro in the long term.

A pan-European PRS market can take various forms. The report describes four scenarios representative for the main alternatives and their respective advantages and challenges. It assesses, for each of them, whether regulatory intervention is needed to facilitate their development. These four scenarios consist in the provision throughout the European Union of PRS by a single content provider via:

- 25 country specific access numbers and 25 PRS platforms (scenario A);
- 25 country specific access numbers and a single pan-European PRS platform (scenario B);
- a single access number belonging to the national numbering plan of a particular country (accessed from other countries by dialling the country code of that particular country) and a single pan-European PRS platform (scenario C). A variation of scenario C can be the use of a special prefix in the national numbering plan for international access to national PRS numbers (scenario C+);
- a single pan-European access number (from ETNS or ITU – see below) and a single pan-European PRS platform (scenario D).

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Scenarios A and B adapt international content to the individual national environments and can be implemented more quickly and easily than the others as they fit relatively well with the existing operational and regulatory environments.

Scenarios C and D represent a more genuine pan-European approach whereby services may be made available across all Member States with a unique telephone number and identical price. Scenario D, which is based on a specific numbering prefix for pan-European PRS, appears to be the most realistic solution even if it requires extensive preparations both by regulators and operators. This is because some of the problems that have been identified by the report cannot realistically be solved under scenario C.

## **II. EXISTING REGULATORY FRAMEWORKS**

### **A. At Community level**

In the absence of a specific Community instrument on PRS, the report examines which existing Community measures apply to PRS.

The new regulatory framework on electronic communications does not apply to content and can therefore only apply to the transportation elements of PRS. The high degree of integration between transportation and content however creates uncertainty as to how the new framework should be applied to PRS. The report looks at some of the provisions of the new regulatory framework that could be of particular relevance for PRS, in particular those on numbering, access to non-geographic numbers, consumer protection, significant market power, billing and interconnection.

The Electronic Commerce Directive applies to the PRS that qualify as information society services. Although there are uncertainties around this question, the authors of the report take the view that some PRS fall under the definition of information society services, services which involve storage and processing at both ends such as downloading of ring tones, and services which include storage and processing only at the platform provider level such as services that are delivered from audiotex platforms.

The report also describes the main other Community instruments that apply to PRS, i.e. the Distance Selling Directive, the Unfair Commercial Practices Directive and the sixth VAT Directive.

### **B. At national level**

The annex to the report provides an atlas of the national implementations of PRS. It shows wide divergences between Member States on almost every single aspect of PRS, including on the definition of PRS itself. In particular there are national differences on the following questions:

- **Numbering.** Although many countries have implemented the 09xx range for PRS services, there is little commonality on how this range is used in terms of content categories and/or charge bands. Rules also differ on which organisations can be allocated PRS numbers and on allocation to foreign operators.

- Pricing. Most countries have established different number ranges for PRS to which different pricing rules apply. There are also differences on who determines the price for certain number ranges.
- Billing. Many countries place a regulatory obligation upon the incumbent operator to perform third party billing, while other countries have no specific obligation in that respect. Among the first group of countries, there are also variations in the level of compensation for billing, be it with or without bad debt responsibility.
- Call barring. The possibility to bar a telephone from being able to dial PRS numbers is available in most countries. However, there are differences on whether the barring is based on opt-out where the default is that PRS is open or on opt-in where the default is that all PRS numbers are barred. There are also national variations on whether call barring is an obligation that applies to all operators or only to some of them.
- Content. Member States have very different national regulations on the types of content that can be conveyed by PRS and on the conditions under which they can be offered.
- Action against fraud. In many countries, there is no specific complaint mechanism for PRS and the general complaint mechanisms for telecommunications services or consumer protection are used instead. The powers of the responsible authority to take action against misleading and fraudulent practices and to apply penalties also vary greatly from country to country.

### **III. RECOMMENDATIONS FOR THE DEVELOPMENT OF A PAN-EUROPEAN PRS MARKET**

To be implemented, scenarios C and D require a number of actions, both from market players and from public authorities. These actions are presented in the form of recommendations that specify the conditions that need to be put in place to create a regulatory and commercial environment favourable to the development of a pan-European PRS market. They are based on an examination of the adequacy of current EU and national regulatory measures that apply to the provision of PRS and of the way a number of issues that are key for the provision of PRS are being or would be dealt with in a cross-border environment.

The recommendations are structured around the following main building blocks. Many of them seek to ensure fraud prevention and consumer protection. Others are more of a commercial nature and stem from the complexity of the value chain on which PRS are based.

#### **A. Pan-European PRS numbering plan**

The report explains that PRS numbers which are based on the existing individual national numbering plans are not well suited for cross-border access to PRS services in other countries. It recommends that a pan-European PRS numbering plan should be set up, for example based on the European Telephony Numbering Space (ETNS) or on Universal International Premium Rate

numbers (UIPRN) of ITU. It should allow specification of content categories and retail price information.

Common conditions for the eligibility of a party to get pan-European numbers should be specified. Non-discriminatory access to numbering resources for PRS should be ensured in all EU countries, including to numbers in the pan-European numbering plan (for scenario D).

## **B. National regulatory authority for PRS**

The national regulatory authority for electronic communications plays a significant role regarding PRS provision in all countries with its particular responsibility for numbering and interconnection activities. However, there are significant differences across Europe with regard to which authority or organisation is responsible for content and consumer protection issues. Some countries have specific regulators or other types of organisations or bodies for PRS services. Other countries have permanent self-regulatory bodies.

A pre-condition for a pan-European PRS service is that PRS regulators exist in each Member State and that they have clearly defined powers. In particular, the primary responsibility for consumer protection for PRS should be clearly assigned to a single organisation.

Responsibilities of these regulatory bodies should include recommendation on allocation of pan-European PRS on the basis of common conditions, monitoring and enforcement powers and handling of complaints.

## **C. Preventing and taking action against fraud**

A coherent and efficient policy on the prevention and fight against fraud is essential for the development of a pan-European PRS market as fraud in PRS is a very significant problem in some countries. The range of misleading and fraudulent schemes is very broad and includes traffic creation against PRS numbers, wrong price information, unsolicited service subscriptions and use of international numbers from high cost countries. Detection of fraud in PRS raises particular problems because normal payment procedures provide an opportunity for fraud to go undetected for long enough to make it profitable.

To prevent fraud in PRS in a pan-European environment, the authors of the report recommend:

- agreement at EU level on a catalogue of fraudulent practices to be prohibited without further assessment;
- availability of a coherent set of sanctions to all PRS authorities. Sanctions should include the possibility to block a service;
- responsibility of PRS authorities to monitor pan-European PRS. In particular, a regulatory authority that is responsible for a platform provider that offers pan-European PRS should have continuous watch 24 hours per day 7 days per week. It should inform PRS regulatory authorities from other Member States of identified misleading and fraudulent practices;



- freezing of payments to content providers for pan-European PRS for a certain period in order to be able to detect fraudulent activity and to prevent them from reaching fraudulent content providers.

Measures and procedures that allow actions to be taken against a fraudulent PRS should also be available.

- PRS regulatory authorities that are responsible for platform providers that offer pan-European PRS should be able to close down a PRS service within a stated time limit in case of fraud. They should be able to accept requests for action from PRS regulators in other Member States according to established procedures. The procedures should be streamlined in cases of practices agreed at EU level as always having to be considered as unfair.
- PRS platform providers should be required to communicate to PRS regulatory authorities on request data allowing the identification of the content providers with whom they have agreement.
- minimum requirements should be established for complaint handling of pan-European PRS, including in particular procedures for handling cross-border complaints between PRS authorities.

To provide an incentive to platform providers to cooperate with PRS regulatory authorities and also to give them a legal basis to block access to fraudulent practices, the authors of the report recommend that PRS platform providers should not be held liable for fraud in PRS provided by content providers with whom they have agreements, upon condition that they disable access to alleged misleading and fraudulent practices when informed of their existence.

It should be stressed that fraud in PRS represents a problem not only for consumers and customers, but also for operators. Most exposed are the access operators, who normally have the billing relationship with the subscribers and therefore receive complaints when problems arise. The above recommendations should also benefit these operators.

#### **D. Consumer protection**

The report makes a number of recommendations that seek to ensure adequate consumer protection. They mainly relate to information requirements and call barring.

It stresses that there is a need to clarify the information requirements that apply to pan-European PRS and that this clarification should specify:

- all the information to be provided, including on the basis of existing Community directives;
- language requirements in particular for price announcements;
- price information on each of the components of PRS: content, conveyance and taxes.

In relation to the information requirements required by the Distance Selling Directive, the report recommends that the way they have to be provided for contracts concluded over the telephone needs to be clarified. It also takes the view that the derogation to the written confirmation requirement in favour of services that are supplied on only one occasion and invoiced by

telecommunications operators should be extended to cover all PRS, so as not to discriminate between PRS according to the way they are billed.

The report explains that when considering scenario C and D, probably only scenario D can support call barring in a satisfactory way. The authors recommend that call barring should be available to all numbers that provide access to pan-European PRS and that no action should be taken to encourage pan-European PRS for which call barring is unavailable as a consumer protection measure. Call barring should include a general option for opt-out, supplemented by a requirement for opt-in for certain categories of services, based on price and/or content.

### **E. Country of origin principle**

Because Member States have very different national regulations on PRS and because, under existing rules, PRS providers may have to comply with the legal requirements of the Member States of their customers, the study suggests that the pan-European provision of PRS would benefit from a country of origin principle. According to this principle, service providers would be allowed to offer their services in all the Member States by solely complying with the regulatory environment of the Member State in which they are established.

To get political support, establishment of this principle would have to be complemented by harmonisation of certain areas that are key to the provision of pan-EU PRS, as explained in other recommendations. It would also be essential that Member States are allowed to block on an ad-hoc basis a specific PRS that is in breach of their fundamental policy objectives.

### **F. Pricing**

A number of recommendations are provided on pricing related issues. They relate to the extent to which there should be pricing regulation, the determination of the price of PRS, communication of price information between partners in the PRS value chain and VAT.

The study recommends that there should only be light ex-ante regulations for the pricing of pan-European PRS. An option of individual pricing should be provided, at most protected by a ceiling in terms of per minute cost and/or total cost of an individual call.

It also takes the view that the content provider must be able to determine, in cooperation with the platform provider, the price and/or the charge band to use.

The price of a PRS, once defined must be communicated to the partners involved in the value chain providing the PRS. Because there is currently no suitable standard for exchange of PRS price information across national borders, price information will have to depend, in the short term, on the price implications of the numbering plan. In the longer term, the study however recommends to develop a suitable standard.

Because of the complexities of VAT legislation, it is recommended that the European Commission should clarify how VAT rules apply to pan-European PRS. The study highlights that compliance with current VAT rules represent a highly complex task that is difficult to manage for international

PRS because it requires, in a system of online billing<sup>2</sup>, that the access provider identifies for each call whether the user is a business user or a consumer and what is the country of the supplier.

## **G. Interconnection**

There are very few interconnection agreements today that include provisions for international PRS calls. National interconnection services for originating PRS calls from abroad or for terminating PRS calls abroad are normally missing. It may be questioned whether the new regulatory framework on electronic communications provides any basis for requiring ex ante requirements for international PRS provision and the study considers that this appears not to be possible.

Because of the difficulty of concluding all the necessary interconnection agreements for cross-border PRS due the number of players involved, the study suggests that pan-European PRS requires a form of ‘hubbing provider’ in each country. Such an organisation would undertake to provide transit for PRS calls between access providers and platform providers in their own country. In addition, it would have interconnection agreements with “hubbing providers” in other countries enabling them also to provide transit between access providers in their home country and platform providers in other countries. “Hubbing providers” cannot be created on the basis of regulatory obligations, - their establishment must be driven by commercial interests.

From a regulatory perspective, it is recommended that there should be unbundling between interconnection for conveyance of pan-European PRS and commercial agreements for content payment. While existing interconnection regimes should apply to the conveyance part of pan-European PRS, commercial freedom should be left for agreements defining the sharing of revenues for the content.

## **H. Billing**

The study explains that it is reasonable to rely on online billing in the first phase of developing a pan-European market for PRS because of its wide acceptance and its proven operational procedures for PRS on national levels. It however considers that respective policy actions should enable offline billing<sup>3</sup> rather than explicitly discriminate against it or hamper it and that in a later phase, offline billing could be used as an alternative model if the market so decides.

According to the study, where a choice is to be made between online and offline billing, it is to be made by the platform providers and where offline billing is selected, access providers should be required to provide billing information to platform providers on request.

On third party billing, the report explains that many countries have imposed special obligations, but that it is not clear whether such obligations can be retained under the new regulatory framework without country-specific or EU based legal justification. It suggests to examine whether the market for billing services could be considered as a candidate for a new relevant market.

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<sup>2</sup> Online billing means that it is the access network provider who calculates the charge to be paid by the customer for a PRS call. It is the system most commonly used in the EU.

<sup>3</sup> Offline billing means that the charge is calculated by the platform provider.

It is also recommended that PRS should not be confined to services paid over the telephone bill. Payment by other methods should be allowed.

### **I. Developing attractive content**

The report explains that getting access to particularly valuable content for the development of pan-European PRS may in some cases be problematic. Three examples are given: access to content protected by intellectual property rights, access to sports rights and access to subscriber data for directory enquiry services. In the latter case, the report suggests that specific action may be needed to ensure non-discriminatory cross-border access to comprehensive subscriber databases compiled to meet the requirements of the Universal Service Directive.

### **J. Consumer confidence**

To give consumers confidence in pan-European PRS, it is recommended to advertise the pan-European PRS number ranges as a trustmark guaranteeing compliance with a number of consumer protection requirements.

## **IV. IMPLEMENTATION STEPS**

The report suggests that the above recommendations require the elaboration, after consultation of all interested parties, of a Community instrument (e.g. a directive) on PRS to be accompanied by a code of conduct for pan-European PRS and possibly a memorandum of understanding between PRS-responsible authorities.

The code of conduct would define the specific rules applicable to such PRS. The authors of the report recommend to make acceptance of this code a prerequisite for number allocations in the pan-European PRS numbering plan so that its rules become binding for all these operators without the need for legal transposition of fairly detailed requirements across all Member States.

Once these common conditions are in place at EU level, the report suggests that a country-by-country development of pan-European PRS should be possible, with regulatory authorities that meet the set of defined requirements on oversight, regulatory powers, sanctions and complaint-handling being allowed to recommend allocation of pan-European PRS numbers to the numbering authority responsible for the pan-European PRS numbering range.

## Study on a pan-European market for premium rate services

### INTRODUCTION

This report has been developed by Cullen International SA and WIK Consult GmbH in response to contract INFSO 2004/48614: “Study on pan-European market for premium rate services”.<sup>4</sup>

The study has two main objectives:

1. to provide an atlas with details of national implementation of premium rate services (PRS) within the EU Member States and Norway;
2. to provide recommendations<sup>5</sup> for the enabling of a pan-European market for PRS.

These two objectives are interlinked in the sense that recommendations for a pan-European market must recognise and take the current national environments as their starting point.

In the early phase of the research, the study team carried out a series of interviews with regulators and market participants from different types of organisations in order to develop and finalise the information collection specifications to make sure that major issues were covered. This information collection specification then served as a basis for further interviews and questionnaires to collect information from each country. Typically, information has been provided by the national regulatory authority for electronic communications, the ministry responsible for communications and sometimes the ministry for consumer protection, various types of organisations with regulatory authority for certain aspects of PRS, the incumbent operator and sometimes alternative operators.

The information collected from the countries is presented in a set of tables in Annex I.

The national information shows many significant differences among national PRS environments. For example, there is no generally agreed definition of PRS. The terms of reference for this study have defined PRS as:

*“Premium rate services” refers to services, provided by an Information Service Provider (ISP), that are accessed by the use of a premium rate telephone number in which the caller pays a special premium rate that is above the normal tariff for voice calls. Examples of services are sports information services, games, popular voting (as opposed to electoral voting), chat lines and business information services.”*

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<sup>5</sup> These recommendations would apply to the EU Member States as well as the EEA Member States (Iceland, Liechtenstein and Norway).

This definition, which provides a good explanation of PRS, links the concept to the use of special numbers and tariffs. Some national definitions link the concept to special interconnection arrangements. Others associate PRS with joint billing and make it a key characteristic that the charge for the value added component appears on the same bill as the telephone call. In some countries, PRS is not formally defined at all.

For the purpose of this study, it has not been deemed necessary to set out a precise definition for PRS. It has been accepted that the study will deal with all types of voice based PRS no matter how they have been defined at the national level. The study has, however, a focus on voice-based as opposed to text-based PRS. The study team is aware that this approach excludes specific PRS messages in mobile telephony like short message services (Premium SMS) and multimedia message service (Premium MMS), even though this is an important and growing segment of the overall PRS market. Voice based PRS initiated from a mobile telephone is covered by the study.

The different PRS definitions are a reflection of the fact that such services have never been harmonised at the European level. While PRS are covered by a number of horizontal measures, which will be further discussed below, there are some uncertainties as to how these measures should apply to PRS.

A main aim of this study is to assess where this lack of harmonisation creates constraints for a pan-European market and where the internal market would benefit from further harmonisation or guidance. This assessment falls into several categories, in particular:

1. Frand prevention and consumer protection<sup>6</sup>

Experience has shown that PRS require a good framework for consumer protection. In several countries, PRS have been cursed by various types of fraud addressed by corresponding preventive measures at the national level. Also other types of unintentional use of PRS have led to fairly extensive national consumer protection regulations. The opening of a pan-European market must address these issues and assess whether cross-border relationships create additional consumer protection challenges.

2. Commercial aspects

PRS are based on a value chain which may be fairly complex even at the national level. For solutions to be viable, each part of the value chain must be paid its fair share of the end user price for the service. Interconnection agreements and billing arrangements are therefore key considerations.

These commercial aspects become considerably more complex in a pan-European environment, because:

- the value chain is likely to be longer, i.e. there will be more organisations that will need to share the PRS revenues;

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<sup>6</sup> Many of the consumer protection measures discussed in this report apply equally to business-to-business relationships.

- it cannot be assumed that all players have pre-arranged interconnection and billing arrangements with each other.

This report puts forward recommendations for both categories of issues after having considered the market potential for pan-European PRS services and various implementation options.

A draft final version of this report was discussed at a public workshop in Brussels on June 8, 2005. This final version has been amended to take account of comments made during and after this event.

## I. MARKET POTENTIAL FOR PAN-EUROPEAN SERVICES

### A. National market volumes for PRS and the role of cross-border PRS

There is a lack of reliable empirical information on PRS revenues in Europe. Nevertheless, the study is able to show some interesting basic facts about the national PRS markets and country-specific differences. The share of PRS revenues in the total fixed voice telephony market varies considerably across the different EU countries. In some countries like UK and France PRS already constitute a significant market that accounts for up to 15% of the fixed voice telephony revenues. In contrast, one can find countries like Spain and Germany where the relevant proportion of PRS lies at a much lower level of about 3%. Overall, the data collected<sup>7</sup> imply that on average PRS account for 5% to 7% of the national market volume for fixed voice telephony services. Given an actual market volume for fixed voice telephony services in the EU of about 90 billion euro in 2004<sup>8</sup> the aggregated market volume for PRS in the EU countries can be estimated at 4.5 to 6.5 billion euro.

In the future, the market volume for PRS is expected to continue to grow as saturation of the markets has not yet been achieved. This trend is based on three major influencing factors.

1. Firstly, new applications and contents, particularly those driven by increasing interactivity, convergence of media channels (e.g. TV, audio) and cross-media marketing activities will lead to a broader spectrum of opportunities for content creation.
2. Secondly, new sorts of content providers, mainly small and medium sized enterprises, will come to use PRS as an easily manageable distribution channel. Particularly in the segment of small and medium sized enterprises the penetration of PRS is still at a low level. These enterprises will increasingly demand PRS because it provides an easy-to-use micropayment solution. The retail and services sectors are most affected by this trend.
3. Thirdly, adoption of PRS by end users will proceed as people become more and more familiar how to get access to PRS content.

Currently, cross-border and pan-European PRS, respectively, only have a marginal share in the observed market volumes for PRS, as market players still are mainly focussed on their national home markets. This may be explained by two reasons. Firstly, the domestic markets are often not yet well developed and still represent high growth potentials. Secondly, even on a national level there are still a number of unsolved problems (e.g. regarding access, third party billing or consumer protection) which have higher priority for the providers than the development of a pan-European market.

Yet, one can observe first approaches by market players to delivering PRS transcending national borders and targeting foreign markets. For the most part, they focus on countries that have a high degree of similarity with the national markets of the content providers. Primarily, these target countries have the same language or are frequented by a high number of travellers from the home

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<sup>7</sup> Data collected by CI and WIK for this study.

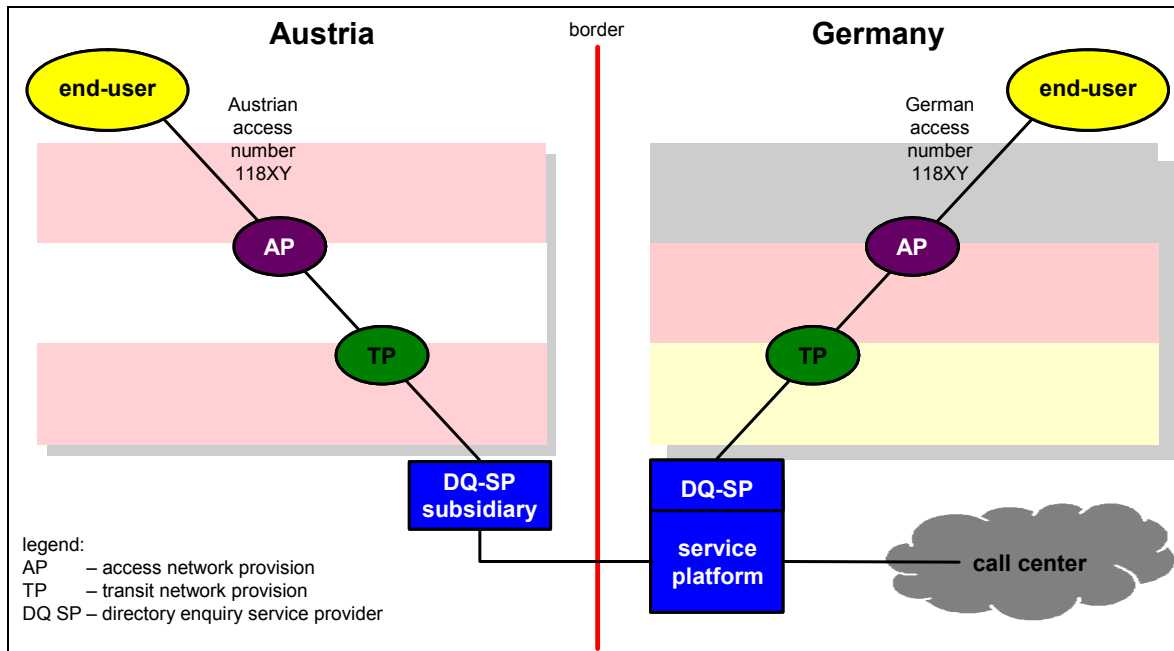
<sup>8</sup> See EU-Commission: European Electronic Communications Regulation and Markets 2004, 10th Report, December 2004.



country. In some cases, however, the cross-border activity takes place mainly at the wholesale level without any clear visibility to the users.

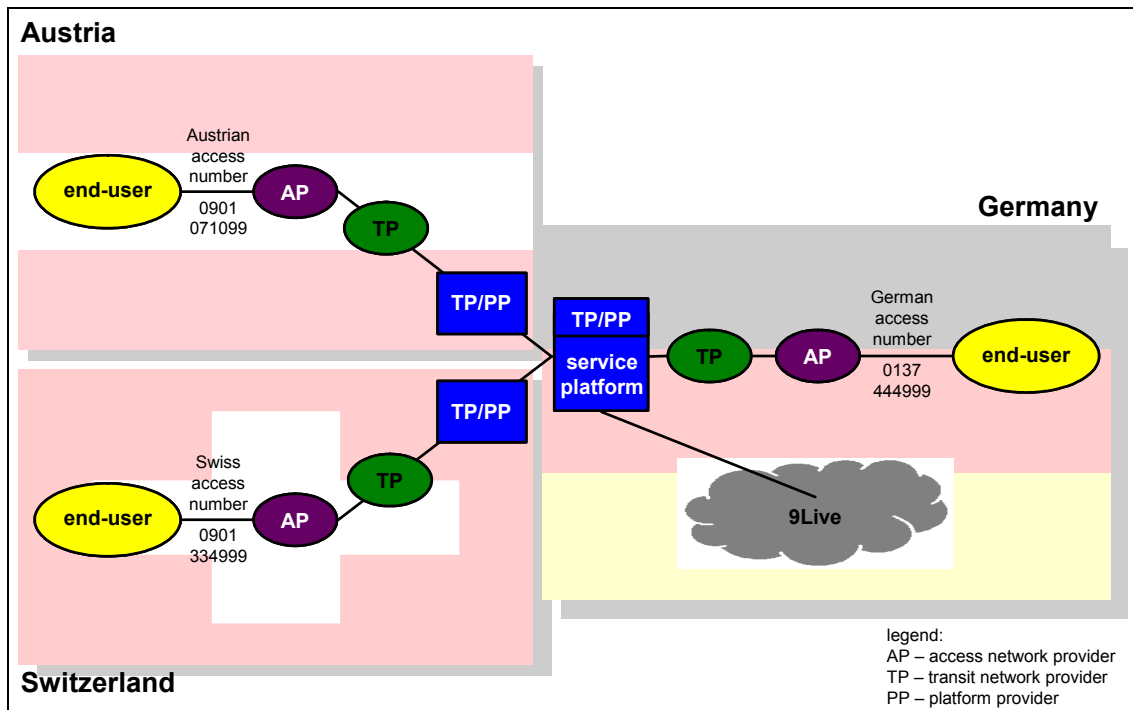
The following examples illustrate the main cross-border PRS offered already today:

- A platform provider offering PRS in the UK co-operates with a German platform provider. The provider in the UK has outsourced some of its platform functionalities to the platform provider in Germany. This arrangement is not visible to the end user in the UK, i.e. for British end users there is no difference in comparison to other PRS in the UK. The cross-border component in this example, thus, refers only to wholesale services with respect to the operation of PRS platforms. On the top level, all stages of the value chain remain in the UK and therefore there are no cross-border relationships between the players on the different stages of the value chain. But on a lower level of the value chain, namely within the stage of platform provision, one can find a cross-border relationship between the provider in UK and the platform provider in Germany.
- Irish platform providers offer content hosted on platforms in the UK to domestic customers in Ireland. The fact that the content as well as the platform provider is British is hidden from the Irish users, who call a number in the Irish numbering plan. The call is forwarded by an Irish intermediary through number translation to the British platform provider.
- A German provider of directory enquiry services is offering its service in Germany and Austria by the same national telephone number. Customer requests from both countries are handled in the same call centre which is located in Germany. The call centre agents provide enquiries about both German and Austrian subscriber data. In this example cross-border challenges occur on three levels: numbering (as the access numbers are the same, but originate from the individual national numbering plans), platform provision (as there is only a single service platform serving customers from two different countries) and content provision (as the call centre is located in a single country). But from the end user perspective the situation does not differ from two separate national markets. In both countries national access codes are used (particularly no prefix +49 for Germany or +43 for Austria is necessary) and only national companies are involved in the contractual relationships. Again it is mainly the wholesale level which is affected by cross-border aspects.



**Figure 1 - Example of cross-border directory enquiry service provision**

- A German TV broadcaster specialises in interactive game shows. Apart from its home market Germany this channel also covers Austria and Switzerland. The broadcaster treats each of the three countries as a specific end user market. This means that the broadcaster uses country-specific PRS numbers which belong to the respective national numbering plans and country-specific prices for PRS calls. The broadcaster contracts with integrated platform and network providers in Austria and Switzerland, respectively. These providers pass the calls from Austria and Switzerland, respectively, directly to the unique service platform located in Germany. Thus, there are two forms of contractual relationships in this operation: Firstly, the contract between the end user in Austria and Switzerland, respectively, and the respective providers in these countries. Secondly, the contracts between the providers in Austria and Switzerland, respectively, and the broadcaster.



**Figure 2 - Example of cross-border PRS with isolated national markets**

## **B. Market participants' needs and expectations for a single pan-European PRS market**

Even if pan-European PRS do not yet play an important role in the aggregate PRS market in Europe, there could be significant market potential for pan-European PRS in the future. A broad range of content is appropriate for a pan-European PRS market. Candidates for content suitable for a pan-European market are:

- directory enquiry services;
- news broadcasting;
- a single point of contact for customer care, particularly for multi-national companies;
- support hotlines for technical trouble or breakdown, particularly for multi-national companies;
- information hotlines, particularly for travel purposes and pan-European events;
- multi-country advertising in the fast moving consumer goods industry;
- fund-raising campaigns and donations;
- interactive television and televoting;

- gaming;
- adult services.

Overall, it appears that lack of potential content or services is not the reason for the still very limited pan-European PRS market volume. This assessment is supported by the results of a workshop on the ETNS which was held by the Commission on 24 June 2003. The workshop demonstrated that there is a demand for the delivery of PRS at a pan-European level if specific pre-conditions, such as the availability of short PRS numbers and transparent tariff schemes are met.<sup>9</sup>

Provision of pan-European PRS can therefore be characterised as chicken and egg problem. There is little demand because the supply function lacks the necessary framework for a viable business case. As soon as the general conditions allow content providers to offer PRS efficiently to customers across Europe, new services and formats can be expected to emerge in view of the market opportunities and the large number of potential users.

However, the advantages of a pan-European market for PRS and therefore the incentives to enter this market vary between the different players in the value chain for PRS provision<sup>10</sup>:

- **Content providers**

For most content providers, a pan-European market for PRS presents two strategic options:

1. Market development

The reach of the existing service portfolio can be extended by addressing new customers abroad, particularly those speaking the same language as the country of origin. This strategy is appropriate for PRS like directory inquiry services or cross-border interactive television (e.g. interactive TV programs which address ethnic groups in countries across Europe).

2. Product/service development

Content providers can adapt existing content formats for use in several countries. Examples are gaming applications of one country which are transferred to other countries, or information hotlines for travellers provided in different languages. In this first case existing services are modified to meet the requirements of language and culture in the target countries.

Equally, content providers can create new services which do not yet exist today and are not necessarily based on existing national PRS. Rather, they are explicitly developed for a pan-European market. For example, one can think of interactive TV-formats intended for a European audience.

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<sup>9</sup> See European Commission COCOM03-39, A single market for non-geographic telephony services – the ETNS, 9 September 2003.

<sup>10</sup> A general description of the respective value chain is given in chapter 0.

In particular, a pan-European market would enable nomadic end users to use their familiar PRS content provider across national boundaries. Content providers, could benefit from economies of scope as well as from economies of scale.

Most content providers consider a uniform access number for pan-European PRS valid across all countries as an essential prerequisite in order for efficient marketing.

Some content providers also favour a structure enabling a unique end user price throughout Europe for efficient advertising and announcement of prices across all countries. The need for a uniform price probably depends on the type of service to be provided. Services where content represents only a small part of the value created (e.g. televoting) often have a unique price. But country-specific price differentiation would presumably be important for services with high value content (e.g. helpdesk hotlines). There are also differences in national purchasing powers and national competitive environments as well as cultural differences in the willingness to pay for a specific type of content. From the viewpoint of the content provider, the market is therefore best served if they have a choice between unique prices and country-specific prices.

- **Platform providers**

For platform providers, economies of scale represent the most important advantage of a pan-European market for PRS. They could use their facilities more efficiently if they implement additional services for users in other countries, or the same service in different languages on the same platform, because they would have only a single platform to maintain.

Platform providers could also take advantage of differences in the national business environments across the EU countries. They could choose their location in the country with optimal conditions for wages, other input costs, taxes, and availability of know-how.

Finally, platform providers could create a new business activity with its own revenue stream by acting as agents<sup>11</sup> for platform providers in other countries.

- **Transit network providers**

Similarly, economies of scale are the main incentive for transit network providers to get involved with a pan-European PRS provision. They could benefit from additional revenues for the conveyance of PRS calls at low marginal costs. Transnational traffic exchange plays an important role in the provision of pan-European PRS, and cross-border transit network providers like COLT or Cable & Wireless presumably have stronger incentives than national transit network providers.

- **Access network providers**

For access network providers a pan-European market for PRS may create an opportunity to foster their individual “unique selling proposition”. They could gain a competitive

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<sup>11</sup> This opportunity is explained in more detail in the discussion of scenario C in Chapter III below.

advantage by offering their own customers access to foreign PRS which are not accessible to the customers of their competitors.

A pan-European market for PRS would also allow access network providers to develop new sources of revenue, as they could assume functions on the value chain for pan-European PRS, e.g. billing or marketing. The opportunity to broaden the activity portfolio may be significant as “making money from content” may allow access providers to compensate for the decline in traditional fixed line revenue.

There is nothing to suggest that the needs and expectations of incumbents and of alternative providers are significantly different. Both can realise advantages from such a new market. However, there may be differences between the two groups with regard to their actual capabilities and/or necessary preconditions for entering a pan-European market for PRS.

Overall, the development of a pan-European market for PRS is not expected to encounter general resistance by the market players so long as national PRS markets are not negatively influenced by the framework for a pan-European market. One can even assume that players on all stages of the value chain for the delivery of PRS can potentially benefit from a pan-European market for PRS. Of course cost-effective solutions have to be found to overcome the complexities of cross-border relationships.

Across the various stages of the value chain content providers probably have the greatest interest in a pan-European market for PRS, particularly for directory inquiry services and TV game shows. This interest is mainly market-driven, with new business opportunities from the development of new market segments. Services that would be marginal in a national market of a few million people, could be viable and appealing in a pan-European market of 500 million people. But language plays an important role in voice-based PRS. Therefore, many content providers regard people being temporarily abroad as the main target group for pan-European PRS. For such travellers it is obvious that access to PRS from abroad should be possible not only from fixed line but also from mobile phones.

In the short to medium term, the market potential for pan-European PRS is estimated at about 0,5 billion to 1 billion euro. This estimate is based on an extrapolation of the current situation and reflects two major trends:

- On the one hand, growth opportunities are created because existing PRS can be easily used from abroad. Thus, the set of PRS users is widened, mainly by people who live permanently or temporarily abroad. It is estimated that up to 5% of the national market volumes for PRS can be achieved additionally in this way.
- On the other hand, additional revenues can be achieved if existing PRS are adapted to the language and culture of other EU countries. These modified PRS are exported to the respective countries in the sense that they are available to users abroad in other languages. It is estimated that on average, up to an extra 10% of the national market volume for PRS can be achieved additionally in this way.

The additional market potential of a pan-European market for PRS would therefore represent 10% to 15% of the aggregated national market volume for PRS. This estimate does, however, not yet consider the business opportunities which are created by completely new specific pan-European

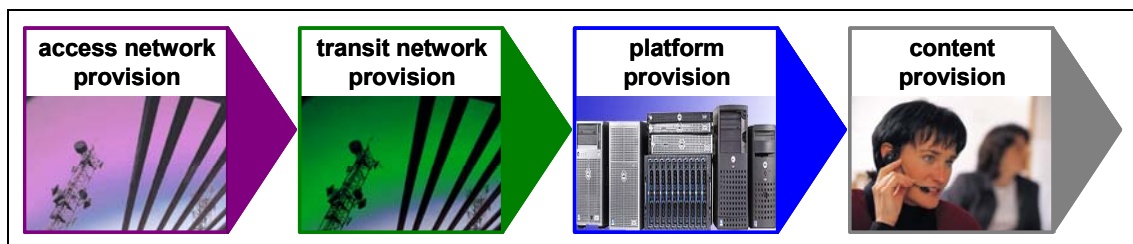
PRS. Thus, in the long term, the market potential for pan-European PRS will clearly surpass one billion euro.

## II. BASIC CONCEPTS AND TERMINOLOGY

In order to create a common understanding of the general features of PRS provision and to explain the PRS terminology used in this report, the following sections give a short overview of the value chain for PRS provision, interconnection principles, and billing procedures.

### A. Value chain for PRS provision

The provision of PRS usually involves a wide range of activities and resources, which results in a complex interaction between the involved parties. These relationships take place for the most part in an environment that is more or less invisible or unknown to the end user. In order to illustrate the core processes for the provision of PRS we use a functional value chain basically consisting of four stages.



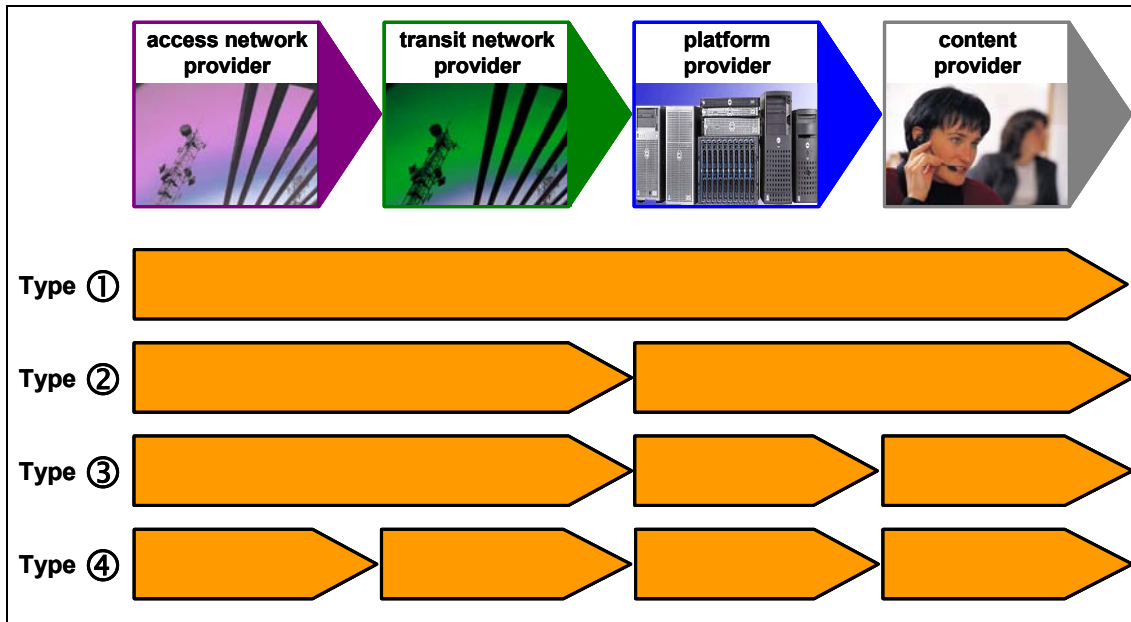
**Figure 3 - Functional value chain for PRS**

Each stage of the value chain has a specific role in the provision of PRS:

- Access network provision serves to connect the end user to a telecommunications network (“last mile”).
- Transit network provision represents the conveyance of calls between different telecommunications networks.
- Platform provision means the technical operation of a PRS platform. This particularly includes the provision of intelligent network features as well as audiotext platforms and setting up of access numbers for PRS.
- Content provision stands for creation and packaging of content to be made accessible via the PRS platform.

From an institutional perspective, the different stages of the value chain are not necessarily carried out by separate organisations. Rather, one can observe a more or less extensive integration. But it is important to note that from a functional perspective the four stages will always occur in the provision of PRS and no function can be omitted. It may only be that the functions are not transparent, particularly to the end user, because there is some degree of integration within the value chain.

Based on this value chain four typical business models can be described. These are summarised in Figure 4 below.



**Figure 4 – Business models for PRS provision**

Type 1 providers integrate the platform provision with the access network and the transit network provision. The provision of content is also part of the total solution. Examples of such fully integrated providers include incumbent operators and mobile operators disposing of own content (e.g. in the case of directory inquiry services). But usually, content generation and packaging is carried out by specialised entities different from the entities providing the other mentioned functions. Therefore, Type 1 more often occurs in this modified version rather than in the pure form.

Type 2 service provision depicts a situation where there are two key players involved: on the one hand an integrated access and transit network provider and on the other hand an integrated platform and content provider. Thus, a distinguishing mark of Type 2 is a strong separation between all network-related tasks and the specific tasks related to PRS provision.

Type 3 providers differ from type 2 providers in that the platform provider does not create and package the content, which is provided separately by a specialised content provider.

Type 4 represents the fully separated model. Each function of the value chain is performed by a separate entity.

The variations of business models in use may lead to complex interrelationships between players in particular if pan-European PRS are provided across national boundaries. Of course the services exchanged between the players occur at the wholesale level. Examples of those services exchanged are interconnection, billing or payment.

For example, in the case of Type 4, the access provider, platform provider and content provider may be located in three different countries. Transit networks would be involved in order to provide

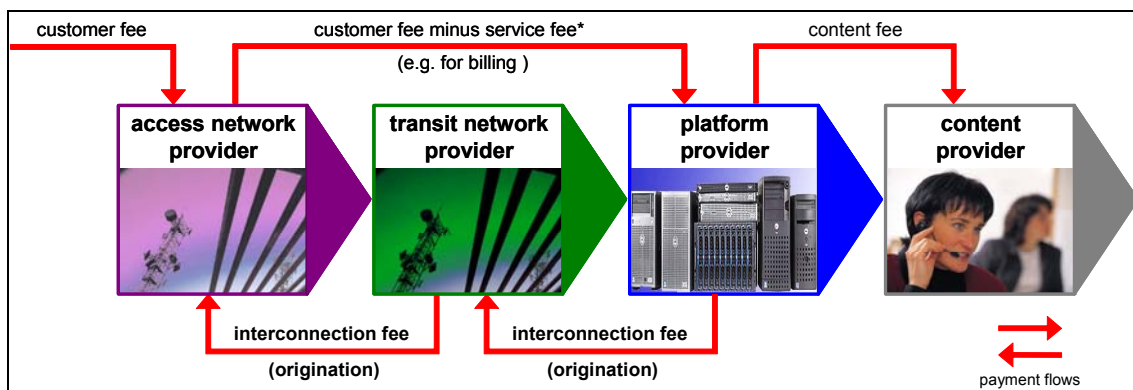


the necessary communication between the different operators. All these interrelationships would have to be defined in commercial agreements. From the perspective of the end user, however, these complex wholesale relationships are not necessarily visible.

## B. Interconnection principles

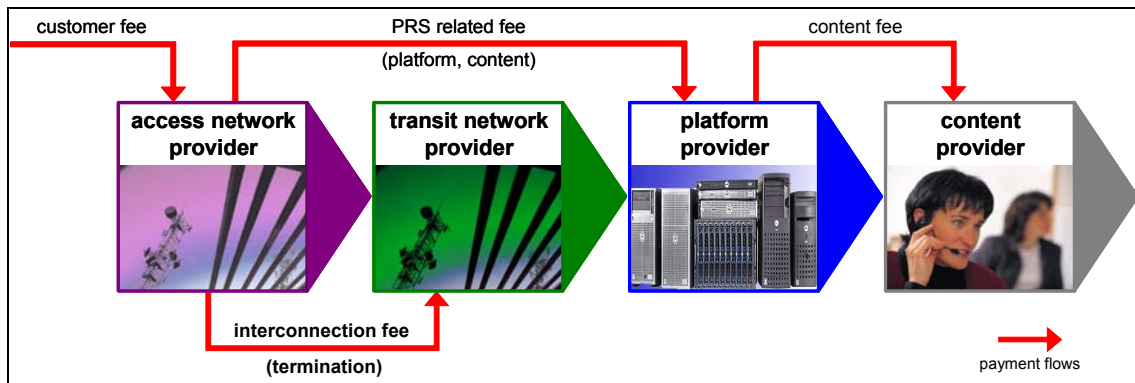
Interconnection arrangements between an access network provider and a platform provider may mirror one of two distinct concepts: call origination or call termination. This distinction is crucial for the contractual relationships and responsibilities of each organisation in the value chain.

If the call origination principle is applied (see Figure 5), the platform provider plays the leading part in the value chain in the sense that he is “assembling” and selling the PRS to the end user. In other words, in a call origination regime there is an implicit contract between the end user and the platform provider. Indeed, the platform provider is buying a wholesale service (conveyance of the call) from the preceding transit network provider. The transit network provider, in turn, is buying a corresponding service from the access network provider. Thus, the network providers are responsible for originating PRS calls and conveying these calls to the PRS platform. Additionally, the platform provider is buying a wholesale service for billing and collection.



**Figure 5 - Illustration of the call origination principle**

In contrast, under the call termination principle (see Figure 6) the access network provider is buying a wholesale telecommunications service from the transit network provider. The latter, in turn, is conveying the PRS calls to the platform provider on behalf of the access network provider. Under the call termination principle the access network provider therefore is playing the leading part in the value chain with respect to “assembling” and selling the PRS to the end user. Otherwise stated, a call termination regime rests on a contractual relationship between the end user and the access provider. This contractual relationship may be implicit if the normal terms of conditions of the access provider do not oblige the operator to complete calls to PRS numbers, or explicit if such call completion is part of the standard contract. In this situation, the access network provider normally views the PRS calls as part of its normal revenues and buys call termination services for PRS in the same way as he buys termination services for, e.g., international calls.



**Figure 6 - Illustration of the call termination principle**

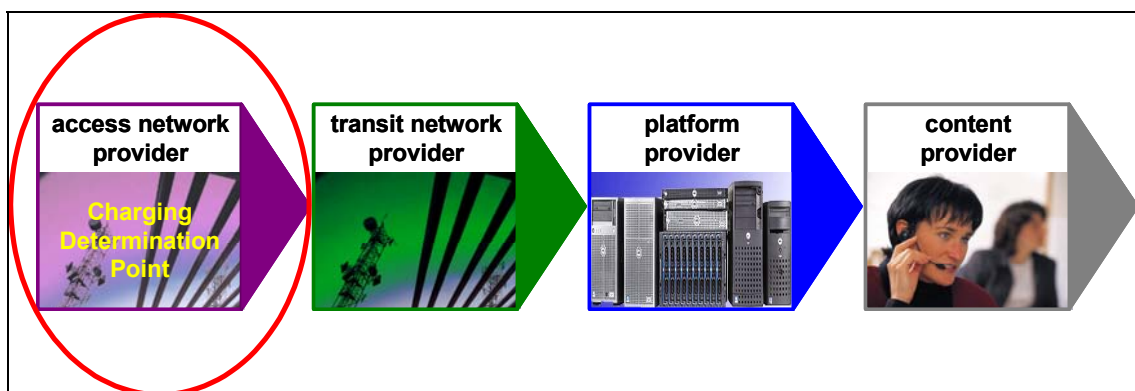
### C. Billing procedures

In principle, one may distinguish between two billing methods applied in the provision of PRS:

1. Online billing,
2. Offline billing.

The difference between these two concepts is over where the “charging determination point” exists in the value chain.

In the case of online-billing, the charging determination point is with the access network provider (see Figure 7). He calculates the actual price of the PRS call to be paid by the end user. All relevant information about the party initiating the call and the PRS call itself (e.g. customer data, call data like length of the call and number called, price tables) are available to the access network provider at the time of the call so that he is able to determine the end user charge without delay (“online”).

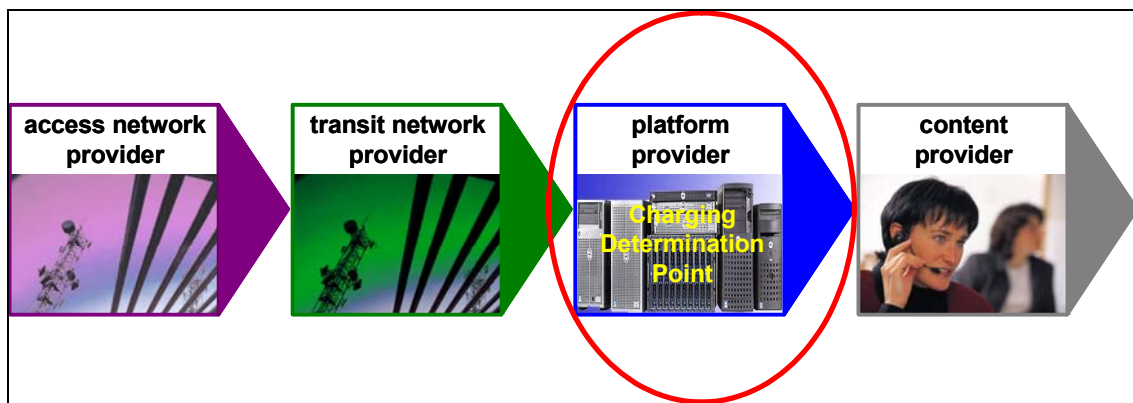


**Figure 7 - Illustration of the online-billing principle**

Offline-billing assigns the charging determination point to the platform provider (see Figure 8). In this case, not all relevant charging information (e.g. customer data, call data) is necessarily

available to the platform provider at the time a PRS call is made. Rather, the platform provider calculates the end user charge later when he has the necessary information (“offline”).

In case of offline-billing, it is up to the platform provider to decide how the money actually is collected. In principle there may be several options as outlined below. In practice, collection will in most cases be performed by the access provider. This requires a flow of information about the individual end user charge to the access network provider who is sending the bill and collecting the money.



**Figure 8 - Illustration of the offline-billing principle**

In a pan-European market for PRS both online- and offline-billing require a cross-border flow of information between platform providers and access network providers. Usually these two entities are located in different countries. In the first case (online-billing), end user tariffs for each PRS must be known to the access network provider. In the second case (offline-billing), the platform provider needs comprehensive information about individual end users having initiated a PRS call and the only entity able to give this information is the access network provider.

Assuming that the access provider carries out the billing function, he may either do it on his own behalf or he may provide third party billing for the platform provider. If the access provider is in an explicit contractual relationship with the end user regarding the provision of PRS, he would normally bill the end user for using PRS on his own behalf. But if the (implicit) contractual relationship for PRS is between the platform provider and the end user, another solution has to be found. The platform provider does not usually have direct contact with the end user, but has several options to solve the problem. He can make an agreement with another party, e.g. with the access provider or a settlement agency, commissioning them to provide billing services as third party billing. In many countries, the dominant access provider has a legal obligation to provide third party billing in such cases.

Depending on the interconnection arrangements (call origination or call termination) and the billing procedure applied (online or offline billing) there are different billing service options for invoicing the end user fee which are further explained in the following table.

Interconnection arrangement	On-line billing	Off-line billing
Call origination (platform provider is the implicit counterpart for the end user)	This is a clear case for third party billing	Third party billing is usually involved as platform providers tend to make agreements with other entities, such as the access providers, to provide billing services for invoicing and collecting
Call termination (access provider is the implicit counterpart for the end user)	If the access provider has an explicit obligation in the subscription agreement to complete PRS calls, the operator will consider PRS as part of its own portfolio and will consequently bill the PRS on its own behalf.  However, there may also be cases of call termination arrangements where the access operator will claim that he is providing third party billing.	In principle, this combination probably leads to the situation where the access provider is billing the end user on his own behalf. However, the combination has no practical relevance so far.

**Table 1 – Third party billing and interconnection arrangements**

### III. BASIC SCENARIOS

The following scenarios aim at illustrating the main alternatives in creating a pan-European market for PRS. The four scenarios rest on the generic value chain<sup>12</sup> for the provision of PRS (see section III.A on Value chain for PRS provision above).

The scenarios are designed to show possible relationships between the players in the value chain when end users access pan-European content by using PRS.

The scenarios mainly differ with regard to two features crucial for the provision of pan-European PRS: the location of the platform provider and the numbering range used for access to the PRS. They do not provide an exhaustive description of pan-European PRS provision since combinations of the characteristics of the four scenarios are possible as well. But, while variations may occur, the basic challenges for the players in the value chain will remain the same.

#### A. Scenario A

Scenario A is characterised by a single content provider with a pan-European offer in the form of 25 country-specific PRS platforms and access numbers.

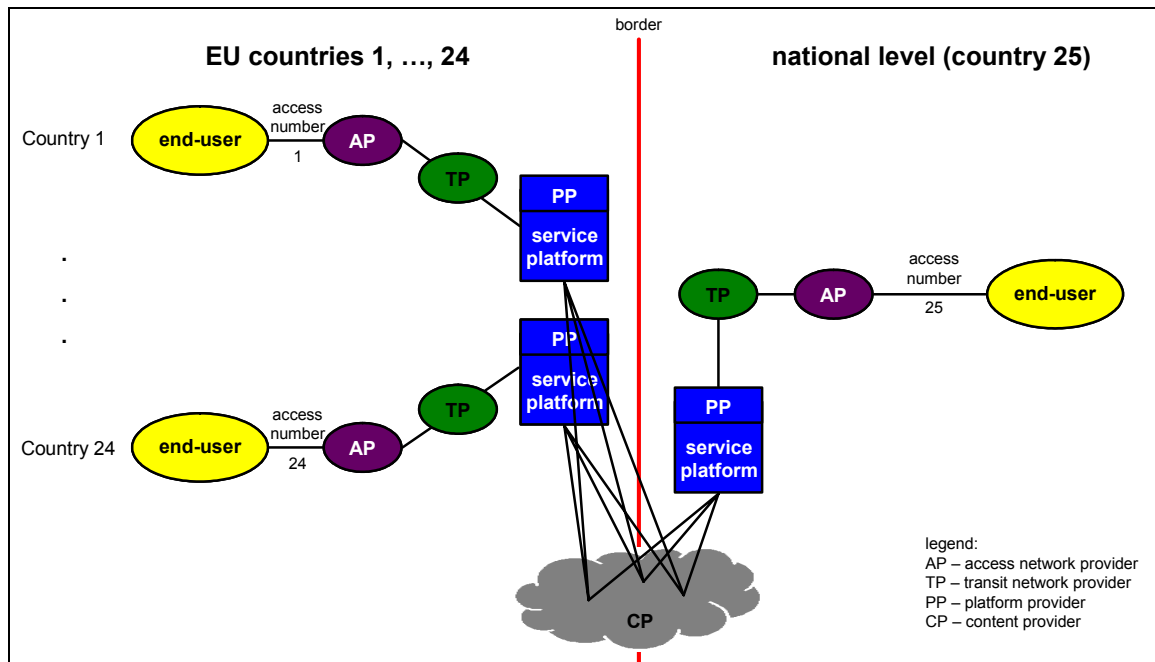
In each country the content provider uses a PRS access number from the respective national numbering plan. In each country the content provider also has a cross-border connection to a PRS platform that ensures the availability of the content in that country. These platforms would typically be built up and operated by individual country specific platform providers. The platform provider(s)

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<sup>12</sup> The basic value chain includes the following elements: access network provider, transit network provider, platform provider, content provider and the numbering range used for PRS.

have interconnection and billing agreements at a national level and set up the national PRS numbers on behalf of the content provider.

Scenario A can be put into practice today and it virtually exists with or without the awareness of end users.



**Figure 9 - Illustration of scenario A**

Scenario A exhibits the following advantages:

- Pan-European PRS provision is subject to the general PRS conditions in each country, as the scenario includes only few border relationships. There are, for example, no problems with interconnection or billing arrangements, call barring procedures, fraud prevention measures or numbering ranges on a cross-border level.
- Despite foreign content the individual PRS calls remain national calls, so that the potentially higher interconnection cost for international calls are avoided.
- National regulations for PRS are very different. As scenario A implies that the platform and access providers comply with the legislation of the Member State in which they are established, implementation of pan-European services can be carried out without any urgent need for harmonisation or change to the national environments. To the extent that such harmonisation is achieved later on, scenario A will benefit from the simpler environment.
- From a commercial viewpoint scenario A opens up a high degree of flexibility to platform providers. They may choose between different business models: operating only a national platform or with platforms in all relevant countries, maybe in cooperation with foreign platform providers (“integrated pan-European platform provider”).

Scenario A exhibits the following challenges:

- There are few incentives for the providers involved, as they can create synergies only to a very limited extent:
  - Content providers meet constraints in pan-European marketing because of country specific access numbers and prices.
  - Platform providers have to take care of country specific regulatory requirements regarding customer protection, fraud prevention, content regulations and billing.
  - Platform providers have to set up PRS numbers and routing tables in each country.
- Apart from the availability of pan-European content, the additional benefit for end users is low, as the use of PRS retains its national characteristics (e.g. with respect to numbering, the end users have to know the country-specific PRS number) and it thus represents the most basic form of a pan-European market.
- Lack of transparency regarding the international character of content, i.e. the end user is not necessarily aware that he consumes foreign content which may be unfavourable from the viewpoint of consumer protection.

## **B. Scenario B**

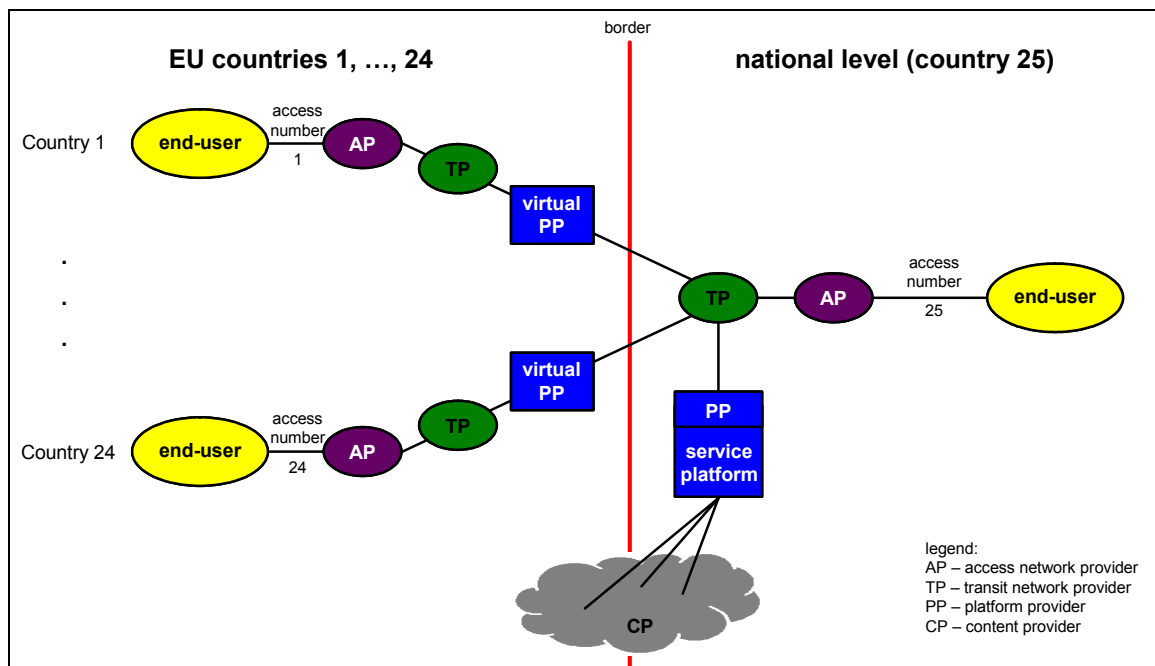
Scenario B is characterised by 25 country specific national access numbers for pan-European PRS, but only a single pan-European PRS platform.

As in scenario A the content provider markets in each country domestic PRS numbers for consuming foreign content. The main difference between scenario B and scenario A lies in the PRS platform architecture. In scenario B, the content provider has a connection to only one centralised PRS platform which is located in an arbitrary EU Member State, however, making the content available to end users throughout Europe. The provider of this PRS platform establishes virtual service platforms in each of the countries the content provider wants to serve. In addition, the platform provider has to set up the corresponding national PRS numbers and enter into the existing interconnection and billing agreements for PRS on the national levels.

The virtual platforms primarily serve as vehicle for the collection of national PRS calls and conveyance of these calls to the actual physical platform. Cross-border conveyance of the PRS calls is usually achieved by number translation into international calls (IDD calls). These international calls are routed to the centralised PRS platform abroad by transit network providers. Thus there must be specific cross-border arrangements for interconnection and billing of PRS that particularly cover bad debt management. As an alternative to IDD calls the link between the virtual PRS platforms and the centralised PRS platform may also be established by a point-to-point connection (e.g. leased lines) or over the Internet. In these cases, there is no longer any requirement for additional transit network providers between virtual and centralised platforms, or for an extra level of transit network in PRS-specific cross-border interconnection arrangements.

“Scenario B type” integrated cross-border arrangements which cover interconnection and billing of PRS at the same time do not generally exist today. But in a certain sense scenario B has already

become a market reality. This has been made possible by separation of the settlements for traffic conveyance and for the actual PRS component. Thus, these PRS arrangements can make use of the existing interconnection arrangements for traffic exchange; additional agreements between the virtual platform provider and the PRS platform provider are only necessary for the settlement of PRS content. These agreements are mutual and have to be made case by case between the platform providers involved.



**Figure 10 - Illustration of scenario B**

The advantages and challenges of scenario B are similar to scenario A. For content providers both scenarios are comparable, with a specific advantage for scenario B as there is a relationship with only one PRS platform and its respective platform provider.

The scenarios differ particularly over the extent of potential cost synergies from the installation and operation of the PRS platform. Compared with scenario A, in scenario B platform providers can achieve higher cost savings, since they lower investment costs with only one service platform and presumably also lower operating costs for the virtual platforms in each country.

All other aspects remain the same as in scenario A, although if IDD is used for cross-border traffic exchange between the home country and the end user's country, there have to be PRS-specific cross-border arrangements for interconnection and billing.

### C. Scenario C

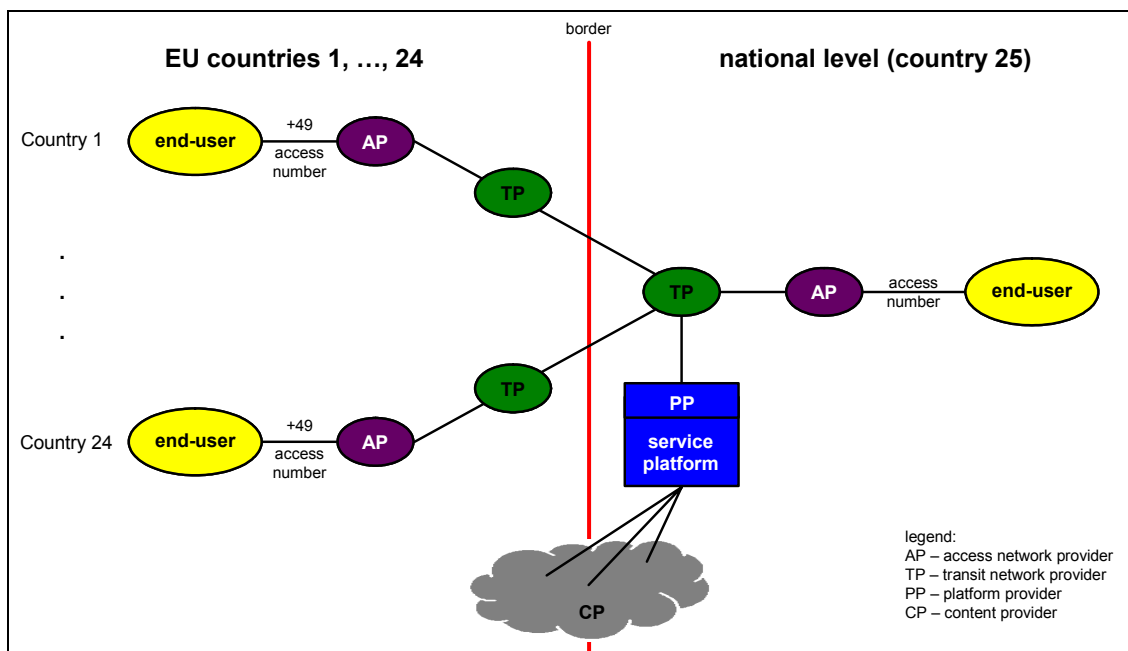
Scenario C is characterised by a single access number belonging to the national numbering plan of a particular country, and a single pan-European PRS platform.

The content provider in scenario C uses a PRS access number from the national numbering range of one EU Member State (referred to below as the "home country"). Access to the content in the home

country is as for a national PRS. Access to the content from foreign countries, however, involves dialling the E.164 country code of the home country in combination with the PRS number of the home country. So for the end users, this arrangement is like normal IDD calls, but for cross-border PRS calls. The content provider again has a connection to only one centralised PRS platform. There are no other physical service platforms or virtual platforms in other EU countries involved. Of course, PRS-specific interconnection and billing arrangements between the different countries are required.

A particular variation of scenario C, which may be referred to as C+, is characterised by a special prefix in the national numbering plan for international access to national PRS numbers. Ireland has identified how this may be implemented in its numbering plan. The EU-wide dialling format would be +353 92YZ XXX XXX, corresponding to the existing National Premium Rate Numbers 15YZ XXX XXX. However, this code will not be activated until Comreg is satisfied that a commercial and technical basis exists.

The EU 25 country analysis (see. Annex Table 14 – Access to non-geographic numbers) shows that cross-border access to PRS via the E.164 country code and hence scenario C is not yet implemented in the EU.



**Figure 11 - Illustration of scenario C**

Scenario C exhibits the following advantages:

- Marketing by content providers can be facilitated by using only one PRS number for all EU countries.
- Platform providers can achieve significant synergies:



- They need not set up multiple country specific PRS numbers.
- They need not operate additional infrastructure abroad.
- End users can use the same number for a specific PRS, whatever their actual location in the EU.

Scenario C presents the following challenges:

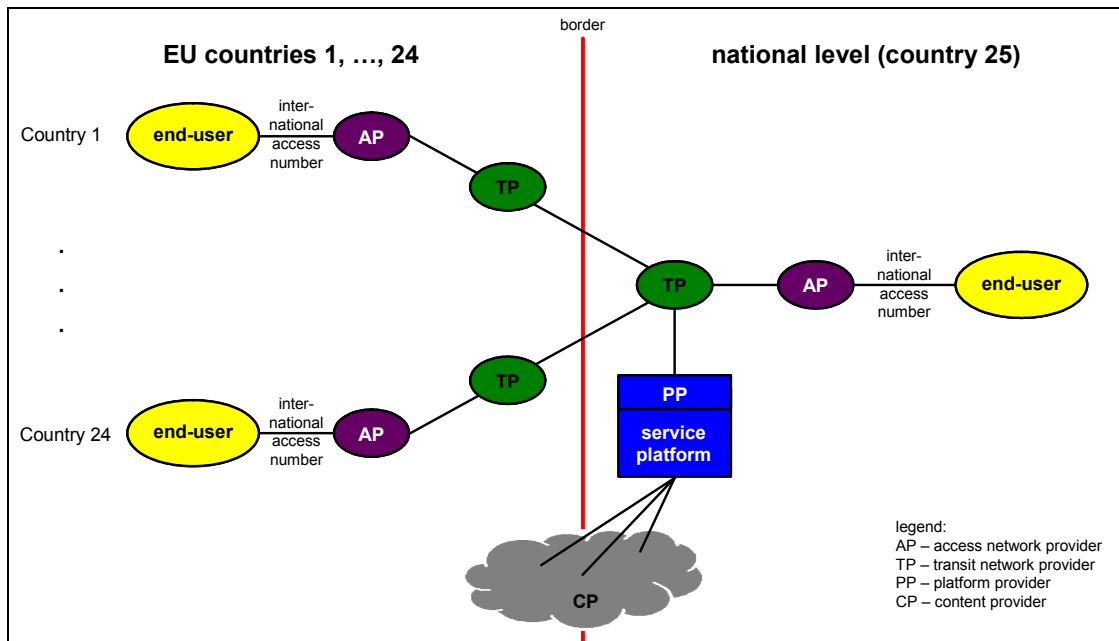
- The PRS numbering scheme of the home country may conflict with national regulations in the countries where the PRS call is originated, e.g. with respect to content categories or price categories.
- The ability of NRAs to act against foreign providers are limited, e.g. in case of fight against fraud or cutting-off of operators.
- Arrangements for cross-border billing of PRS including bad debt management and return debits do not yet exist.
- Realisation of call barring in the individual countries is unsolved because of different PRS numbering ranges across the EU countries.
- Implementing an all-inclusive price announcement to an end user before using a PRS is difficult or impossible due to different national taxes and different interconnection and conveyance charges.
- End users may be reluctant to adopt pan-European PRS because of the international character of the access number (i.e. the E.164 country code). Apart from this, calling international numbers may be barred in many companies.

#### **D. Scenario D**

Scenario D is characterised by an uniform pan-European access number, and a single pan-European PRS platform.

As in scenario C, a content provider markets his content with only one PRS access number throughout Europe. The distinct character of scenario D is that a supra-national numbering range (e.g. ETNS, ITU) is used. The access number is independent from the PRS numbering ranges in both the country of origin (location of the platform) and the country of use (location of the caller). Again, the content provider connects to a single PRS platform in the country of origin and there are neither other physical service platforms or virtual platforms in other EU countries involved. Scenario D also requires PRS specific interconnection and billing arrangements on a supra-national level.

The results of the analysis of the EU Member States (see Annex Table 14 – Access to non-geographic PRS numbers and Table 15 – Status of European Telephony Numbering Space) clearly show that scenario D is not operational today.



**Figure 12 - Illustration of scenario D**

The implications for scenario D are broadly comparable to scenario C. For the end users scenario D is even more convenient than scenario C as they can access a PRS with a unique number completely independent from their actual location. Also pan-European marketing of PRS is facilitated because content providers need to advertise only one non-geographic number and they can set unique end user prices, at least for content, across different countries.

The challenges of scenario D form a subset of those in scenario C as scenario D poses less challenges. The reduction in the number of challenges is mainly because scenario D is largely independent from national PRS markets. The following specific challenges apply to scenario D:

- The ability of NRAs to act against foreign providers are limited, e.g. in case of fight against fraud or cutting-off of operators.
- Arrangements for cross-border billing of PRS including bad debt management and return debits do not yet exist.

## **E. Comparison and conclusions**

Each scenario has certain advantages and challenges. Some scenarios (A and B) can clearly be implemented more quickly than others. But at the same time scenarios C and D can provide services with different characteristics, which will make them the preferred choice by many content providers. Scenario C and D, once enabled, may also provide quicker access to market and therefore deliver more advantages in the long term.

In particular, scenarios C and D enable the marketing of PRS across all Member States at the same end user price and with a unique telephone number. From a marketing perspective this may be

desirable especially for content providers as it would simplify cross-border advertising as well as price announcements. But different VAT rates<sup>13</sup> and different conveyance costs may result in a country-specific and/or access provider-specific price component for the content part of a PRS. Thus, end users could pay different prices for the same content, depending on their location and choice of access provider, unless the content provider decides to absorb these differences. In the latter case, the content provider will receive different payment depending on the country from which the PRS is called and the choice of access provider.

Each scenario also carries regulatory implications. Each of the various actors in the value chain, if they are separate legal entities, will need to comply with the regulatory environment of the Member State in which they are established. For sake of argument, let us assume that in scenarios A and B, most of the actors in the value chain (except for the content provider) are established in the Member State where the customer is located. They will clearly need to comply with their local regulations.

The regulation to which the content provider (in all four scenarios) who is only established in one Member State has to comply is more complex to determine. As explained in section V.B on Electronic commerce below, he may only need to comply with his home legislation<sup>14</sup> or with the legislation of the Member States where the consumer is established. It appears that scenarios A and B imply more local physical establishment and therefore compliance by more operators with the laws of the Member State where the customer is located.

The obstacles and recommendations identified in this report are mainly geared towards addressing scenarios C and D where local physical presence are less likely to occur.

A comparison between the different scenarios in terms of their marketing characteristics is provided in the table below.

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<sup>13</sup> As explained in section V.D on VAT below, the current VAT regime requires VAT for PRS to be paid in the country of the platform provider if the service is provided to a consumer. Thus VAT is not necessarily a variable price element for pan-European PRS today. VAT regulations are, however, subject to review and this rule could be changed.

<sup>14</sup> If the E-commerce Directive applies. Except for consumer contracts.

	Scenarios A and B	Scenarios C and D
Regulatory differences	<ul style="list-style-type: none"> <li>• may be implemented without any additional adjustments to the regulations</li> </ul>	<ul style="list-style-type: none"> <li>• requires a significant effort to establish a new type of PRS service with corresponding regulatory structures</li> </ul>
Access and transit network providers	<ul style="list-style-type: none"> <li>• fits well with the existing operational environment</li> </ul>	<ul style="list-style-type: none"> <li>• requires significant efforts to establish new routing and interconnection arrangements</li> </ul>
Platform providers	<ul style="list-style-type: none"> <li>• requires agents in each national market</li> <li>• operates under different national regimes. Adaptations may be necessary :               <ul style="list-style-type: none"> <li>• category in numbering plan;</li> <li>• pricing band in numbering plan;</li> <li>• specific information requirements;</li> <li>• authorisation requirements;</li> <li>• billing procedurs.</li> </ul> </li> <li>• enables differentiation between national marketing policies, such as price differentiation, to different markets</li> </ul>	<ul style="list-style-type: none"> <li>• enables direct marketing across EU without national agents</li> <li>• enables marketing based on a single European access number</li> <li>• enables marketing based on a uniform content price across Europe, where the only price differences may be caused by different conveyance costs and VAT, unless these differences are absorbed by the platform operator and/or the content provider.</li> <li>• the single access number benefits travellers who can access the same service from all countries using the same number</li> </ul>

**Table 2 – Comparison between the scenarios for pan-European provision of PRS**

The effort in enabling pan-European PRS is discussed in chapter VI below. But first it is necessary to understand the current regulatory environment that applies to PRS. This is discussed in the following chapter.

#### **IV. CURRENT REGULATORY FRAMEWORK AT THE EU LEVEL**

##### **A. Electronic communications**

Most Member States saw a need to create a regulatory environment for PRS in the early 1990s when value added services were liberalised in 1992. Some of these regulations have survived until today.

The 1998 regulatory package for the telecommunications sector, which brought “full liberalisation” to the European Union, defined very broad sets of telecommunications activities where asymmetric obligations could be imposed after having found the criteria for significant market power (SMP) satisfied. Since the 1998 package did not have any clear provision that excluded content, PRS could be seen as a form of telecommunications activity and specific asymmetric obligations could be applied to operators with SMP, for example for cost oriented third party billing.

This situation has changed with the 2003 regulatory framework<sup>15</sup>, referred to below as the new regulatory framework (NRF). The philosophy of this framework is to apply asymmetric obligations only to operators in specific markets narrowly defined according to the principles of competition law. The European Commission has defined 7 retail markets and 11 wholesale markets in its recommendation for relevant markets. None of these has any specific relevance to the main issues concerning PRS services.

It is possible for national regulatory authorities to define additional relevant markets, subject to the approval of the European Commission. However, they cannot do so for content, because content is specifically excluded from the new framework. Content is assumed to be covered elsewhere, by a different set of regulations and possibly by a different regulator.

In the case of broadcasting, the separation of content and content regulation from the transportation elements is fairly clear, although some overlap between the two regulatory regimes has had to be accepted, for example, in the form of “must carry” obligations<sup>16</sup> in the new framework. Broadcasting content regulations have been covered by EU measures such as the “Television Without Frontiers Directive” and this has created a harmonised basis for content regulations at the national level.

There is no similar EU measure that specifically covers content for PRS. While the new framework could assume that broadcasting content would be covered by broadcasting regulations, no such assumption can be made for PRS content, despite the fact that as sections B on Electronic commerce and C on Consumer protection below show, there are general EU measures that apply to PRS content. Specific content regulations on PRS only exist at the national level.

The new framework required most countries to develop new laws<sup>17</sup> on electronic communications, to transpose the framework into national laws. However, there were no PRS provisions to transpose. Some countries have added their own national conditions in order to define a regulatory environment for PRS, but other countries did not do so and continue to rely on provisions from previous regimes.

While the new framework does not apply to the content part of PRS, it does apply to its transportation elements. However, the high degree of integration between transportation and content creates uncertainty how the new framework should be applied to PRS when considering some key issues.

This section goes on to discuss some of the particular elements of the new framework and their relationship to PRS.

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<sup>15</sup> 2002/19/EC - Access Directive, 2002/20/EC - Authorisation Directive, 2002/21/EC - Framework Directive, 2002/22/EC - Universal Service Directive, 2002/58/EC - Directive on Privacy and Electronic Communications, 2002/77/EC - Competition Directive, 676/2002/EC - Radio Spectrum Decision.

<sup>16</sup> Cable TV operators may be imposed obligations on making certain channels or programmes available to their subscribers.

<sup>17</sup> In some exceptional cases, such as in Denmark, the transposition was achieved by amendments to prior legislation.

## 1. Numbering

The new framework clearly assigns the rights relating to national numbering plans to the national regulatory authorities (NRAs). However, it provides little guidance for the construction of numbering systems for PRS. The Annex to the Authorisation Directive<sup>18</sup> sets out that the NRAs may designate the type of service to be used and attach requirements to it. Many countries had set up special number ranges for different categories of content long before the new framework was adopted and this would seem acceptable as a set of requirements attached to the special service number for PRS. However, in the views of some regulators, it is doubtful whether such requirements can include content requirements when the package itself excludes content.

Numbering ranges have also been used to indicate different price levels for PRS services, sometimes in combination with categories of content. Although the new framework makes no specific reference to the use of number ranges in this way, there is little reason to question whether this practice is in conformity with the package.

The Framework Directive allows the harmonisation of numbering plans when necessary to support pan-European services, but so far there has been no such harmonisation for pan-European PRS numbers.

## 2. Access to non-geographic numbers

Article 28 of the Universal Service Directive<sup>19</sup> requires Member States to ensure access to non-geographic numbers “*where technically and economically feasible*”. Since PRS numbers are non-geographic numbers in the national numbering plans, this requirement clearly applies. However, technical and economic feasibility appears so far to have been judged insufficient for practical implementation. The study team is not aware of any national environment where Article 28 has led to any specific action or enabled cross-border traffic.

Article 27 of the Universal Service Directive likewise requires Member States to ensure that all public telephony operators can handle calls to the European telephony numbering space (ETNS<sup>20</sup>). This has raised the question whether ETNS could be used for PRS. A UK association, Network for Online Commerce (NOC), has launched a formal request for use of ETNS numbers for pan-European PRS. This request was, however, rejected in 2004 by the Numbering, Naming and Addressing Working Group (NNA WG) of the Electronic Communications Committee of CEPT, which acts as ETNS Administrator. The main reasons<sup>21</sup> for this decision were lack of fraud prevention and consumer protection issues, particularly price transparency.

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<sup>18</sup> 2002/20/EC - Authorisation Directive

<sup>19</sup> 2002/22/EC - Universal Service Directive

<sup>20</sup> International code ‘3883’ was assigned by the International Telecommunication Union (ITU) to 24 European countries. The decision to assign ‘3883’ was made in March 2000.

<sup>21</sup> See letter from ECC/NNA Working Group, to the Network for Online Commerce, 13th July 2004.

ETNS therefore has not provided a solution for pan-European PRS in that particular case. However, national regulators that participated in the NNA WG decision do not rule out that the decision could be reversed if consumer protection and fraud prevention mechanisms were sufficiently improved.

### 3. Significant market power, billing and interconnection

The main problem with PRS services where asymmetric regulations have traditionally been imposed at the national level has to do with billing and interconnection. In many countries, the incumbent operator has been obliged to perform third party billing at cost oriented prices for the value added element of the call, with or without bad debt responsibility. This obligation has normally been integrated with interconnection agreements and has been part of the reference interconnection offer (RIO).

The new framework presumes asymmetric regulations as a consequence of the identification of a relevant market. Market analysis may lead to a conclusion that one or more operators have significant market power (SMP) in that market, and to a decision on the appropriate remedies for the SMP operator.

None of the 18 markets recommended as being relevant by the European Commission has any direct relationship to PRS. It is therefore questionable whether the new framework can be used to regulate the content related aspects of PRS. Several countries have regulatory obligations for third party billing. It has been argued that the billing activity may be considered as an “associated facility”<sup>22</sup> of the interconnection of PRS services. On the other hand, there is a counter argument that the billing is for content rather than transportation, and content is excluded from the NRF.

Whether or not third party billing can be justified under the NRF, it can nevertheless be regulated at the national level. Because PRS content is excluded from the new framework and not harmonised elsewhere in EU legislation, there is nothing to prevent a Member State from adopting its own PRS content regulations as well as its own asymmetric obligations for third party billing of content provided that it has established the appropriate legal basis in its national legislation.

Another issue is the nature of the interconnection relationship between an access operator and a service platform provider. Assuming the simplest possible situation with a local call placed with an access provider to a platform provider hosting a service, does the access operator provide a call origination service or buy a call termination service (see section III.B on Interconnection principles)? This depends fundamentally on the type of agreement between the subscriber and the access operator on the one hand and the interconnection agreement between the access provider and the platform provider on the other hand.

The Access Directive<sup>23</sup> and other European Commission documents provide no guidance on how to interconnect a PRS service. As explained below, different options are being used across Europe.

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<sup>22</sup> The Framework Directive Art. 2 defines “associated facilities” as facilities associated with an electronic communications network and/or an electronic communications service which enable and/or support the provision of services via that network and/or service.

<sup>23</sup> 2002/19/EC - Access Directive

#### 4. Consumer protection

The Framework Directive sets out an obligation<sup>24</sup> for Member States to require universal service providers to implement call barring arrangements for certain services. These provisions can clearly be used to bar PRS services. Practical implementation makes it necessary, however, to have clearly identified number ranges that are suitable for barring.

Lack of harmonisation of PRS numbers across Member States makes it difficult if not impossible to implement call barring for international calls to foreign PRS numbers at present.

#### B. Electronic commerce

This section analyses whether PRS qualify as information society services and are therefore governed by the Electronic Commerce Directive (2000/31)<sup>25</sup> (also referred to as the e-Commerce Directive). It also describes the main provisions of the directive and assesses whether they would be adequate for the development of a pan-European PRS market.

##### 1. Definition of information society services

Information society services are defined in Directive 98/48/EC<sup>26</sup> (Regulatory Transparency Directive) as:

*any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services.*

*For the purposes of this definition:*

- *'at a distance': means that the service is provided without the parties being simultaneously present,*

- *'by electronic means': means that the service is sent initially and received at its destination by means of electronic equipment for the processing (including digital compression) and storage of data, and entirely transmitted, conveyed and received by wire, by radio, by optical means and by other electromagnetic means,*

- *'at the individual request of a recipient of services': means that the service is provided through the transmission of data on individual request.*

Annex V of the directive provides an indicative list of services that are not considered as information society services and this list includes services provided via voice telephony or fax. It is explained that such services are not provided via electronic processing/inventory systems.

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<sup>24</sup> Art. 10

<sup>25</sup> Directive 2000/31/EC of June 8, 2000 'on certain legal aspects of Information Society Services, in particular electronic commerce'.

<sup>26</sup> Directive of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations.



It must nevertheless be pointed out that this explanation is not entirely convincing as services that are provided via voice telephony may involve the processing and storage of data. It is also interesting to see that the vade-mecum to the Regulatory Transparency Directive mentions as an example of services not provided via electronic data storage and processing systems, ‘*voice telephony services supplied by traditional means (in real time)*’. This also seems to indicate that not all services that are provided over the telephone are excluded from this definition.

## 2. Application of the definition to PRS

Premium rate services can be considered as information society services when they fulfil all of the elements of the definition laid down in Directive 98/48/EC.

It is clear that PRS are services provided for remuneration, at a distance and on individual demand. Whether PRS are information society services will therefore depend on whether they are supplied ‘by electronic means’ within the meaning of the Regulatory Transparency Directive.

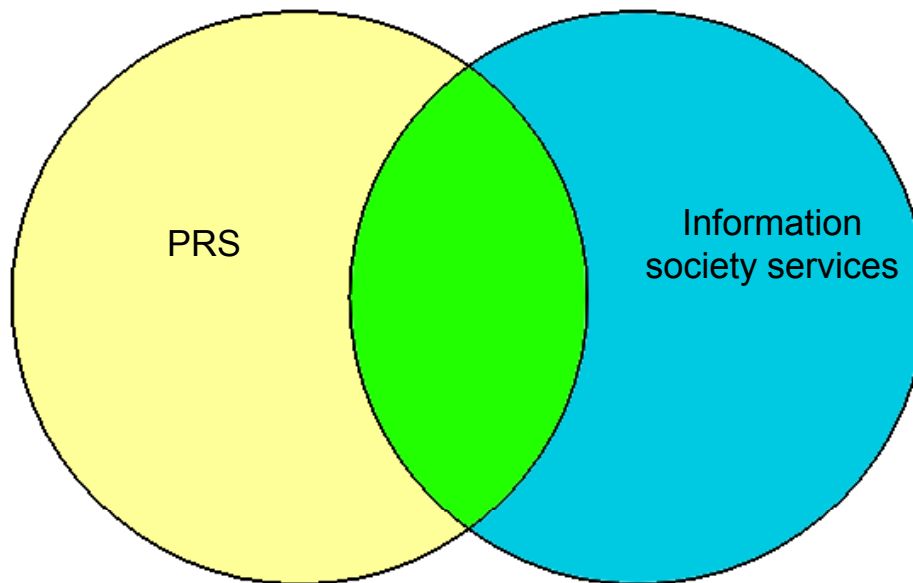
According to the definition in the Regulatory Transparency Directive, providing a service by ‘electronic means’ requires processing and storage of data. The definition does not specify whether the processing/storage of data needs to take place at both ends of the communication or if it is sufficient that it takes place at either the customer’s or service provider’s end.

In an answer on behalf of the European Commission to a written question from the European Parliament<sup>27</sup>, Commissioner Bolkestein said that services provided by premium rate numbers may constitute an information society service. However, he did not explain further.

As the “Figure 13 – Overlap between definition of information society services and PRS” below illustrates, some PRS services clearly fall under the definition of information society services whilst others do not.

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<sup>27</sup> Written question E-1621/04, September 19, 2004.



**Figure 13 – Overlap between definition of information society services and PRS**

It is the view of the authors of this report that there is indeed an overlap between information society services and premium rate services and that in particular PRS that:

- provide live speech (without any additional processing function) are not information society services;
- include storage and processing at both ends are information society services. For example, downloading of ring tones to a mobile telephone includes processing and storage at both ends. Such services may also be ordered via a fixed telephone subscription and a normal handset even if the ring tone is delivered to a mobile handset.
- include storage and processing only at the platform provider level should be considered as information society services. The reason for this position taken by the authors is that the main criteria for an information society service should be the fully automated production and delivery of a service over a network. The means of reception of the service has less relevance and would constitute an unnecessary and technology dependent criterion. In most cases, information society services are intended to be consumed by human beings, whether the medium is voice, text or image.

Examples of services with storage and processing at the platform provider would include all services that are delivered from audiotex platforms, which allows users to access information recorded on a server by using keypads of touchtone telephones.

This situation does not favour the development of a pan-European PRS market, as there is uncertainty as to which PRS fall within the definition of information society services and as PRS are treated differently depending on the way they are provided technically. It can even lead to a situation where PRS could be treated differently depending on the way in which information is relayed to the customer. A typical example of this is a directory enquiry service where the service offers the option of receiving the telephone number by SMS. If the customer selects this option, the service involves processing and storage at both ends, and it is an information society service. If the

customer does not select the option, the storage and processing only takes place at the service provider's end and it is not clear whether the service is an information society service.

These unresolved uncertainties as to whether premium rate services can be qualified as information society services are reflected in the Member States (see table 8 in the annex)<sup>28</sup>, which have taken very different positions on this issue.

### 3. The E-Commerce Directive

The E-commerce Directive's main objective is to harmonise the rules for the provision of information society services in the internal market and thereby to facilitate the development of electronic commerce.

According to this directive, service providers need only comply with the requirements of their home legislation in areas that fall within its 'coordinated field'<sup>29</sup>. However, there are exceptions to the application of this country of origin principle in a number of areas, including for consumer contracts.

Temporary derogations can be used to restrict, on an ad-hoc basis, the provision of a given information society service. A Member State can take measures to restrict an information society service originating from another Member State, if the measure is:

- necessary for one of the following reasons:
  - the protection of public policy, in particular the prevention, investigation, detection and prosecution of criminal offences, including the protection of minors and the fight against any incitement to hatred on grounds of race, sex, religion or nationality, and violations of human dignity concerning individual persons;
  - the protection of public health and public security;
  - the protection of consumers.
- taken against a given information society service which prejudices or could prejudice one of the above objectives;
- proportionate to those objectives.

If such an action is envisaged the Member State must respect a notification procedure.

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<sup>28</sup> The European Commission's first report on the implementation of the E-Commerce Directive confirms that PRS have in some cases been considered by Member States as information society services. Notifications have been made, under the procedure of article 3.4 of the directive, to restrict the provision of fraudulent PRS originating from other Member States.

<sup>29</sup> The coordinated field is defined very broadly as covering 'requirements laid down in Member States' legal systems applicable to information society service providers or information society services, regardless of whether they are of a general nature or specifically designed for them'. It concerns requirements relating to the taking up of the activity of information society services, such as requirements concerning qualifications, authorisation or notification, and the pursuit of an activity of an information society service (e.g. on the behaviour of the service provider and the quality or content of the service).

The directive contains the following other main provisions:

1. Member States cannot not make access to the activity of an information society service provider subject to prior authorisation or to any requirement having equivalent effect<sup>30</sup>.
2. Certain service provider information must be made available to customers and to responsible authorities 'directly and permanently' (e.g. name, postal address, email address, name and number of trade register, price).
3. Commercial communications must clearly be identifiable as such as well as the person or company on whose behalf the commercial communication is made.
4. Promotional offers, competitions and games, where permitted by national law, must be clearly identifiable and the conditions of participation must be accessible and presented clearly and unambiguously.
5. When contracting electronically at a distance, the following information must be given before the placing of the order and must be available in a clear and unambiguous manner (except if the contract is concluded exclusively by exchange of electronic mail or by equivalent individual communication):
  - the technical steps to follow to conclude the contract;
  - the storage and accessibility of the concluded contract (if any);
  - the technical means to identify and correct errors prior to the placing of the order;
  - the languages offered to conclude the contract;
  - subscription to codes of conduct (if any) and any information on how to consult them electronically;
  - contract terms and general conditions must in any case be made available in a way that allows the recipient to store and reproduce them.
6. The service provider has to acknowledge the receipt of the recipient's order 'without undue delay' and by electronic means.
7. The question of the liability of the network intermediaries for third party illegal content is largely settled. The E-commerce Directive provides an exemption of liability for network operators and limits the liability of hosting service providers, under certain conditions<sup>31</sup>. It also states that Member States cannot impose on intermediaries a general obligation to monitor third party information they transmit or store.

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<sup>30</sup> Member States are however allowed to have authorisation procedures that are not specifically and exclusively targeted at information society services.

<sup>31</sup> The liability provisions of telecommunications operators and of hosting service providers are particularly relevant. Service providers, whose role consists in the transmission of information originating from third parties and the provision of access through a communication network, cannot be held liable for third party illegal content if they do not initiate the transmission, do not select the receiver of the transmission; and do not select or modify the information transmitted. Service providers who store information supplied by and at the request of a recipient of the service are not liable: (for criminal liability) if they do not have 'actual knowledge' that the information or the

#### 4. Assessment of the adequacy of the E-Commerce Directive to pan-European PRS

There are several provisions in the E-Commerce Directive that facilitate the development of a pan-European PRS market. There are also a few provisions that could inhibit pan-European PRS.

##### a) *Advantages*

1. The first and foremost advantage is the country of origin provision which enables service providers to offer their services in all the Member States by solely complying with the regulatory environment of the Member State in which they are established. Application of this principle could prove particularly useful in the context of pan-European PRS as Member States have very different national regulations on the conditions under which PRS can be provided. The types of content (e.g. gambling, adult content) that can be conveyed by PRS and the conditions under which they can be offered are also regulated differently at national level.

2. The ability for Member States to restrict on an ad-hoc basis a specific information society service that is in breach of defined fundamental policy objectives could also be a useful tool to fight cross-border PRS<sup>32</sup> that are fraudulent or prejudice legislation on consumer protection or on the protection of minors.

3. The information requirements of the directive can ensure that customers and public authorities have a minimum set of information on the identity of the PRS service provider and the price of the service. A clarification is however needed on how this information would need to be made available. Full customer protection would be achieved if the information could be made available at the beginning of the call (e.g. press of a number), at no cost or at a local (non-premium) rate.

4. The liability provisions could also play a role in the context of pan-European PRS as they give assurance to access and transit network operators that they cannot be held liable for third-party illegal content. In addition, it may be useful to apply a liability regime similar to that of hosting service providers to PRS platform operators in the context of fighting fraud in PRS. According to this regime, platform providers would have to disable access to a fraudulent PRS once they are informed of its illegal nature. This would provide a legal basis for platform providers to act promptly to close down fraudulent PRS, while also giving them the assurance that they will not be held liable for third party illegal content.

##### b) *Drawbacks*

There are three drawbacks to the application of the E-Commerce Directive to pan-European PRS.

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activity is illegal, (for civil liability) if they are not aware of facts or circumstances which would make the illegal activity apparent if they 'expeditiously' remove access to the information once informed of the illegality.

<sup>32</sup> This mechanism has already been used in the context of PRS as explained in the first implementation report of the E-Commerce Directive.

1. The exception to the country of origin principle for consumer<sup>33</sup> contracts makes the pan-European provision of PRS more complicated and costly for service providers as it means that they will often<sup>34</sup> need to comply – for the contractual aspects<sup>35</sup> - with the requirements of the consumer's home law. One way to overcome this problem would be to fully harmonise the rules on contracts with consumers for PRS.
2. The E-Commerce Directive does not apply to gambling activities<sup>36</sup> and will therefore not apply to a number of PRS. The European Commission is preparing a specific proposal to cover gambling activities in general.
3. It is unclear whether the rules on contracting electronically are applicable to PRS. The Directive states the rules (with one exception) are not applicable to contracts concluded exclusively 'by exchange of electronic mail or by equivalent individual communication'<sup>37</sup>. It should be clarified that this exception applies to contracts entered into over the telephone.

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<sup>33</sup> Consumers are defined as '*any natural person who is acting for purposes which are outside his or her trade, business or profession*'.

<sup>34</sup> The designation of the applicable law is governed by the Rome Convention on the law applicable to contractual obligations. The parties can designate which country's law will apply to their contract but this cannot deprive the consumer from benefiting from his local 'mandatory' consumer protection legislation. .

<sup>35</sup> Despite the fact that no formal contract is entered into between the recipient of a service and the PRS provider, an 'implicit contract' is entered into.

<sup>36</sup> Gambling activities is defined as activities which involve wagering a stake with monetary value in games of chance, including lotteries and betting transactions. This definition of gambling could also cover participation via PRS in television games which contain an element of chance.

<sup>37</sup> The contract terms and conditions must however always be made available to consumers so as to enable them to store and reproduce them.

## Recommendation 1 – Clarification of EU enabling provisions

The enabling provisions of the E-Commerce Directive should apply to all PRS, regardless of their technical means of delivery.

Although one way to achieve this objective would be to ensure the application of the E-Commerce Directive to all PRS by modifying/clarifying the definition of information society services to extend it to all PRS, it is recommended to adopt a specific Community instrument on PRS that would include these enabling provisions. This would avoid having to amend/clarify the E-Commerce Directive on a number of points (e.g. availability of information requirements, non-application of electronic contracting rules) and to complement it with additional provisions (e.g. gambling, liability of PRS platform providers, consumer contracts for PRS).

The enabling principles are that:

- The country of origin principle should apply to the pan-European provision of PRS.
- Member States should have the ability to restrict a given pan-European PRS in cases of fraud or prejudice to defined fundamental policy objectives, including consumer protection and the protection of minors.
- Common information requirements should apply to pan-European PRS.
- The liability incurred by each of the parties involved in the provision of PRS should be clearly defined. Access and transit operators should not be liable for third party illegal content. Liability of platform providers should also be limited provided they act promptly to close down illegal PRS.

### C. Consumer protection

Several Community measures on consumer protection apply to the provision of PRS.

#### 1. The Distance Selling Directive

##### a) *Main provisions*

The Distance Selling Directive<sup>38</sup> applies to ‘any contract concerning goods or services concluded between a supplier and a consumer under an organized distance sales or service-provision scheme run by the supplier, who, for the purpose of the contract, makes exclusive use of one or more means of distance communication up to and including the moment at which the contract is concluded’ .

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<sup>38</sup> Directive 97/7/EC on the protection of consumers in respect of distance contracts (May 20, 1997). [http://europa.eu.int/smartapi/cgi/sga\\_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=31997L0007&model=guichett](http://europa.eu.int/smartapi/cgi/sga_doc?smartapi!celexapi!prod!CELEXnumdoc&lg=EN&numdoc=31997L0007&model=guichett)

The main relevant obligations imposed on suppliers are:

1. Information requirements. Some information elements need to be provided to the consumer, prior to the conclusion of the contract, in a clear and comprehensible manner, ‘in any way appropriate to the means of distance communication used’. The information elements include the identity of the supplier, the main features of the service, price and taxes, delivery costs, arrangements for payment, cost of using the means of communication at a distance, where calculated at a rate other than the basic rate, existence of right of withdrawal, etc.
2. Confirmation of information in written or in another durable medium. The directive states that this requirement does not apply to services that are performed by the use of distance means of communication, *when they are supplied on only one occasion and are invoiced by the telecommunications operator*. In that case, the consumer need only be provided with the address where he can address complaints.
3. Right of withdrawal. Consumers must be able to withdraw from the contract during a period of 7 days. The right does not apply to services where performance of the service has begun before the end of the cooling-off period, which will usually be the case for PRS. Nor does it apply to contracts for gaming and lottery services or to contracts for the supply of audio or video recordings, which are also widespread PRS.
4. Performance. Orders must be executed within 30 days. If a supplier fails to perform because the services or goods are unavailable, the consumer must be informed of the situation and be able to obtain a refund within 30 days.
5. Payment by card. A consumer must be able to request cancellation of a payment where fraudulent use has been made of his payment card, and to be recredited with the sums paid or have them returned.

Directive 2002/65/EC on the distance marketing of consumer financial services (September 23, 2002)<sup>39</sup> contains similar provisions for distance contracts in relation to consumer financial services.

*b) Assessment of the adequacy of the Distance Selling Directive to pan-European PRS*

The Distance Selling Directive clearly applies to PRS with consumer customers (not with business customers). Some provisions of the directive take into account the specificities of PRS (exceptions to the right of withdrawal, the confirmation of information, the fact that the information must be provided by taking into account the means of communication used).

Other provisions are not geared towards the development of a pan-European PRS market.

The main difficulty stems from the fact that the directive is a minimal harmonisation directive, i.e. it allows Member States to adopt more far reaching protection for consumers. This means that PRS providers need to check whether the legislation of their consumers does not contain requirements additional to those of the directive. To overcome this, it is recommended that all Member States have a harmonised level of consumer protection in relation to PRS.

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<sup>39</sup> [http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l\\_271/l\\_27120021009en00160024.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_271/l_27120021009en00160024.pdf)



Another difficulty is the uncertainty as to how the information requirements specified under 1) above need to be provided. The Directive takes into consideration the fact that restrictions can be imposed by the communication medium but does not explain how to overcome them. The way the information requirements of the Distance Selling Directive must be provided for contracts concluded over the telephone needs to be clarified.

Lastly, the derogation mentioned under 2) above on the written confirmation of information only applies to PRS that are billed by telecommunications operators. It does not apply to PRS that are billed in a different way (e.g. by credit card). This could favour the development of certain forms of PRS to the disadvantage of others.

### **Recommendation 2 – Consumer protection requirements**

The way the information requirements of the Distance Selling Directive need to be provided for contracts concluded over the telephone needs to be clarified.

The derogation to the written confirmation requirement in favour of services that are supplied on only one occasion and invoiced by telecommunications operators should be extended to cover all PRS.

To overcome the difficulties stemming from the minimum harmonisation approach, it is recommended that all Member States have a harmonised level of consumer protection in relation to PRS. This will probably be best achieved by adopting a specific Community instrument on PRS.

## **2. Unfair Commercial Practices Directive**

The Unfair Commercial Practices Directive (adopted in April 2005) introduces common rules on, inter alia, misleading, deceptive or aggressive commercial practices directed to consumers.

### *a) Main provisions*

As a general principle, the directive outlaws practices that:

- are contrary to the requirements of professional diligence; and
- distort or are likely to distort the economic behaviour of an average consumer in relation to a product.

In particular, commercial practices must be regarded as unfair if they are misleading or aggressive.

Misleading commercial practices can be actions or omissions. Misleading actions are commercial practices that lead the average consumer to purchase (or not) a product or service because of a deceptive practice. Misleading omissions cover commercial practices that omit mention of material information that the average consumer needs in order to make a decision. This material information refers to information listed in the directive and in other directives such as the E-Commerce

Directive or of the Distance Selling Directive. Limitations imposed by the communication medium can however be taken into account to assess whether there is an omission.

Annex 1 of the directive contains a list of commercial practices that in all circumstances have to be considered unfair by the Member States, without further assessment. They include:

- creating the false impression that the consumer has won or will win a prize or other benefit (when in fact the consumer must incur a cost to claim the prize);
- falsely stating that the product or service will only be available for a very short time; or
- sending advertisements with a direct exhortation to children to buy, or to persuade their parents or other adults to buy, advertised products for them;
- making persistent and unwanted solicitations by telephone or e-mail or other remote media;

Practices other than those listed in the annex can also be considered as unfair on a case-by-case basis when they are in breach of the general provisions of the directive.

The directive provides that ‘adequate and effective means’ should exist in the Member States to combat the practices that are outlawed. To do so, Member states can decide whether to allow actions to be brought before courts and/administrative authorities. Actions should be available also against traders that are established in another Member State than that of the injured consumer. The directive also foresees accelerated procedures and the ability for courts and administrative authorities to order the cessation of the unfair commercial practice or the prohibition of the practice if it has not yet taken place.

*b) Assessment of the adequacy of the Unfair Commercial Practices Directive for pan-European PRS*

The Unfair Commercial Practices Directive is a useful tool to tackle some of the fraud problems encountered by PRS. However, the major forms of fraud identified by this study are not explicitly listed in the annex, which means that their unfair nature will have to be assessed on a case-by-case basis.

Interestingly, it introduces a maximum harmonisation approach whereby the Member States will not be entitled to adopt further protection for consumers (over and above the levels of protection specified in the directive)<sup>40</sup>. PRS providers will therefore have the assurance that decisions of courts and administrative authorities on whether commercial practices are unfair will be based on the same principles in all the Member States.

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<sup>40</sup> However, for a transitional period of six years, Member States will be able to 'continue' to apply more restrictive rules than those of the directive when they implement directives containing minimum harmonisation clauses, such as the Misleading Advertising Directive.

### Recommendation 3 – Unfair practices regulations

To better fight PRS fraudulent practices, it is recommended to have a list with specific misleading and fraudulent practices in PRS. This could be specified in a specific instrument on PRS. These should be prohibited with no further assessment.

## D. VAT

### 1. Current EU VAT regime

The provision of PRS services, like the supply of any other services is subject to VAT. The correct application of VAT rules requires PRS providers to be able to determine what country's VAT is applicable, which party is liable for the payment of that VAT towards the authorities of that country and what particular VAT obligations are applicable in that country.

For domestic supplies, i.e. where the PRS provider and the customer are established in the same Member State and the service is supplied within that country, VAT will be due in that country, at the rate applicable in that state.

For intra-Community supplies, i.e. where the customer is established in the European Union but outside the country of the provider, the situation is more complex. The general rule for supplies of services is the application of the VAT in the service provider country. There are however many specific derogatory rules<sup>41</sup>, depending on the type of service in question and the capacity of the customer. Many PRS fall under the specific rule of article 9(2)e of the sixth VAT Directive<sup>42</sup> according to which:

- for transactions with consumers, the supplier must charge the VAT of the country where he is established;
- for transactions with taxable persons<sup>43</sup>, VAT must be declared and paid by the customer, at the VAT rate applicable in his country.

This specific rule applies, amongst others, to advertising services, data processing, the supply of information, electronically supplied services and telecommunications services<sup>44</sup>. According to guidelines from the VAT Committee<sup>45</sup>, electronically supplied services cover accessing or downloading of games, music, jingles, ringtones on mobile phones but not telephone helpdesk

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<sup>41</sup> The principle for the supply of services is that the supply takes place where the supplier is established.

<sup>42</sup> Directive 77/388/EEC on the harmonization of the laws of the Member States relating to turnover taxes - Common system of value added tax: uniform basis of assessment. A consolidated version of the directive can be found at: [http://europa.eu.int/eur-lex/en/consleg/main/1977/en\\_1977L0388\\_index.html](http://europa.eu.int/eur-lex/en/consleg/main/1977/en_1977L0388_index.html).

<sup>43</sup> A taxable person is any person who independently carries out in any place economic activities on a regular basis.

<sup>44</sup> Telecommunications services are defined under this directive as '*services relating to the transmission, emission or reception of signals, writing, images and sounds or information of any nature by wire, radio, optical or other electromagnetic systems, including the right to use capacity for such transmission, emission or reception*'.

<sup>45</sup> TAXUD/2303/03 Rev 2 final, January 15, 2003.

services. A European Commission proposal for a regulation of October 2004<sup>46</sup> confirms this interpretation.

Other specific VAT rules could also apply to the intra-Community supply of PRS, depending on the nature of the service.

## 2. Future VAT considerations

In a consultation launched in February 2005<sup>47</sup>, the European Commission has proposed to modify some of the specific VAT rules applicable to services supplied to EU consumers. The proposed changes would apply to most of the services listed in article 9(2) of the sixth VAT Directive that can be supplied at a distance, including to electronically supplied services. They would therefore affect many PRS. The Commission proposes to change the place of taxation from the place where the supplier is established to the place where the customer who receives the service is located. This means that suppliers would have to apply the VAT rate of the Member State in which their customers are established or domiciled.

The grounds for changes are that the existing rule does not necessarily ensure that the tax is allocated to the Member State in which the consumption of the service takes place, which should be the case of VAT which is a consumption tax. This problem would be exacerbated with the increasing supply of services across borders. Further, according to the Commission, there is evidence that companies are changing their establishment to benefit from the most attractive VAT rates.

No proposal has been submitted by the European Commission yet.

## 3. Assessment of VAT regime and PRS

A VAT regime that applies different rules for business customers and consumers represents a highly complex and possibly unmanagable situation for international PRS. It would require the access provider to be able to identify for each call whether the user is a business user or a consumer, presumably on the basis of subscriber information related to the calling number.

Identification of the country of the supplier may be another challenge. When VAT shall be paid to the country of the supplier, as is currently the case for consumer use of most PRS, there is a presumption that the country of the supplier is known by the access provider who must have this information to calculate the end price of the PRS in the normal case of on-line billing<sup>48</sup>.

For scenario D, which is using a pan-EU PRS numbering scheme, this information is not readily available. Of course, the numbering scheme may be developed to include extra digits to identify the supplier country, but this is not an attractive solution. Not only does it seem unreasonable to require

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<sup>46</sup> Proposal for a Council Regulation laying down implementing measures for Directive 77/388/EEC on the common system of value added tax, COM(2004)641final, October 25, 2004.

<sup>47</sup> Consultation paper: VAT – The place of supply of services to non-taxable persons.

<sup>48</sup> For explanation of online billing, see section III.C on Billing procedures

two or three extra digits in an numbering plan to accommodate a VAT requirement, but it also seems to be contrary to the idea of a supra-national numbering space.

Another alternative is for the supplier and the access provider to exchange information on supplier country and VAT rate during call establishment. This will, however, require standardisation and development of new international signalling procedures in SS7. This may nevertheless be a logical consequence of the EU VAT regulations applicable to PRS.

Because of these technical difficulties, it seems that from the perspective of European PRS it would be easier to implement a solution with VAT paid in the country of the customer. In that case, the VAT situation would be clearly defined in the normal case of on-line billing because the country would be defined by the location of the access provider and his subscriber relationship. For the offline billing solution, the access provider has to provide the platform provider with the necessary user information and this would have to include the necessary VAT details.

#### **Recommendation 4 - VAT**

The European Commission should clarify how VAT rules apply to pan-European PRS.

A mandate to ETSI for further standardisation of SS7 with regard to exchange of national VAT information should be considered if necessary for pan-European PRS to meet EU's VAT requirements.

### **E. Pending legislation**

#### **1. Proposed directive on services in the internal market**

As it stands, the proposal for a directive on service in the internal market would apply to the pan-European provision of PRS. It covers all services, with the exception of financial services, transport services and electronic communications services and networks to the extent that they are covered by the electronic communications regulatory framework.

It is founded on the following main provisions:

- the freedom of establishment and country of origin principle. Consumer contracts would nevertheless be excluded from the country of origin principle to the extent that they are not fully harmonised at Community level;
- the ability for Member States to restrict the provision of services originating from other Member States only in exceptional circumstances, in areas relating to the safety of services, the exercise of a health profession or the protection of public policy and especially the protection of minors;
- a core set of information items to be made available to recipients of services. This information mainly relates to the identification and contact details of the service provider, and the general conditions and clauses that are used by the service provider. This

information would need to be provided by the service provider in either of the following four ways: on his own initiative, made easily accessible at the place where the service is provided or the contract concluded; be easily accessed by the recipient electronically; or on information documents setting out a detailed description of the service provided. Other information (such as the main features of the service and the price) would only need to be provided if the recipient requests it;

- the principle that EU recipients of services could not be discriminated against by service providers because of their nationality or place of residence. Differences in service offerings would be allowed only where justified by objective criteria (such as additional costs to be incurred because of the distance, technical characteristics of the service, different market conditions or extra risks linked to different rules from those of the Member State of origin). The offer of pan-European services would therefore, to a certain extent, become the rule and any exception to it would have to be justified;
- mutual assistance between Member States to ensure effective cooperation in the supervision of service providers.

This proposal is at its initial stages of discussion and the 2005 Spring European Council called upon the institutions to amend it heavily.

## **2. Proposed regulation on sales promotions**

The proposed regulation on sales promotions (i.e. discounts, free gifts, premiums and opportunities to participate in promotional contests or games) is of particular interest for PRS.

The proposal is aimed at prohibiting Member States from banning the use or advertising of sales promotions, restricting their value or subjecting them to a prior authorisation.

It lists certain information items that would need to be provided or made available on request, in addition to those listed in other directives such as the E-Commerce Directive or the Distance Selling Directive. The proposal stipulates that the promoter could avoid providing some of these items when this is justified by the characteristics of the medium used and provided that the information is made available in another way without having to ask for it.

Further it provides some rules aimed at protecting children, in particular to avoid participation of minors under the age of 16 in promotional contests or games without the prior consent of their legal guardians, to prevent promoters from exploiting children's inexperience or credulity or impairing their physical, mental or moral development.

Some of the provisions of a Presidency draft compromise text dated September 2004 are particularly relevant to the provision of certain PRS. They stipulate that:

- 'a promoter shall not charge any associated costs, other than non-premium rates of postage or telecommunications, for participation in a promotional contest or game';
- advice services by telephone in connection with a sales promotion would have to be provided free of charge or at a standard, non-premium tariff.

The first of these two provisions, if adopted, could lead to practically prohibiting PRS consisting in competitions or games with prizes whose sole purpose is to encourage the sale of goods or services.

### **Recommendation 5 – PRS related sales promotion services**

It is recommended that it should be allowed to provide sales promotion services by PRS on the condition that cost information is provided before starting the service. This would achieve an adequate level of consumer protection, without having the adverse effect of closing down certain forms of PRS

## **F. Enforcement cooperation between national authorities**

Current Community legislation contains a number of mechanisms to ensure cross-border enforcement cooperation between the Member States. The following section provides an overview of these mechanisms and assesses their relevance to tackle cross-border fraud in PRS.

### **1. Regulation on consumer protection cooperation**

Regulation 2006/2004 of October 27, 2004 on ‘*cooperation between national authorities responsible for the enforcement of consumer protection laws*’ is aimed at ensuring greater protection of consumers against cross-border breaches of consumer protection legislation. The regulation strengthens the ability of national enforcement authorities to tackle cross-border infringements by setting up a EU-wide mutual assistance network of national public bodies with common investigation and enforcement powers<sup>49</sup>. The network will be operational in 2006.

The mechanism proposed will not serve to tackle all fraud problems in pan-European PRS as the cooperation mechanism will only apply when an act contrary to one of the consumer protection directives or regulations (listed in the annex of the Regulation) has harmed the collective interests of consumers. National authorities seeking to tackle infringements not specifically stemming from a breach of these directives or which do not affect the collective interest<sup>50</sup> of consumers will therefore not be able to rely on these mechanisms.

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<sup>49</sup> Specifically, competent authorities will be granted a range of powers, including the right to access any relevant document, to require the supply of information, to carry out on-site inspections and the right to require the cessation of the infringement. They will assist each other by exchanging information (both on request from another authority and on their own initiative) and by undertaking appropriate investigations. On request from another authority, they will also have to take the measures necessary to stop an infringement rapidly. This task can, however, under certain conditions, be delegated to other bodies with a legitimate interest in ending intra-Community infringements, such as consumer NGOs, as this is already the case in some countries.

Procedures for requesting and exchanging information, and the general conditions governing mutual assistance, are detailed in the regulation.

<sup>50</sup> ‘collective interests of consumers’ means the interests of a number of consumers that have been harmed or are likely to be harmed by an infringement.

## 2. Electronic Commerce Directive

The E-commerce Directive (to the extent that it applies to a given PRS) contains two mechanisms that are useful to combat instances of fraud in a pan-European PRS context.

As an exception to the country of origin principle, Member States are allowed to restrict, on an ad-hoc basis, the provision of a given information society service under strict conditions. In particular, a Member State can do so to protect public policy, in particular the prevention, investigation, and prosecution of criminal offences, minors and consumers.

If such an action is envisaged the Member State must respect the notification procedure specified in article 3.4.b<sup>51</sup> of the Directive. In case of urgency, a measure can be taken, provided the Member State notifies the Commission and the Member State concerned of the measures taken in the shortest possible time.

This mechanism has been used in the context of PRS as explained in the first report on the implementation of the E-commerce Directive<sup>52</sup>.

The E-commerce Directive also specifies that Member States must have adequate means of supervision and investigation to ensure that the Directive is applied correctly. They must cooperate with other Member States and need to appoint contact points whose contacts details must be communicated to the Commission and the other Member States. It also foresees that Member States must establish contact points from where recipients of services should be able to obtain general information on contractual rights and for instance on the available complaint and redress mechanisms.

Recommendation 1 – Clarification of EU enabling provisions already specifies that the requirements for cross-border enforcement mechanisms similar to those provided for information society services should apply to pan-European PRS.

## V. BUILDING BLOCKS FOR A PAN-EUROPEAN MARKET

### A. Introductory remarks

With reference to the four basic scenarios for implementation of pan-European PRS set out in Chapter IV, the first two scenarios, A and B, represent solutions that adapt foreign services to each national PRS environment in terms of numbers, interconnection, billing and content regulations. These scenarios therefore represent practical solutions which may be implemented today. No

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<sup>51</sup> According to this procedure, before taking the measures in question, and without prejudice to court proceedings, the Member State has to ask the Member State of origin to take measures and where it has failed to do so, has to notify the Commission and the Member State concerned that it will take the envisaged measure.

<sup>52</sup> First Report on the application of Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce) See page 8.



particular recommendation appears to be necessary, although the scenarios may benefit from some of the recommendations set out in this report.

Scenario B appears to offer a potential for local platform providers to take on an additional line of business as national PRS distributors for international services where they can add value through number translation as well as adaptation to the national market.

Scenario C and D both provide the potential capability of providing PRS which can be advertised as having a common number and the same price throughout the European Union. However, this will not take place without substantial action from authorities as well as the commercial entities involved. The rest of this chapter deals with a set of recommendations which are intended to address the many different issues that prevent these scenarios from being realised today.

It should be pointed out in advance that the objective of the recommendations outlined in this chapter is not to provide a solution to current national PRS problems in one or more Member States through an EU-wide harmonised approach for all PRS services. Such an effort would represent additional complexity and may not be necessary for the creation of a pan-European market.

Rather than complete harmonisation of all PRS services, the focus in this report is on meeting specific requirements of a pan-EU market for PRS and on ways to meet the challenges brought about by such a market.

A key concept is therefore the creation of a new label for “pan-EU PRS”. This would require the European Commission to define pan-EU PRS and create an appropriate framework for the provision of services falling under this category. Market participants who want to provide such a service would then have to comply with the respective conditions established. Pan-EU PRS could exist in parallel with current national PRS services and benefit from measures to enable the pan-European market.

## **B. Pan-EU PRS numbering plan**

PRS numbers which are based on the individual national numbering plans today are not well suited for cross-border access to PRS services in other countries for the following reasons:

- Often it is not possible to access national PRS numbers from abroad (by using the E.164 country code) because the necessary interconnection arrangements are not in place.
- For cross-border marketing, content providers would often prefer a unique pan-EU number for a specific PRS service. Think for example of a TV game show which has to advertise the dial-in number on the TV screen with only limited space for numbers. It is obvious that one number for all countries would be a better solution.
- Even if the national users understand the significance of national numbering categories, they cannot be expected to extend this understanding to foreign numbering systems.
- To implement a call barring scheme in one country, be it based on opt-in or opt-out, for specific or all of the foreign PRS is virtually impossible considering today’s diversity of numbering ranges across the 25 Member States of the EU. Therefore call barring is difficult to achieve scenario C.

This leaves one main option for a pan-European market from a numbering perspective:

- Identification of supra-national numbers for pan-European PRS services (scenario D).

Beside national PRS numbers a pan-European market for PRS could be based on the European Telephony Numbering Space ETNS (+3883) or on Universal International Premium Rate Numbers (UIPRN) of ITU (+979). In case of ETNS there are sub-ranges depending on specific service types while at UIPRN the sub-ranges refer to certain price levels. Both approaches could simplify marketing of PRS as one has to communicate only one access number in all countries. Regarding ETNS it is important to point out that an application to use ETNS for the provision of PRS has recently been rejected. The main reasons<sup>53</sup> for this decision were lack of fraud prevention and consumer protection issues, particularly price transparency.

### **Recommendation 6 – Establish a pan-EU numbering plan**

Numbers are a necessary prerequisite for the provision of pan-EU PRS. A unique numbering range should be selected for use throughout EU 25 for pan-EU PRS, possibly from ETNS.

#### **C. Regulatory authority for PRS**

The national regulatory authority for electronic communications, the traditional NRA for telecommunications, plays a significant role regarding PRS provision in all countries with its particular responsibility for numbering and interconnection activities. However, there are significant differences across Europe with regard to which authority or organisation is responsible for content and consumer protection issues.

Some countries, however, have specific regulators or other types of organisations<sup>54</sup> or bodies for PRS services. Ireland and the UK both have permanent regulatory bodies for PRS.

Other countries have permanent self-regulatory bodies. For instance, Finland and France have self-regulatory committees for PRS services that deal with consumer complaints. Similarly, Sweden has an “Ethical council for PRS”. Also in Germany, the industry association acts as self-regulatory body, but it does not deal with consumer complaints as this is a task carried out by the NRA.

Norway has an industry funded “PRS Council” that was established by an agreement between the incumbent operator, a value added service provider association and the Norwegian Consumer Council in 1994 before the market was fully liberalised. It has viewed itself as a self-regulatory body for PRS services, but a recent court decision has established that it only has authority over PRS services delivered via the incumbent operator. It does not have authority over other operators, because they were not party to the agreement.

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<sup>53</sup> See letter from the ECC/NNA Working Group, to the Network for Online Commerce, 13th July 2004.

<sup>54</sup> See details in Annex I, Table 2

Other countries, including Austria, Estonia, Germany, the Netherlands and Spain rely on their normal consumer protection organisations, competition authorities or their ministries responsible for consumer protection or economic affairs for oversight of the PRS market.

In some countries, key regulatory responsibilities for PRS can be shared by as many as four or more different organisations<sup>55</sup>.

- In France, Malta, the Netherlands and Spain, there are different organisations depending on the type of complaint or category of PRS.
- In Norway, the complaints may have to go to different organisations depending on which operator is being used.

A pre-condition for a pan-European PRS service is that PRS regulators exist in each Member State and that they have clearly defined powers. In particular, the primary responsibility for consumer protection for PRS should be clearly assigned to a single organisation.

Responsibilities of these regulatory bodies should include recommending the allocation of pan-European PRS on the basis of common conditions, monitoring and enforcement powers and handling of complaints.

#### **Recommendation 7 –Assignment of PRS authority**

A unique regulatory authority for PRS must exist in each Member State. This authority must have a minimum set of responsibilities related to consumer protection and content issues. The name of this authority should be notified to the European Commission.

For an overview over related recommendations, please see Chapter VII on Summary of Recommendations.

#### **D. Preventing and taking action against fraud**

Fraud in PRS is a very significant problem in some countries. In the UK, the growth of complaints has been exponential and the team of about 50 people in The Independent Committee for the Supervision of Standards of Telephone Information Services (ICSTIS) are unable to handle all calls in peak periods. The situation is seen as serious enough to be the subject of Parliamentary debates in early 2005. However, in many other countries fraud is not seen as a serious problem.

When referring to fraud, this report covers the whole range of unfair practices that range from misleading practices in perfectly legal PRS to fraudulent practices (although from a legal point of view, only those practices that are in breach of laws or regulations are to be considered as fraudulent per se).

The recommendations under this section deal specifically with the prevention and fight against misleading and fraudulent PRS practices.

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<sup>55</sup> See details in Annex I, Table 3

Additional recommendations that address consumer protection issues more generally (see section E on Consumer protection below) can also, to a certain extent, contribute to the prevention of fraud in PRS.

Serious operators are also victims of fraudulent actions and in this context one may also talk about operator protection. This aspect is further discussed under section V.I on Commercial aspects below.

## **1. Existing misleading and fraudulent schemes**

Most of the fraud operate with traffic creation against PRS numbers, sometimes without the awareness of the user. This can be done in several ways:

- Both fixed and mobile telephony can enable a user to see a log of missed calls. It is normal practice for many to call back to find out what the missed call was about. However, the missed call may be a (fraudulent) call which was made in order to generate a call to a high cost PRS number.
- Incoming calls, SMS messages or other forms of unsolicited advertising may be used to invite users to call a certain PRS number for any odd reason without stating that this will generate extra cost beyond the normal cost of a telephone call.
- A special category of such fraud is in combination with (fake) competitions where users are invited to call in for a prize. Sometimes, the user is aware of the fact that it is a PRS call and the fraudulent part is that the competition is fake and/or the user is kept on the line for the longest possible time.
- A recent form for fraud is being carried out with a PC in combination with a telephone modem. The method can also be applied to other forms of software driven telephone systems. The PC is corrupted by downloading a PC-dialler software. This can take place without the awareness of the owner. The software will generate calls to high cost numbers. Some of these schemes replace the dial-up connection that is being used for Internet access with another and more costly access. Other schemes will just dial PRS-calls without the knowledge of the user, for example while the PC is unattended.
- A PRS call is expanded to a conference call, for example after instructions to dial further digits. Instead of paying for a single PRS call, the user has to pay for multiple calls.

Another type of fraud is to provide wrong price information. In its most primitive form, the price information given at the beginning of the service is incorrect. More sophisticated versions will switch to another service category, often after some user action such as to press a certain key, in response to a question or just simply after the user has been requested to do so. However, the user is not informed that a switch to another category has been made and that a higher price will be charged. In some cases the switching of service category has taken place in combination with calls to directory inquiry services. For example, number inquiries have resulted in direct transfers to adult services without any warning of change of service and cost category.

International numbers from high cost countries are also being used in fraudulent schemes. Certain minor nations, typically an island in the Pacific, may establish disproportional high call termination

rates for incoming international calls. The revenues generated by the limited volume of genuine long distance calls go to the incumbent operator and the state coffers. However, numbers in the national numbering plan are also made available for fraudulent use by “service providers”. Even though these numbers would suggest that calls to these services go to the particular nation, they may sometimes be terminated elsewhere, for example in Europe. Fraudulent schemes may generate traffic to such numbers in the same way as to PRS numbers.

A special form of fraud is represented by service subscriptions. The PRS service offers a “subscription” with a special arrangement for service access. However, the user is not aware of making any such “subscription” agreement.

There also appears to be trafficking in stolen prepaid mobile cards, where by the stolen cards are being used towards specific PRS numbers. This presumes a conspiracy between the thieves and the owners of those PRS numbers.

A different category of fraud is where the service provides content in breach of ethical recommendations or does not deliver according to promise.

## **2. Fraud prevention**

### *a) Current methods*

There are several methods currently in use across Europe to combat PRS fraud at the national level.

Continuous monitoring of PRS services by a PRS regulator or an industry association may provide early warning of certain types of fraud. In particular, such monitoring may discover whether correct price information is provided according to regulations, if the content follows ethical guidelines and otherwise corresponds to the information provided in marketing material.

Another way to prevent fraud before it occurs is to require prior authorisation for some categories of services. For example, in the UK prior approval is required for services that cost more than €29 (£20) in total as well as all services that provide live content or consumer credit services. Likewise, in Ireland prior approval is required for several defined service categories including live services, competitions and adult services. However, there are no prior authorisation requirements in most Member States.

Several access operators also carry out monitoring of PRS services and have teams of people dedicated to fraud detection. Some operators will automatically terminate PRS calls after a certain time, e.g. 30 minutes.

The problem of PC diallers has been addressed in different ways. Some countries, such as Germany have passed specific regulations to make it illegal to download PC diallers without user consent. Austria has in addition implemented the opt-in principle for PC diallers. The list of countries that have adopted special regulations on PC diallers also includes Belgium, the Czech Republic, Finland, Spain and the UK.

Other countries have not seen such legal measures as necessary, but have instead relied on preventive action taken by the access operators on the basis of existing legislation against fraud. In

November 2004, Ireland lifted an obligation it had previously placed on Internet service providers because it concluded that they were now able to provide the necessary consumer protection without it.

The increasing use of ADSL and other types of broadband access to the Internet also works against this type of fraud because there is less dependency on PSTN based dial-up access.

*b) Particular problems raised by fraud detection in PRS*

Fraud detection in PRS represents a particular problem. Normally, a user will not discover the fraud before receiving this telephone bill. Even then, the fraud may pass by undiscovered depending on its amount. By the time the user becomes conscious of the fraud, the content provider may already have been paid because the payments that he must receive from the other market players may be due on shorter terms. Unscrupulous providers may therefore have received the money even before the fraud is detected. This means that the normal payment procedures provide an opportunity for frauds to go undetected for long enough to make the fraud profitable.

In order to prevent this particular opportunity and to provide more time for fraud detection, Ofcom in the UK has recommended<sup>56</sup> that the payments to PRS content providers are slowed down or blocked for a 30 day period. In this period, the payment may be kept in a special account while it is verified whether or not fraud is involved. Interception of the revenue stream to fraudulent content providers is expected to have a significant preventive effect.

When fraud is detected, it is necessary to take action against the platform provider and/or the content provider. This is normally done through blocking access to or withdrawal of the PRS number. ICSTIS in the UK has explained that frauds often start to operate on a late Friday afternoon when regulatory staffs start their week-end break. The regulator must therefore have continuous watch and be able to close down a service in the case of obvious fraud on short notice even during a week-end. ICSTIS is able to act by closing down a PRS number in such cases on a few hours' notice.

*c) Recommendations*

While fraud causes problems on a national level, the problems may be much more difficult to deal with in a cross-border environment. Additional legal uncertainties may arise, because of uncertainties as to the place of jurisdiction and the application of national or foreign law.

The challenges that must be met in order to combat fraud in PRS in an international environment include:

- agreement on what constitutes unfair practices. This could be achieved by providing a catalogue of practices that always have to be considered as fraudulent or misleading in the context of pan-European PRS. These practices would be clearly prohibited. This idea was

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<sup>56</sup> Ofcom: The Regulation of Premium Rate Services. December 9, 2004

already developed under Recommendation 3 – Unfair practices regulations and is also covered under Recommendation 8 – Catalogue of unfair practices below.

- national regulatory bodies with adequate staff and monitoring and enforcement powers responsible for cross-border PRS fraud prevention. The role of the different regulatory bodies involved must be clarified and a minimum level of supervision and sanctions, including maximum normal and emergency response times, must be assigned to a single regulatory body;
- regulatory sanctions must include the possibility to terminate services. The procedure for such action should be streamlined in cases of unfair practices that are listed as being automatically prohibited (see 3.b) below). They could also include the power to cancel the legal basis of financial claims to end-users based on fraudulent behaviours;
- continuous monitoring of the cross-border PRS market and international co-operation between national PRS regulators, including procedures with assigned responsibilities to each national regulator covering the known types of fraud where the involved parties are located in different countries.

The recent proposal from Ofcom in the UK to establish a 30 day delay for payments related to PRS also appears to be a powerful fraud prevention method. In an international environment, however, 30 days may not be enough and 60 days may more realistic. This should give reasonable time to PRS authorities to identify possible misleading or fraudulent practices and to take steps to fight them. Ofcom also suggests that consumers affected by serious fraudulent practices should be able to obtain a refund from the monies held by the platform providers on order from ICSTIS.

### **Recommendation 8 – Catalogue of unfair practices**

A list of misleading and fraudulent practices in PRS should be agreed on. These practices should be prohibited, without further assessment.

### **Recommendation 9 – Catalogue of sanctions**

A coherent set of sanctions should be available to all PRS authorities responsible for pan-EU PRS in order to provide a consistent level of consumer protection across Member States. Sanctions should include the possibility to block a service.

A code of conduct should include rules that allow PRS regulators to impose sanctions in case of fraudulent use of national PRS number by foreign as well as national service providers.

### **Recommendation 10 – Monitoring responsibilities**

The responsibilities for the PRS authority should include a certain level of monitoring, in particular for pan-EU PRS. A regulatory authority for PRS that is responsible for platform providers and content providers that offer pan-EU PRS, must have continuous watch 24 hours per day 7 days per week. It should inform PRS regulatory authorities from other Member States of identified misleading and fraudulent practices.

### **Recommendation 11 – Payment freezing**

Payments to content providers for pan-EU PRS should be frozen for a certain period in order to be able to detect fraudulent activity and to prevent them from reaching fraudulent content providers.

### **Recommendation 12 – Cross-border co-operation between PRS authorities**

Procedures and responsibilities should be agreed between PRS authorities in each Member State, for example in the form of a Memorandum of Understanding. This document should in particular define the obligations of a PRS authority responsible for a platform provider to act upon information about complaints that originate in other Member States and are communicated through that country's PRS authority. (See also Recommendation 17 – Complaint handling)

#### *d) Code of conduct*

Many countries<sup>57</sup>, including Belgium, Finland, France, Germany, Ireland, the Netherlands, Norway, Sweden and the UK, have established a code of conduct to provide further guidance on how service providers should behave with regard to PRS and with further explanations of what constitutes fraud, inappropriate behaviour and unethical content. Such documents may also set out duties and procedures of the service providers to take action when faced with complaints.

Codes of conduct are currently under development in Italy and Poland.

In Ireland and the UK, the code of conduct is either developed by the national authority or has its approval. The document has then the character of secondary legislation and is binding for all PRS service providers. In other countries the document has been developed as a self-regulatory instrument, but its significance and binding nature may nevertheless be established for example by being included in the interconnection agreements between the operators or by having all the operators sign a common agreement.

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<sup>57</sup> For a full overview of national implementations of codes of conduct, see Table 1 in the Annex to this report.



The provision of pan-EU PRS as foreseen in scenario D will also need a code of conduct in order to define the specific rules applicable to such PRS. By making acceptance of this code a prerequisite for number allocations in the pan-EU PRS numbering plan, these rules become binding for all these operators without the need for legal transposition of fairly detailed requirements across all Member States.

### **Recommendation 13 – Development of a code of conduct**

A code of conduct should be developed for the use of pan-EU PRS.

Common conditions for the eligibility of a party to get pan-EU PRS numbers should be specified. Acceptance of the code of conduct should be part of these conditions.

### **3. Taking action against fraud**

#### *a) Current procedures*

Fight against misleading and fraudulent PRS requires that adequate complaint mechanisms are in place and that efficient actions can be taken in due time.

In many countries there is no specific complaint mechanism for PRS. General complaint mechanisms for telecommunications services or consumer protection are used instead<sup>58</sup>:

- In Belgium, complaints normally go to the Mediation Service on Telecommunications
- In Austria, Cyprus, the Czech Republic, Germany, Italy, Lithuania and the Netherlands, it is handled through the same procedures as other types of consumer complaints for telecommunications services.
- In Estonia, Hungary, Malta, Latvia and Poland, Slovakia and Slovenia complaints are handled by the general consumer protection organisations.
- In Greece, complaints can go to many different organisations. The Department of Consumer Affairs of the Ministry of Development has a general responsibility for consumer complaints, but it has no specific procedure for PRS.

The powers of the regulatory authority to take action against misleading and fraudulent practices, such as closing down a service found to be in violation of the regulations, and to apply penalties vary greatly from country to country. Some countries have procedures in place that permit the closing down of a service within hours<sup>59</sup> in case of a complaint. In other countries, such a decision could take months or even years.

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<sup>58</sup> In Belgium

<sup>59</sup> They include the UK, Czech Republic, Denmark, Ireland, Norway and Sweden.

These differences may well be a reflection of the type of problems that has been experienced in different national environments. If fraud and abuse of PRS services had been a significant problem in a country, one would assume that the appropriate procedures would have been put in place in order to address it.

Most countries have the ability to impose fines on an operator that has been found guilty of breaching PRS regulations. The maximum amount of the fine varies from €3,200 in Estonia to €500,000 in Slovakia and Spain. However, the PRS authorities in some countries, such as the Czech Republic, Denmark, France and Ireland lack the ability to impose fines. This means that such penalties would have to be imposed through a court decision.

#### *b) Recommendations*

For a pan-European market to operate, it is necessary that national PRS authorities responsible for pan-EU PRS have the powers to react quickly against alleged or identified misleading or fraudulent practices. This requires ability to:

- handle complaints relating to cross-border PRS, including from consumers from other Member States. This will require both particular organisations responsible for complaint handling and efficient processes. Presumably this task will encompass handling complaints by consumers who are resident in the country as well as complaints originating from consumers from other countries.
- investigate them;
- take action, including by requiring the closing down of the misleading or fraudulent service, within a stated time limit. Action should be possible from requests from other Member States according to established procedures. The procedure should be streamlined in case of practices listed in the catalogue of practices that should always be considered as unfair.

Such requirements should be imposed on PRS authorities that are responsible for platform providers and content providers that provide pan-EU PRS. The authorities in other countries could obey to less stringent requirements. They must clearly have the necessary capabilities for consumer protection of their own citizens, but they do not need to have the additional responsibility to continuously monitor pan-European provision of PRS and the capability to react quickly in case such services are subject to fraud.

As they are in a unique position to obtain information from content providers and to act to block fraudulent services, platform providers should have incentives to co-operate with the PRS authorities in the fight against fraud.

They could be imposed an obligation to provide to PRS authorities, upon request, data allowing the identification of content providers with whom they have agreements.

Similarly to what is foreseen in the E-Commerce directive for hosting information society service providers, the liability regime of PRS platform providers could be defined in such a way as to provide them with a legal basis to block access to alleged unfair practices. According to such a regime, platform providers would not be held liable for misleading or fraudulent practices in PRS that are provided by content providers with whom they have agreement, on the condition that they

expeditiously disable access to them once informed of their existence. To be workable, this mechanism would require the setting up of so-called notice and take-down procedures by platform providers, possibly under guidance of the regulator. This idea is also developed under Recommendation 1 – Clarification of EU enabling provisions.

Special attention should be paid to the interworking of national and pan-European fight against fraud mechanisms. This applies particularly to the case where a specific form of fraud regarding a PRS has been detected in one country. There should be guidelines allowing an appropriate decision on the consequences that such a domestic PRS fraud could have on the pan-European market.

It should also be noted that any efforts to enable pan-European PRS services should be accompanied by steps to strengthen national mechanisms for action against fraud to a certain minimum level. This is because in an international environment it can be expected that unscrupulous operators will seek to establish themselves in the country which has the most lax regime and with the weakest enforcement capabilities.

#### **Recommendation 14 - Power and ability to close down a fraudulent PRS service**

A regulatory authority for PRS that is responsible for platform providers that offer pan-EU PRS must be able to close down a PRS service within a stated time limit in case of fraud. It must be able to accept requests for action from PRS regulators in other Member States according to established procedures. The procedures should be streamlined in cases of practices agreed at EU level as always having to be considered as unfair.

#### **Recommendation 15 – Communication of identification data**

PRS platform providers should be in a position to communicate to PRS regulatory authorities on request data allowing the identification of the content providers with whom they have agreement.

#### **Recommendation 16 - Liability of platform providers**

PRS platform providers should not be held liable for fraud in PRS provided by content providers with whom they have agreements, upon condition that they disable access to alleged misleading and fraudulent practices when informed of their existence.

## **Recommendation 17 – Complaint handling**

Minimum requirements should be established for complaint handling of pan-EU PRS, including in particular procedures for handling cross-border complaints between PRS authorities.

These procedures should also provide for an appropriate interlinking of institutions responsible for the clearing of consumer protection affairs (national ADR, EU ADR scheme) with national institutions responsible for the regulation of pan-EU PRS to ensure that complaints are relayed to the appropriate authority for PRS.

### **E. Consumer protection**

#### **1. PRS information requirements**

Under current regimes, many information requirements have to be fulfilled for PRS. Some stem from general measures such as national laws transposing the Distance Selling Directive for services to consumers and the E-Commerce Directive to the extent that Member States consider that it applies to PRS (see section V.B.3 on The E-Commerce Directive above), others from specific PRS regulations or codes of conduct.

In many countries users are expected to understand content categories and price levels on the basis of number categories in the national numbering plans. In addition, there are requirements for content and price information in advertising and marketing campaigns. Also, most countries have requirements for a price announcement at the beginning of the call at least for some service categories, such as for calls that are priced over a given threshold. Usually these price announcements are free of charge.

To build user confidence in pan-European PRS, it is particularly important that end users have all necessary information about the prices and the content of the services. This may be seen as a necessary precondition for the adoption of PRS on a pan-European level.

Price transparency refers to both ex-ante and ex-post information. On the one hand, the consumer wants to be aware of the price before he starts consuming the content of a PRS. On the other hand, the consumer should also be able to carry out an ex-post cost control with respect to his use of PRS. Similarly, consumers need a-priori information about the content and its provider as well as the possibility of controlling ex-post the consumed service.

Transparency has to be guaranteed across borders, i.e. the national characteristics in the country where a PRS user is actually located like currency or language should be taken into consideration. In particular, the problem of the language for price announcements has to be pointed out, as the consumer, country from whether call is made, country of origin and country of the service platform may have different languages. A solution has to be found for price announcements which respect consumer protection while also allowing the operation of pan-European PRS.

To ensure full price transparency, it may be useful to distinguish between the different price components of PRS: conveyance fee, content fee and taxes. The content fee may be the same across all countries where the service is offered or there may be country-specific price differentiation. Even if the content fee is the same for all users, the conveyance fee and taxes sometimes may depend on the location of the end user, his status (business or consumer) as well as on the access network and the subscription arrangement. One could easily point out the unique price for the core component of a PRS (i.e. of the content) and the varying ancillary expenses of a PRS. Country-specific differences would become more obvious and increase price transparency.

### **Recommendation 18 – Clarification of information requirements for pan-EU PRS**

- The information requirements that apply to pan-EU PRS need to be clarified. This clarification should include:
- a specification of all the information to be provided, including end-user options for skipping or bypassing one or more information elements;
- price information related to content, conveyance and value added tax;
- language requirements.

## **2. Numbering issues**

The numbering plans for PRS services play a role in consumer protection as the numbers can convey price and content information and because they can be used for call barring. The numbering plans are also important for commercial aspects related to interconnection and billing. This section provides a summary of national PRS numbering plans and the subsequent section explains national implementation of call barring. The commercial implications of the numbering plans are discussed in section V.I.2 on Price issues below.

Austria, Belgium, Cyprus, the Czech Republic, Germany, Luxembourg, the Netherlands, Slovakia, Slovenia, Sweden and the UK have implemented the 09xx range for PRS services. However, there is little commonality when it comes to how this range is used in terms of content categories and/or charge bands. In addition, 118 is often used for directory services, although in some countries there are other types of PRS that also use this range, and in some countries directory services are located elsewhere in the national numbering plan.

There are significant exceptions to the use of 09xx:

- Several countries use numbers starting with 900 rather than 0900. These include Denmark, Estonia, Greece, Lithuania, and Spain. Estonia uses also numbers in the 11x and 19x ranges, in particular for televoting and donations. Hungary uses 90 and 81. Latvia uses 90x and 118x for directory inquiry services. Spain uses 90x range in addition to 803x, 806x and 807x.
- Finland uses 09 for geographic numbers belonging to one of its regions. Instead, PRS uses 010x, 020x, 0300, 060x, 0700x, 075xy as well as 100 and 106.

- France uses 0890, 0891, 0892 ...0899 and 083601.
- Germany uses 0190x in addition to 0900x<sup>60</sup>. Also, 0137 is used for mass calling services.
- In Ireland the 0900 range is not in use. PRS services are located in the 1520 to 1590 xxx xxx range and 1512 to 1518 xxx xxx range.
- Italy uses services at specific tariff (144, 166, 892, 899), interactive phone services (163, 164) and mass calls services (0369, 0769, 0878)
- Malta uses 500 and 118x for directory inquiries. The 0900 range is still unused in the national numbering plan.
- In Norway, the 0900 range is short (five-digit) non-geographic numbers and the 900 range is used for mobile services. PRS are located in the 820 range and the 829 range.
- Poland uses 0300, 0400 as well as 0700, 0701, 0707 and 0708. The 0900 range is used for geographic numbers.
- UK uses also other ranges for PRS, including in particular numbers starting with 08.

The rules for number allocations may have restrictions which impose specific requirements on the organisations that are eligible. In particular, not all the countries permit numbers to be allocated directly to a content provider. Instead, only providers of electronic communications services or publicly available telephone service providers may have direct number allocations from the numbering authority.

Belgium, Cyprus, the Czech Republic, Denmark, Finland, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Portugal, Slovakia, Spain, Sweden and the UK use this more restrictive practice.

There are also different practices with regard to number allocations to organisations that are established in other Member States.

Estonia and Latvia requires that the foreign organisation has a registered branch in the country. Germany and Slovenia require that the foreign operator has a representative with an address in the country. Poland and Sweden require registration with the regulator.

The UK requires that the foreign organisation operates a network on British territory.

Greece allows reassignment to a content provider from a properly authorised telecommunications operator.

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Greece, Hungary, Luxembourg, the Netherlands, Norway, Poland and Slovenia permit numbers to be allocated to foreign operators.

With regard to pan-European PRS numbers should be allocated to platform providers. The reason is that allocating numbers to platform providers, which are network operators, rather than content

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<sup>60</sup> Usage of the numbering range 0190 is limited in time until December 31, 2005.

providers enable the regulatory authorities to have better control over the way numbers are being used.

In order to facilitate pan-European PRS, it should be possible for platform providers to get non-discriminatory access for PRS in all EU countries. In this context, platform providers are part of the network and constitute the element in the value chain that plays the key role with regard to supervision of PRS. Such a requirement must be accompanied by provisions that allow the number allocating authority to have the necessary control. Fraud prevention and measures against fraud play a central role in a pan-EU market for PRS. This represents a specific challenge in the case of assigning a national PRS number to foreign providers (as is possible in the scenarios A, B and C). National PRS regulators need to have a possibility to intervene in case of fraud, even if the service provider is settled in another member State. Especially, there should be not distinction between national or foreign providers with regard of the possible measures to be taken. Therefore, national PRS regulators must be able to treat domestic and foreign service providers in the same way, i.e. they can impose the same sanctions in case of fraud. In accordance with Recommendation 14 - Power and ability to close down a fraudulent PRS service the national regulatory authority for PRS should have some degree of power against foreign service providers which use national PRS numbers.

### **Recommendation 19 – Non-discriminatory access to numbering resources**

Platform providers should get non-discriminatory access to numbering resources for PRS in all EU countries, including numbers in the pan-European numbering plan (for scenario D). This includes in particular access numbers for directory enquiry services.

The assignment of a PRS number to a platform provider should be subject to acceptance of rules which allow national PRS regulators to impose sanctions in case of fraudulent use of a PRS number, including the possibility to block access. The rules should also include a duty to supply information about the platform provider to the authorities. No service provider which accept these rules should be discriminated against because of his nationality.

### **3. Call barring**

Call barring is important to protect consumers against expensive or undesirable content. The possibility to bar a telephone from being able to dial PRS numbers is available in most countries. The main difference in implementation is whether the barring is based on opt-out, where the default is that PRS is open and the user must take specific action in order to have the numbers barred, or opt-in, where the default is that PRS numbers are barred and the user must take specific action to have the bar removed.

Portugal has implemented opt-in for all audio-text services except televoting. It is reported that this requirement, which was introduced toward the end of 2000, has led to a significant market decrease.

In Denmark, Luxembourg, Norway and Spain both opt-in and opt-out are in use, depending upon the price level or category of the service. The availability of the more expensive services is based on opt-in.

All the other countries within the EU have implemented opt-out solutions.

In most countries, the availability of call barring is a regulatory obligation that applies to all operators. In France, however, it is an obligation only for the incumbent operator as part of its universal service obligations. In the Netherlands, it is also an obligation only for the incumbent operator, although extension to other operators is now being considered. In Estonia, call barring is a voluntary offering by the network operators.

It is unlikely that a pan-European market will be able to meet national consumer protection requirements without the possibility for call barring. The call barring capability is closely related to the numbering plan. It is not clear how far the technical capabilities for call barring can be extended to deal with complex call barring requirements, but an assessment of the different scenarios is provided in the table below.

Scenario	Main characteristics	Call barring capability
Scenario C	Use of international prefix followed by the normal national non-geographic number for PRS.	Unless a simple solution of barring all international calls is chosen, the barring situation would be too complex for practical implementation as an intelligent network application would be needed for each PRS call.
Scenario C+	Use of international prefix followed by special international access code for national PRS.	Call barring capabilities would be similar to Scenario C unless it would be possible to harmonise the special international access code for PRS. Such harmonisation is unlikely.
Scenario D	Use of a special prefix, for example ETNS code, for calls to international PRS.	It should be possible to bar against calls to international PRS.

**Table 3 – Assessment of call barring capabilities**

This assessment suggests that probably only Scenario D (and not Scenario C) can support call barring in a satisfactory way. This leads to the conclusion that only Scenario D (and not Scenario C) should be targeted for regulations intended to enable pan-EU PRS.

**Recommendation 20 – Call barring**

Call barring should be available to all numbers that provide access to pan-EU PRS. No action should be taken to encourage pan-European PRS for which call barring is unavailable as a consumer protection measure. Call barring should include a general option for opt-out, supplemented by a requirement for opt-in for certain categories of services, based on price and/or content.

One consequence of this recommendation is that the numbering plan for pan-EU PRS should include one digit for price and one digit for content.



## F. Country of origin

Member States have very different national regulations on the conditions under which PRS can be provided. Also the types of content (e.g. gambling, adult content) that can be conveyed by PRS and the conditions under which they can be offered are regulated differently at national level. For PRS content providers that wish to market their services across all Member States, this may represent a challenge and in fact constitute a barrier, as under existing Community legislation, they may have to comply with the legal requirements of many Member States.

The pan-European provision of PRS would benefit from a country of origin principle whereby service providers would be allowed to offer their services in all the Member States by solely complying with the regulatory environment of the Member State in which they are established.

This approach has already been adopted at Community level for broadcasting services<sup>61</sup> and information society services<sup>62</sup>. In these areas, the country of origin principle was coupled with a harmonisation of a number of questions that were considered as key for the smooth development of a pan-European market. Similarly, adoption of a country of origin principle for PRS would require harmonising certain areas, as identified in other recommendations (e.g. information requirements, rules on consumer contracts, interconnection regulations, billing).

The ability for Member States to restrict on an ad-hoc basis a specific PRS that is in breach of defined fundamental policy objectives must also be ensured to be able to stop cross-border fraudulent and harmful PRS. The procedure to be followed should be streamlined in cases where the given PRS consists in one of the fraudulent practices to be listed in a specific instrument as being prohibited. (See also Recommendation 3 – Unfair practices regulations.)

### Recommendation 21 – Country of origin

The European Commission should establish the country of origin principle for all pan-EU PRS. This should be accompanied by a harmonisation of certain areas. The ability for Member States to restrict on an ad-hoc basis a specific PRS that is in breach of defined fundamental policy objectives must also be ensured. The procedure to be followed should be streamlined in cases where the given PRS follows one of the fraudulent practices to be listed in a specific instrument as being prohibited.

This report sets forward several recommendations that are related to Recommendation 21 – Country of origin. These recommendations are presented in a coherent overview in Chapter VII on Summary of Recommendations.

## G. Consumer confidence

Consumers may hesitate to call PRS numbers in another country, not only because they fear the additional cost of an international call, but also because there are additional uncertainties in case

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<sup>61</sup> This was achieved in Directive 89/552/EEC on the coordination of certain provisions laid down by law, regulations, and administrative action in Member States concerning the pursuit of television broadcasting activities.

<sup>62</sup> In the E-Commerce Directive as explained above in section V.B.3 on The E-Commerce Directive

anything should go wrong. It is important that consumer confidence can be built around pan-EU PRS in order for the market to develop to its potential.

It seems that pan-EU PRS provided in an environment that meets all the recommendations in this section, would offer the same level of security as the PRS provided at the national level.

Scenario D offers the possibility to identify clearly a category of PRS for which this level of security is available. These services can therefore be targeted in promotional activities. By contrast, scenario C or C+ do not provide such a clear identity and they represent therefore a much more difficult challenge for the building of customer confidence.

### **Recommendation 22 – Consumer confidence building**

Appropriate mechanisms to support the establishment of consumer confidence in using pan-EU PRS have to be developed and implemented provided that the relevant consumer protection recommendations are in place.

The unique pan-EU PRS number ranges should be advertised as a “mark of quality” assuring the end user that special requirements for consumer protection are met.

## **H. Developing attractive PRS content**

Getting access to particularly valuable content for the development of pan-European PRS, may in some cases be problematic.

For music or other types of content that are protected by intellectual property rights, the central question is to determine how an operator can secure all the necessary (copyright) authorisations for a pan-European offer. Most of the rights are administered by collecting societies which still operate on a national basis. They have been particularly slow in meeting the challenge of being able to offer pan-European authorisations. The European Commission is expected to publish later in 2005 a proposed directive on collecting societies, which could help address some of the problems.

Access to sports rights is particularly sensitive. Although sports rights are not protected by copyright, they are usually owned by sporting federations who have tended to enter into long term exclusive agreements with operators who have acquired rights for all forms of delivery, thereby reducing the ability for other service providers to access these rights. The European Commission is conscious of this question and launched in 2004 a sector inquiry into the sale of sports rights to mobile operators. Recently also, there have been a number of Commission decisions to free up the sale of rights to major sporting events. These issues are therefore being addressed by the European Commission and further recommendations are not needed from a PRS perspective at this point in time.

Another interesting application for pan-European PRS is directory enquiry services. However, the availability of relevant and valid pan-European content represents a problem. For these services, content essentially means the subscriber data of incumbent and alternative operators across the EU. There is no fundamental lack of access to this information as many incumbents are required to build

up comprehensive subscriber databases for their home countries. But apparently, there is some discrimination with regard to the terms and conditions for access to these databases. Incumbents tend to charge prices to each other on a mutual basis which normally results in prices that are not cost oriented and discriminate against alternative operators. Although the European Court of Justice ruled in the case C-109/03<sup>63</sup> that operators are only allowed to charge the marginal costs of making subscriber data available to directory enquiry service providers, there is not a common interpretation of “cost orientation” by market players. Incumbents usually apply cost orientation only to their own subscriber data but not for access to their comprehensive subscriber database, which may also include information on subscribers belonging to other fixed or mobile operators. For a pan-European market for PRS (which also includes directory enquiry services), specific action may be needed to ensure non-discriminatory cross-border access to comprehensive subscriber databases compiled to meet the regulatory requirement of the Universal Service Directive<sup>64</sup>.

### **Recommendation 23 – Access to subscriber databases**

The European Commission should investigate whether the requirements of the Universal Service Directive Article 5 has been fulfilled in the Member States and whether further action is necessary to enable a competitive market for pan-European directory inquiry services.

#### **I. Commercial aspects**

##### **1. Operator protection against fraud**

Fraud in PRS represents a problem not only for consumers and customers, but also for serious operators. Most exposed are the access operators, who normally have the billing relationship with the subscribers and therefore are the first to receive complaints when problems arise.

Some access operators maintain dedicated groups of personnel to monitor PRS traffic in order to identify fraud at the earliest possible moment. Some of these monitoring tasks are also carried out automatically, such as the interruption of calls that exceed criteria for maximum length or cost. Many of these tasks are carried out on a voluntary basis by the operators without any specific regulatory requirement.

There are two simple reasons for the operators interest in fraud prevention:

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<sup>63</sup> The case C-109/03 between KPN Telecom BV and OPTA was decided on 25 November 2004 by the European Court of Justice. The judgement ruled the interpretation of article 6(3) of Directive 98/10/EC of the European Parliament and of the Council of 26 February 1998 on the application of open network provision to voice telephony and on universal service for telecommunications in a competitive environment. As far as relevant information must be provided to third parties on terms which are fair, cost oriented and non-discriminatory, the following applies. With regard to data such as the name and address of the persons and the telephone number allocated to them, only the costs of actually making those data available to third parties may be invoiced by the supplier of the universal service. With regard to additional data which such a supplier is not bound to make available to third parties, the supplier is entitled to invoice, apart from the costs of making that provision, the additional costs which he has had to bear himself in obtaining the data provided that those third parties are treated in a non-discriminatory manner.

<sup>64</sup> 2002/22/EC - Universal Service Directive – Article 5

1. The cost of fraud to the operator is likely to be significant. This study has not carried out specific research into the cost of fraud for a typical access operator, but it is clear that the cost can be found under several headings, such as the:
  - cost of handling complaints;
  - cost of bad debts and refusals to pay;
  - cost of preventive action, such as for monitoring personnel and/or systems.
2. PRS fraud creates bad publicity and damage to consumer confidence. There is an additional risk that the public will misunderstand what role the access provider plays in the overall PRS picture and that it may be associated with the fraudulent behaviour. Even where users understand that the access provider is not at fault, they may question why they do business in such a way that opportunities for fraud arise. All this can represent an exposure to the brand name of the operator.

In the UK, twelve major telecommunications operators have recently (on April 22, 2005) signed a Memorandum of Understanding, which is intended to strengthen consumer protection against PRS misuse. The MOU is a response to a recommendation set out in Ofcom's Review of Premium Rate Services from December 2004. Under the terms of this agreement, the operators will alert each other immediately to complaints about what may be serious breaches to the ICSTIS Code of Practice. They will also inform ICSTIS and, if appropriate, invoke emergency procedures.

In view of these considerations, it is not difficult to see that operators may be reluctant to enter into arrangements that potentially may give rise to additional problems with fraud. Indeed, the problem of fraud as a potential barrier to pan-European PRS may be as important for operators as it is for the regulators responsible for consumer protection.

Section V.D above on Preventing and taking action against fraud sets out a comprehensive set of recommendations aimed at protecting customers from PRS fraud in a cross-border environment. It should be pointed out that serious operators will also benefit from these measures.

## 2. Price issues

Most countries have established different number ranges for PRS for which different pricing rules apply. A common practice is to have certain number ranges with pre-determined prices, either per minute or per call, and in addition a maximum price. But there are some specific variations:

- Germany has in addition some number ranges where there is more flexible pricing subject to different price ceilings. Indeed, in the case e.g. of (offline billed) 0900 services there is a great flexibility to set prices. Currently, there is a specified price ceiling of 30 EUR/call or 2 EUR/min. However, these price ceilings can be set aside if the caller agrees in advance. In addition, there is no price regulation for 118 services (directory enquiry services).
- In Ireland the charge bands have been determined by the regulator, ComReg, after consultation with industry, while the price point within each band is determined by the industry.

- In Italy, the prices are not regulated except for price ceilings on certain PRS numbers. The service provider can choose a retail price from a matrix of prices provided by Telecom Italia.
- In Luxembourg there are maximum prices per minute as well as for the total amount of the call.

Other countries allow more flexible pricing arrangements or have no regulation on pricing of PRS at all. This is the case for Cyprus, Estonia, Finland, Greece, Hungary, Latvia, Malta, Poland, Portugal, Sweden and the UK, although in the UK special approval is necessary for offering services which cost more than €1.45 (£1.00) per minute or may cost more than €29.00 (£20.00) in total. In the Netherlands, access providers tend to refuse billing services for PRS services that are too highly priced. This is because there are too many instances of fraud in high priced services. This acts a “market constraint” on the price levels for PRS.

The decision on how to price a given PRS service, or the selection of a given combination of number and charge band, is normally taken by the PRS platform provider in combination with the content provider. However, in Belgium and Germany (at least in the case of PRS in the online-billing category) the access provider normally determines the prices for certain number ranges.

#### **Recommendation 24 – Price aspects**

There should only be light ex-ante regulations for the pricing of pan-EU PRS. There should be an option of individual pricing, at most protected by a ceiling in terms of per minute cost and/or total cost of an individual call.

The content provider, in cooperation with the platform provider must be able to determine the price and/or the charge band to use.

The price, once defined, must be communicated not only to the users, but also to the partners in the value chain providing the PRS service. The normal billing method today for PRS is online-billing<sup>65</sup>. This assumes that the access provider has all necessary price information for billing and settlement of interconnection charges at the time when the call is made. This price information may be derived in different ways.

1. Numbering plan – typically a specific digit in the numbering plan defines both retail price and the corresponding interconnection charges. Several Member States rely fully on this method for conveyance of price information;
2. Signalling – there is no direct relationship between the PRS number and the price. Instead, the necessary price information is signalled from the platform provider to the access provider.

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<sup>65</sup> For an explanation of online and offline-billing, see section III.C on Billing procedures.

3. Proprietary database - the access providers maintain the necessary price information in their own databases
4. Open database – the information could in theory be stored in a database accessible by all operators.

A special note is necessary with regard to current signalling capabilities. There is an ETSI specification for “Advice of Charge”<sup>66</sup> which is based on Signalling System 7 (SS7). This specification enables charging information to be exchanged at the start of the call, during the call and at the end of the call. However, it is understood that this specification is only applied within a given country and that different national implementations exist. A suitable standard for exchange of PRS price information across national borders is not available.

The proprietary database solution does not provide a viable solution in view of the large potential services and the corresponding maintenance problems. The open database does not exist and remains a theoretical option, at least in the near term.

This situation suggests that in the shorter term, price information will have to depend on the price implications of the numbering plan. In the longer term, standardisation of “Advice of Charge” on an international level may be considered. Such standardisation is likely to be much easier to accomplish for pan-EU PRS based on scenario D than for scenario C.

### **Recommendation 25 – Standardisation of “International Advice of Charge”**

Consider standardisation of “International Advice of Charge” within SS7 with a view to facilitate pan-European PRS.

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<sup>66</sup> Relevant ETSI documents:

**ETS 300 178** : 1992-10 T/NA1(89)13 Title: Integrated Services Digital Network (ISDN); Source: NA 1 Advice of Charge: charging information at call set-up time (AOC-S) supplementary service 19 Pages Service description ETSI Price Code: C

**ETS 300 179** : 1992-10 T/NA1(89)14 Title: Integrated Services Digital Network (ISDN); Source: NA 1 Advice of Charge: charging information during the call (AOC-D) supplementary service 17 Pages Service description ETSI Price Code: C

**ETS 300 180** : 1992-10 T/NA1(89)15 Title: Integrated Services Digital Network (ISDN); Source: NA 1 Advice of Charge: charging information at the end of the call (AOC-E) supplementary service 17 Pages Service description ETSI Price Code: C

**ETS 300 181** : 1993-04 T/S 22-04 Title: Integrated Services Digital Network (ISDN); Source: SPS 1 Advice of Charge (AOC) supplementary service Functional capabilities and information flows 47 Pages ETSI Price Code: I Scope: Stage 2 descriptions for [priority](#) 1 and 2 services covered in the [MoU](#) on ISDN

**ETS 300 182-1** : 1993-04 T/S 46-33K Title: Integrated Services Digital Network (ISDN); Source: SPS 5 Advice of Charge (AOC) supplementary service Digital Subscriber [Signalling](#) System No. one (DSS1) [protocol](#) 42 Pages Part 1: Protocol specification ETSI Price Code: H Scope: ISDN User-Network Layer 3 Signalling Protocols for Supplementary Services

**ETS 300 182-2** : 1995-09 DE/SPS-05028-K Title: Integrated Services Digital Network (ISDN); Source: SPS 5 Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; 23 Pages Part 2: Protocol [Implementation Conformance Statement](#) (PICS) proforma specification ETSI Price Code: D Scope: ISDN user-network interface layer 3 protocol implementation conformance statement (PICS) proforma. This work provides a basis for further work on PIXIT & [ATS](#) for supplementary services. To be spec'd according to [ISO](#) 9646. Covers both user & network.

The lack of harmonisation of the national numbering plans is discussed above in section V.E.2 on Numbering issues. This section also explains the main philosophy behind the different numbering categories for PRS, where in some cases, the sub-category only indicates the type of service or type of content, without any price information provided, and in other cases, a sub-category may convey more or less precise price information, as a maximum (or minimum price) or a price relationship to other types of services.

In a pan-European PRS market, the issue of price information is further complicated through the use of different currencies and different VAT rates<sup>67</sup>. For scenario C, which assumes the use of numbers in the different national numbering plans, both price information methods appear to be complex and cumbersome:

1. Numbering plan – would require each access operator to understand the price implications of the numbering plans of all other Member States in combination with currency exchange rates and VAT implications (i.e. whether or not the price includes the VAT of the supplier country);
2. Signalling – each access operator would have to cope with currency exchange rate conversions and VAT implications (i.e. whether or not the signalled price includes VAT) for all Member States.

With scenario D, which assumes a special European numbering prefix for pan-EU PRS, the issue of price information appears to be more straightforward. It would be possible to eliminate most of the complexity by establishing clear pricing rules relating both to the numbering plan and the signalling solutions.

### **Recommendation 26 – Price information in pan-EU PRS numbering plan**

Allocate one digit in the pan-EU PRS numbering plan for exact retail price information quoted in euro including the VAT of the supplier country. Within this digit, one position such as “0” or “9” may be used for individual pricing, with price information provided through signalling.

Retail price information provided through signalling should always be quoted in euro including VAT.

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<sup>67</sup> In most cases, the applicable VAT rate is currently that of the supplier country for business to consumer transactions. For business to business transactions the VAT must be declared by the customer. For more details, see section V.D on VAT.

### 3. Interconnection

#### a) *National arrangements*

In Austria, Belgium, the Czech Republic, France, Hungary, Italy, Poland, Slovakia and the UK interconnection arrangements between an access provider and a platform provider are based on call origination. It is also normal practice in Finland, although commercial freedom exists to enter into a termination arrangement.

In Germany, the arrangement depends on what numbering range is used, or to put it more concretely, it depends on which kind of billing procedure is used: online-billing is tied to the call termination concept; offline-billing is tied to the call origination concept. For 118 calls, call origination is normal for the incumbent operator, while alternative operators normally have call termination arrangements. For PRS in the 0190-1 through 0190-9 range, call termination is normally used. For PRS in the 0190-0 and 0900 ranges, call origination is normally used.

Estonia normally uses call termination, although call origination exists as well.

Ireland, Luxembourg and Spain use both call origination and call termination arrangements, in Spain depending upon numbering categories.

Cyprus, Denmark, Estonia, Greece, Latvia, the Netherlands, Norway, Portugal, Slovenia and Sweden normally use call termination.

Malta, with only one operator, does not have any interconnection arrangements.

In some countries the interconnection rate will vary with different numbering ranges, thus reflecting different rates of content compensation. This practice exists in Greece, Latvia and Norway. For example, in Norway the termination rates defining the compensation to the platform provider for different charge bands are set out in the reference interconnection offer of the incumbent operator.

In Finland the interconnection rates are freely agreed between the telecommunications operators.

#### b) *International interconnection agreements*

It may be concluded that PRS are being offered and purchased in countries that practise call origination as well as call termination. The different practices may not have significant practical consequences as long as the activity takes place within a national market where all players follow a consistent set of rules. In the context of a pan-European market, however, the difference creates an additional level of complexity for international interconnection agreements between various players in the value chain for PRS.

There are very few interconnection agreements today that include provisions for international PRS calls. National interconnection services for originating PRS calls from abroad or for terminating PRS calls abroad are normally missing. It may be questioned whether the new regulatory framework provides any basis for requiring ex ante requirements for international PRS provision.



For example, it has been suggested that the call origination market<sup>68</sup> could provide a basis for obligations related to the provision of access to PRS services in other countries. This appears not to be possible for several reasons:

1. The Commission Recommendation defines call origination as follows:

*Call origination on the public telephone network provided at a fixed location. For the purposes of this Recommendation, call origination is taken to include local call conveyance and delineated in such a way as to be consistent with the delineated boundaries for the markets for call transit and for call termination on the public telephone network provided at a fixed location. (CI underlining)*

This market definition cannot be interpreted to include origination from an access provider in one country to a PRS platform provider in another country, because call origination is supposed to include local call conveyance. It cannot be extended to include international transit as is required to connect to a content provider in a different country.

2. Ex ante regulations shall (normally) not be used in connection with new and innovative services. A pan-European PRS market does not exist today. To use ex ante obligations in order to create a market which does not exist is against the spirit of the new framework.
3. Even if an ex ante obligation for call origination to a PRS provider in another country could be implemented, there is no legal basis in the new framework to require the third party billing for content, which would be essential to the success of the market.

PRS markets are not considered as a relevant market by most NRAs. Obligations for operators with significant market power to include international PRS interconnection services in their reference interconnection offers (RIOs) may not be possible under the current framework.

In comparison with traditional voice calls, the interconnection requirements for PRS are more complex. While only access and transit network providers are involved for voice calls, the PRS interconnection arrangements also have to include platform providers. The group of platform providers includes a large number of companies each of which is usually small compared with the network providers. It is a significant challenge for a small platform provider to conclude interconnection agreements between all relevant operators in the EU in terms of administrative effort and the associated costs.

The public telephone network works to a large extent because the incumbent operators provide the function of national hubs. Each incumbent operator normally has interconnection agreements in place with all network operators in its own country. Thus competitive operators can interconnect with all other national operators through the transit and termination services of the incumbent operator. In addition, they can also establish direct interconnection agreements with other operators.

As a consequence of this hubbing function, the number of interconnection agreements required to make the PSTN work at the national level is much lower than the permutations of any-to-any connection would suggest.

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<sup>68</sup> Market 8 in the Commission Recommendation on Relevant Product and Service Markets C(2003)497

By contrast, the roaming agreements in the mobile industry are currently bilateral agreements. This means that each mobile operator in a given country must have bilateral agreements with all mobile operators in all countries for roaming to be universally enabled. Even though the number of mobile operators per country is relatively limited, the number of bilateral agreements required for roaming is perceived as an increasing problem. The industry is now considering hubbing solutions whereby some organisations would assume the role of a clearing house for roaming agreements.

The potential number of players involved in a pan-European PRS market would exceed that of the mobile industry by orders of magnitude. It seems clear that bilateral interconnection agreements between all relevant players would not be practical and hardly possible.

It must therefore be concluded that a pan-European PRS market requires a hubbing function or a form of “hubbing provider” in each country. Such an organisation would undertake to provide transit for PRS calls between access providers and platform providers in their own country. In addition, they would have interconnection agreements with “hubbing providers” in other countries enabling them also to provide transit between access providers in their home country and platform providers in other countries.

This hubbing arrangement<sup>69</sup> would cover both technical and financial aspects of the interconnection. It would not be unlike the way the PSTN works for international calls. The difference would be that the interconnection agreements between the “hubbing providers” would include very specific conditions for revenue sharing and billing of content.

Regulations cannot impose obligations on any operator to undertake such a “hubbing provider” function in order to enable a market which does not yet exist. The undertaking of such a function has to be seen as an attractive business proposition by market players. But regulations may contribute in a positive sense by removing legal uncertainties and establishing principles that are commercially attractive.

Such regulations may establish principles to be applied to PRS interconnection agreements, but may also more generally provide a better commercial environment for pan-European PRS. The next section will discuss recommendations for interconnection.

### *c) Origination vs termination*

Following scenario C, the additional level of complexity of international interconnection would have to be taken fully into account. For scenario D, which assumes a fresh start with a new type of pan-EU PRS, it would be possible to define special terms for interconnection. The question then arises whether it is more correct to consider the access provider function as call origination or call termination.

The following table sets out some of the many considerations which may apply.

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<sup>69</sup> This hubbing arrangement should not be confused with a purely technical hub, whereby many networks co-locate in a given physical location in order to facilitate traffic exchange.

Interconnection arrangement	For	Against
Call termination	<ul style="list-style-type: none"> <li>• the subscriber has an explicit contractual arrangement with the access provider:</li> <li>• the subscriber contract may explicitly include provisions for PRS, or PRS may be implicitly included by reference to the national numbering plan</li> <li>• the subscriber agreement may include a price list for different categories of PRS</li> <li>• the access provider provides access to PRS and the act of dialling a PRS number creates rights and obligations for the subscriber</li> </ul>	<ul style="list-style-type: none"> <li>• PRS are not part of “telephony services” and the standard contractual arrangement with the access provider normally covers “telephony services” including international calls, but not necessarily the provision of content related services (traffic to PRS numbers);</li> <li>• the price for PRS may not be included in the standard price list of the access provider;</li> <li>• the access provider may not have the legal right to invoice services unless they have been explicitly ordered</li> <li>• the access provider may not have commercial agreements with all PRS platform providers</li> <li>• it is unreasonable to launch complaints against the access provider for the delivery of content that is outside its own control</li> </ul>
Call origination	<ul style="list-style-type: none"> <li>• the access provider is only responsible for the conveyance, while the main part of the service is provided by the platform operator</li> <li>• the platform provider and/or the content provider determines the price, markets the service and delivers the service.</li> <li>• the acceptance by the subscriber of the PRS content can be made sufficiently explicit to enable the establishment of a contractual relationship with the platform provider</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• the contractual arrangement between the subscriber and the access provider does not establish any right for the platform provider.</li> <li>• requires third party billing. It may become necessary to involve a billing organisation.</li> </ul>

**Table 4 – Call origination vs. call termination**

This set of considerations does not provide a clear answer whether to use call origination or a call termination arrangement for international PRS services. There are arguments for and against both arrangements which depend on national circumstances and in particular on conditions in the contract between the subscriber and the access provider.

The more interesting aspect is how to define the interconnection relationships between the national “hubbing providers”. Commercial freedom suggests that this choice should not be made through regulations. On the contrary, regulations should make it clear that this choice can be made through commercial negotiations and they should prevent regulatory intervention which require cost orientation or responsibility for bad debts. Nevertheless it has to be assured that there is non-discriminatory access to the interconnection services for all market participants, particularly if the hubbing function is carried out by an integrated operator acting also as a PRS provider.

However, the PRS arrangements should be able to use the existing interconnection regulations for the conveyance part of the service. The specific PRS arrangements should only have to deal with the content (and corresponding VAT) parts of the service. The separation between conveyance interconnection and content interconnection should facilitate market entry for “hubbing provider” provision. The lack of regulatory requirements should then work in favour of a first mover advantage balanced with reasonably easy market entry.

### **Recommendation 27 – Interconnection regulations for pan-EU PRS**

Regulations should be introduced to make the following principles applicable to pan-EU PRS:

- there should be unbundling between interconnection for conveyance of pan-EU PRS and commercial agreements for content payment;
- pan-EU PRS should benefit from the established interconnection regime for conveyance. (A transit provider should be paid the same for a PRS call as for a normal telephone call);
- there should be commercial freedom for agreements which define the sharing of revenues for content between the different partners in the value chain that are involved with content. This includes in particular:
  - the hubbing providers in both countries, who provide international connectivity for content;
  - the platform provider and the content provider.

#### **4. Billing and collection**

One unique characteristic of PRS compared with traditional voice calls consists in the additional payment flow between end user and content provider. It is not sufficient to establish a connection between the end user and the platform which delivers the PRS content. For a successful operation of PRS one has to assure that across the complete value chain:

- the amount to be paid for using a PRS is determined,
- the amount due is communicated to the end user,
- the payment of the end user is accepted,

- the payment of the end user is entered in the books, and
- the collection process is performed as necessary.

The predominant billing procedure for PRS across Europe is the online billing method, which is found in all the countries included in this report. The offline procedure is also found, but its practical importance is currently low. In Germany, both billing procedures are used and their usage is linked to certain numbering ranges of the German numbering plan

Many countries place a regulatory obligation upon the incumbent operator to perform third party billing. This is particularly true where the call origination model is used for interconnection with the implication that the access provider may have to perform billing for a third party.

Austria, Belgium, the Czech Republic and Ireland and Slovakia also require the incumbent operator to assume the risk of bad debts. In Ireland the uplift for assuming bad debts varies with the type of PRS.

In the UK, the incumbent operator does not have a formal obligation for billing, but it has a regulatory obligation to originate calls to PRS providers and is entitled to recover its regulated costs for billing and bad debts. In practice, this works as an obligation for billing with bad debts responsibility.

Other countries such as Finland, France and Italy require third party billing but leave the issue of bad debts to commercial negotiations, while there is a general cost orientation obligation for the billing activity itself.

In Spain, the responsibility for bad debts depends on whether call origination or call termination is used as an interconnection model.

Germany with its two alternative forms of billing (online-billing and offline-billing, see above) has particular arrangements for third party billing. Although online-billing and offline-billing viewed as concepts have no direct relationship to third party billing, the current practice in Germany is that billing of PRS is normally carried out by the incumbent operator under a commercial agreement.

In Norway, PRS services are legally defined as services jointly billed by the access operator. However, the incumbent operator sees it as normal billing for their own services, where content and/or platform provision is provided by sub-contractor(s).

However, many countries have no specific obligation for third party billing. That includes Cyprus, Denmark, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal and Slovenia

The compensation for billing without bad debt responsibility ranges from 2.9% to 5%. It can also be a fixed amount per billed call. When bad debt is covered, the compensation ranges from 4.5% to app. 30%.

Solutions for pan-EU PRS must take into account that the risk for bad debts may vary across different content categories and also across different countries. The commercial arrangements have to include solutions for cross-border bad debt management. On the one hand this includes the tasks

for which the invoicing party is responsible in the context of bad debt management (e.g. first reminder, multiple reminders, bad debt loss). On the other hand there is also the issue of allocating the cost of bad debt management to the different players in the value chain.. The management of the invoicing and collection process may be quite complex, dependent on the number of players involved. If the party who sends the bill completely bears the bad debt risk, the process is comparatively simple. In that case there is no additional flow of information or return debits to or between other parties. If, however, the bad debt risk is assigned to another function on the value chain (e.g. to the platform provider or to the content provider) one has to deal with extensive and time-consuming processes for accounting and management of payment transactions.

In addition to an end user payment by the phone bill it would also be possible to make payment by credit card. Most of the national PRS regulations make the assumption that payment will be made over the telephone bill and such payments are normally part of the way that PRS has been defined at the national level. Germany and the Netherlands have, however, explicitly allowed PRS billing to be carried out by the content provider for certain categories of PRS. In a regulatory framework which aspires to be technology neutral, it does not seem reasonable to treat services differently on the basis of payment method. Altogether, cross-border billing processes including payment, accounting and bad debt management is one of the major challenges in implementing a pan-European market for PRS. In view of this, it makes sense to leave the door open for alternative mechanisms that can be provided in the market.

The billing relationship between the access provider and the national “hubbing provider” provider for pan-EU PRS presents two alternative options:

1. It can be argued that billing obligations for pan-EU PRS the access provider does not fall under the same regime as the national PRS. This would indicate that this relationship would be unregulated.
2. It can be argued that the relationship between an access provider and a national “hubbing provider” is no different from that which exists for between the access provider and national platform providers and that therefore the national PRS billing regulations would apply.

It seems reasonable to build on the mechanisms that already exist when appropriate. This should not present an extra burden for the access provider as it would in most cases be comparable to having a relationship with an additional platform provider. However, some adjustments may be necessary in national regulations where they do not provide for individual pricing of PRS.

### **Recommendation 28 – Billing regulations**

It seems reasonable to rely on online-billing in the first phase of developing a pan-European market for PRS because of its wide acceptance and its proven operational procedures for PRS on national levels. But respective policy actions should enable offline-billing rather than explicitly discriminate against it or hamper it. In a later phase, offline-billing could be used as an alternative model if the market so decides.

Where there is a choice between on-line or offline-billing, the decision should be made by the platform provider. If offline-billing is selected, access providers for pan-EU PRS should be obliged to provide billing information to platform providers if requested.

Apart from payment by the telephone bill, credit card payment and/or other payment mechanisms should be viewed as optional payment methods.

PRS billing regulations should be applied to the billing of pan-European PRS with adaptations, where necessary.

PRS do not play a vital role (if any) in the current market analyses related to the electronic communications framework under way throughout Europe. This is true of both retail markets and wholesale markets. The UK has decided to deal with the number translation market, which is related to PRS, outside the framework.

Since a pan-European market for PRS does not yet exist, the development of such a market must be considered an emerging market which should not be subject to inappropriate regulations<sup>70</sup>.

Many countries have imposed special obligations on third party billing, but it is not clear whether such obligations can be retained under the new regulatory framework without country-specific or EU based legal justification. One candidate for a new relevant market is therefore the market for billing services.

### **Recommendation 29 – Market considerations**

There is a need to examine whether markets relevant for PRS, such as third party billing, can be justified as relevant markets in the context of the new regulatory framework and if so, what are appropriate remedies. The outcome of this examination may have three outcomes:

1. harmonisation enabling regulations of third party billing for PRS;
2. harmonisation preventing regulations of third party billing for PRS;
3. no harmonisation, leaving the issue for national authorities to decide.

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<sup>70</sup> Ref 2002/21/EC - Framework Directive – Recital 27.

## 5. A step-by-step market realisation

A pan-European market for PRS will not be created in one day. This report has recommended a number of measures to be taken by the European Commission as well as by national authorities. These will take time. In addition, it is up to the market to make use of these opportunities. Initially, there will be a chicken and egg challenge to get the market up and running.

These considerations suggest an approach that enables the market to function as soon as there is supply in one country and demand in another country. As seen above, fraud prevention is the big issue and as soon as the national regulatory authorities in a country fulfill the minimum requirements agreed for oversight of pan-EU PRS, they should be able to start allocating numbers to platform providers within their domain.

This could mean that some countries, like Ireland and the UK, which have experienced PRS regulators in place, could start relatively soon. Other Member States may require more time. Some Member States may decide that they do not wish to meet the minimum requirements for oversight. This would mean that they would not be eligible to allocate pan-EU PRS numbers and therefore not be able to have such platform providers on their territory.

Customers from Member States that are not yet eligible for hosting pan-EU PRS should nevertheless be able to access such services in other countries. The minimum requirements for notification of PRS authorities and assignment of regulatory responsibilities should ensure that their consumer protection requirements are met.

In addition to being a pragmatic approach to establishing the market, it should also provide commercial incentives in the form of first mover advantage. For example, the UK and France, which are seen as leaders in national PRS provision, may see an advantage in being able to export their services to the rest of Europe.

### **Recommendation 30 – Country-by-country implementation**

National regulatory authorities that:

- meet minimum requirements for oversight of pan-EU PRS;
- have the power to apply the minimum set of sanctions in case of breach of regulations and/or Code of Conduct;
- have the power and ability to rapidly close down a PRS service in case of obvious fraud;

should be empowered to recommend allocation of pan-EU PRS numbers to platform providers under their control to the numbering authority responsible for the pan-EU PRS numbering range



## VI. SUMMARY OF RECOMMENDATIONS

### A. Introduction

This report has identified two options for pan-European PRS market that can be implemented without immediate need for regulatory action. These options, referred to as scenario A and B, adapt international content to the individual national environments.

Two other options, referred to as scenario C and D, represent a more genuine pan-European approach whereby services may be made available across all Member States with a unique telephone number and identical price. Scenario D, which is based on a specific numbering prefix for pan-EU PRS, appears to be the most realistic solution even if it requires extensive preparations both by regulators and operators.

For reasons explained in Chapter VI, scenario C, with numbers from national numbering plans, is encumbered with additional complexities and appear less realistic. This does not rule out that some services may be provided on this basis.

This chapter summarises the recommendations and the steps that must be taken in order to establish such a pan-European market. The recommendations have mainly scenario D in mind, but the other scenarios may also benefit from them.

It should be stressed that many of these recommendations do not create changes to the national PRS markets. The intention is instead to enable a pan-European market to develop side-by-side with the national markets.

### B. Implementation steps

This report includes a comprehensive list of recommendations that affect a wide range of stakeholders. The issues are quite complex and the national variations are considerable. Before making commitments to proceed with implementation of our recommendations, the European Commission would be well advised to seek wider consultations.

This report with its Annex on national implementations may form the basis for such a consultation.

Assuming that the consultation process demonstrates that there is a consensus for taking the necessary steps to enable pan-EU PRS, the following would be necessary.

#### a) *Numbering plan for pan-EU PRS*

<p>An agreement has to be reached on the use of a common numbering arrangement for pan-EU PRS including specifications of digits for price and/or content information.</p>	<p><a href="#">Recommendation 6 – Establish a pan-EU numbering plan</a> Page 46</p>
<p>The pan-EU PRS numbering plan should reflect price information</p>	<p><a href="#">Recommendation 26 – Price information in pan-EU PRS numbering plan</a> Page 67</p>

Allocation of numbers in the pan-EU PRS numbering plan should require acceptance of a code of conduct	<a href="#">Recommendation 13 – Development of a code of conduct</a> Page 53
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*b) Third party billing*

There should be an assessment on whether there is a need to harmonise requirements for third party billing and whether third party billing is a relevant market in the context of the new regulatory framework.	<a href="#">Recommendation 29 – Market considerations</a> Page 75
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*c) PRS Directive*

<b>PRS Directive</b>	
<b>PRS authorities</b>	
Identification and notification of national PRS authority	<a href="#">Recommendation 7 – Assignment of PRS authority</a> Page 47
A minimum set of responsibilities for PRS authorities in countries that are recipients of pan-EU PRS	<a href="#">Recommendation 10 – Monitoring responsibilities</a> Page 52 <a href="#">Recommendation 17 – Complaint handling</a> Page 56
A broader set of responsibilities for PRS authorities in countries that are providers of pan-EU PRS	<a href="#">Recommendation 10 – Monitoring responsibilities</a> Page 52 <a href="#">Recommendation 17 – Complaint handling</a> Page 56
A minimum set of powers for sanctions should be defined	<a href="#">Recommendation 9 – Catalogue of sanctions</a> Page 51
Cross-border co-operation between PRS authorities should be established through a Memorandum of Understanding	<a href="#">Recommendation 12 – Memorandum of Understanding between PRS authorities</a> Page 55

<b>PRS Directive</b>	
<b>Country of origin principle</b>	
<p>PRS should be covered by the country of origin principle.</p> <p>The ability for Member States to restrict on an ad-hoc basis a specific PRS that is in breach of defined fundamental policy objectives must also be ensured.</p>	<p><a href="#">Recommendation 21 – Country of origin</a> Page 61</p>
<b>Criteria for allocation of pan-EU PRS numbers</b>	
<p>Authorities should meet minimum criteria to be able to allocate pan-EU PRS numbers</p>	<p><a href="#">Recommendation 30 – Country-by-country implementation</a> Page 76</p>
<p>Non-discriminatory access to numbering resources</p>	<p><a href="#">Recommendation 19 – Non-discriminatory access to numbering resources</a> Page 59</p>
<b>Pan-EU PRS regulations – general principles</b>	
<p>The relationship between PRS and information society services should be clarified. This may be best accomplished through a directive that sets out a set of rights and obligations for PRS services.</p>	<p><a href="#">Recommendation 1 – Clarification of EU enabling provisions</a> Page 35</p>
<b>Consumer protection</b>	
<p>Clarification of information requirements to be provided to pan-EU PRS users</p>	<p><a href="#">Recommendation 18 – Clarification of information requirements for pan-EU PRS</a> Page 57</p> <p><a href="#">Recommendation 2 – Consumer protection requirements</a> Page 37</p>
<p>Call barring obligations should be established</p>	<p><a href="#">Recommendation 20 – Call barring</a> Page 60</p>

<b>PRS Directive</b>	
<b>Fraud prevention and taking action against fraud</b>	
<p>Fraudulent practices should be defined.</p> <p>A catalogue of sanctions applicable to prevent fraud should be established.</p>	<p><a href="#">Recommendation 3 – Unfair practices regulations</a> Page 39</p> <p><a href="#">Recommendation 8 – Catalogue of unfair practices</a> Page 51</p> <p><a href="#">Recommendation 9 – Catalogue of sanctions</a> Page 51</p>
<p>The liability of access network and transit operators and of platform providers in case of illegal content or fraud should be addressed.</p>	<p><a href="#">Recommendation 16 - Liability of platform providers</a> Page 55</p> <p><a href="#">Recommendation 1 – Clarification of EU enabling provisions</a> Page 35</p>
<p>The platform providers should be able to provide information on the identity of content providers with whom they have hosting agreements to the PRS authority on request</p>	<p><a href="#">Recommendation 15 – Communication of identification data</a> Page 55</p>
<p>Regulatory authorities should have the power to close down fraudulent PRS</p>	<p><a href="#">Recommendation 14 - Power and ability to close down a fraudulent PRS service</a> Page 55</p>
<p>There should be a minimum period of delay for international PRS payments in order to have time to react in case of fraud.</p>	<p><a href="#">Recommendation 11 – Payment freezing</a> Page 52</p>
<b>Commercial aspects</b>	
<p>Commercial freedom for price setting</p>	<p><a href="#">Recommendation 24 – Price aspects</a> Page 65</p>
<p>Interconnection principles</p>	<p><a href="#">Recommendation 27 – Interconnection regulations for pan-EU PRS</a> Page 72</p>
<p>Billing principles</p>	<p><a href="#">Recommendation 28 – Billing regulations</a> Page 75</p>

d) *Code of conduct*

<p>A code of conduct for pan-EU PRS should be developed</p>	<p><a href="#">Recommendation 13 – Development of a code of conduct</a> Page 53</p> <p><a href="#">Recommendation 9 – Catalogue of sanctions</a> Page 51</p>
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e) *Communication on the applicability of VAT to PRS*

<p>The PRS community needs to have a clear explanation of how VAT shall be applied to PRS.</p>	<p><a href="#">Recommendation 4 – VAT</a> Page 41</p>
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f) *Standardisation*

<p>ETSI should be tasked with standardisation of “International Advice of Charge”. This could be important for pan-EU PRS in the longer term. Similar standardisation may be necessary to cope with the complex VAT regime applicable to PRS.</p>	<p><a href="#">Recommendation 25 – Standardisation of “International Advice of Charge”</a> Page 66</p> <p><a href="#">Recommendation 4 – VAT</a> Page 41</p>
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g) *Content stimulation*

<p>Steps should be taken to facilitate access for PRS providers to content with broad public appeal in cases where there are unnecessary or unfair barriers.</p>	<p><a href="#">Recommendation 23 – Access to subscriber databases</a> Page 63</p>
<p>The provision of sales promotion services should be permitted, subject to safeguards.</p>	<p><a href="#">Recommendation 5 – PRS related sales promotion services</a> Page 43</p>

h) *Consumer confidence building*

<p>There should be an action plan for building consumer confidence in pan-EU PRS.</p>	<p><a href="#">Recommendation 22 – Consumer confidence building</a> Page 62</p>
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## VII. LIST OF ACRONYMS

ADR	Alternative Dispute Resolution
ADSL	Assymetric Digital Subscriber Line
AP	Access Network Provider/Provision
CEPT	Conférence Européenne des Postes et Télécommunications
CP	Content Provider
COCOM	Communications Committee
ComReg	Commission for Communications Regulation (statutory body responsible for the regulation of the electronic communications sector and the postal sector in Ireland)
E.164	ITU recommendation for numbering, including country codes used for normal telephony
EEJ-NET	European Extra-Judicial Network
ETNS	European Telephony Numbering Space
ETSI	European Telecommunications Standards Institute
FMCG	Fast Moving Consumer Goods
ICSTIS	Independent Committee for the Supervision of Standards of Telephone Information Services
IDD	International Direct Dialling
INFSO	Information Society
ISP	Information Service Provider
ITU	International Telecommunication Union
MMS	Multimedia Message Service
NGO	Nongeostationary Fixed Satellite Service
NNA WG	Numbering, Naming and Addressing Working Group
NOC	Network for Online Commerce
NRA	National Regulatory Authority
NRF	New Regulatory Framework

OFCOM	Office of Communications (independent regulator and competition authority for the UK)
PC	Personal Computer
PP	Platform Provider
PRS	Premium Rate Service
PSTN	Public Switched Telephony Network
RIO	Reference Interconnection Offer
SMP	Significant Market Power
SMS	Short Message Service
SP	Service Provider
SS7	Signalling System 7
TP	Transit Network Provider/Provision
TV	Television
UIPRN	Universal International Premium Rate Number
UK	United Kingdom
USD	Universal Services Directive
VAT	Value Added Tax