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CENTRE ON REGULATION IN EUROPE

***Public service obligations and
competition***

Final Report

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About CERRE

Providing studies, training and dissemination activities, the Centre on Regulation in Europe (CERRE) promotes robust and consistent regulation in Europe's network industries. CERRE's members are regulatory authorities and operators in those industries as well as universities.

CERRE's added value is based on:

- its original, multidisciplinary and cross sector approach;
- the widely acknowledged academic credentials and policy experience of its team and associated staff members;
- its scientific independence and impartiality.

CERRE's activities include contributions to the development of norms, standards and policy recommendations related to the regulation of service providers, to the specification of market rules and to improvements in the management of infrastructure in a changing political, economic, technological and social environment. CERRE's work also aims at clarifying the respective roles of market operators, governments and regulatory authorities, as well as at strengthening the expertise of the latter, since in many member states, regulators are part of a relatively recent profession.

This study has received the financial support of CERRE members. As provided for in the association's by-laws, it has been prepared in complete academic independence. The contents and opinions expressed reflect only the authors' views and in no way bind the members of CERRE (www.cerre.eu).



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Abstract

This Report considers the question of public service obligations (PSOs) and their interaction with and effects upon liberalisation policies. We review the legal and economic literature, and survey the arrangements across four sectors: telecommunications, energy, postal services and railways. Our focus has been on how USOs may distort competition. We explain the mechanisms in place to compensate for the costs of universal service, an issue which is likely to become more important as incumbents' market share is further eroded, and investment in new infrastructure becomes increasingly important. We use survey of CERRE members to complement our findings, providing valuable examples of how USOs may distort the markets the subject of this Report.

1. Introduction

One concern when traditionally monopolised markets are initially opened to competition is that new entrants may be able to enter and cream off the most profitable consumers, leaving the incumbent with those whose prices do not cover their costs. As a result, incumbents may be left with more expensive consumers, which may impede their ability to compete. This is a particular concern where there have been extensive cross-subsidies to particular groups who are viewed as vulnerable, deserving or politically sensitive (for example rural consumers), and it is difficult or undesirable to completely remove such cross-subsidies.

Where a single firm has a legal or de jure monopoly to supply a market it can be required (formally or informally) to supply all consumers, using cross-subsidies for the most expensive from those who are cheaper to supply. But the introduction of competition makes the incumbent vulnerable to cherry picking. While this may be sustainable in the short term, in the longer run mechanisms will need to be put in place in order to fund universal service. Various options may be considered:

- Remove the subsidies from the market and deliver them through another means, for example a monopoly distribution network (where one exists, so that there is no competitive process to distort) rather than a competitive final retail market. This occurs in many distribution networks where rural consumers are subsidised by urban consumers since they are all charged the same, even though urban consumers enjoy economies of density.
- Hold an auction for supplying consumers who require protection, inviting bids to supply them (at a loss). This is similar to the reverse auctions widely used in telecoms and franchising arrangements for rural/loss making transport routes.

- Require all suppliers to 'play or pay', so that either they supply a particular portion of the loss making consumers or pay a contribution into a central fund which is then distributed to those who do.
- Allow the incumbent to carry the costs because they enjoy other advantages. Such policies raise the issue of how such benefits and obligations can be measured, and how such obligations relate to the requirement that regulated entities should be able to cover their efficient costs.

In this Report we outline the current provision made for PSOs across telecoms, postal services, electricity, gas and railways at the European level and as implemented in four EU countries, namely Belgium, France, Germany and the UK. We compare the different arrangements across these sectors and countries. Our focus has been on how USOs may distort competition, and has been informed both by examining the experience in different EU countries and by responses to the survey delivered across the CERRE membership, which has provided valuable examples of how USOs work in practice for different players and regulators across a number of sectors.

This Report is structured as follows. The next section provides an overview of the economic and legal literature on public and universal service, focusing on the effects upon and interaction with liberalisation policies. Section 3 contains an extensive survey of the legal provisions existing at EU level and in the Member States for the purpose of securing public service obligations, and universal service in particular. In that section we discuss at length the mechanisms which exist for compensation of the costs of universal service provision, and some of the difficulties which have arisen in the calculation of net costs, the ambiguities surrounding concepts such as unfair burden and intangible benefits, and some of the problems which have arisen in Member States in administering compensation schemes. Section 4 then analyses the results from our questionnaire. Section 5 summarises and presents some policy proposals.

2. Discussion of the literature

2.1. Introduction

In this section we present the discussions of the economic and legal literature on public and universal service, first looking at general principles and then exploring the tensions between markets, competition law and universal service obligations. We conclude the section by considering the principles of compensation.

2.2. Literature on Public and Universal Service

We distinguish the concept of public service, delivered largely by publicly owned monopolies, and universal service, a concept which they use in particular relative to the liberalised market, following Finger and Finon (2011). They typify the EC USO requirements in post and telecoms as a *“means to protect the weakest citizens from market liberalization”*, emphasising the negative rather than positive aspects of opening markets. They produce a table of universal and public service obligations across telecoms, electricity, post and railways at European level, reproduced at Table 1 below, which provides a useful background to the current study.

Delivery and financing of the USO are distinct, and Finger and Finon conclude by arguing that there will remain a need to provide public services beyond the universal service provision, recognising the essential nature of the products provided by network industries, and the market failures which are inherent in many related areas, such as environmental policy.

The definition of USO may differ in detail between sectors, countries and over time¹. But concepts of basic service, good quality and affordable rates are likely to feature in all markets, and uniform pricing is sometimes imposed. Whatever the details, they characterise a USO as restricting operator(s) pricing policies, where this includes

¹ See for example Cremer et al. (2001)

pricing at a level to ensure non zero demand (i.e. provision and affordability for all). USO can be seen as a remedy for network externalities, particularly in communications and postal services, correcting for the lack of account which each individual takes of the benefits to others in his/her own decision to connect to the network. However the presence of network externalities (as distinct from economies of scale) is not evident in other industries such as transport and energy. USOs may be redistributive, for example to subsidise the cost of provision in rural areas, in which case some consideration of alternative policies to achieve similar ends would be appropriate to inform policy. And perhaps most commonly experienced, the authors comment on USOs as the outcome of political economy processes which are sufficiently varied that a common analysis is neither feasible nor appropriate.

Table 1: Public and Universal Service Obligations across Sectors

	Telecoms	Electricity	Postal Service	Railways
Universal Service Obligations	<ol style="list-style-type: none"> 1. Ubiquity 2. Geographical coverage of classical network (vocal) 3. Non discrimination. Equality of tariffs whatever the location 	<ol style="list-style-type: none"> 1. Geographical coverage 2. Continuity of service (reliability) 3. Non discrimination. Equality of tariffs in remote areas for small consumers 	<ol style="list-style-type: none"> 1. Maintenance of distribution in rural areas 2. Equality of tariffs on reserved markets 	Services under public service contract (Regional link traffic funding by grants, maintenance, rolling sock)
Public service objective Social equity	Social tariffs for vulnerable consumers	Social tariffs. Rules of disconnection	Access to banking services	Social tariffs (family tariff, elderly population etc.)
Public service objective Others	Obligatory service duties <ol style="list-style-type: none"> 1. Geographical coverage of new networks, mobile phone, digital network/ internet 2. Reserved networks for national defence 	Environmental protection <ol style="list-style-type: none"> 1. Promotion of renewables and cogeneration 2. Promotion of energy efficiency in consumption 	Reserved markets (less than 20g etc.)	

	3. Access for education			
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Source: Finger and Finon (2011)

The cost of a USO may be defined either in terms of (foregone) profitability or in terms of deadweight (efficiency) welfare loss. Inappropriate USO financing mechanisms could either inhibit entry or lead to inefficient entry, a focus of this report. In a liberalised market Cremer et al. point out the separation of the decision on who should be responsible for delivery of the USO from that on its financing. They also emphasise the importance of whether or not there is the possibility of inefficient bypass, in which case there may be another source of loss both of income to finance the USO and in efficiency. And the authors remind us that the optimal surcharge is likely to vary across consumers depending on their elasticities of demand, i.e. the most efficient system will be discriminatory, which is generally unacceptable to policy makers and consumer bodies. Franchising the duty raises the usual concerns around such a scheme, in particular investment in assets specific to the task which complicate the reletting of the franchise.

The problems of separating out the provision and financing of USOs because of the incentives which this provides to suppliers and the resulting distortion of the market is addressed by Gautier and Wauthy (2012). They argue that reimbursing the universal service provider for a previously estimated cost of USO overcompensates them, and that the cost of the USO is endogenous to its provision. Particularly relevant to this study is their conclusion that liberalisation is likely to require a reassessment of USOs and the appropriate mechanism for providing and funding them.

Choné et al (2000) show that the superiority of a ‘pay or play’ provision over requiring the incumbent to deliver a Universal Service Obligation no longer holds if a ubiquity requirement is imposed. In a later contribution (2002) the same authors show that ‘pay or play’ is preferable to a ‘restricted entry’ scheme, where the entrant is not allowed to serve high cost customers, though this result does not hold if the

regulator imposes a non-discrimination condition.

Such interactions are emphasised by the model of Hoerning and Valletti (2002) who underline the intricate relationships between the design of a USO methodology and its implications for USOs themselves, for market participants and for different groups of consumers. Many policy instruments, including price caps, but in particular imposition of uniform prices, create strategic links between different markets which have complex effects. Hoerning and Valletti also emphasise that the funding of USOs may reduce entry, thus counteracting potential USO objectives such as complete coverage, or making them more expensive to achieve. In an earlier paper, Hoerning (2001) focused on combining a uniform price constraint with unbundling (in telecoms). He concluded that imposing uniform pricing on the incumbent encouraged entry, but if such a restriction is extended to entrants, entry is discouraged.

Mirabel et al (2009) note that requirements of ubiquity and uniform pricing create links between markets which are served by the universal service provider, and these may lead to decreases in welfare. Including a unit subsidy in the compensation scheme can counteract some of these undesirable effects, and it may be better to avoid franchise bidding, but rather to have an exogenous choice of universal service provider or a pay or play scheme. Similar issues were explored by Hviid and Waddams Price (2012) who showed how uniform mark ups imposed in the UK energy market reduced competitive pressure, resulting in higher prices for all consumers, including those whom the regulator sought to protect. In postal services, Calzada (2009) shows that a public service obligation which obliges uniform pricing will affect the development of competition, in particular enabling an entrant to enter in a limited way which may increase the incumbent's price and the profits for both players. This depends on the structure of the incumbent's price being regulated, rather than its level, to achieve price uniformity.

Problems can arise if the entrant is given freedom to choose its geographical area,

since it will generally opt for higher quality than the incumbent within a restricted geographical areas, i.e. cherry pick (Beschorner (2008)). The incumbent will also raise quality, but the duplication of some network assets makes the welfare outcome ambiguous. More generally, Panzar (2000) emphasises the importance of defining carefully the counterfactual market to one with USOs, in particular not underestimating the competitive forces which might be active in a market without USOs.

Jaag (2010) also emphasises the role of the counterfactual in assessing USOs and the effect on the Universal Service Provider(s). In particular he shows that the USO can be used as a strategic commitment by the incumbent to deter entrants, even when they are more efficient. This raises policy concerns that stricter USO requirements may be more detrimental to competition (and therefore reduce rather than increase the burden on the incumbent provider).

Much of the market specific research has been in telecoms and postal services, where changes in technology are an important factor. The question of whether and how to ensure that all consumers should have appropriate access to essential services, and what is defined as essential, is not a new problem, but its relevance changes both as technology offers new opportunities and as markets are opened to competition. As Alleman (2010) notes, the issue in communications revolves both around what should constitute the essential service and the question of whether a single technology should be required to deliver the services. Such issues were evident in the comparatively early days of telecoms competition, as noted by Barros and Seabra (1999). More generally Li and Lyons (2012) show that mobile penetration increases with competition, though they do not examine whether any particular groups may be excluded during this general expansion of the network.

Eliassen and From (2009) attribute the debate over universal service to a reaction against the liberalisation agenda, and focus on telecommunications in France, Great Britain, Belgium and Norway. While USO can be seen as a safety net, its requirements

have not often been invoked, though it remains effective as a disciplinary stop gap. Many of the practical problems are, they argue, more effectively addressed by competition and technology, and alternative definitions might be appropriate from this perspective. However the authors recognise that USOs have a useful role in legitimising the process of liberalisation and to facilitate a public discussion around regional and national effects of deregulation. The tension between EC and national approaches in services of general economic interest is discussed at the end of this section.

Crew and Kleindorfer (2003) specifically address the balance between access and USO in the postal sector, where incumbents face increasing competition both from other forms of communication and from entrants who are granted access to their networks. They design a Delivery-Zone Access Pricing system which takes into account both the work still required by the incumbent to deliver mail, and the costs avoided upstream by the entrants' activities. They are concerned particularly to minimise subsidies which might promote inefficient entry, and to avoid mandating access to the incumbent's networks at prices below the marginal cost of their use. In this way their arguments are reminiscent of the earlier discussions on the Efficient Component Pricing Rule for access (Baumol and Sidak, 1994).

The role of convergence is further addressed by Jaag and Trinkner (2011). They examine the implications of convergence between telecoms and postal markets for the most effective ways of providing USOs across the sectors, identifying more effective means of delivering at least part of the USOs through difference technology. Convergence, this time between telecoms and broadband, also informs Levin's (2010) paper on the challenges of USO in a competitive market, and in particular of raising funds in a non-distortive fashion. Levin also warns against international comparisons which may be biased by inaccurate data.

Sauter (2008) outlines the development of the USO argument in EC legislation, and the concept of services of general economic interest. He points out that while

competition should be in the interests of consumers because it lowers prices and increases consumer choice, market failures may still justify public intervention in the form of USOs. Of particular interest in the context of this study is his focus on proportionality in reconciling national requirements with treaty requirement on single markets and competition.

This tension which Sauter identifies is one of two general themes which emerge from this literature on USO provision and financing. Within the Treaty provisions of the EC, Member States may retain preferences which reflect their social preferences. Social policy is not unified across the EU, and so they may seek adaptation or amelioration of how union wide changes affect particular groups within their Member States. The interaction with questions of State Aid shows how this tension reflects the jurisdictions of union and Member States. The second tension is related, namely whether intervention is to correct a market failure (this might be the case for environmental policy for example) or to meet social objectives. The latter are not appropriately addressed through market mechanisms, and so fall outside the remit of a market process. Recognising this tension is crucial in understanding the USO debate.

2.3. Tensions between markets, competition law and universal service obligations in practice

As explained above, there are a number of ways in which liberalisation and universal service may conflict. First and foremost, to the extent that USOs represent a departure from cost-reflective pricing, they can lead to cherry-picking by new entrants (Rapp (1996) 394; Simmonds (2003) 6). While this may be sustainable or even desirable in the short term as new entrants establish their position on the market, in the long run the incumbent's costs will be forced upwards, and tariff rebalancing will become inevitable. As the OECD observed (in the context of telecoms) "price balancing" can cause a sharp increase in line rental which could lead

to customers switching to mobile services which could “threaten the quest for universal service on the fixed network” (OECD (2006) 23). Ultimately, in a competitive market it may be more efficient to abandon the regulation of prices and use targeted subsidies for those customers in need. Or alternatively, as some have suggested, it may require rethinking how useful a fixed network USO, for example in telecoms, is in the light of alternatives.

The second point relates to the way in which incumbents may have used USOs, and the need to preserve them, as a means of resisting liberalisation, or slowing its pace. Historically, tensions have existed between EU Member States concerning their differing perceptions of the legitimacy of USOs, the extent to which intervention should be limited to market failure, and the criticism that they may be used merely as a vehicle for the protection of vested interests (see Prosser (2005) 122-123).

As Blackman observed:

“...universal service has been successfully used as an instrument for regulatory capture: if the costs of providing universal service are large (as the monopoly provider typically insists) then regulators take the view that they cannot allow rate rebalancing to take place very quickly as a lot of subscribers will not be able to afford to remain connected.” (Blackman (1995) 175)

The gas incumbent, British Gas, provided an early example of such lobbying in its evidence to the 1993 Monopolies and Mergers Commission Inquiry into opening the market, when they predicted huge increases in fixed charges, less than a decade before they themselves abolished them in the competitive market (Bennett et al, 2002).

The trend internationally has been for tariff rebalancing which may be seen as inequitable as it leads to lower prices for business and wealthier customers, and lower income and rural consumers are seen not to benefit from liberalisation (given that they are not attractive customers for new entrants where cross-subsidies are maintained), or may even have to disconnect altogether from the network (OECD

(2006) 22).

These tensions aside, there is in fact a more nuanced relationship between USO and liberalisation. First, the formal recognition of USOs was seen as a *quid pro quo* for further liberalisation, especially for Member States like France that have a strong tradition of public service in utilities. So without the strengthening of USOs in law, the achievement of liberalisation would have been more difficult. Second, liberalisation and USOs may serve the same ends. Increased competition may lead to lower prices, greater efficiency and greater affordability may lead to increased access, especially for disadvantaged customers. Furthermore, the formal legal status and specification given to USOs, while differing significantly between sectors, may lead to more meaningful (and enforceable) rights for consumers.

As Sauter puts it:

“It does not just have the advantages of enhanced efficiency and consumer choice associated with liberalisation: once the public interests concerned are clearly defined in terms of deliverables and consumer rights instead of casually identifying pursuit of the public interest with public provision, they are likely to be better served.” (Sauter (2008) 178)

Clearer specification of USOs also increases certainty for market players, including new entrants. This is especially important as liberalisation increases and greater use is made of compensation mechanisms. There are downsides to greater specification, however. The concept of universal service is a dynamic one, which needs to adapt to changing societal and technological needs. Issues such as affordability, rights of access to broadband as the internet becomes perceived increasingly as a basic need, and the danger of locking in services which are no longer used extensively (for example, public payphones) (on mechanism designed to achieve greater responsiveness to consumer needs, including consumer representation see Simmonds (2003) 4).

The actual level of specification however differs significantly between sectors, as

Finger and Finon's table at the beginning of this chapter shows. For post and telecommunications, there is significantly more detailed specification of the universal service requirements in EU law than is the case for the other services of general economic interest, in particular, transport, water and electricity (Simmonds (2003) 61; Prosser (2005) chapter 8). This can, in part, be attributed to the structural characteristics of the different services of general economic interest (for example, the amount of cross-border trade); and in part to the historical traditions in the Member States with regard to the definition and implementation of universal and public service provisions in these sectors.

We observe two basic models for USO provision at the European level:

- The integrated approach, whereby liberalisation requirements are specifically complemented by (minimum) USOs. This means that Member States have less autonomy on the specifics of USOs (though they may be able to go further than the prescriptions in the Directive). There are no-opts out from liberalisation.
- Liberalisation subject to carve outs for SGEI/USOs.

The integrated approach is broadly followed in telecommunications, and the carve-out approach used in electricity (although a general USO for domestic customers was prescribed in 2003) (see Prosser (2005); and on the evolving approach to network regulation see Hancher and Larouche (2011)).

2. 4. Principles of compensation

There are a number of different means of funding USOs. First, universal service providers, normally the incumbents, could be granted *special or exclusive rights* over markets, preserving their ability to cross-subsidise between profitable and non-profitable customers. This was the model used until recently in postal services. Second, USOs may be funded by industry levies, whereby new entrants contribute to

a universal service fund payable to universal service provider.² As was observed by the OECD, a universal service fund may allow for more flexibility, and could be administered in a ways which are technologically neutral (OECD (2006) 17). This of course depends upon how prescriptive the underlying legislation is on the precise content of USOs.

Given their scale, the incumbent will normally be the provider of universal service, perhaps even without compensation (the position in German telecoms), which may be a sustainable solution, at least in the short to medium term. In the longer term, however, this model will come under consider pressure. In addition to the problem of cherry-picking, this may well have serious implications for investment in new infrastructure. Furthermore, it may be that there could be mechanisms in order to increase efficiency and innovation in the provision of USOs. The model which is being used in telecoms in the EU appears to be that of industry compensation schemes. Again there could be real dangers to competition, in particular, the use of compensation schemes may strengthen the position of the incumbent (normally the USP), and can act as a disincentive for new entrants to launch their own regional or rural services, and impede the development of new technologies. Direct subsidies may result in the perpetuation of outdated infrastructure, rather than an incentive for firms to build the most efficient networks.

Other models may be considered. One is 'pay or play' models for new entrants. These come to the fore where compensation schemes are implemented, and could be a mechanism for revealing where the incumbent firm has exaggerated its costs resulting from USOs. Another mechanism could be auctions or public service contracts, the model now used in rail. The OECD is of the view that such processes can *"generate incentives to contain costs, to innovate, and to reveal the true cost of delivering universal service thus minimising the subsidy required"* (OECD (2006) 18). It points to some success in competitive tendering in Chile and Peru, although less

² Such arrangements have been in place in France for some time, dating back to 1997 (see Eliassen (2009) 243; OECD (2006)).

success in Australia and Switzerland (where trials resulted in no competitive entry).

Two OECD reports addressed the question of losses and benefits from universal service provision. The first (OECD, 2003) suggested two approaches to determine the costs of provision: net avoided costs or entry pricing approach. They concluded that while the net avoided cost approach was appropriate in a stable market environment, the entry pricing approach was better if markets were being opened to competition, since it could calculate the cost to the provider of providing universal service within the liberalised environment. In its later report on telecoms (OECD, 2006), the OECD reports that difficulties in estimating the net cost of providing universal service, including identification of the intangible benefits which might accrue to the universal service provider, had handicapped the appointment of a provider and delivery of such benefits, and created uncertainty which had had an adverse effect on investment in the sector.

The details of cost allocation are, as often, not straightforward, particularly where vertical integration between the network and the retail arm persists. The networks are, by their nature, natural monopolies, so charging marginal costs, which might be a counsel of perfection, will not cover the operating costs. Thus any cost calculation will involve non marginal costs and an element of arbitrariness. The economic models above show that a staged process in which USOs are identified, then costed, and reimbursement then offered to the provider, overcompensates the USO provider (usually the incumbent) and so the process needs to be internalised. The problem with this approach is that it becomes less transparent, and in the febrile atmosphere of newly opened markets transparency and perceived fairness may be more important than the economically 'correct' solution.

The OECD 2003 report pays considerable attention to the exact calculation of USOs and the amount that requires substitution. Two main approaches are suggested: the net avoided cost and the entry pricing approach, but both have their difficulties. The debate is reminiscent of that over the Efficient Cost Pricing Rule for costing access to

the network of vertically integrated incumbents. But any costing approach is to some extent arbitrary, and the political acceptability is likely to be as important as the exact formula used. Such difficulties were reflected in the OECD 2006 report, where *“The review concluded that if the principle of general industry funding is retained, there is need to [...] find a simpler way of determining a reasonable level of subsidy de-linked from a calculation of costs. (p. xvi).” (OECD Telecoms, 2006)*

These somewhat unresolved economic, legal, political and practical arguments form the background to the current enquiry.

3. The Legislative Framework

3. 1. Introduction

This Section is divided into two parts. The first part outlines the legislative framework for universal and public services obligations in the EU and the Member States considered in this Report. Following a summary table of the relevant legislation at EU level and in each Member State, we then take each sector in turn (telecommunications, postal services, residential energy supply, and railways).

The second part hones in on USOs and the principles which govern the compensation of undertakings. This starts at a very general level, discussing the case law on services of a general economic interest (SGEI), and the principles for the compensation of such services. In the absence of EU norms, Member States have considerable discretion in defining what is a SGEI, and the mechanisms for the compensation of the costs attendant to their provision. In the network industries, however, and telecommunications and postal services in particular, both of these issues are the subject of governing principles at an EU level. Therefore, and again taking each sector in turn, we explain how the EU sector legislation circumscribes the discretion which Member States have in these respects, together with some examples of issues which have arisen concerning implementation. Most of the issues that have arisen relate to telecoms. We focus on USOs, since these are most likely to advantage or disadvantage one or more undertakings, and therefore have the potential to distort competition.

Following the liberalisation of the different network industries, the European Commission (2004) aimed for a common set of general obligations for all sectors throughout the territory of the European Union, consisting of:

- Universal service
- Continuous service

- Quality of service
- Affordability
- User and consumer protection

Those general obligations can be complemented by more sector specific obligations such as:

- Safety and security
- Security of supply
- Network access and interconnectivity

These obligations can be divided into ‘universal service obligations’ (USOs) as well as ‘public service obligations’ (PSOs).

The term ‘universal service’ combines two contrasting concepts. It provides rights for end-users and it imposes obligations on undertakings. The European Commission provided in its White Paper on services of general interest the following definition:

“[Universal service] establishes the right of everyone to access certain services considered as essential and imposes obligations on service providers to offer defined services according to specified conditions including complete territorial coverage and at an affordable price.” (European Commission, 2004)

There is no generally accepted definition of USOs and PSOs. In this Report, for the sake of clarity, we define them as follows.

Universal service obligations establish rights of access to services which might otherwise be restricted if the full cost of provision were imposed on the individual consumer. A universal service obligation often imposes an additional cost on the provider(s) that may be compensated, for example, through an industry levy or a state subsidy. The most obvious examples of USOs are: requirements relating to comprehensive provision of services within a geographical region; and uniform

tariffs, irrespective of the geographical location of the end-user.

Public service obligations apply to all firms operating in the sector, and usually relate to minimum levels of quality, service standards, and sector specific consumer rights. In contrast to USOs, no compensation is usually paid to the providers for fulfilling these obligations over and above the price charged to the individual consumer.

We do not include in these definitions obligations which are not related directly to consumers.

3.2. Current legal basis for service obligations at European and national level

Universal and public service obligations are prescribed by both EU law, in the form of Directives, and implemented in national legislation by Member States. The following table gives an overview of the relevant legislation in the four sectors (telecommunications/broadband, post, energy and railways) first at the European level and in the Member States (France, Belgium, United Kingdom, and Germany).



Table 2: Core legislation containing USOs and PSOs

	Telecommunications/ Broadband	Post	Energy	Railways
European Union	Directive 2002/22/EC (Universal Service Directive), amended by Directive 2009/136/EC	Directive 97/67/EC (Postal Directive) amended by Directive 2002/39/EC, amended by 2008/06/EC	<u>Electricity:</u> Directive 2009/72/EC <u>Gas:</u> Directive 2009/73/EC	Regulation (EC) No 1370/2007; Regulation (EC) No 1371/2007
Belgium	Act on various provisions regarding electronic communications (Loi portant des dispositions diverses en matière de communications électroniques)	Act of 21 March 1991, amended by Act of 1 April 2007	Law on the organization of the electricity market (Loi relative à l'organisation du marché de l'électricité) Electricity: Ministerial Decree of 30 March 2007 laying down maximum prices for the social supply of electricity to residential protected customers with low incomes or in precarious situations (Arrêté ministériel du 30 mars 2007 portant fixation de prix maximaux sociaux pour la fourniture d'électricité aux clients résidentiels protégés à revenus modestes ou à situation précaire) --- Royal Decree of 29 March 2012 laying down rules for determining the costs of applying social tariffs for electricity companies and the rules of engagement for their support (Arrêté royal du 29	Royal Decree of 7 May 2010 appointing authority of the application of Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on the rights and obligations of rail passengers (7 MAI 2010. - Arrêté royal désignant l'autorité chargée de l'application du Règlement (CE) n° 1371/2007 du Parlement européen et du Conseil du 23 octobre 2007 sur les droits et obligations des voyageurs ferroviaires --- Management contract between the Belgian Government and SNCB 2008-2012 (Contrat de gestion entre l'Etat et la société anonyme de droit public SNCB 2008-2012)

	Telecommunications/ Broadband	Post	Energy	Railways
			<p>mars 2012 fixant les règles de détermination du coût de l'application des tarifs sociaux par les entreprises d'électricité et les règles d'intervention pour leur prise en charge)</p> <p>Gas :</p> <p>Ministerial Order of 30 March 2007 fixing maximum prices for the social supply of gas to residential customers protected with low incomes or in precarious situations (30 Mars 2007. - Arrêté ministériel portant fixation de prix maximaux sociaux pour la fourniture de gaz aux clients résidentiels protégés à revenus modestes ou à situation précaire)</p> <p>---</p> <p>Royal Decree of 29 March 2012 laying down the rules for determining the cost of applying social tariffs by natural gas undertakings and the rules of engagement for their support (29 Mars 2012 - Arrêté royal fixant les règles de détermination du coût de l'application des tarifs sociaux par les entreprises de gaz naturel et les règles d'intervention</p>	

	Telecommunications/ Broadband	Post	Energy	Railways
			pour leur prise en charge)	
France	Postal and Electronic Communications Act (Code des postes et des communications électroniques)	Postal and Electronic Communications Act (Code des postes et des communications électroniques)	Energy Code (Code de l'énergie)	Transport Code (Code des transports) -- Act No. 97-135 of 13 February 1997 establishing the public institution "Réseau Ferré de France" for the revival of rail consolidated version of 1 December 2010 (Loi 97-135 du 13 février 1997 portant création de l'établissement public " Réseau ferré de France " en vue du renouveau du transport ferroviaire) -- Decree No. 83-817 of 13 September 1983 as amended (décret n°83-817 du 13 septembre 1983 modifié)
United Kingdom	Communications Act 2003 (CA) The Electronic Communications (Universal Service) Order 2003 (ECO)	Postal Services Act 2011 The Postal Services (Universal Postal Service) Order 2012	Gas Act 1986 Electricity Act 1989 As amended by the Utilities Act 2000 and Energy Acts The Electricity and Gas (Energy Companies Obligation) Order 2012	Railways Act 1993 and 2005
Germany	Art. 87 f GG (Grundgesetz/Basic	Article 87f GG (Basic Law)	Energy Industry Act	Article 87e GG (Grundgesetz/Basic



	Telecommunications/ Broadband	Post	Energy	Railways
	Law) Telecommunications Act (Telekommunikationsgesetz - TKG)	Postal Act (Postgesetz - PostG) Postal Universal Service Ordinance (Post- Universaldienstverordnung - PUDLV)	(Energiewirtschaftsgesetz - EnWG) Regulations for basic gas and electricity supply (Stromgrundversorgungsverordnung and Gasgrundversorgungsverordnung)	Law) General Railway Act (Allgemeines Eisenbahngesetz – AEG)

3.3. Universal Service Obligations at European and national level by Sector

This section summarises the European and national service requirements by sector: telecommunications, broadband, post, energy and railways.

Taking each sector in turn, we start with a summary of the legal requirements at EU and national level. There then follows a summary table containing information on the following:

- the nature of the USO,
- the identity of the universal service provider,
- to which consumers it applies,
- who monitors it,
- the role of costs of universal service supply for consumers,
- the role of costs of universal service supply for providers and other undertakings,
- and the information about the minimum level of service, which can be expected.

3.3.1. Telecommunications

The following table offers a summary of USOs at EU and national level. At EU level, there is a general requirement on Member States to ensure the availability of fixed line telephone services throughout their territories at an affordable price. The relevant legislation, mostly contained in the Universal Service Directive, also requires that Member States make provision for certain services such as public pay telephones, directory services, and services for disabled end-users. EU law also prescribes certain key consumer rights for subscribers. NRAs are required to monitor

service standards according to specific performance standards laid down in the Directive. The relevant legislation also deals with the remuneration of universal service providers. In general, the financial costs of universal service shall be carried by the provider. Only in cases where the universal service obligations put an unfair burden on the provider, can the undertaking be compensated (either by a public compensation fund and/or by the sharing net costs between providers). So far as the legal framework for USOs is concerned, there is very little variation between Member States. While NRAs may impose obligations beyond those contained in the Directive, the USOs for fixed lined telephony contained within it appear to be very comprehensive.

So far as broadband access is concerned, EU law requires the provision of *“data communications that are sufficient to permit functional internet access, taking into account prevailing technologies used by the majority of subscribers and technological feasibility”* (Article 4 of the Directive 2009/136/EC). The data rate is not specified, and the European Commission *“currently does not see a need to change the basic concept and principles of universal service as an instrument for preventing social exclusion. At this state, it would not be appropriate to include mobility or mandate broadband at a specific data rate at EU level”* (European Commission (2011)).

Member States are free to prescribe specific rates at national level as a USO. None of the four Member States covered by this Report have included provision in their universal service obligation with respect specific broadband speeds. So far Finland, Spain and Malta have included broadband as USO in their national legislation. Although broadband is not part of the universal service in the UK, the UK has set a target to provide superfast broadband for 90 per cent of all households by 2015, with the remaining 10 per cent receiving 2 Megabyte per second. While this will be regarded as USO, it will nevertheless be financed through private investment (Calvo, 2012).

Table 3: Summary of USOs for telecommunication by country

	European level	France	Belgium	United Kingdom	Germany
Nature of USO	<p>Service includes connection at a fixed location to allow voice, facsimile and data service at a sufficient rate to provide functional Internet access</p> <p>Service includes access to public telephone network to allow national and international phone calls</p> <p>Availability of one printed and/or electronically available directory, updated once a year</p> <p>One directory enquiry to all end-users</p> <p>Availability to public pay telephones to meet requirements with respect to geographical coverage, number, accessibility to disabled users,</p>	<p>Connection to a fixed network open to the public telephone service</p> <p>Allow to make telephone calls, use facsimile and data communications at sufficient rates for access to the Internet for everyone</p> <p>Free emergency calls</p> <p>When non-payment, the end-user shall still be able to receive calls and make calls to free services or emergency services</p> <p>Directory in printed and electronic form (includes names or company names, telephone numbers, addresses of all subscribers, mention of profession for those who want it)</p> <p>Provision of at least one public pay</p>	<p>Access to a fixed geographical telephone line across the country, regardless of the geographical position</p> <p>Receive and make local, national and international phone calls, use fax and data transmission, have a functional internet access</p> <p>In case of non-payment continuous ability to receive phone calls and make emergency calls, have technical support via the local network,</p> <p>Universal service obligation only to the principal residence</p> <p>Provision of public telephones or other access points for</p>	<p>Connection at a fixed location to the public telephone network</p> <p>Access to publicly available telephone services at fixed location</p> <p>Services allow make and receive local, national and international calls, facsimile communication and data service at rate that are sufficient to allow internet access</p> <p>One comprehensive printed and/or electronically available directory</p> <p>One directory enquiry</p> <p>Provision of public pay telephones, taking into account geographical coverage, number of phones, quality of electronic communication</p> <p>Services</p> <p>Emergency calls from public pay phones free of</p>	<p>Connection at a fixed location to a public telephone network</p> <p>Service to publicly available telephone services</p> <p>Services allow voice, facsimile and data service at rate that are sufficient for a functional internet access</p> <p>Availability of directory, which is updated regularly, at least once a year</p> <p>Availability of at least one comprehensive public telephone directory enquiry service, including the provision of the area codes of national users and users in other countries, as far as data is available</p> <p>Provision of public pay telephones or other access points in accessible locations and in working order throughout the territory of Germany</p> <p>Emergency calls from public pay telephones free of charge and without any means of payment</p>

	European level	France	Belgium	United Kingdom	Germany
	<p>quality of service</p> <p>Emergency phone calls from public pay telephones using 112 or a national emergency number must be free of charge and possible without any means of payments</p> <p>MS may ensure that end-users with disabilities can choose supplier</p>	<p>telephone or another access point in each municipality of the appointment of the provider; in municipalities with a population over 1000 inhabitants, at least two payphone</p>	<p>public voice telephony services</p> <p>Directory</p> <p>Telephone enquiry service</p>	<p>charge and without any means of payment by dialling 112 or 999</p> <p>Special services for end-users with disability: Access to directory information facilities, provision of priority fault repair services, provision of access to relay services, appropriate method of billing, accessibility and functionality of public pay telephones, including provision of textphones</p>	<p>by dialling either 112 or the national emergency number</p>
Universal service provider	<p>One or more undertakings by using an efficient, objective, transparent and non-discriminatory designation mechanism</p> <p>An universal service provider who wishes to disengage needs to inform the national regulatory authority in advance</p>	<p>One or more undertakings</p>		<p>BT and KCOM (Hull area)</p>	<p>The market;</p> <p>In case of market failure an undertaking can be obliged by regulatory authority to provide universal services if the undertaking has a significant market power in the geographical area or a minimum of four per cent sale in this market</p>
Group of consumers	<p>All end-users</p> <p>For end-users with disability can apply</p>	<p>All end-users</p> <p>End-users with disability special measures regarding</p>	<p>All end-users (but only to principal residence)</p>	<p>All end-users</p> <p>Additional services for end-users with disability</p>	<p>All end-users</p>

	European level	France	Belgium	United Kingdom	Germany
	additional services	access and affordability			
Who monitors USO	National regulatory authority		National regulatory authority (Institute)	Regulatory Authority (Ofcom)	Regulatory Authority (Federal Network Agency - Bundesnetzagentur)
Role of costs of supply for consumers	<p>Affordability for all end-users</p> <p>Special tariff options or packages for consumers on low incomes or with special social needs</p> <p>End-user shall only pay for services which are essential for universal service</p> <p>Possibility to monitor and control expenditures</p>	Affordability	Special tariffs	<p>Affordability</p> <p>Common tariff(s) for universal services</p> <p>Appropriate tariffs for end-users on low income or for end-users with special social needs</p> <p>Possibility to monitor and control expenditures</p>	<p>Affordable price</p> <p>Price is affordable if it not exceeds the real price, which is based on average price paid by a household located outside a city with a population of more than 100.000</p> <p>Prices not based on market abuse</p> <p>End-user cannot be obliged to pay for services or facilities which are not required or not necessary</p>
Role of costs of supply for undertakings	When costs are an unfair burden based on net cost calculation, then MS can establish a public compensation fund and/or to share the net costs between different providers	Compensation, if costs are an excessive burden	Compensation fund, if costs are unfair	<p>If compliance costs are an unfair financial burden, the USO provider can get compensation</p> <p>Collection of contributions from other providers and distribution to universal service provider</p>	<p>Universal service provider can request compensation</p> <p>(either the sum established in the tendering process or in case where no provider was found in the tendering process by calculating the difference between the cost for a designated undertaking of operating without the USO and the cost of operating due to the obligation)</p>



	European level	France	Belgium	United Kingdom	Germany
					When costs are an unfair financial burden then compensation of the calculated amount
Information about minimum level of service expected	<p>Publishing of adequate and up-to-date information regarding performance</p> <p>Provision of information on prices and tariffs, on charges due on termination of a contract, on standard terms and conditions regarding access and use of services</p>				On request publication and provision of adequate and up-to-date information on performance

3.3.2. Postal services

As with telecommunications, EU legislation contains minimum standards which Member States must achieve within their territories. There is a general requirement of that postal services should be affordable. Until 2006, Member States were permitted to reserve part of the market (for items weighing less than 50 grams) to the universal service provider. While this is no longer permitted (abolishment of any reserved areas by 31 December 2010, and for 11 Member States³ by 31 December 2012), the legislation does provide that Member States can compensate the universal service provider where it is facing an unfair financial burden as a result of the USOs. With the exception of Germany, universal service obligations remain with the incumbents. The nature and extent of USO does vary between the Member States (e.g., requirements relating to the geographical location of post boxes). Compensation arrangements also vary.

³ Those Member States are the Czech Republic, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Poland, Romania, and Slovakia.



Table 4: Summary of USOs for postal services by country

	European level	France	Belgium	United Kingdom	Germany
Nature of USO	<p>Density of access point must meet the needs of customers</p> <p>Universal service on at least 5 working days per week with a minimum of one clearance and one delivery to home or premises or to appropriate installations (under exceptional circumstances or geographical conditions)</p> <p>Clearance, sorting, transport and distribution of items/packages up to 2 and 10 kilograms and services for registered and insured items</p> <p>Weight – limit for parcels is 20 kilograms</p> <p>Universal service requires delivery of parcels up to 20 kilograms from other MS to be delivered</p> <p>Dimensions for items</p>	<p>At least 17.000 post offices across the French territory</p> <p>No more than 10 per cent of the residents of a municipality can live further away from a post office than 5 kilometres</p> <p>National and cross-border delivery of items of correspondence up to 2 kilograms, parcels up to 20 kilograms, recorded delivery and declared valuable consignments to the home address</p> <p>Every weekday, except under exceptional circumstances.</p> <p>People with disability must be able to access services and facilities</p> <p>Simple, transparent and free complaint handling</p>	<p>At least one clearance, sorting, transport and delivery of postal items up to 2 kg per day, five days a week, except Sunday and on legal public holiday</p> <p>Distribution of postal items to all houses throughout Belgium as far as they are provided with a letterbox situated next to the road and within reach</p> <p>At least one clearance, sorting, transport and delivery of postal parcels up to 10 kg, five days per week, except Sunday and on a legal public holiday</p> <p>Distribution of postal items to all houses throughout Belgium</p> <p>Parcels which cannot be delivered in person, shall be kept in a place located in the municipality of the addressee; this place must be accessible</p>	<p>At least one delivery of national and international letters every Monday to Saturday to homes or premises or to points approved by Ofcom</p> <p>At least one delivery of other national or international postal packets every Monday to Friday to homes or premises or to points approved by Ofcom</p> <p>At least one collection of national and international letters every Monday to Saturday from every location used for receiving postal packets</p> <p>At least one collection of national and international postal packets every</p>	<p>At least 12.000 postal outlets throughout Germany</p> <p>Municipals with at least 2.000 residents must have one postal outlet</p> <p>Every municipality with more than 4.000 inhabitants must ensure that there is a postal outlet within 2,000 metres</p> <p>Additionally at least one postal outlet per 80 square kilometres</p> <p>Other locations must be supplied through a mobile postal station</p> <p>At least one post box within 1,000 kilometres</p> <p>Post boxes have to be cleared every working day if required also every on Sunday or on a holiday</p> <p>Collection times have to be in line with the needs of</p>

	European level	France	Belgium	United Kingdom	Germany
	<p>eligible for universal service can be found in the Convention and Agreement concerning Postal Parcels adopted by the Universal Postal Union</p> <p>Universal service covers domestic and cross-border services</p>		<p>for at least five days a week, except Sunday and public holiday</p> <p>Delivery of postal parcels coming from other Member States and weighing up to 20 kg</p> <p>Services for registered items and insured items</p> <p>Universal postal service includes both domestic services and cross-border services</p>	<p>Monday to Friday from every location used for receiving postal packets</p> <p>Cross-border transport of postal packets</p> <p>Service of conveying postal packets must be provided at affordable prices based on a uniform tariff</p> <p>Registered items service at affordable prices based on a uniform tariff</p> <p>Insured items service at affordable prices based on a uniform tariff</p> <p>Special services to blind or partially sighted persons free of charge</p> <p>Transport of qualifying legislative</p>	<p>business life, collection times and the next collection must be mentioned on the post box</p> <p>On a yearly average 80 per cent of the items have to be delivered by the next working day after posting and 95 per cent by the second working day after posting</p> <p>Letters must be delivered at least once per working day</p> <p>Distribution/transport of parcels requires the same number of access points like letters</p> <p>On a yearly average 80 per cent of the parcels have to be delivered by the next working day after posting</p> <p>Personal delivery to home or business address unless stated otherwise</p> <p>Delivery at least once a day</p>



	European level	France	Belgium	United Kingdom	Germany
				petitions and addresses free of charge	
Universal service provider	MS may designate one or more undertakings	La Poste (2011-2026)	BPost (2011-2018)	Royal Mail (until 2021)	Deutsche Post had an exclusive license until 2007 All operators with a license jointly provide universal services In 2008 Deutsche Post emphasized its commitment to maintain universal service provider
Group of consumers	All	All	All	All	All
Who monitors USO	Regulatory Authority(ies)	Regulatory Authority for Electronic Communications and Postal (ARCEP)	Belgian Institute for Postal services and Telecommunications (BIPT) (Regulatory Authority)	Ofcom (Regulatory authority)	Federal Network Agency (Regulatory authority)
Role of costs of supply for consumers	Affordable prices	Affordable and uniform prices	Cost-oriented Uniform throughout the whole territory of Belgium Transparent Non-discriminatory Special tariffs for services to business, bulk mail can be applied, as long as they are	Affordable and uniform tariffs Specified services of blind or partially sighted persons free of charge Transport of qualifying legislative petitions and addresses free of	Affordable prices Tariffs deemed to be affordable if the price of universal services paid by an average household does not exceed the price paid at the 31 December 1997



	European level	France	Belgium	United Kingdom	Germany
			transparent and non-discriminatory	charge	
Role of costs of supply for undertakings	No exclusive rights Public funds Sharing net costs	Compensation fund (proportional contribution by all licence holder)	Compensation in case of unfair financial burden	When unfair financial burden: Review of minimum requirements Or Financial contributions Or making of a procurement determination	Compensation fund (contribution by any licensee with a yearly turnover of more than 500.000 Euros)
Information about minimum level of service expected	Information of users about access, price and quality of universal service on a regular basis		accurate, up-to-date and exhaustive information on products and services		



3. 3. 3. Energy

So far as EU law is concerned, there is an important distinction to be drawn between gas and electricity. For the latter, there is a requirement that all households are provided with electricity. On the other hand, there is no obligation on Member States to supply all households with gas. This reflects the fact that the supply of gas is particularly expensive and can be substituted by other forms of energy. For both sectors, EU law requires the specific protection of vulnerable consumers, together with a requirement to ensure security of supply.

Table 5: Summary of USOs for energy by country

	European level	France	Belgium	United Kingdom	Germany
Nature of USO	<p>Universal service: every household consumer has right to electricity supply of a specified quality at reasonable, easily and clearly comparable, transparent and non-discriminatory prices (only electricity)</p> <p>Free choice of supplier</p> <p>Possibility to switch supplier</p> <p>Distribution companies are obliged to connect customers to their network (only electricity)</p> <p>Adequate protection of final customers in remote areas and vulnerable customers, who are on low incomes</p> <p>Energy action plan Promotion of energy efficiency</p>	<p>Security of supply</p> <p>Increase air quality lower greenhouse emissions, optimal management development of national resources, competitiveness of economy, control technology</p> <p>Social cohesion</p> <p>Principles of equality, continuity and adaptability and the best conditions of safety, quality, costs, prices and economic efficiency, social and energy balanced development of the electricity supply, development and exploitation of public transmission and distribution of electricity and electricity supply in the conditions defined in this section. Supply areas which are not</p>	<p>Obligations resulting from denuclearisation</p> <p>Partial financing of the commission and the mediation services</p> <p>Partial financing social assistance (provision of energy to poorest people)</p> <p>Finance reduction of greenhouse gas emissions</p> <p>Undertakings are obliged to keep separate accounts internally for public service obligation</p>	<p>Both the electricity supplier and the electricity distributor can be obliged to increase consumer awareness of energy efficiency</p> <p>The electricity distributor has a duty to connect a customer with the distribution system</p> <p>Obligation on electricity supplier to supply electricity, generating from renewable sources.</p> <p>Equal treatment of all customers</p> <p>Energy efficiency</p> <p>Suppliers, who supply more than 250,000 customers</p>	<p>Energy supply companies the duty to supply customers with electricity and gas that are secure, affordable, consumer friendly, efficient and environmental friendly.</p> <p>Energy supply companies (gas and electricity) that offer basic supply (Grundversorger) need to publish their conditions and tariffs and then supply every household consumer according to these conditions.</p> <p>Distribution companies are obliged to connect customers to their network</p>

	European level	France	Belgium	United Kingdom	Germany
	<p>Establishment dispute settlement system Provision of the energy consumer checklist</p> <p>Social and economic cohesion</p> <p>Environmental protection</p>	<p>connected to the continental metropolitan network with electricity</p> <p><u>Gas:</u> Safety of people and facilities upstream of the connecting end-users Continuity of supply Security of supply Quality and price of products and services Environmental protection Energy efficiency Biogas Balanced development Gas supply of last resort to non-domestic customers ensuring mission of general interest</p>		<p>have been imposed a carbon emission reduction target obligation</p>	
Universal service provider	<p>Possibility to appoint provider of last resort</p>	<p>Electricité de France</p> <p>GDF-Suez</p>			<p>Basic provider is designated every three years</p>
Group of consumers	<p>Electricity: All household consumers and maybe small enterprises</p>	<p>All</p>	<p>All</p>	<p>All</p>	
Who monitors USO	<p>Regulatory authority</p>	<p>CRE (Commission de régulation de l'énergie – Energy regulatory commission)</p>	<p>CREG (Commission de Régulation de l'Electricité et du Gaz – Commission to regulate electricity and gas)</p>	<p>Ofgem</p>	<p>Federal Network Agency (Bundesnetzagentur)</p>

	European level	France	Belgium	United Kingdom	Germany
Role of costs of supply for consumers	Reasonable prices	Special rates possible	Social tariff for protected household customers on low income or in precarious situations		
Role of costs of supply for undertakings	Possibility of compensation	Possibility of compensation	Possibility to cover costs by fund		
Information about minimum level of service expected	<p>Provision of consumption data in a non-discriminatory way with respect to cost, effort and time</p> <p>Invoices shall contain facts about contribution of energy source to the total energy mix of the supplier, existing reference sources and dispute settlement rights</p>				<p>Invoices shall be easy and understandable, need to show the parameters of calculation and must include several information relating to consumption, dispute settlement rights</p> <p>Non-basic supply contracts need also to contain regulations on duration of contract, extension, ending and the right of withdrawal ; methods of payments</p> <p>Information about the percentages of single energy sources in relation to the whole energy mix used in the last year and the year before, greenhouse emission, average value of energy generation in Germany</p>



3.3.4. Railways

Unlike the other sectors considered in this Report, the relevant EU law is in the form of Regulations (rather than Directives), leaving little or no discretion for Member States when it comes to implementation. The relevant laws lay down certain basic consumer rights for railway passengers. Member States are permitted to appoint public service providers and compensate them for providing more numerous, cheaper and/or higher quality services than would otherwise be provided by the market. Compensation may be in the form of remuneration or in the granting of exclusive rights. There are specific rules which are intended to prevent over-compensation. There is no USO with respect to geographical coverage in any Member State.



Table 6: Summary of USOs for rail by country

	European level	France	Belgium	United Kingdom	Germany
Nature of USO	<p>Non universal service</p> <p><u>Obligations, relating to passenger rights:</u> Bringing bicycles on to the train, under certain condition</p> <p>Publication of discontinuations of</p> <p>Provision of travel information before and during journey by railway undertaking and/or ticket vendor</p> <p>Offering tickets to passengers and for services through ticket offices or selling machines and/ or on board</p> <p>In case of death or injury of a passenger, advance payment of at least € 21,000 within 15 days after establishment of identity</p> <p>Reimbursement/compensation and assistance of passengers in case of delay</p> <p>Non-discriminatory access rules for passengers with restricted mobility and assist access on board and during boarding, and assistance at railway stations and on boards liability for loss of mobility or other specific equipment</p>	<p>Non-universal service</p> <p>Awareness of economic, social and environmental objectives</p> <p>Same as at European level</p> <p>Awareness of economic, social and environmental objectives</p> <p>Right of transport for every individual</p> <p>Same obligations as at European level</p> <p>Additionally: Innovation, research and development Harmonisation of different modes of transport</p> <p>Provision of means of transport, if there is a threat to public safety</p>	<p>Non universal service</p> <p>Public Service Obligations such as:</p> <p>Provision of regular service trains and high-speed trains</p> <p>Cross-border transport of passengers</p> <p>Meeting needs of the Belgian nation (preservation of public order, socio-economic potential, national sovereignty and public institutions, integrity of the national territory)</p> <p>Same obligations as at European Level</p> <p>Ensuring quality, punctuality and maintenance</p> <p>Same as at European Level</p>	<p>Non universal service</p> <p>Secure access for people with reduced mobility</p> <p>Same as at European level</p>	<p>Non universal service</p> <p>Transport and Carry people and luggage</p> <p>Same as at European level</p>

	European level	France	Belgium	United Kingdom	Germany
		<p>Management of traffic and circulation, surveillance, maintenance, repairs and troubleshooting</p> <p>Meet social and economic needs of customers</p> <p>Offers customer services such as transport of luggage, restoration and provision of sleeping positions</p>			
Universal service provider	Public or private undertaking				
Group of consumers	All	All, especially those with a disability or whose mobility is limited			
Who monitors USO	Independent body	ARAF	Regulatory Service for Railway Transport and for Brussels Airport Operations	ORR	Federal Network Agency
Role of costs of supply for consumers		Discount for users on low income			
Role of costs of supply for undertakings	Compensation	Compensation	Compensation	Compensation	Compensation



	European level	France	Belgium	United Kingdom	Germany
Information about minimum level of service expected	Information of passengers of rights and obligations to establish complaint boards	Information about transport means and how to use them Information of passengers of rights and obligations to establish complaint boards	Information of passengers of rights and obligations to establish complaint boards	Information of passengers of rights and obligations to establish complaint boards	Information of passengers of rights and obligations to establish complaint boards

3. 4. Compensation mechanisms for the costs of USOs

We now turn to the question of compensation mechanisms. We start by explaining the broad level principles in EU law, and some of the notable cases in governing compensation for the provision of SGEIs. We then explain the importance of the *Altmark* criteria, in particular, the need to ensure that compensation should not exceed what is necessary to fulfil the SGEI entrusted to an undertaking, and the requirement that the undertaking in question is efficient. These broad principles are now given specific expression in the EU legislation. Again, taking each sector in turn, we explain the principles at the EU level, then, where information has been available, we have described the approach taken at Member State level. As one would expect, given the relative maturity of liberalisation in telecommunications, emphasis is placed on that sector.

3. 4. 1. Services of a general economic interest

Central to the question of the legal limits that can be placed on the competition is the concept of ‘services of a general economic interest’ (SGEI, now contained in Article 106(2) TFEU), and the rules governing how the discharge of such services may be compensated.⁴ Over the last three decades, competition law (Articles 102 and 106(1) in particular) have been used as a vehicle to dismantle state monopolies and liberalise network industries. In recent years, however, there have been attempts to strengthen the protection of non-market values in EU law (typified by the inclusion of Article 16 EC (now Article 14 TFEU) (Prosser (2005) 123-124; Jones and Sufrin (2011) 620-624).

The question of whether a service falls within the definition of a SGEI is a matter primarily for Member States, subject only to limited supervision by the Commission

⁴ We ignore the issue of services of a general interest, which turns on the definition of whether the task in question is being undertaken by an “undertaking”.

and the EU Courts.⁵ Member States further enjoy discretion as to the method of compensation, subject to the general rule that over-compensation will breach the prohibition on state aids. This discretion is limited or displaced, however, in the case of EU sector legislation which prescribes either or both the relevant SGEIs for a particular sector, and how the compensation of these services should be arranged. This is the case, in particular, for telecommunications and postal services, and to a lesser extent energy.

The precise contours of Article 106(2) TFEU need not detain us here, instead we focus on the leading cases concerning network industries, and the principles that the EU Courts have laid down for compensating the costs of USOs.

One of the most important early cases was *Corbeau*, concerning a statutory monopoly granted in Belgium with respect to postal collection and delivery.⁶ The case involved a new entrant firm who was seeking to offer a limited postal service. The ECJ confirmed that the provision of a uniform postal service, available at a uniform tariff, and throughout the territory, was capable of amounting to a SGEI.⁷ The question was whether the restriction on competition or, as was the case here, the elimination of competition was necessary for the task and the undertaking must have the “*benefit of economically acceptable conditions*”.⁸ The Court made clear that the “conditions of economic equilibrium” implies that the undertaking will be able to offset loss-making sectors against the profitable sectors, and this justifies a restriction on entry into the more profitable sectors.⁹ The Court reiterated the requirement that the undertaking must be able to operate under economically acceptable conditions in the *Re Electricity Imports* case.¹⁰ The Court went on to observe that the Member State is not required to prove that, absent the restriction

⁵ See, for example, Case T-289/03 BUPA v Commission [2008] ECR II-18 [166]-[167].

⁶ Case C-320/91 [1993] ECR I-2563.

⁷ *ibid* [15].

⁸ *ibid* [16].

⁹ *ibid* [17]. See similarly, Case C-67/96 Albany International BV v Stichting Bedrijfspensioenfonds Textielindustrie [1999] ECR I-5751.

¹⁰ Case C-157/94 Commission v Netherlands (Re Electricity Import) [1997] ECR I-5699 [53].

on competition, the task of a general economic interest would be placed in jeopardy.¹¹ Similarly in *Almelo*, this time concerning an exclusive purchasing clause between regional and local distributors, the Court held that the legality of such restrictions should be assessed by having regard to the costs and legislative duties which the undertaking has to bear.¹²

These cases are illustrative of the point that, with respect to network industries and universal service obligations, the Court has been willing to countenance restrictions on competition, even amounting to its elimination through the grant of legal monopolies.

3. 4. 2. Compensation for universal service obligations and the *Altmark* criteria

We now turn to the financing of SGEIs, and the compatibility of compensation mechanisms with the EU competition rules.

The starting point is whether the compensation mechanism goes no further than compensation the undertaking for its public service mission. If this is the case, there is no breach of the competition rules, and recourse to Article 106(2) is unnecessary.

Following some confusion in the case law, in *Altmark* the Court laid down four cumulative criteria which had to be satisfied for this to be the case:¹³

- 1) the undertaking (in receipt of compensation) must actually have public service obligations, which are defined;
- 2) the parameters for the calculation of compensation must be established in advance in an objective and transparent manner, to avoid conferring an economic advantage on it over its competitors;

¹¹ *ibid* [58].

¹² Case C-393/92 *Gemeente Almelo and others v Energiebedrijf Ijsselmij NV* [1994] ECR I-1477.

¹³ Case C-280/00 *Altmark* [2003] ECR I-7747 [88-93].

- 3) compensation cannot exceed what is necessary to cover all or part of the costs of the obligation;
- 4) where a public procurement process is not used to appoint the undertaking, the level of compensation must be determined on the basis the costs which an efficient undertaking would incur.

Worthy of particular note are the last two, relating to over-compensation and the need to ensure that the relevant undertaking is efficient.

Where the *Altmark* criteria are not satisfied, then the compensation may amount to state aid and reliance must be placed on the Article 106(2) TFEU exception. The most obvious draw back here is compulsory notification of the compensation scheme under Article 108 TFEU.¹⁴ Compensation schemes involving levies on market actors are capable of amounting to state aid.¹⁵

3.4.3. Compensation principles and the Commission's initiatives on SGEI

In recent years, the Commission has paid particular attention to the question of SGEI and the principles governing how their associated costs may be compensated. Starting with the Commission's Green Paper in 2003, the Commission identified a number of financing mechanisms for SGEI, four of which are of particular relevance.¹⁶

- 1) Direct financial support through the State budget (e.g. subsidies or other financial advantages such as tax reductions). As a general proposition, these do not in the view of the Commission create barriers to entry and are the least distortionary.

¹⁴ Several schemes relevant to improving broadband access in remote regions of the EU have been approved via this route (see Walden (2012) 543).

¹⁵ Cases C-34/01 to C-38/01 *Enirisorse v Ministero delle Finanze* [2003] ECR I-14243 [31] et seq.

¹⁶ See the discussion in the Annex of the Green Paper.

- 2) Special or exclusive rights. The use of such rights as a means of financing USOs is receding, especially where liberalisation measures are in place.
- 3) Contributions by market participants (e.g. a universal service fund). Where these mechanisms are used, Member States should ensure that the method of allocation among undertakings is based on objective and non-discriminatory criteria and is in accordance with the principle of proportionality, although this should not prevent Member States from exempting new entrants who have yet to achieve a significant market presence. In the light of the incentives for providers to exaggerate their costs, Member States should ensure that there is transparency and effective control of the amounts charged to finance universal service obligations.
- 4) Tariff averaging (e.g. a uniform country-wide tariff in spite of considerable differences in the cost of provision of the service). This is particularly relevant where the goal is social and territorial cohesion.

As a general principle, the financing mechanisms used by Member States should be the least distortive of competition and should facilitate new entry.¹⁷ It also noted that other criteria were not at the time taken into account – such as efficiency and redistribution, the need to promote investment, and security of supply.¹⁸

The EC White Paper in 2004 put considerable emphasis on the need for guidance on financing mechanisms for SGEIs.¹⁹ While noting the greater clarity provided by recent case law, the Commission did see the need for greater legal certainty and predictability when it came to the application of the state aid rules to SGEIs. Two packages, one in 2005 and another in 2011, have sought to clarify the principles governing compensation.²⁰

¹⁷ *ibid* [90].

¹⁸ *ibid* [91].

¹⁹ See Section 4.2.

²⁰ See, in particular: Communication from the Commission on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest [2012] OJ C8/4; Commission Decision of 20 December on the application of Article 106(2) of the

3.5. Compensation principles as contained in the Directives

In this section we have drilled down into the EU legislation by sector to identify the relevant principles and rules for the compensation of universal service obligations.

3.5.1. Telecommunications

The principles for compensation for USOs are contained in the Universal Service Directive (Directive 2002/22/EC [2002] OJ L108/51).²¹ At the level of general principles, Recital 4 provides:

“Ensuring universal service (that is to say, the provision of a defined minimum set of services to all end-users at an affordable price) may involve the provision of some services to some end-users at prices that depart from those resulting from normal market conditions. However, compensating undertakings designated to provide such services in such circumstances need not result in any distortion of competition, provided that designated undertakings are compensated for the specific net cost involved and provided that the net cost burden is recovered in a competitively neutral way.”

Article 12 provides that where the provision of a USO represents an “unfair burden” on the designated undertakings, the NRA shall calculate the net costs of its provision. In doing so, the NRA should take into account “any market benefit which accrues to an undertaking designated to provide universal service” (Article 12(1)). There are further requirements that the accounts and information provided by the undertaking in question should be independently audited, and the results of the audit and calculation of costs should be publicly available (Articles 12(2) and 14). This is to

Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest [2012] OJ L7/3; Communication from the Commission, European Union framework for State aid in the form of public service compensation [2012] OJ C8/15; Commission Regulation on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid granted to undertakings providing services of general economic interest [2012] OJ L114/8.
²¹ This was amended by Directive 2009/136/EC, although the provisions on compensation remain untouched.

address the obvious incentive which providers have to exaggerate the costs of provision (Recital 24). Once the net costs have been calculated, the Member States then decide, upon the request of the designated undertaking, either to compensate the undertaking(s) directly from public funding, or to share the net costs between market participants (Article 13(1)). Such a sharing mechanism must be administered by the NRA (or an independent body under its supervision), respecting the principles of transparency, least market distortion, non-discrimination and proportionality (Article 13(2-3)). Member States have the discretion to exempt new entrants “*which have not yet achieved any significant market presence*” (Recital 21 and Article 13(3)).

The principles described above all elaborated upon in detail in an Annex IV. Part A deals with the calculation of net costs. The net cost is defined “*the difference between the net cost for a designated undertaking of operating with the universal service obligations and operating without the universal service obligations*” irrespective of whether the network is fully developed or undergoing development and expansion. It emphasises the need to pay due attention to “*correctly assessing the costs that any designated undertaking would have chosen to avoid had there been no universal service obligation*”, and “*the benefits, including intangible benefits, to the universal service operator*”. The calculation of attributable costs includes identified services or users which can only be provided or served at a loss or under cost conditions falling outside normal commercial standards. The calculation of the net costs of each aspect of universal service is to be made separately in order to avoid any “double counting” of any direct or indirect benefits and costs.

Part B then elaborates on mechanisms for the recovery of net cost. In addition to reiterating the principles contained in Article 13, it stipulates that any sharing mechanism “*should use a transparent and neutral means for collecting contributions that avoids the danger of a double imposition of contributions falling on both outputs and inputs of undertakings*”.

There is no central reporting by the Commission on the extent to which universal

service funds have been used in Member States. The most recent information we have is from 2008 in the form of a Communication from the Commission, supplemented by further desk research.²² At that time, universal service funds have been activated in five Member States, but compensation was paid out only in France, Italy and Romania.²³

The Communication also highlighted the need for access to broadband services to be included within the scope of universal service (as defined in the Universal Service Directive).²⁴ While Member States are free to mandate additional services beyond the minimum contained in the Directive, any financing associated with them would have to be borne by them (for example through general taxation) and not by specific market players (through industry levies).²⁵ The amendment made to the Universal Service Directive in 2009 extending universal service to include functional internet access (see new Article 4(2)), now permits Member States to compensate universal service providers mandated to offer functional internet access on the same principles outlined above, including the by way of a compensation fund.²⁶ A further Communication in 2011 highlighted some of the potential problems of introducing a USO for broadband access, which could lead to serious market distortions and hold up private investment.²⁷

In order to gain a more up to date picture of the position on the use of compensation scheme we gathered information from the Commission's Annual Reports on the implementation of the telecoms regulatory framework (and associated staff working

²² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the second periodic review of the scope of universal service in electronic communications networks and services in accordance with Article 15 of Directive 2002/22/EC [COM (2008) 572 final – Not published in the Official Journal].

²³ *ibid* p.2.

²⁴ *ibid* pp.9-10.

²⁵ p.2.

²⁶ See Recital 5 of Directive 2009/136/EC.

²⁷ Communication from the Commission, Universal service in e-communications: report on the outcome of the public consultation and the third periodic review of the scope in accordance with Article 15 of Directive 2002/22/EC, COM(2011) 795 final, p.5, Available at:<<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0795:FIN:EN:PDF>>.

papers) from 2005 to 2009.²⁸ Information is somewhat fragmented.

In 2009, the Commission reported that there were a number of Member States where the provision of USOs was carried out without formal designation (Germany, Luxembourg and Sweden) (Staff Working Paper (2009) 58). In Greece, Italy, Bulgaria, the Netherlands, Portugal, and Belgium (other than social tariffs), universal service was at that time provided on the basis of a transitional regime where undertakings involved have not been designated on the basis of the EU regulatory framework. In these instances, the Commission noted the need to carry out a designation procedure respecting the principles envisaged by the EU framework as soon as possible. Preparations for new designations were underway in Portugal, Malta, Greece and Spain (Staff Working Paper (2009) 58).

A number of problems have been identified in France concerning designation. A specific issue was identified in 2005, which appeared to limit designation only to the incumbent (Staff Working Paper (2005) Vol I, 143). This was because French law limited the possibility of being designated as a universal service provider to undertakings that were able to cover all of the national territory. Moreover, the restrictive designation process could exclude undertakings that are potentially more cost effective, and therefore the French financing mechanism did not respect the principle of least market distortion and non-discrimination.

An infringement procedure on the transposition of the EU rules related to the designation was launched. The Court of Justice found that the provision in question, to the extent that it excluded operators who were unable to serve the whole of France breached the principle of non-discrimination.²⁹ Nor did it guarantee that universal service met the criteria of profitability and efficiency and it was likely to

²⁸ Available at:

ec.europa.eu/information_society/policy/ecomms/library/communications_reports/index_en.htm.

²⁹ Case C-220/07 Commission v. France [2008] ECR I-95 [32].

distort competition in the telecommunications market.³⁰ Overall the Court found:

“...[T]he measure sets a preliminary legal condition which predetermines the result of the appointment procedure. This condition hinders genuine and effective competition in this market and does not enable the universal service to be provided profitably or efficiently, since the national regulatory authorities are necessarily obliged to appoint, from amongst the companies capable of providing the service, only those which are capable of ensuring coverage of the entire national territory.”³¹

The designation of the incumbent as the provider of fixed access at a fixed location expired in March 2009, but the incumbent continued the provision of universal service at the request of the Ministry of Economy, Industry and Employment. Following the calls for tenders, in December 2009 the Ministry designated the incumbent as the provider for a period of three years. There have been discussions notably with the mobile operators regarding social tariffs for people with low income, to be offered on a voluntary basis (Annual Report (2009) 190).

According to the latest information we can find (2006), incumbents were found to be the most commonly designated undertakings (Annual Report (2006) 17). At that time it was only in Estonia that a tender process resulted in the designation of a new entrant as USP; in Belgium and the Czech Republic elements of the service were provided by entrants alongside the incumbent.

The net cost calculation and establishment of an unfair burden appears to be a complicated and time-consuming process for the majority of the countries involved. Due to various administrative delays, court proceedings, delays in contributions, or updates of net cost calculation methodologies, compensation was in 2009 only received by the designated operators in France, Czech Republic, Spain and Romania (Staff Working Paper (2009) 58).

³⁰ *ibid* [32].

³¹ *ibid* [33].

France has since 1999 had mechanisms in place to compensate its universal service providers. In 2008, the Commission reported a specific problem in France, with no account being given to the intangible benefits resulting from being appointed as a universal service provider (Annual Report (2008)). It would appear that the universal service financing mechanism is applied automatically, without any formal request from the provider. Moreover, when the net cost calculation of the comprehensive directories and directory enquiry services resulted in a net benefit, this would not be taken into account in the calculation of the overall net cost of the universal service provider. There are concerns that, as a result, the amount to be paid from the universal service fund would be higher than justified.

The Belgian system of compensation for social tariffs resulted in infringement proceedings before the Court of Justice in *Commission v Belgium*.³² The social tariffs (i.e., reductions in tariffs) were available to consumers on low incomes and with special needs, and all operators were required to offer these tariffs to such customers. A compensation scheme was set up which operated on the following basis: where the number of tariff reductions granted by an operator falls below the number of tariff reductions which correspond to its share of the total turnover of the market in public telephony services, the operator shall make good that difference. Conversely, if the number of tariff reductions granted by an operator exceeds the number of tariff reductions which correspond to its share of the total turnover of the market in public telephony services, the operator shall receive compensation to make good that difference. A body was set up to administer the compensation scheme, defining the “net costs” as the “*difference between the revenue which social tariff providers would earn under normal commercial conditions and the revenue which they receive as a result of the reductions for social tariff beneficiaries*”.³³

³² Case C-222/08 *Commission v Belgium* [2010] ECR I-9017. See also Case C-389 *Base and others* [2010] ECR I-9073, a preliminary reference procedure covering the same ground. See also Case C-384/99 *Commission v Belgium* [2000] ECR I-633 (considering compensation mechanisms under the ONP Directive).

³³ *ibid* [13].

The Court found that the automatic nature of the scheme was not in line with the Directive's requirement that an undertaking had to be found to be bearing an "unfair burden" before compensation mechanisms could be put in place by the Member State.³⁴ The fact that an undertaking bears a net cost is not of itself capable of amounting to an unfair burden:

*"...[T]he unfair burden which must be found to exist by the national regulatory authority before any compensation is paid is a burden which, for each undertaking concerned, is excessive in view of the undertaking's ability to bear it, account being taken of all the undertaking's own characteristics, in particular the quality of its equipment, its economic and financial situation and its market share."*³⁵

For the purposes of this assessment, the NRA had to lay down "general and objective criteria" taking into account the undertaking's characteristics, and further must carry out "an individual assessment of the situation of each undertaking concerned".³⁶

The Commission had also complained that the calculation of net costs did not take into account the "intangible benefits".³⁷ The Court agreed, holding that the assessment of the net cost for the undertaking must also include intangible benefits, in line with the requirements of the Directive.³⁸ It appeared to reject the Belgian Government's argument that where USOs applied to all operators, the benefits would be the same for all of them.³⁹

The Commission further argued that the Belgian legislation was misaligned with the compensation principles contained in the Directive in so far so the loss of revenue which the operator incurred could be equated with the net loss relevant for the

³⁴ *ibid* [58]. In *Commission v France*, a compensation scheme set up to compensate the incumbent was unnecessary given that the incumbent held a near monopoly over the market (Case C-146/00, [2001] ECR I-9767) [25-30]).

³⁵ *ibid* [49] (emphasis supplied) (citing in support Recital 21, Directive 2002/22).

³⁶ *ibid* [50].

³⁷ *ibid* [63].

³⁸ *ibid* [84].

³⁹ *ibid* [69].

calculation of the amount of compensation which should be paid to it.⁴⁰ According to the Commission, the “avoidable costs” (i.e., the real costs that the undertaking would have avoided in the absence of the social tariff) depended on a number of factors, including the cost structure of the operator, and the situation of the operator vis-à-vis its customers.⁴¹ There could, for example, be a significant difference when determining additional costs between *“an historic operator because it continues to provide certain social customers with a landline which has been connected for many years and... the additional costs borne by a new operator which connects new social customers to its network”*.⁴² The Court rejected this complaint.⁴³ First, the service was the same for those who received the tariff reductions and those who did not. Second, the costs structure pertaining to the content of the service in question did not appear to be modified merely because some of the subscribers were entitled to social tariffs.

3. 5. 2. Postal services

With the abolition of the reserved market in postal services, the latest Directive makes specific provision for the compensation of USOs.⁴⁴ The mechanisms reflect those which exist in telecommunications, with some minor differences (see Article 7). Where the USOs entail a net cost which represents a significant burden on the universal service provider, the Member State may either compensate it directly, or set up a compensation fund with contributions from service providers and/or users’ fees. Obligations to contribute may be included as conditions in the authorisations issued to service providers.

In France, La Poste was recently designated the universal service provider for 15

⁴⁰ *ibid* [64].

⁴¹ *ibid* [65].

⁴² *ibid* [65].

⁴³ *ibid* [78-80].

⁴⁴ Directive 2008/06/EC amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services. All further references to the Directive are to the amended version, unless indicated otherwise.

years (2011-2026), with a review of the services every three years by the regulator. The net costs of the USO can be financed through a compensation fund. All postal licence operators are required to contribute to a fund, depending on the amount of mail they carry within the universal service area and the regulatory authority determines the amount that has to be paid to the provider. A decree in *Conseil d'Etat*, taken after consulting the Regulatory Authority for Electronic Communications and Posts and the Commission for the public postal service and electronic communications clarifies the methods of evaluation, compensation and sharing the net cost of universal service obligations.

In Belgium, Bpost is the designated universal service provider until the end of 2018. The universal service provider can request compensation from the State, when the USO creates an unfair financial burden. The regulatory authority calculates the net cost of the universal service. The calculation takes into account all other relevant factors, including intangible benefits and commercial advantages enjoyed by the postal service provider designated to provide universal service, the right to make a reasonable profit and incentives to economic efficiency.

In the UK, OFCOM may designate one or, under certain circumstances, more universal service providers. The Royal Mail has been designated as universal service provider until 2021. If the provision of universal services imposes an unfair financial burden on the service provider, Ofcom can either suggest to review the minimum requirements, to grant the universal service provider financial contributions by postal operators or users of the service, or to make a procurement determination.⁴⁵ Contributions to the fund can be either made by other providers or by users of the universal service. In a 2012 statement Ofcom has concluded that pricing flexibility is the most effective tool “with key safeguards including a monitoring regime” to

⁴⁵ In case of a procurement determination Ofcom decides if there would be no or a lesser financial burden on a different operator.

secure the provision of US by Royal Mail.⁴⁶

In Germany, Deutsche Post was the designated universal service provider until 2007. Now, all operators with a license provide universal service jointly.

A universal service provider will only be designated where universal service is not being appropriately or adequately provided. However, Deutsche Post has voluntarily declared its commitment to universal service (DP (2008)). Where this is the case, the regulator can impose USOs on one or more licensees. A universal service provider may request compensation, if it proves it is making losses due to providing universal services. To cover those compensation costs licensees with a yearly turnover of more than 500,000 Euros can be asked by the regulatory authority to pay a certain compensatory amount to finance universal service. The levies imposed on operators are in proportion to their market shares.

3. 5. 3. Energy

The Directive for electricity (Directive 2009/72/EC) contains more limited provisions on both universal service obligations and on compensation mechanisms. With respect to the former, the Directive requires that Member States ensure that all household customers, and at the discretion of Member States, SMEs, shall enjoy universal service, defined as the *“right to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable, transparent and non-discriminatory prices”* (Article 3(3)). On financial compensation, the Directive merely states that *“financial compensation, other forms of compensation and exclusive rights which a Member State grants for the fulfilment”* of any obligations *“shall be done in a non-discriminatory and transparent way”* (Article 3(6)). The 2003 Directive [Directive 2003/54/EC (repealed)] was identical.

There are no provisions relating to compensation in the Gas Directive, reflecting the

⁴⁶ [6.84]

absence of minimum requirements on USOs.

3. 5. 4. Railways

Public transport (including rail transport) is subject to specific treatment in EU law. Article 93 TFEU (ex-Article 73 EC) provides that state aids will be compatible with the EU law *“if they represent reimbursement for the discharge of certain obligations inherent in the concept of a public service”*. Compensation for public transport was originally governed by Regulation 1191/69 (now repealed).

In more recent times, the Commission has attempted to introduce a model of “regulated competition” into railways, based primarily on a model of public service contracts, which are awarded on this basis of a competitive tendering process. This was to address some of the systemic problems concerning railway financing, identified by the Commission in its 1996 White Paper,⁴⁷ namely that the financial organisation of railways was very confused and remained a serious obstacle to the improvement of services and efficiency.⁴⁸ In addition to the need for railway operators themselves to better organise their finances, the Commission stressed the need to limit financial compensation to only public services and specific infrastructure investment.⁴⁹

In 2001, the Commission issued a further White Paper together with a draft Regulation.⁵⁰ The principal recommendation was the introduction of public service contracts awarded by tender for periods of five years. It was also proposed that the Commission would amend its procedures on state aid, no longer requiring advance notification where compensation packages were in accordance with the

⁴⁷ Commission: White Paper: A Strategy for Revitalising the Community’s Railways, Brussels, 30.07.1996

Available at: eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:1996:0421:FIN:EN:PDF

⁴⁸ *ibid* p.10, [23].

⁴⁹ *ibid* p.11, [26-27].

⁵⁰ White Paper: European transport policy for 2010: time to decide, Brussels, 12.09.2001 [COM(2001) 370 final] Available at:

ec.europa.eu/transport/themes/strategies/doc/2001_white_paper/lb_com_2001_0370_en.pdf

requirements of the new Regulation.

The new Regulation 1370/2007 now governs the mechanisms for the award of public service contracts by tender, generally subject to a maximum period of 15 years (see Article 4), and specifies in some detail the principles and rules for the compensation of public service operators. Where the Regulation's requirements are followed, there is no requirement to notify the Commission under the state aid requirements (Article 9(1)). Public service contracts apply to services in the general interest which would not be provided by the operator if it were considering its own commercial interests (Article 2(e) and (i)). The obligations involved must be established in advance, in a clear and transparent manner, and should include the parameters on which compensation is paid (Article 4(1)). Those parameters should ensure *“that that no compensation payment may exceed the amount required to cover the net financial effect on costs incurred and revenues generated in discharging the public service obligations, taking account of revenue relating thereto kept by the public service operator and a reasonable profit”* (Article 4(1)).

The rules on compensation are further elaborated upon in the Annex to the Regulation. The net financial effect is defined as the total negative and positive effects of the public service obligation on the costs and revenues of the operator. These effects should be assessed by comparing the situation of where the public service obligation is met which that which would have existed had it not been met. The following scheme for calculating the net financial effect is provided (reproduced in full):

- costs incurred in relation to a public service obligation or a bundle of public service obligations imposed by the competent authority/authorities, contained in a public service contract and/or in a general rule,
- minus any positive financial effects generated within the network operated under the public service obligation(s) in question,

- minus receipts from tariff or any other revenue generated while fulfilling the public service obligation(s) in question,
- plus a reasonable profit,
- equals net financial effect.

In the light of the fact that compliance with the public service obligation may have an impact on the activities of the operator beyond the obligations in question, there is the need to avoid over- or under-compensation. Therefore, as the annex states, *“quantifiable financial effects on the operator’s networks concerned shall therefore be taken into account when calculating the net financial effect”*.

In order to increase transparency and avoid cross-subsidies, where an operator operates compensated and non-compensated services, the accounts must be separated to meet the following conditions (reproduced in full from the annex):

- the operating accounts corresponding to each of these activities must be separate and the proportion of the corresponding assets and the fixed costs must be allocated in accordance with the accounting and tax rules in force,
 - all variable costs, an appropriate contribution to the fixed costs and a reasonable profit connected with any other activity of the public service operator may under no circumstances be charged to the public service in question,
 - the costs of the public service must be balanced by operating revenue and payments from public authorities, without any possibility of transfer of revenue to another sector of the public service operator’s activity.
- ‘Reasonable profit’ must be taken to mean a rate of return on capital that is normal for the sector in a given Member State and that takes account of the risk, or absence of risk, incurred by the public service operator by virtue of public authority intervention.

4. Results from the Questionnaire

4.1. Introduction

In this section we present the findings from our questionnaire. Responses were received from two energy regulators (gas and electricity) and nine operators: four in telecoms, two in energy and one each in postal services, gas transport and railways. This provides a range of industries and positions (regulator versus operator). We first administered a pilot survey to 3 companies, and refined the questionnaire on the basis of their comments. This section reports the responses from both the pilot and the main survey. The final questionnaire is reproduced in the Annex to this Report.

The countries served by the respondents include Belgium, Luxembourg, Italy, Germany, Austria, Greece, Hungary, Netherlands, Poland, Romania, Slovakia, United Kingdom and France. The main countries where Public Service Obligations were concerned were Belgium, the United Kingdom, Germany, Italy and France.

4.2. Energy Regulators

The two regulators, both in energy (though one also regulates water) took different approaches to Universal Service, with one taking an inclusive view, and the other emphasising specific consumers. So for one, a US 'ensures that **all** customers are able to access the same services on an equal basis'; while the other emphasises the rights of **some categories** of final customers to be supplied at the most competitive rate on the market.

One regulator thought that US should include access to services based on geographical location, while the other did not. Both regulators agreed that US should include special access for consumers on low income and with special equipment or technical requirements. In distinguishing between US and PSO, one regulator emphasised the additional role of security of supply in PSO rather than USO, in

particular that supply would continue even if the supplier failed; the second saw USOs as part of more general Public Service Obligations. In terms of responsibility for delivering universal service, one regulator related no such obligations, except for geographic averaging of prices, while the other reported that operators were responsible. In this case costs were born either by cross subsidy across tariffs or by regulated tariffs. Both regulators reported the use of user levies as the main source of cost recovery. In one jurisdiction rural consumers were the main target beneficiary groups, while in the other the focus was on those with disabilities or low income. Both regulators thought their respective target groups had benefited, that USOs had neither affected innovation nor created barriers to entry nor distorted competition. However opening the market had affected the financing mechanism, which instead of being included in the regulated tariff was now financed by explicit levies, though this change in financing arrangements had not affected who bore the cost of the USO. One effect of opening the market had been the introduction of a new USO, that consumers who were dropped by a supplier now benefited from a regulated tariff, for which there was no need when a monopolist had an obligation to supply all consumers.

Both regulators declined to agree that incumbents were placed at a competitive advantage or disadvantage or that they were being over compensated for any responsibilities in delivering USOs. Both reported that a provider of last resort had been appointed. In one case the regulator had nominated a supplier from among those who were willing to be considered; in the case of company failure, consumers would move onto the same terms of supply as other customers of the Supplier of Last Resort. In the second jurisdiction, DSOs were appointed (presumably still vertically integrated with suppliers), although the terms are not clear, the fact that customers would be encouraged to switch away from the supplier of last resort suggests that the terms are likely to be less competitive than those of commercial suppliers. Neither regime made specific arrangements for vulnerable customers in the event of a supply failure. Neither regulator thought appointment as supplier of

last resort imposed a disproportionate burden on the company concerned.

4. 3. Telecoms Operators

We next report the view of operators in telecoms markets. They took varying views on the definition of US. Two emphasised that this was safety net to prevent social exclusion, one emphasised that they involved specific tariff conditions and one highlighted availability at the same conditions of service in a geographical area. Three thought that US should include access based on geographical location and one did not; one thought that they should apply to low income consumers, while three thought they should apply neither to low income consumers nor to those with special technological or equipment needs. One respondent pointed out that European Directives required some consideration of geographical, income and technical needs, though the operator concerned did not necessarily agree with the Member State's implementation of this Directive.

Respondents saw public service obligations as belonging to the state. One respondent said the state also carried universal service obligations, and two respondents reported that this had been delegated to private companies within the sector. One respondent was concerned that the state had responsibility, but placed the financial burden on the industry, often resulting in 'unbalanced decision related to the scope of the service'.

In three responses (two countries) the fixed line incumbent was the supplier of last resort. In one of these countries all operators provided some discounted tariffs, and the current arrangements are being reviewed. Following this review, some elements may be removed from the USO because the competitive market is providing sufficient protection. In the third country all operators carried a degree of universal service obligation.

Where it can be demonstrated that the obligation places an unfair burden on a single

provider there is some provision for other operators to compensate it (pay or play rules), and there is an element of this in two Member States, though respondents differ in their views on how fairly the system works between the incumbent and entrants. In one country the providers all meet their own costs. Where costs are borne by the incumbent there is provision for recovery of some costs from the government for specific social needs and from other operators through a regulator managed fund. Another country also has a universal service fund to which operators contribute, and a third has negligible costs at present; if formal procedures were enforced, each provider would have to recover its own costs through cross subsidies within its consumer base.

In one country target groups include people with disabilities, those with low incomes, pensioners and rural consumers; in another rural and low income consumers; and in the third these two groups plus those with disabilities. In two countries these groups have benefited from USO provision, in a third they have not. All operators agreed that there were more efficient or effective ways to deliver the USOs. A 'play-or-pay' scheme is suggested in one country and by an entrant in another. Operators in two countries recommend the updating of requirements in the light of developing technology, and one suggests that public levies might curb the enthusiasm of public bodies to impose such obligations. One incumbent who meets the cost of USOs at present suggests that the incumbent be responsible only where there are no other operators present.

Three companies believe that USOs have affected innovation, and one does not. Amongst the adverse effects the requirement to provide payphones and the regulation of prices are cited as examples, with the imposition of unjustified costs being seen as an adverse effect on the industry finances without compensating benefits. Two companies believe that USOs present barriers to entry, though in one case this is seen as a potential danger if new PSOs are introduced in broadband, rather than a current issue. All operators reported that USOs had distorted

competition – in one case because of the imposition of costs on a single operator, in one case because of the costs imposed across the market, and in the third potentially through the introduction of new broadband obligations. Two operators within the same country take different views – one that the obligations have been unnecessarily petrified, while another sees some adaptation even though the basic nature has remained the same. In the other markets, operators see either no effect, or that market opening has reduced the necessity for such obligations and consequent cross subsidisation. The entry of new operators has resulted in spreading the costs across more suppliers, though in one country such sharing is potential rather than realised.

Entrants are seen as targeting the most profitable consumers across a range of markets, and have succeeded in attracting these groups, or in one case all except the homeless. Few changes in obligations were reported as a result of competition, though they have been reduced in some markets – innovation and substitution have had more effect on such obligations.

Two entrants agree that responsibility for USOs gives incumbents a competitive advantage, in one case because they do not have to recruit new consumers and can retain the most 'sticky' group and in another because the incumbent is compensated for inefficiencies without a proper assessment of the benefits which USOs deliver: it is claimed that compensation is based on costs incurred and obsolete technologies. Conversely, the two incumbents believed that the incumbent responsibility for USOs placed the entrants at a competitive advantage because the entrants had fewer obligations, they did not bear the costs concerned, and the obligations hindered the incumbent from competing in some parts of the market due to the difficulty of deaveraging.

In terms of providers of last resort, one country reported an appointment (the incumbent at national level) and two providers said there was no such provider in their markets. There was no provision for any variation in the terms of supply if a provider of last resort was activated, though one provider believed that there were

provisions for special treatment for vulnerable consumers in such a case, in particular for older people and those with low incomes or disabilities.

In the event of consumers being transferred to a provider of last resort, one entrant reported that consumers would be encouraged to switch away. The two entrants thought that appointment as a provider of last resort did not impose a disproportionate burden, while the incumbents believed it did so, though for one this would only be if the USO was not compliant with the European framework and there were inadequate compensation for the resultant deficits.

One incumbent and one entrant agreed that USOs might prevent a level playing field – the incumbent because of the unilateral burden on the incumbent, the entrant because of the cross subsidy which would then be required from entrants to incumbent in compensation. The entrant believed that USOs benefited the incumbent because of the existing customer base, its recognisability and reputation. Both entrants, unsurprisingly, disagreed that the USOs benefited the entrants.

4. 4. Operators in energy, post and rail transport

These companies operated in Belgium, France, Germany, Romania and the UK, with primary operations in France and Belgium. As might be expected from a diverse set of sectors and countries, the experience and attitude to public service obligations also varied. One of the energy respondents was a network company and therefore provided responses only for emergency services where USOs and PSOs apply to them. As a result there are responses from only one energy provider for many of the questions.

The concept was described in terms of affordability in the energy sector, the directive and national variations in post, and in terms of continuity in railways, where subsidies and supply below cost also raised issues of affordability. All respondents agreed that USOs should be based on geographical location, with more varied views

on provision for low income consumers – this should be included according to the energy and railway respondents, but not according to the postal incumbent. All agreed that USOs should not be extended to those with particular technological or equipment requirements.

In energy, public service obligations were seen as basic standards required by law, while universal services could be more targeted to consumers or areas, and more nuanced by standard and price. In post a similar distinction applied, with concerns about the impact of the EU competition framework on SGEIs on the implementation of PSOs by Member States. The focus in rail is on continuity of service, even when it is not commercially viable, and in this case compensation is needed where the price does not cover the cost. Similarly emphasis on continuity of supply was provided for gas infrastructure.

Universal service was not relevant in the energy sector in which the respondent operated because of the competition (sic) between primary energy sources, i.e. the possibility of substitution by different fuels. In post the focus is on geographical coverage and particular standards of service, along with non-discrimination, affordability, cost reflectivity and transparency. Universal service is less relevant in railways than public service and notions of continuity of service.

As to delivery of the universal service, in energy suppliers are expected to offer discounts to certain households and bear the costs. In post the state is responsible, and a provider is usually designated, but a public auction could be held, with direct state intervention if the burden is unfair. Some countries designate universal service obligations only in areas of market failure. In railways the provision is by default rather than by definition, with the incumbent bearing the cost, with some state subsidies. Low income groups are targeted in energy and railways, those in rural areas and with disabilities in post, and defence concerns in railways, and these target groups have benefited in energy and post, but not in rail transport. Both postal and railway operators thought that USOs could be delivered more effectively. In post this

would be mainly be redefining the standards as other forms of communication become more common; in railways, replacing upfront subsidies with compensation for the difference between revenue and cost after the event might result in choice of more appropriate ways of meeting the universal service needs.

Neither energy nor railway respondents thought that USOs had affected innovation, but in post they had influenced the introduction of new sorting machinery and delivery methods. USOs had not created entry barriers in post and energy, but had done so in railways, because obligations (for example with respect to accessibility for disabled people) imposed a heavy burden on new entrants. Moreover the cross subsidy between different routes would be difficult to maintain if there was widespread entry and entrants 'cream skimmed'. Nevertheless none of the incumbents believed that USOs had distorted competition, though the postal operator was concerned about such an outcome and worried that the sustainability of the USO was under pressure from cream skimming and competition from other media. Moreover administering compensation funds had required clarification of issues related to cost allocation, intangible benefits etc., and in railways widespread entry would require clarification of the passenger service. In some countries the franchising system built in subsidies for keeping non-economic lines open, or combined franchises in bundles so that cross subsidies could continue within a franchise. In post and rail entrants had cherry picked the most profitable customers (business, and passengers who did not require subsidies). There had been little change in USOs as the markets had opened.

In post and railways the two incumbent operators believed that USOs gave new entrants a competitive advantage. In one case this was because of cream skimming as explained above, and in another where the incumbent was expected to come to the help of an entrant in distress. Although the entrant paid the direct cost of the rescue, it was not required to have the backup to deal with critical situations as was the incumbent.



4. 5. Attitudes of Regulators, Incumbents and entrants

Many incumbents are entrants in other markets, but the pattern of answers largely follows expected lines. Neither regulator believed that USOs prevent a level playing field, nor that incumbent or entrant is privileged by the arrangement, but one incumbent and one entrant did think that the playing field was not level (in each case with themselves disadvantaged). When asked more specifically whether USOs benefited incumbent or entrant, two entrants thought they benefited the incumbent, and three incumbents thought that they benefited entrants. There was no discernible pattern across the countries served by the respondents.

5. Conclusions

In this Report we have considered the question of public service obligations, and the potential problems that may occur in liberalised markets. We started by reviewing the issues identified in the economic and legal literature. We then went on to outline public service obligations contained in the EU legislation, and their transposition into the laws of the Member States. We focused in particular on universal service, as a species of SGEIs, and the principles and mechanisms in place for the compensation of the costs of delivering USOs. In addition, our innovative consultation of practitioners and CERRE members has elicited the views of two regulators and eight operators on how USOs have functioned in their sectors. In this section we draw some conclusions and identify the main issues and areas for further research and policy development.

While the economic and legal debates are framed in terms of market liberalisation and social policy, USOs (and more generally SGEIs) represent the boundary between the EU's efforts to develop a single market, and the autonomy of Member States and their legitimate concerns about social policy. SGEIs have traditionally been used as a means of delivering social programmes which are threatened by the introduction of competition, and the Treaty competition rules.

There is an important distinction between social and environmental issues. Environmental costs and benefits are logically addressed as market failures within a Europe wide context, and should be accounted for equally across Member States if they are not to be distortionary. In contrast social objectives are likely to vary between Member States, and are difficult to address within the market structure (indeed USOs can be very distortionary if markets are used to try and deliver such objectives). The right of individual Member States to determine their own social policy seems appropriate given the different histories, circumstances and priorities of each nation, and is enshrined in individual taxation and benefit systems. But as the liberalisation of markets which include the provision of SGEIs proceeds, the interface between national (social) interest and Europe wide single market policy becomes

starker. Within the tension between the EU and Member States are also conflicting interests between, say entrants and incumbents, producers and consumers, so that shifting alliances are formed to address the issue of USOs. One irony is that the same company may take a very different view on such provisions in markets where it is incumbent, from that which it holds elsewhere in markets which it has recently entered. All these issues emerge both from the survey of literature, the legal principles and their interpretation, and from the responses to the online survey.

Much of the literature and case law (and a large proportion of the survey returns) concern vertically integrated industries, particularly telecoms and post. This is unlikely to be coincidence, since there are additional issues of liberalisation if the incumbent retailer retains ownership of a facility to which others require access in order to enter and compete in the market. One way to deliver social obligations, including USOs, can be through monopoly network parts of the supply chain, since they retain the ability to cross subsidise which becomes difficult in a competitive retail market. Indeed a very common USO, uniform prices across geographical areas, which generally subsidises rural supply at the expense of urban consumers, is commonly delivered with little controversy through networks such as gas and electricity grids and telecoms networks. If a natural monopoly can deliver the obligation, this avoids conflict between liberalisation and universal service, but may jeopardise the development of competition downstream if the network in question is vertically integrated with a retailer in the contested market. In particular if the USO is delivered through the monopoly network, it may be seen as giving an additional advantage to the downstream vertically integrated incumbent. This may arise as much because of a lack of transparency in the arrangements as from any real advantage in the market. It is no coincidence that much of the literature focuses on telecommunications and postal services, where there is such vertical integration.

Perhaps the most interesting area of discussion is where the EU is reticent. This applies at the most fundamental level of defining a Service of General Economic

interest themselves, and Ølykke and Møllgaard (2013) focus on ‘a component of a network that ...provides services to a significant share of the population of a Member State’. Here the network focus and near ubiquity is important, and the authors concentrate on under provision in determining issues around public and universal service. The detail of USO provided by the EU varies across sectors, as the table from Finger and Finon in section 2 shows, with the most explicit provision again being in post and telecoms. Again this may reflect the vertical integration common in these sectors.

It is surprising that much of the detail is still left for the courts to spell out. In particular the meaning intangible benefits are unclear, and are rarely defined except by entrants. These are often linked with the reluctance of consumers to switch away from incumbent suppliers, an inertia which is causing increasing concern about how well liberalised markets are working in the presence of an established incumbent. Such an advantage might be deemed as ‘brand’,⁵¹ but research on the nature of such inertia suggests that this may be a persistent obstacle to effective competition, even when there are several such established suppliers who are in adjacent markets. Similarly the courts have been left to identify appropriate compensation mechanisms, and have made clear that these need to be determined not only case by case basis, but also with respect to the differing position of individual operators within each market, since both costs and any attendant benefits will depend on the circumstances and market share of the undertaking concerned. Such flexibility provides for sensitivity to individual needs and circumstances, but also adds to legal uncertainty, the complexity and instability of compensation schemes, and adds to the risks of costly litigation by both incumbents and entrants. Our respondents and the demand for this study show just how unclear the underlying provisions are.

A major feature coming out of both the literature and our survey is the importance of technical progress, which may change both the nature of a USO and the appropriate

⁵¹ The UK telecommunications regulator decreed that BT’s ubiquity gave it benefits which compensated it for USOs which it carried in the early days of market opening.

way to provide it. One obvious example is fixed line telephony, where universal service may be less appropriate once mobile telephony becomes widespread. Similarly maintaining public phone boxes or daily letter deliveries may be less relevant in an era of widespread mobile and electronic communications. Technical progress may also change societal needs, for example as access to broadband becomes increasingly important in managing other aspects of life, such as online payments or provision of educational material. Such changes in both the potential to deliver and appropriate requirements themselves require reassessment by Member States of the relative benefits and costs of provision of particular services, supporting the need for flexibility in interpretation. But again such flexibility can also provide a reason for continuous debates, and makes it difficult to 'settle' a question for an indefinite period in such technological and societally fluid sectors.

One of the strengths and justifications for USOs is the ability for each Member State to define its provision and financing arrangements within the EU framework. We observed considerable variation in the target groups and in the financing provisions amongst respondents to our survey. Of course this can also be seen as a weakness from the perspective of ensuring a level playing field across Member States, with suspicion that they may permit 'State Aid' by the back door, but if USOs are not sensitive to individual nation needs, there seems little point in allowing any local discretion. This evidently reduces the transferability of one solution, even within a particular sector, to another in a different Member State where the nature of the SGEI and the social and national needs may be different. For example in transport, where there has been little case law so far, the needs of a country which is compact and densely populated, may be very different from one where there is a high proportion of rural dwellers, or there are island communities with particular transport needs which have relied on subsidies in the past for their existence.

We note the increasing importance of defining both the nature of delivery and the appropriate financing of USOs as the liberalisation of markets proceeds; it is likely to

much less important in the early days where the incumbent retains most of the market and can use its historic sunk costs and cross subsidy across a large number of consumers to spread the load both for its customers and shareholders. But as its market share is eroded, or as new investment is required, and markets become more competitive, the burden on the incumbent is likely to increase at just the time when we would hope that increasing competition was putting pressure on its mark ups and profit levels.

USOs clearly provide a useful transition between monopolised and national industries towards liberalised and Europe wide markets. Such a transition role is supported by respondents who identify cases where USOs are being removed because the needs are being met by the competitive market. This transition role raises a number of issues. The first is that some aspects of the supply chain are unlikely to be liberalised in the foreseeable future because of their natural monopoly elements – indeed it would be inefficient to introduce more suppliers in such sectors. This does not mean that other parts of the supply chain cannot be competitive, as we have seen as retail markets are opened up, nor that elements of services associated with such networks cannot be competitively supplied. The provision of the monopoly elements themselves can be competitive through franchising, as in many transport contexts, and markets for the use of the networks can be developed. Nevertheless it is important to remember the limits which a technology with decreasing average costs imposes on potential market structures. The converse and more encouraging side of such limitations is that such networks may provide an effective and market neutral way of delivering USOs, particularly as they relate to geographical location, in the longer term.

Meanwhile USOs can still play a part in the transition from monopoly to competitive and national to European market. In this context, their role as facilitator is twofold: it enables the single market to be developed while providing temporary protection for those who might be worse off as a result of rebalancing, say as prices become more

cost reflective; and it enables member states to continue with social policies which are particularly important for its own community, while being part of the developing international market. But in the long run the parts of the market which can become competitive should deliver benefits to consumers as a whole, and there are likely to be more efficient and effective methods of protecting vulnerable consumers than continuing cross subsidy from other consumers (even if indirectly through levies on entrants or general public subsidies). However it will always be in the interests of some market participants to try and prolong them; and even more significant, they may enable politicians to avoid difficult discussions about rebalancing taxes (usually a very delicate internal political issue) which eventually need to be addressed. One approach might therefore be to assign sunset clauses to all USOs which are delivered through potentially competitive rather than natural monopoly parts of the supply chain, so that they have to be revisited and renegotiated as the market, social needs, technology and need for new investment develops. This could be in the context of tapering provision, to avoid cliff edges for either providers or consumers. The drawback of such provision would be the (re)negotiation costs involved by both industry and political parties. Moreover it would be important that some stability were maintained, again an argument for tapering provision rather than steady levels where such provisions should eventually be removed. Such tapering might also comfort those concerned with use of USOs as a tacit form of State Aid, if their eventual demise were included in their definition.

There is also the potential for more competitive forms of universal service provision. At present, the incumbent is normally the designated universal service provider, yet innovations such as tendering and play or pay mechanisms can be used to reveal credible information concerning cost, and to encourage more efficient provision of universal service.

Because of their central political role, transparency in financing may be more important than getting the precisely correct economic level of recompense (or

indeed of USO provision itself). Again a tapering of USOs would provide comfort that any distortion will be temporary, even if over a fairly long horizon. Sunset clauses may also provide comfort to potential entrants about their own potential costs, though the need to renegotiate might increase uncertainty. The appropriate balance between flexibility and stability is another tension in this area. The idea of market liberalisation is that it will reduce average costs and prices, so that consumers as a whole, and the economy, will benefit. Markets are not good at delivering benefits, or protecting from increasing prices, particular groups of people, as the UK regulator has found in trying to balance an apparent early success in market opening at household level with calls for equal benefits for all groups of consumers. USOs are a useful way of managing the transition from a monopoly, which may have provided benefits for groups who are socially or politically vulnerable or important, to a more competitive and international market. However they are not a good long term solution in the context of a competitive market, so their delivery should be eventually transferred to those parts of the supply chain which are naturally monopolistic. In an ideal world, governments would use a more general tax and benefit scheme to reflect their own priorities and thereby target particular groups more effectively. But removing cross subsidies that have been in force over many years is much more difficult than avoiding new distortions, and at the very least USOs will remain necessary as a transition mechanism. However it is important to recognise and identify their potential distortionary effect, particularly where there is vertical integration between monopoly and competitive elements of the supply chain and where new technology develops and/or new infrastructure investment is required.

We summarise below the key conclusions from this report:

- 1) Public and Universal Service Obligations are an important political instrument to negotiate the boundary between the EU and Member State autonomy, reflecting the tensions that can exist between competition and social policy.

- 2) The autonomy of Member States in social policy provides a justification for retaining USOs.
- 3) Markets which are opened to competition are expected to provide increased consumer benefits in the form of lower prices on average.
- 4) Where there have been traditional cross subsidies, some consumers may lose from liberalisation and price rebalancing.
- 5) The least distortionary way of protecting such consumers is usually through cross subsidy within any monopoly element of the supply chain rather than through the contested part of the market.
- 6) Where the monopoly element is vertically integrated with the competitive part of the market there is potential for greater distortion of competition, even where accounting separation is imposed.
- 7) USOs need to be flexibly defined to reflect changing social needs and technological developments.
- 8) Clear principles are required for compensation mechanisms even where they may be difficult to apply in practice.
- 9) The most economically efficient way of delivering USOs may not be the most politically acceptable, particularly if the efficient route involves less transparency about the process and compensation.

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Annex 1

Questionnaire for companies

Q 1 What sector (s) does your company operate in?

- Telecommunications
- Postal services
- Electricity
- Gas
- Railways
- Other _____

Q 2 What countries does your company operate in [for the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom

Q 3 In which sector is your firm's main market (by turnover)?

- Telecommunications
- Postal services
- Electricity
- Gas
- Railways
- Other _____

Q 4 In which country is your firm's main market (by turnover)?

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom

For the remainder of the questions, please answer for your firm's main market only

Q 5 How would you define the concept of universal service?

Q 6 Should Universal Service include access to services based on geographical location?

- Yes
- No

Q 7 Should Universal Service include special rights of access for consumers on low incomes?

- Yes
- No



Q 8 Should Universal Service extend to consumers with special technological / equipment requirements?

- Yes
- No

Q 9 How does Universal Service differ from public service obligations?

Q 10 What do you understand by the concept of universal service in your sector?

For the purposes of the answering the remainder of this survey, please see the definitions we give to USOs and PSOs.

Universal service USO: Universal service obligations establish rights of access to services which might otherwise be restricted if the full cost of provision were imposed on the individual consumer. A universal service obligation often imposes an additional cost on the provider(s) that may be compensated, for example, through an industry levy or a state subsidy.

Public service PSO: Public service obligations apply to all firms operating in the sector and usually relate to minimum levels of quality and sector specific consumer rights. In contrast to USOs, no compensation is usually paid to the providers for fulfilling these obligations over and above the price charged to the individual consumer.

We do not include in these definitions obligations which are not related directly to consumers.

However, we ask you to focus on universal service obligations.

Q 11 Who is responsible for delivering universal service obligations in your sector?

Q 12 Who bears the costs/pays for the delivery of USOs?

Q 13 How are the costs recovered? (e.g., user levies, firms levies, state subsidies, hidden cross subsidies)

Q 14 Who are the target groups?

- Rural customers
- People with disabilities
- Low income
- Pensioners
- Other _____

Q 15 Have they benefited to some extent?

- Yes
- No

Q 16 Do you think there are more efficient or effective ways in which USOs could be delivered?

- Yes
- No

If Yes is selected:

Q 16:1 Can you give some examples of how USOs could be delivered in a more efficient or effective way?



Q 17 Have USOs affected innovation in your sector?

- Yes
- No

If Yes is selected:

Q 17:1 Can you give some examples of how USOs have affected innovation?

Q 18 Has the provision of USOs created barriers to entry?

- Yes
- No

If Yes is selected:

Q 18:1 Can you give some examples of how USOs have created barriers to entry?

Q 19 Have USOs distorted competition?

- Yes
- No

If Yes is selected:

Q 19:1 Can you give some examples of how USOs have distorted competition?

Q 20 How has opening the market affected the scale and nature of USOs in your sector?

Q 21 How has opening the market affected who bears the cost of USOs in your sector?

Q 22 Which consumers do new entrants target?

Q 23 Which consumers have new entrants been able to attract?

Q 24 How have USOs changed, if at all, with increased competition?

Q 25 Click if you agree with the following statements:

- Where incumbents remain responsible for the delivery of USOs they are placed at a competition advantage (1)
- Where incumbents remain responsible for the delivery of USOs there is evidence that they are being over-compensated for the cost of delivering USOs (2)
- Where incumbents remain responsible for the delivery of USOs there is evidence that new entrants are placed at a competitive advantage because they do not share (the cost of) USOs (3)

If (1) is selected:

Q 25:1 Why do you think incumbents are placed at a competition advantage?

If (2) is selected:

Q 25:2 Can you explain how incumbents are being over-compensated for the cost of delivering USOs?

If (3) is selected:

Q 25:3 Can you explain how new entrants are placed at a competitive advantage because they do not share (the cost of) USOs?

Q 26 Has a provider, or providers, of last resort been appointed in your sector?

- Yes



No

If Yes is selected:

Q 26:1 How is (are) the provider(s) of last resort appointed in your sector?

Q 27 If a company fails, and the provisions on provider of last resort activated, how are the consumers’ terms of supply varied?

Q 28 If a company fails, and the provisions on provider of last resort activated, is there any special treatment for vulnerable consumers?

- Yes
- No

If Yes is selected:

Q 28:1 Can you specify the special treatment for vulnerable consumers?

Q 29 If a company fails, are consumers encouraged to switch from the provider of last resort?

- Yes
- No

Q 30 If a company is appointed as provider of last resort does this impose a disproportionate burden?

- Yes
- No

If Yes is selected:

Q 30:1 How is this disproportionate burden imposed, and on which market players?

Q 31 Do you agree or disagree with the following statements?

	Agree	Disagree	Neither	Do not know
USOs prevent a level playing field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
USOs benefit the incumbent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
USOs benefit the entrants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If “you agree that USOs prevent a level playing field” is selected:

Q 31:1 Can you give any examples of how USOs prevent a level playing field?

If “you agree that USOs benefit the incumbent” is selected:

Q 31:2 Can you give any examples of how USOs benefit the incumbent?

If “you agree that USOs benefit the entrant” is selected:

Q 31:3 Can you give any examples of how USO benefit the entrant?

Annex 2**Questionnaire for regulatory bodies**

Q 1 For which sector (s) are you the regulatory authority?

- Telecommunications
- Postal services
- Electricity
- Gas
- Railways
- Other _____

Q 2 In which country are you the regulatory authority for [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- United Kingdom



Q 3 How would you define the concept of universal service in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 4 Should Universal Service include access to services based on geographical location for [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

Q 5 Should Universal Service include special rights of access for consumers on low incomes for [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

Q 6 Should Universal Service extend to consumers with special technological / equipment requirements for [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

Q 7 How does Universal Service differ from public service obligations for [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 8 What do you understand by the concept of universal service in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

For the purposes of the answering the remainder of this survey, please see the definitions we give to USOs and PSOs.

Universal service USO: Universal service obligations establish rights of access to services which might otherwise be restricted if the full cost of provision were imposed on the individual consumer. A universal service obligation often imposes an additional cost on the provider(s) that may be compensated, for example, through an industry levy or a state subsidy.

Public service PSO: Public service obligations apply to all firms operating in the sector and usually relate to minimum levels of quality and sector specific consumer rights. In contrast to USOs, no compensation is usually paid to the providers for fulfilling these obligations over and above the price charged to the individual consumer.

We do not include in these definitions obligations which are not related directly to consumers.

However, we ask you to focus on universal service obligations.

Q 9 Who is responsible for delivering universal service obligations in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?



Q 10 Who bears the costs/pays for the delivery of USOs in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 11 How are the costs recovered in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]? (e.g., user levies, firms levies, state subsidies, hidden cross subsidies)

Q 12 Who are the target groups?

- Rural customers
- People with disabilities
- Low income
- Pensioners
- Other _____

Q 13 Have they benefited to some extent?

- Yes
- No

Q 14 Do you think there are more efficient or effective ways in which USOs could be delivered in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

If Yes is selected:

Q 14:1 Can you give some examples of how USOs could be delivered in a more efficient or effective way in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 15 Have USOs affected innovation in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

If Yes is selected:

Q 15:1 Can you give some examples of how USOs have affected innovation in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 16 Has the provision of USOs created barriers to entry in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

If Yes is selected:

Q 16:1 Can you give some examples of how USOs have created barriers to entry in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?



Q 17 Have USOs distorted competition in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
- No

If Yes is selected:

Q 17:1 Can you give some examples of how USOs have distorted competition in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 18 How has opening the market affected the scale and nature of USOs in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 19 How has opening the market affected who bears the cost of USOs in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 20 Which consumers do new entrants target in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 21 Which consumers have new entrants been able to attract in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 22 How have USOs changed, if at all, with increased competition in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 23 Click if you agree with the following statements in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]:

- Where incumbents remain responsible for the delivery of USOs they are placed at a competition advantage (1)
- Where incumbents remain responsible for the delivery of USOs there is evidence that they are being over-compensated for the cost of delivering USOs (2)
- Where incumbents remain responsible for the delivery of USOs there is evidence that new entrants are placed at a competitive advantage because they do not share (the cost of) USOs (3)

If (1) is selected:

Q 23:1 Why do you think incumbents are placed at a competition advantage?

If (2) is selected:

Q 23:2 Can you explain how incumbents are being over-compensated for the cost of delivering USOs?

If (3) is selected:

Q 23:3 Can you explain how new entrants are placed at a competitive advantage because they do not share (the cost of) USOs?



Q 24 Has a provider, or providers, of last resort been appointed in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
No

If Yes is selected:

Q 24:1 How is (are) the provider(s) of last resort appointed?

Q 25 If a company fails, and the provisions on provider of last resort activated, how are the consumers' terms of supply varied in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

Q 26 If a company fails, and the provisions on provider of last resort activated, is there any special treatment for vulnerable consumers in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
No

If Yes is selected:

Q 26:1 Can you specify the special treatment for vulnerable consumers?

Q 27 If a company fails, are consumers encouraged to switch from the provider of last resort in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
No

Q 28 If a company is appointed as provider of last resort in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector], does this impose a disproportionate burden in [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector]?

- Yes
No

If Yes is selected:

Q 28:1 How is this disproportionate burden imposed, and on which market players?

Q 29 For the case of [the Telecommunication sector and/or the Postal Service sector and/or the Electricity and/or the Gas sector and/or the Railway sector and/or the Other sector], do you agree or disagree with the following statements?

Table with 5 columns: Agree, Disagree, Neither, Do not know. Rows: USOs prevent a level playing field, USOs benefit the incumbent, USOs benefit the entrants.

If "you agree that USOs prevent a level playing field" is selected:



Q 29:1 Can you give any examples of how USOs prevent a level playing field?

If “you agree that USOs benefit the incumbent” is selected:

Q 29:2 Can you give any examples of how USOs benefit the incumbent?

If “you agree that USOs benefit the entrant” is selected:

Q 29:3 Can you give any examples of how USOs benefit the entrants?