Criteria to define essential telecoms services
(Literature Review for Ofcom)

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1. Introduction

1.1. Objective of the literature review

This report surveys the recent literature on communication services to identify criteria that have been used to determine Essential Services for consumers and for society. The aim of the literature review is to establish an objective approach to defining whether or not a communication service is ‘essential’. The question of whether communication services deemed as essential are affordable is not part of this literature review.

1.2. Scope and approach of the literature review

This report reviews the social, legal, and economic academic literature on Essential Services along with non-academic and policy documents published, for instance, by European Institutions, the OECD or consumer groups.

A dual approach was used to identify the relevant literature. Firstly, key papers were identified by the authors of the report, drawing on their expertise and knowledge of the literature. This was supplemented by systematic searches of the Internet and academic databases.

The literature review distinguishes between obligations that are required by law, usually under a Universal Service Obligation (USO) and services that consumers and citizens regard as essential. The review covers different types of communication services such as telephone (fixed and mobile), the Internet and television broadcasting.¹

Much of the literature reviewed in this report is concerned with USO. We have found very little literature that explicitly examines ‘Essential Services’. The literature we have found tends to examine the question from the consumer perspective through empirical studies. There is considerably more literature on the USO, some of which considers the social and economic reasons for some services being included in the USO. However, the review is not limited to considering USO. We have considered the reasons for a service being declared part of Universal Service to determine whether those reasons can also be applied to a service that might be considered essential from society’s perspective as a whole.

The literature review covers the interests of consumers as well as those of citizens. The distinction drawn between consumer and citizen is based on Ofcom’s Consumer Policy². Regarding consumer interest, the literature review focuses on consumers’ needs related to communication services and identifies which communications services are essential and also why these services are essential. Interests of vulnerable consumers in specific situations are considered. The interests of citizens are

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¹ Postal services have not been included in the literature review as no relevant literature has been found, other than already published by Ofcom.
reflected by wider social benefits of Essential Services as well as by general principles which go further than the provision of the service.

1.3. Structure of the report

This literature review consists of five sections: an introduction and four main sections, as well as an annex. Sections 2 to 5 are designed to address the question: What is meant by essential communication services? We first address this question theoretically, by reviewing definitions of related concepts, such as Services of General Interest (SGI) and Services of General Economic Interest (SGEI), as well as rationales for a Universal Service before focusing on Universal Service in telecommunications. Section 3 reviews the academic and non-academic literature as well as policy reports which outline the evolving nature of Universal Services in telecommunications. Section 3 recognises the emergence of new technologies and their impact on the definition of USO in telecommunications. Then, examples illustrate that usage and popularity of a particular service can serve as indicators for a service being a necessity. Next, Section 4 takes a practical approach to the question of how Essential Services are defined through market research. Section 5 concludes by summarising the authors’ opinions of the principal findings from the literature review and suggests a framework for determining whether a service is essential.

2. Theoretical approach to Essential Services

This section defines concepts related to Essential Services, such as SGI, SGEI and Universal Service. Then, the section gives an overview of the benefits of Universal Service with particular reference to the telecommunications sector.

2.1. Definition of Services of General Interest and Services of General Economic Interest

The concept of SGI is an evolving and dynamic one. SGI are defined as “services that public authorities of the Member States classify as being of general interest, and therefore, subject to specific public service obligations.”

3 SGI cover both economic and non-economic activities. The European Commission (2003) takes the view that SGI “form an essential element of the European model of society” and are “essential for increasing quality of life for all citizens and for overcoming social exclusion and isolation.”

4 In its 2011 framework, the European Commission did not define the term Essential Services directly. However, the network industries as well as basic banking services are listed as Essential Services.


4 Commission of the European Communities (n3), para 2.

5 European Commission (n 2) 9.
The concept of Services of General Economic Interest (SEGI) is used by the European Commission for “economic activities that public authorities identify as being of particular importance to citizens and that would not be supplied (or would be supplied under different conditions) if there were no public intervention.” Sauter (2011) analysed EC policy documents and European case-law and legislation to conclude that the European Commission follows a minimum approach towards harmonisation. Member States enjoy a certain amount of discretion in determining SEGI, unless a SEGI is already defined by European legislation.

The European Commission emphasised in its Green Paper (2003) that SEGI, specifically in network industries, share the following elements:

1. Universal service
   The European Commission regards Universal Service as a flexible and dynamic concept that can be adjusted to take into account political, social, economic and technological changes. It aims to guarantee that certain services “are made available at the quality specified to all end-users in their territory, independently of geographical location, and, in the light of specific national conditions, at an affordable price.”

2. Continuity
   Some services have to be provided without interruptions. This requirement can be set out at European level or at national level.

3. Quality of service
   Certain quality standards like coverage have to be guaranteed. This can be achieved either through regulatory or non-regulatory means.

4. Affordability
   The aim of this requirement is to achieve similar economic and social standards across the Member States. The criteria for affordability are at the discretion of the Member States. However, the European Commission suggests including the penetration rate or the price of a basket of services related to the disposable income of specific categories of consumers in the criteria that are used.

5. User and consumer protection
   This element covers both general horizontal consumer protection rules and sector-specific ones. The European Commission refers to principles set out in earlier policy documents. These principles partly repeat the elements mentioned under points 1-
4, but it does also mention environment protection and the protection of vulnerable consumers.16

The European Commission also states that the above-mentioned elements can be supplemented by sector-specific ones. For example, network access and interconnectivity are important in the telecommunications sector to foster competition.17

2.2. Rationales for Universal Service

This section presents the general benefits of the concept of Universal Service.

The European Commission regards social and political objectives (e.g. equity, participation, cohesion, and solidarity) as the driving factors for the imposition of USO.18 Similarly, the OECD provides economic, social and political reasons (see below) for a USO in telecommunications. The economic reasons are based on economic efficiency concerns, the benefits for the members of telecommunication services and welfare gains for society. Avoiding “social exclusion” and the protection of certain groups of vulnerable consumers seem to be the underlying principles for the listed social rationales. The political rationales are based on the fact that the aims and scope of USO result from political decisions as well as the fact that all groups of citizens should be able to access public services.19

Economic rationales

- network externality (existing consumers can contact the new members of the network)
- call externality (existing consumers can receive calls from the new consumers)
- boosting productivity
- enhancing economic growth
- promoting regional development
- increasing a country’s ability to compete globally
- raising standards of living
- increased teleworking and therefore lower congestion costs

15 The following principles are listed: “good quality of service, high levels of health protection and physical safety of services, transparency (e.g. on tariffs, contracts, choice and financing of providers), choice of service, choice of supplier, effective competition between suppliers, existence of regulatory bodies, availability of redress mechanisms, representation and active participation of consumers and users in the definition and evaluation of services and choice of forms of payment” as well as “a guarantee of universal access, continuity, high quality and affordability” (Commission of the European Communities (n4) para 63).
16 Commission of the European Communities (n4) paras 62-64.
17 Commission of the European Communities (n4) paras 65, 70-71.
Social rationales

- avoiding social exclusion
- full participation in society, e.g. accessing public services and emergency services
- people on low incomes, living in remote rural areas, disabled people and other vulnerable groups are able to obtain advantages of telecommunications
- equalising conditions between rural and urban communities
- exercising social and political rights more effectively

Political rationales

- a political decision
- Supporting e-governance objectives (provision of public service via the Internet)

The U.S. Communications Act included the following four criteria as guidelines to establish which services should be part of the USO in telecommunications:

(A) “are essential to education, public health, or public safety;
(B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
(C) are being deployed in public telecommunications networks by telecommunication carriers; and
(C) are consistent with the public interest, convenience, and necessity.”

However, a service does not necessarily need to meet all four requirements to be classified as USO. Additional detail on the meaning of these criteria is not provided in the Act.

Calvo (2012) compares how economic and social considerations are included in National Broadband Plans and Universal Service policies in different OECD countries (see Table 1). The author only lists the criteria; the criteria are not explained in detail.

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Table 1: Criteria for Universal Service by country and criteria for national broadband plans

<table>
<thead>
<tr>
<th>OECD country</th>
<th>Criteria for the need of Universal Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>identification of the product; product needs to be sufficiently essential; reasonable costs; practical and efficient process to implement service; effects on other policy objectives</td>
</tr>
<tr>
<td>European Union</td>
<td>Internet essential for educational purposes, freedom of expression, and to access to information</td>
</tr>
<tr>
<td>Japan</td>
<td>Indispensable for everyone’s life; Services are indispensable when they are popular and used by all people, when they are part of social and economic life. Also, services have to be affordable and provide full geographical coverage</td>
</tr>
<tr>
<td>Korea</td>
<td>State of information and technology development; penetration and usage of telecommunication services; public interest and security; promotion of social welfare; increase of “informatisation”</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Protection of vulnerable consumers and consumers in less populated areas, prevention of social and economic exclusion, network externality (benefit of a larger network); increased economic growth</td>
</tr>
<tr>
<td>United States of America</td>
<td>Essential to education, public health, or public safety; substantial number of domestic customers have subscribed to the service through the market; service provided by telecommunication network; service is convenient, necessary and in the public interest (criteria set out in 47 U.S.C. §254(c)(1)(A)-(D), see above); Further criteria mentioned in the National broadband Plan: Economic growth, job creation, global competitiveness, better way of life</td>
</tr>
</tbody>
</table>

Source: Authors’ summary (Calvo (2012), pp. 8-9, 13-14).

2.3. Universal Service in Telecommunications

The Universal Service Directive defines Universal Services as those that “are made available at the quality specified to all end-users in their territory, independently of geographical location, and, in the light of specific national conditions, at an affordable price.”

The objective of Universal Service is to provide basic services at affordable prices to every citizen and consumer, especially vulnerable consumers, where provision is not guaranteed through the market. Finger and Finon (2011) describe a USO as a “means to protect the weakest citizens from market liberalization”. Universal Services are regarded as essential as they are in the public interest or are required to avoid social exclusion. The European Commission sees Universal Service as a “social safety net”.

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22 Universal Service Directive, Article 3(1).
Davies and Szyszczak (2011)\textsuperscript{26} argue that the concept of Universal Service offers comprehensive consumer protection and is not just concerned with access to a service. The authors conclude that the importance of USO will continue in the future as they can foster competition without losing social values. USO evolve both due to new technologies and the changing demands and needs of consumers. However, Davies and Szyszczak warn that vulnerable consumers may risk social exclusion if USO do not adapt to new technologies.\textsuperscript{27}

3. Lessons from discussion on the evolution of the Universal Service Obligation

Davies and Szyszczak observe that the concept of the Universal Service has evolved from an idea of protecting vulnerable consumers into a new model. It now combines the protection of the demands and needs of consumers, as well as citizens and their fundamental rights, takes social needs and recognises new technologies.\textsuperscript{28} Other sources reviewed for this report (e.g. Calvo, 2012; Davies and Szyszczak, 2011; Goggin, 2010; Alleman et al, 2010; Fejioo and Milne, 2008) raised the question of whether the current USO concept existing in many European and non-European countries still meet the needs of today’s society.

3.1. Evolving nature of Universal Service

The evolving nature of Universal Service is not only a European issue. For example, the evolution of Universal Service was discussed by Goggin (2010)\textsuperscript{29} with respect to the Australian communication market. After examining the market, Goggin argues that current USO need to be adapted to the 21\textsuperscript{st} century. New communication services and technological developments (high-speed broadband, internet applications, mobile communications, mobile and wireless broadband); guaranteed access to broadband, internet and mobile services for a wider group of users; quality of service of mobile, internet and broadband services; and affordability issues for new types of services all need to be taken into account.\textsuperscript{30} Goggin suggests reforming the principles behind the Universal Service concept, without giving more detailed information in his paper\textsuperscript{31} as follows:

- Availability;
- Accessibility across all types of communications;
- Affordability;

\textsuperscript{27} ibid 168, 175–76.
\textsuperscript{28} ibid 161.
\textsuperscript{30} ibid 3.
\textsuperscript{31} More details are available in Consumers’ Telecommunication Network, I.R. Wilson and G. Goggin, \textit{Reforming Universal Service: the future of consumer access and equity in Australian telecommunications} (Redfern N.S.W. 1993).
3.2. Broad definition of USO in telecommunications

This subsection reviews the literature on how USO in telecommunications should be defined given the appearance of new technologies.

Alleman et al (2010) argue “that the definition of USO should be as broad, flexible and comprehensive as possible” as both service communication and the technology develop quickly. Mobile phones, other wireless services and enhanced fixed line services often serve as substitutes for traditional telecommunication services. As there is no concept that fits everyone, it would be best if Universal Service in telecommunications focuses on “connectivity – the ability of people to communicate – rather than defining a particular technology of service to subsidize.” An earlier OECD policy paper from 2006 supports this view, suggesting that a flexible approach to Universal Service is needed to avoid social exclusion, economic disadvantages and to ensure quality of access.

The OECD paper mentioned above contains a proposal for enabling the provision of Universal Service in a Next Generation Network (NGN) environment. The paper concludes that some types of USO will still be required in the future, while others, e.g. directory services, may be fulfilled by the market. However, the way in which the services are provided may change. For example, voice telephony could be provided over a public switched telephone network or via new technologies. A summary of the OECD’s policy expectations regarding the provision of USO in a NGN environment is contained in the Annex (see Annex, Tables 2 and 3).

The current Universal Service Directive requires the provision of access to fixed telephony and “functional internet access, taking into account prevailing technologies, used by the majority of subscribers and technological feasibility”. The scope of Universal Service is not fixed. Instead, it must be reviewed periodically. The last revision took place in 2011. The European Commission uses the following set of criteria when reviewing the Universal Service concept:

- Social inclusion and participation;
- Access to essential new technologies;
- The role of content under issues intellectual property, copyright, and digital rights management;
- Affordable access and use of applications as well as platforms such as online search engines.

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32 Goggin (n29) 4.
34 Ibid 90.
36 Ibid 91.
37 OECD (n19) 5, 16, 28, 31.
38 OECD (n 9).
1. Are specific services available to and used by a [substantial] majority of consumers and does the lack of availability or non-use by a minority of consumers result in social exclusion?  
2. Does the availability and use of specific services convey a general net benefit to all consumers such that public intervention is warranted in circumstances where the specific services are not provided to the public under normal commercial circumstances? 

This set of criteria is coherent with Recital 25 of the Universal Service Directive. Also, Recital 25 mentions that “evolving social, commercial and technological conditions” should be considered.

Part of the latest review was the question of whether the mobile telephony and broadband should be within the scope of Universal Service. The European Commission concluded that neither service should to be considered as Universal Service. However, the reasons why the two services should not fall within the scope of USO are different.

For mobile telephony, there is no need to intervene in the market. The service is delivered through the market at an affordable price. The European Commission concluded that the growing penetration of mobile phones and the falling charges show there is no risk of social exclusion. The mobile telephony market is a competitive market and consumers are able to get access at affordable prices without the help of USO.

In contrast, broadband penetration is too low to justify intervention. The requirement of ‘a substantial majority of the population’, as set out in Recital 25 of the Universal Service Directive, is not met. Broadband’s penetration rate of homes is still too insufficient in a few Member States (in 5 Member States it is below 50%) to include broadband within the scope of Universal Service. To achieve Universal Service, service providers would have to bear unreasonably high costs and consumers in Member States with a low penetration rate would be likely to suffer from high prices.

As a result the European Commission concluded that it “does not see a need to change the basic concept and principle of Universal Service as an instrument for preventing social exclusion. At this stage it would not be appropriate to include mobility or mandate broadband at a specific data rate at EU level.” However, Member States are free to incorporate access to basic broadband in the scope of Universal Service especially when the market does not provide “universal broadband coverage.” Nevertheless, the European Commission suggests following a common approach and provides guidelines. Specific data rates can be included in cases where broadband penetration has reached “at least half of all households”, and where the data rate is achieved “by at least 80% of all households with a broadband connection.” This approach by the European Commission ties the

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40 Recital 25 of the Universal Service Directive requires “a substantial majority of the population”.  
41 European Commission (n25) 5-6.  
42 Ibid.  
43 Recital 25 of the Universal Service Directive.  
44 European Commission (n25) 8-9.  
45 European Commission (n25) 7.  
46 The European Commission refers to mobile telephones.  
47 European Commission (n25) 12.  
48 Ibid.  
49 European Commission (n25) 12.
USO to both ubiquity of access and penetration rates. The European Commission suggests including the following criteria when assessing whether broadband should be become part of USO:

- “the expected market availability of broadband without public intervention;
- the social and economic disadvantages incurred by those without access to a broadband connection, including disabled end-users;
- the cost of public intervention via USO and a comparison of this cost against the use of other approaches;
- the benefits of public intervention and its effects on competition, market distortions and broader policy objectives.”

Another report, conducted for the European Commission in 2010, emphasized the economic benefits and social benefits if broadband become part of the USO. Society would benefit from economic growth, an increase in productivity, and improvement of the Single Market as well as better access to public services with the effect of further reducing social exclusion. These rationales and benefits are in line with the benefits mentioned above for Universal Service in telecommunications in general (see subsection 2.2.).

The publications of Walden (2012) and Calvo (2012) support these findings and highlight the fact that new technologies bring social and economic benefits with direct effects on consumers as well as on society as a whole. For example, society will benefit from better productivity and economic growth. At the consumer level, a household without internet access will experience social and economic disadvantages due to exclusion, such as missing the better deals available when shopping online or paying bills online. Also, some public services may be faster and cheaper when obtained via the Internet. The publications particularly emphasise the benefits for children of having broadband access, including increasing their lifetime earnings.

Nonetheless, there are other views critical of broadband falling within the scope of Universal Service. These views are summarised by a 2006 OECD report. This OECD report argues that there is no need to make broadband part of Universal Service as a competitive market can provide sufficient access at affordable prices. Indeed, making broadband part of Universal Service would create a barrier to entry for potential new competitors. Hence, the net benefits to inclusion appear uncertain, and it is unclear whether the benefits exceed the costs. Also, the OECD report mentions that penetration rates are too low and, therefore, “it would be difficult to argue that broadband meets the criteria mentioned earlier which would result in it being classified as an essential service.” However, the report does not say explicitly which criteria are being referred to in this statement. Although, on the
previous page, the report mentions (1) availability and usage by a majority of consumers or the fact that a minority group will suffer from social exclusion if they have not access to the specific service and (2) the provision of the service is guaranteed because of its “general net benefit to all consumers” as criteria in case of reviewing the scope of USO. Again, the OECD report underscores the point made previously — the definition an Essential Service depends upon the prevailing ubiquity of access and penetration rates.

To sum up, both the established and more recent literature calls for a revision of concept of Universal Service. For example, Calvo (2012), Davies and Szyszczak (2011) as well as Jaag and Trinkner (2011) argue that USO should be more output-orientated (better defined and targeted), technological neutral, product neutral, transparent, cost-effective (financially viable) and necessary.

3.3. Examples of the evolving nature of different types of services in the European Union and, in particular, in the United Kingdom

In the previous subsection, we considered the evolving nature of Universal Service and how the definition of USO could be adapted to make them more suitable for the needs and demands of today’s consumer and citizen.

The literature reviewed above suggests that one criterion for including a specific service in a USO is the widespread take-up of the service (see subsection 3.2.). As a result, we now turn to the related question of the relative ubiquity of different types of communication services (both in Europe generally and in the UK in particular). The usage and popularity of particular services can serve as an indicator of the (new) services and technologies that are absolutely necessary or may become essential in the future. For example, in the United States one criterion for establishing Universal Service is that “the service has been subscribed to by a substantial majority of residential customers”.

3.3.1. Telephony services (fixed and mobile)

According to the Special Eurobarometer 381 E-communications Household Survey, telephone access in Europe is almost universal. In 2011, about 98% of all European household (also 98% in the UK) have access to a telephony service (either fixed or mobile). These numbers have been stable since the winter of 2009. A majority of European households, 62%, have access to both fixed and mobile telephony services, while in the UK the percentage is even higher at 72%. About 8% of UK

57 OECD (n19) 39.
59 Davies and Szyszczak (n26) 176; Jaag and Trinkner (n58) 15; Calvo (n21) 5.
60 See footnote 20.
households have access to only fixed telephony and around 18% of UK households have access to only mobile telephony services. Also, 90% of UK households have at least one mobile phone.

Also, the Eurobarometer report shows that Voice over the Internet (VON) usage is yet to become widespread. At the time of the report, less than a third of European households used the Internet for telephony.

3.3.2. Broadband and Internet access

Market research, undertaken by the European Commission and the OECD, shows a high take-up rate of broadband subscriptions in Europe and, specifically, in the UK. About two-thirds of European households had Internet access at the end of 2011 (UK 74%). However, the market research also reveals that only 25% of households consisting of one person over the age of 60 years have access to the Internet. This suggests that a computer and the Internet access may be more important for certain groups of consumers than for others.

In Europe in December 2011, around a third of households did not have access to the Internet. In the UK the number was slightly lower, being about 25%. In the Special Eurobarometer E-Communications Household Survey (European Commission, 2011) non-subscribers were also asked why their household does not have Internet access. The answers are listed below along with the percentage who reported each reason.

- No interest: EU 63%; UK 63%
- Monthly subscription costs too high: EU 10%; UK 11%
- Costs of buying personal computer or modem too high: EU 8%; UK 7%
- No knowledge what the Internet is: EU 7%; UK 3%
- Monthly subscription cost of broadband Internet too high: EU 7%; UK 8%
- Plan to subscribe within next 6 month: EU 5%; UK 3%
- Initial installation costs too high: EU 5%; UK 3%
- Sufficient access elsewhere (work, school etc.): EU 5%; UK 3%
- Local area not covered by broadband network infrastructure: EU 1%; UK 0%
- Concerns about access to unsuitable content: EU 1%; UK 1%
- Other: EU 5%; UK 9%
- Don’t know: EU 7%; UK 4%

Note respondents could give multiple answers and this explains why the percentages fail to sum to 100%.

62 ibid.
63 ibid.
64 European Commission (n61) 40-43.
65 European Commission (n61) 47.
The European Commission’s Digital Agenda Scoreboard 2013 shows somewhat different results regarding why people do not access the Internet. According to this report, lack of interest (EU: 47% of households without internet access in 2012; UK: 51%) and lack of skills (EU: 35%; UK: 20%) have been the two main reasons in the EU27 for people not subscribing to the Internet. After that, equipment costs (EU: 26%) and access costs (EU: 24%) are mentioned as the third and fourth most common reasons for not having internet access (in the UK 25% of households without access did not have it for cost related reasons). The percentages regarding reason 3 and reason 4 have remained relatively stable. Less important factors were alternative sources of access and other reasons (both less than 15%), privacy and security concerns (less than 10%), physical disability and no availability of broadband (both less than 5%). The Digital Agenda Scoreboard states that reasons for the lack of interest may not necessarily reflect “a genuine lack of interest”. Reasons may result from a “lack of knowledge and skills” or the “lack of an appropriate offer or not wanting to report financial reasons or lacking skills.”

3.3.3. Television Broadcasting

This subsection summarises the role of television broadcasting. About 97% of all European households have a television. Empirical studies by van de Walle (2009), the Centre for Research in Social Policy (2013) and the PSE Poverty and Social Exclusion study (2013) show that having a television and access to television channels is seen as a necessity.

Broadcasting can be divided into public service and commercial broadcasting. Prosser (2005) indicates that the following features distinguish Public Service Broadcasting (PSB) from other public services:

- “Provision of news, comment, and current affairs programmes has, for democratic reasons, to be provided in an impartial way and where possible by a plurality of sources”
- Raising of “cultural concerns”
- “linguistic concerns” and “preservation of national cultures”

The objectives for public broadcasting in the UK and how these objectives are to be fulfilled are laid down in the Communications Act 2003 (CA 2003), section 264 (4) and (6). In the UK, BBC One, BBC

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68 European Commission (n61) 84.

69 The literature covering market research is reviewed (i.e. results and methodology) in Section 4.

Two, ITV, Channel 4, Channel 5, the BBC digital channels, and S4C contribute to meeting the public broadcasting requirements.\(^71\)

It has been argued that the concept of public broadcasting in Europe needs to change as the growth rate for public broadcasting has been lower than for other broadcasting services.

Van Dijk et al (2006)\(^72\) believe that PayTV will become more important for consumers. PayTV is more adaptable to consumers’ needs and their programme preferences, as it has more possibilities to price differentiate. However, PayTV also makes it easier to exclude consumers. Additionally, PayTV will be harder to control and it will be harder to guarantee the quality of the service (negative external effects are likely to increase). To ensure access to information Van Dijk et al conclude that public broadcasting will remain important.

Nevertheless, PSB will remain important as it will be necessary to supplement the market by offering quality programmes.\(^73\)

**Conclusions**

Four key conclusions can be drawn from the review of the academic and policy literature relating to the evolving nature of USO:

(1) Universal Service Obligations are in place to ensure that all citizens can have access to Essential Services in the event that the market would fail to deliver without intervention. As such, services mandated under a USO are likely to be a subset of Essential Services, some of which are likely to be delivered by the market without intervention by policy makers. The terms Universal Service and Essential Service are therefore not interchangeable.

(2) Uniform and standardised obligations will not satisfy the needs of all citizens and consumers, and the definition should be interpreted dynamically.

(3) The definition of Universal Service Obligations should be output-orientated (functional) and technology neutral.

(4) Certain types of vulnerable groups of consumers may require specific forms of intervention to secure universal access, particularly in the light of new technologies.

4. **Practical approach to Essential Services**

This section takes a practical approach to the question of how Essential Services are defined through empirical studies. As a starting point, we observe that there is no fixed definition of Essential Service. Van de Walle (2009)\(^74\) suggests that “[d]iscovering which services are considered essential has

\(^{71}\) CA 2003, s. 264(11).


\(^{73}\) ibid 272-275.

\(^{74}\) Steven van de Walle. ‘When is a service an essential public service?’ (2009) 80 Annals of Public and Cooperative Economics 521
therefore to be done in an indirect way, by looking at practices, behaviours, documents, and opinions.”

Empirical studies have been undertaken to establish what consumers and citizens regard as Essential Services. Their results have been analysed by different authors. Batt and Katz (1998) sought to establish the degree to which different services were necessities for consumers. While their paper is old, and does not cover Internet and mobile telephony, some of their results are still relevant. The study highlights that the extent to which something is a necessity is an evolving process. Initially less important products and services, such as information services and home computers, move towards being necessities. Also, Batt and Katz find that interest in telecommunication services is not dependent on income as long as the services are affordable. However, consumers often substitute other services, needs or products for telecommunication services. It seems that age and attitude toward technology are more likely to have an effect on the demand for telecommunication services.

A similar approach is used by van de Walle (2009). He uses a quantitative approach and analys ed public opinion from European citizens in 15 Member States, using a Eurobarometer dataset from 1997. In the study respondents were provided with a list of different services and were asked to choose the services for which access should be guaranteed even if a person could not afford to pay for the service. Fixed-line telephone services and access to television channels were the only telecommunication services considered in the study. Respectively, they were ranked as the sixth (24.3% of respondents supported provision) and eighth (17.9%) most important services out of the 13 presented.

Van de Walle then used an econometric model incorporating five services (collection of household rubbish, access to television channels, urban transport, access to banking facilities and telephone services) to examine the factors determining whether a service is seen as essential. Particular emphasis was given to the influence of political opinions and the degree of urbanisation. Van de Walle reports that both factors have no impact on the importance of telephone services or TV access. The models do show that male respondents (in five Member States) were more likely to regard TV access as essential and that older respondents were more likely than younger ones to believe that telephone services were essential.

Van de Walle then analyses the data for the UK in more detail. With regard to communication services in the UK, van de Walle finds people living in cities and women with fewer educational qualifications were more likely to consider telephone services as essential than other groups.

75 ibid 523.
77 ibid 42-45.
78 van de Walle (n74) 526. The services considered were: water supply, electricity supply, collection of household rubbish, gas supply, urban transport, telephone services, access to banking facilities, access to television channels, bus and coach travel between cities, rail travel, air travel, as well as the possibility to say ‘none’ or ‘don’t know’.
79 van de Walle (n74) 530-31.
Younger male participants who left education at a relatively early stage viewed access to TV as more important than other groups.\(^80\)

The Poverty and Social Exclusion research project (PSE), a collaboration between six universities and funded by the ESRC, has conducted five surveys with the purpose of establishing the items and activities that the British public consider to be necessities. In the last survey in 2012\(^81\), 2,462 individuals aged 16 or over from across the UK were asked which items (out of a total of 46 items for adults and 30 items for children that were presented) they regarded as “desirable but not necessary” and which items were “necessary and which all people should be able to afford, and which they should not have to do without”. The latter items were defined as ‘necessities of life’.\(^82\) The list of items to be considered was compiled by interviews with a ‘focus group’ consisting of 114 members of the public from across the UK. This method was supported by considering expert reviews, cognitive interviews and pilot interviews etc.\(^83\) An item/activity was classified as a necessity when at least half of the participants thought it was essential and should be part of a minimum standard of living. As such, the report takes the actual living standard of people into account and not just their income. The PSE researchers used a three-step approach: 1. the items/activities the public in the UK thought of as necessities were established; 2. the respondents who did and did not have the service were identified and the reason why they did not have the service was determined (lack of money or voluntary decision); 3. the number of people who were socially excluded on affordability grounds was calculated\(^84\).

25 out of 40 listed items and activities for adults are seen as necessities. Basic needs such as heating, a damp-free home and two meals a day were at the top of the list. Also, social activities scored highly. Two telecommunications items, fixed telephony and television, fall into the group of necessities. In 2012, 77% of respondents considered fixed telephony to be essential, compared to only 43% in 1983. Also, in 2012, 51% of people thought that television was essential.

The report found a high level of agreement, especially with respect to items that are considered necessities for children, across people from different demographic backgrounds (e.g. gender, ethnicity, occupation, income level, geography as well as age) about what is a necessity.\(^85\) However, there was disagreement among different groups regarding the status of television. People with no qualifications, people doing manual or routine work, people in the bottom 20% of the income distribution and people with a limiting illness thought of having a television as a necessity; other groups were less likely to do so. Although the importance of other telecommunications items, such as internet access (per cent viewing it as a necessity in 2012: 41% against 6% in 1999), a home

\(^{80}\) van de Walle (n74) 535-36.
\(^{82}\) ibid.
\(^{85}\) Mack (n83) 6, 14; Gordon (n84) 7.
computer (40% in 2012 against 5% in 1990) and a mobile phone (40% in 2012 against 8% in 1999) have increased, and may become necessities in the near future, they were not classed as such for adults in 2012.  

However, for people who classed themselves as non-white, the Internet, a computer and mobile phone were considered as part of a minimum standard of living in 2012. For children, a computer and internet for homework were seen as necessities by 66% (38% in 1999). In contrast, the British public did not think that either a mobile phone for children aged 11+ or a MP3 player was essential for children.

A comparison of the 2012 survey with previous surveys confirms that people’s views about the items that are necessities changes over time. While the importance of some items has remained constant, the perception of other items as necessities has increased and, also, new items have appeared due to new technology. The PSE report then estimates how many people across the UK could not afford the services which had been established as necessities. The 2012 survey, like the previous ones, showed that the public took a ‘relative view’ of poverty rather than an ‘absolute view’. Necessities under the ‘relative view’ include not only meet basic needs, such as food and housing, but also allow individuals to participate in social activities and have access to other material items. People classified as poor under the ‘relative view’ are unable to achieve an acceptable standard of living because they cannot afford the ‘necessities of life’ as defined by the focus group, and so suffer from social exclusion. The PSE study suggests that “a minimum contemporary standard of living” should be guaranteed to everyone.

However, the PSE report indicates that as a result of the economic crisis people’s expectation of a minimum standard of living is lower than it was in 1999.

In 2007 the European Commission commissioned a similar survey at European level. Interviews were conducted in all European Member States and Croatia (then a candidate country for European membership). Respondents were nationals of the country concerned or European citizens who had a sufficient knowledge of the national language to respond. Participants were at least 15 years of age. The findings of the report were published in a Special Eurobarometer 279 “Poverty and Exclusion” report.

86 PSE (n81); Mack (n83) 14-15.
87 Mack (n83) 16.
88 PSE (n81); Gordon (n84) 5–6; Mack (n83) 6, 9. The perceived understanding of poverty is similar across Europe. A 2010 Eurobarometer Report shows that about 26 of all Europeans define poverty when the financial means of people are so limited that they cannot fully participate in society, 24% regards a person as poor when this person has to live on charity or public subsidies, 18% determine poverty when the monthly income is below the national poverty threshold, and 17% define poverty when a person cannot afford basic good and 9 % believe poverty is related to a very low social status in society (European Commission, ‘Special Eurobarometer Report 355: Poverty and Social Exclusion’ <http://ec.europa.eu/public_opinion/archives/eb_special_359_340_en.htm> accessed 23 October 2013, 9).
90 ibid 2. More detailed information on the methodology can be found in the Annex of the Special Eurobarometer 279 report.
Telecommunications services (having a colour television, a fixed/landline telephone, a mobile phone, a computer, and an internet connection) were covered within the category of durable goods. This category contained 12 items or services in total.\textsuperscript{91} Participants were asked the following question: “For a person to have a decent standard of living in (OUR COUNTRY), how necessary do you think it is to be able to afford the following if one wants to?”\textsuperscript{92} They could choose between five options when classifying each item: absolutely necessary, no one should have to do without, necessary, desirable but not necessary, not at all necessary, and do not know.

The majority of Europeans did not think that telecommunications services are ‘absolutely necessary’ and that you could not live without it. The majority of Europeans thought that having a colour television and fixed telephone were necessary. Having a mobile phone, a computer and an internet connection were mainly regarded as being ‘desirable but not necessary’. Figure 1 compares the responses in the UK against those across the EU as a whole.

\textsuperscript{91} The other items were: bed and bedding for everyone, a refrigerator, a washing machine, a cooker big enough for the entire household, the affordability of repairing or replacing major electrical goods, the affordability of replacing worn out or broken furniture and a car.

\textsuperscript{92} European Commission (n89) Annex QB 12, 27/57.
Figure 1: The degree to which different durable goods were considered to be necessities in the UK and the EU as a whole (%)

Source: Summary of the European Commission, Special Eurobarometer 279, p. 61 and Annex: Tables

Also, the Special Eurobarometer Report shows that people who had a lower income or people who knew how people with a lower income lived, had a greater tendency to consider the items mentioned above as absolute necessities. However, the percentages of people who were on lower incomes who considered the goods to be absolute necessities were relatively close to the corresponding percentages for people who simply knew people on lower incomes (see Figure 3 and Figure 4 in the Annex). As respondents’ age, education, and occupation changed the percentage of

93 Key: BB=Bed and bedding for everyone; Fridge=Refrigerator; Wash. M=Washing machine; Cooker=Cooker big enough for household; E.Goods=Repairing or replacing major electrical goods; Furniture=Replacing worn out or broken furniture; TV= Colour television; F. Phone=Fixed-line phone; M. Phone=Mobile Phone; Internet=Internet connection.

94 Special Eurobarometer, p. 61-62.
people who thought that a particular good was an absolute necessity also changed. However, the rank-ordering of the goods which were most likely to be considered absolute necessities did not change (see Figure 5 in the Annex).

To afford necessities identified, a minimum household income is needed. The ‘Minimum Income Standard for the United Kingdom’ project (MIS) calculates the amount of income required for an acceptable standard of living. The project’s research includes detailed budget calculations for different household types.

The calculations are based on baskets of specified goods and services that are viewed as being required for each household type “to achieve a socially acceptable standard of living in the UK”. First, a definition of the “acceptable minimum” was created by groups of the public. The results from these first discussions were used to create a list of different services and items for consideration. Then, this list was given to focus groups who agreed, following a discussion, which items and services were essential for a minimum standard of living. The discussions were observed by a moderator. The task of the moderator was to remind the group to restrict their list to necessities.

Each focus group consisted of 6-8 members of the public from different socio-economic backgrounds. The goods were then double-checked by experts to ensure that nutritional requirements were met and to re-calculate the budget, if necessary. MIS calculations are updated in April each year (the first research was in 2007), to account for inflation and changes in minimum needs. In 2012, the items used to calculate budgets for families with children were created from scratch (rebased), while for households without children only changes to the value of the budget were considered. For the households without children, the items included in the calculation of the budgets were decided in 2008.

For each type of household the necessities are grouped into the following eight categories:

A. Food and non-alcoholic beverages
B. Alcohol and tobacco
C. Clothing and footwear
D. Housing costs
E. Household goods and services
F. Personal goods and service (including health)
G. Transport

96 The household types are: couple with toddler, couple with pre-school child and primary school child, couple with pre-school child, primary school child and secondary school child, lone parent with toddler, lone parent with pre-school child and primary school child, lone parent with pre-school child and primary school child, lone parent with pre-school child, primary school child and secondary school child, single working female, single working male, partnered working age female and male without children, single female pensioner, single male pensioner, partnered female and male pensioner.
99 Hirsch (n97) 8-9.
H. Social and cultural participation

Most of the categories are broken into sub-categories, with the exception of categories C and F. Items which are regarded as necessities are then explicitly listed under the appropriate (sub-)categories (see Figure 6 in the Annex for an overview of the categories and sub-categories). Telecommunication devices and services (e.g. TV, DVD player, laptop and basic software, printer as well as the Internet) fall under category H, while fixed and mobile telephony and postage fall under category E. According to the MIS project, households with more than one child at school require an additional computer, described as a netbook. In contrast, having a computer is not included in the budgets for pensioners’ households. This suggests that for an older generation a computer is not deemed a necessity.

Conclusions

From the foregoing, five conclusions can be drawn:

(1) The explicit determination of necessities has been established primarily by empirical studies.
(2) Consumers and citizens seem to take a ‘relative view’ of poverty when defining necessities.
(3) There appears to be a broad consensus among the public the items that are considered necessities.
(4) The items viewed as necessities evolve and generally expands over time as new technologies emerge and the consumption of these new technologies increases.
(5) This expansion appears to have a greater impact on some types of households than others. The range of necessities has increased particularly for households with children.

5. How to determine whether a service is essential?

In this final section of the review we summarise what we consider to be the principal findings of the literature and then, based on these findings, present our own analysis of how to determine whether a service is essential.

As mentioned at the start of this review, the literature specifically addressing the question of Essential Services is very limited, and that which can be considered ‘current’ is even more limited. We therefore cannot draw on the literature to identify Essential Services. Nevertheless, three key conclusions can be drawn from our review of the academic and policy literature:

(1) No definition of Essential Services will suit the needs of all consumers, and the definition should be interpreted dynamically.  
(2) In common with our conclusion on the evolving nature of Universal Service, the definition of Essential Service should be output-orientated (functional) and technology neutral.

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101 Commission of the European Communities (n4).
102 See end of subsection 3.3.3.
103 Calvo (n21), Davies and Szyszczak (n26), Jaag and Trinkner (n28)
Certain types of vulnerable groups of consumers may require specific forms of intervention to secure universal access, particularly in the light of new technologies.\(^\text{104}\)

Furthermore, people’s views of what are necessities evolve and expand over time. New technologies emerge and the consumption of communication services increase, while the significance of other communication services may become less important. It is an inherently dynamic process.

Now we turn to the questions of: (i) how to define an essential communication service and (ii) how to determine whether a particular service falls within the definition of an essential communication service? The answer to question (i) – the meaning of essential – draws on a set of objective criteria elicited from the literature review. To answer question (ii) – whether a particular service is in fact essential – we suggest a specific methodology, presented in Figure 2, which is informed by the objective criteria. The suggested process does not come directly from any of the articles and reports reviewed, but it has been inspired by them. It is an attempt to establish an objective way of determining whether a particular service is essential.

**Step One: Criteria for defining what is meant by an ‘essential’ communication service**

An obvious starting point for defining what is meant by ‘essential’ is the proportion of the population that use the service (see subsection 3.2.). Much of the literature on Universal Service refers to ubiquity of take-up as a starting point and, indeed, it could be regarded as self-evident that if take-up of a service is near universal, then consumers are likely regard that service as essential, whereas if take-up is negligible then the service is unlikely to be seen as essential.

However, from a wider, social perspective, as opposed to the private perspective of individual consumers, a service might be regarded as essential if it supports:

- Economic objectives;
- Social objectives; and
- Political objectives (see subsection 2.2.)

These wider objectives may not be captured in an individual consumer’s willingness to pay and/or consumers may be unaware of how a particular service may support their full economic, social and political participation in society. In particular, disadvantaged and vulnerable consumers (such as those on low incomes, living in remote areas or disabled) may have less ability to pay for Essential Services and/or be less aware of the benefits they could derive from those services.

In summary, whilst widespread adoption of a particular service may be suggestive that it is essential, lower rates of take up would not necessarily preclude that service being essential.

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\(^{104}\) Calvo (n21), OECD (n19).
Step Two: How to determine whether a particular service essential?

Turning now to the question of whether a particular service is essential, taking ‘service’ to be defined in a way that is technology neutral, i.e. voice telephony rather than fixed or mobile voice telephony (see subsection 3.2.).

As a starting point for establishing whether a service is essential we suggest using the current level of take-up. This is for the reason, noted above, that a near universally adopted service is more likely to be considered essential than one that has very few users. Where a significant majority uses a service, the process then asks whether removal of the service from an individual would lead to the individual being socially excluded, being limited in his or her economic activity, being limited in his or her political participation in society, or limited in his or her access to public information. If the answer is ‘yes’, then such a service may be considered ‘essential’.

Where less than a significant majority have a service, the first question to ask is whether those that do not have it either cannot afford it or have they chosen to have the service for a non-price reason. If sufficient consumers have chosen not to have a service for a non-price reason, then it is likely that the service cannot be regarded as essential. However, it may be the reason that consumers have not chosen a service is because they are not aware of the benefits of the service or it may be that a particular group of consumers is already socially excluded and therefore does not consider this service.

The demographics of the large minority of citizens who do not have the service may, however, need to be considered. In the Special Eurobarometer 381 E-communications Household Survey, we saw that 63% of the 25% of households who do not use the Internet saw no reason to receive the service. If it were the case that a majority of these non-users were elderly, say over 65 and that an overwhelming majority of younger people have the Internet, then that might change a view of whether the service is essential.

However, if price is the reason for not having a service, and these citizens are excluded from society by not having the service, then it might be regarded as essential.
Figure 2:

Does the overwhelming majority of people have access?

No  Yes

Are most people who do not have access excluded because of cost?

Yes  No

If the service were removed, would people not be able to take part in normal social/economic activity?

Yes  No

Are non-users fully aware of the benefits and/or not otherwise socially excluded?

Yes  No

Does lack of access mean people cannot take part in normal social/economic activity?

Yes  No

Would use of the service enhance ability to take part in society?

Yes  No
Annex

Table 2:

<table>
<thead>
<tr>
<th>Current USO</th>
<th>Will service be provided in NGN if not a USO provision?</th>
<th>What could be done to maintain present USO?</th>
<th>Expand USO?</th>
</tr>
</thead>
<tbody>
<tr>
<td>That all users regardless of location can access quality voice service at ‘affordable’ price.</td>
<td>A broadband subscriber can access VoIP probably at a low price bundled with broadband subscription. However, consumers without access to broadband dependent on increasingly obsolete (as transition to NGN progresses) voice service from PSTN or wireless.</td>
<td>For those without access to wireless or VoIP service, it would be possible to oblige a PSTN operator to continue service (but also allow/encourage entry of alternative technology providers) in rural and remote areas.</td>
<td>Include mobile service in USO? Not in the sense of mandating universal availability. But a USO defined in terms of basic voice (and data?) service without specifying the means would allow technology neutrality and flexibility for USO to be cost-effectively delivered by fixed wireless, mobile or other means. Encourage/subsidise commercial operation of telecentres, including provision of subsidies to readily support ‘affordability’ of access to telecentres in rural and remote areas; this would be consistent with objective of ‘universal access’. In certain cases the provision of a telecentre may be less expensive than providing a dedicated public phone.</td>
</tr>
<tr>
<td>Public payphones.</td>
<td>Fixed and mobile diffusion, internet cafes, etc., could make it unnecessary for an USO obligation requiring blanket national coverage with a large number of payphones.</td>
<td>Regulators could continue to oblige public payphones to be provided as a USO but this will be increasingly costly due to decreased usage and revenue generated from payphones. Nevertheless, provision of public payphones in specific locations — such as hospitals, prisons, emergency contact points on roadways, places where mobile coverage is absent or where mobile usage is forbidden — may continue to be necessary.</td>
<td></td>
</tr>
<tr>
<td>Quality of service.</td>
<td>Quality of large range of value-added NGN services may be lost to competitive provision/choice. Extent of quality of service depends on the NGN system that develops in 5-10 years time (although at present subject to Internet problems of jitter, security, delay, power outage, security, virus attacks, etc.). One problem is that infrastructure access provider only supplying a carriage service at the IP packet level may be unaware of the content of IP packets or IP applications being provisioned over its access link. Moreover, quality of service is often subjective and one could envisage having services of different quality.</td>
<td>Might need to specify that certain services meet quality standards. USO concern is with ensuring access of a minimum capacity/speed that allows access to NGN services. Consumer protection regulation could be amended to establish a set of quality of service benchmarks for the measurement of voice quality that would be equally applicable to all voice services, including mobile and VoIP.</td>
<td>Any lower quality of service features of VoIP service should be made transparent to consumers (who could then make “informed choices” on the basis of such information). Methods could be devised to allow consumers to readily ascertain whether an IP service meets minimum QoS requirements. For example, one approach is to allocate numbers with more digits to voice services not meeting the minimum QoS requirements.</td>
</tr>
<tr>
<td>Access to emergency contact service.</td>
<td>Uncertain since provision of emergency contact service could be a problem for VoIP (and also for mobile).</td>
<td>Can require (as in US and Canada) that NGN operators provide emergency service. Analysts consider that if required, operators can do so.</td>
<td></td>
</tr>
</tbody>
</table>

Source: OECD (2006), p. 36
<table>
<thead>
<tr>
<th>Current USO</th>
<th>Will service be provided in NGN if not a USO provision?</th>
<th>What could be done to maintain present USO?</th>
<th>Expand USO?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory and directory assistance service.</td>
<td>Will probably be commercially provided.</td>
<td>If necessary, obligations in relation to directories and directory assistance could be specified (and could be varied depending on type of operator).</td>
<td></td>
</tr>
<tr>
<td>Itemised billing.</td>
<td>Yes.</td>
<td>No action needed.</td>
<td></td>
</tr>
<tr>
<td>Accessibility: Services to the hearing, sight etc., impaired e.g. relay service that translates voice into text for hearing impaired.</td>
<td>Yes, to extent required by general legislation ensuring assurance of service to disabled. Moreover, the widespread availability of text over IP capabilities will facilitate the use of this service by deaf and hearing-impaired users.</td>
<td>Regulators could require measures to ensure availability of text over IP in stand alone VoIP phones and in PC-based software programs providing VoIP capability. Likewise schemes to aid other disabled e.g. special format telephone bills for blind or partially sighted, priority fault repair service.</td>
<td>New NGN networks provide an opportunity for service providers to adopt a design for all approach to ensure that the needs of disabled users can be accommodated early in the design process and thus reduce the cost of providing special services.</td>
</tr>
<tr>
<td>Affordability</td>
<td>No. But some question whether Voice service will be cheap and affordable to all (boosted by pre-paid) except the very poor. At any rate it is questionable if the USO should be regarded as a solution for the problem of poverty. In this view, such consumers unable to afford services in a competitive market require support through the welfare system, not USO schemes.</td>
<td><em>Affordability</em> could be maintained as a USO provision. Affordability could be enhanced by targeted direct subsidies to needy consumers e.g. through pre-paid vouchers (that allow them to choose services and service providers in a competitively and technology-neutral way).</td>
<td>Affordability could be enhanced by targeted direct subsidies to needy consumers (that allow them to make own choice of services and service providers in a competitively and technology-neutral way). Affordability of broadband a problem (see below). Government subsidies on basis of income thresholds rather than low usage proxies of low income.</td>
</tr>
<tr>
<td>Functional Internet Access (which is a provision in the EU Directive on USOs).</td>
<td>Broadband, required for access to VoIP and full range of NGN services, is increasing considerably in many countries.</td>
<td>If USOs approach to broadband deemed necessary, can use geographic averaging, competitive tendering, etc. But rather than on services, focus could be on adequate access to platform(s) to enable access to NGN services to be pursued through competition, complemented with targeted subsidies, leaving choice of platform, capacity/speed and services to consumers.</td>
<td>Inclusion of broadband as a USO provision? No, at least not yet (see more detailed discussion elsewhere in this paper). A policy decision that broadband not be part of universal service does not undermine case for policies to encourage competitive provision of broadband coupled with broadband diffusion policies to address the “digital divide”.</td>
</tr>
</tbody>
</table>

Figure 3: Durable goods regarded as necessities by people with low-income, EU average in %

Source: European Commission, Special Eurobarometer 279 “Poverty and Exclusion”, p. 62

Figure 4: Durable goods regarded as necessities by people who see conditions in which people with low-income in their area live, EU average in %

Source: European Commission, Special Eurobarometer 279 “Poverty and Exclusion”, p. 62
Figure 5: Differences how people see durable goods as absolute necessities by age, education and occupation, answers in %

<p>| Q812 by age, education and occupation (% absolutely necessary - EU27) |
|-------------------------------------------------|---|---|---|---|---|</p>
<table>
<thead>
<tr>
<th>Q812 For a person to have a decent standard of living in [our country], how necessary do you think it is to be able to afford the following if one wants to?</th>
<th>Age</th>
<th>Education (End of)</th>
<th>Respondent occupation scale</th>
<th>Q812 total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bed and bedding for everyone in household</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A refrigerator</td>
<td>66%</td>
<td>60%</td>
<td>69%</td>
<td>68%</td>
</tr>
<tr>
<td>A washing machine</td>
<td>59%</td>
<td>60%</td>
<td>59%</td>
<td>55%</td>
</tr>
<tr>
<td>A cooker big enough for household</td>
<td>44%</td>
<td>40%</td>
<td>51%</td>
<td>50%</td>
</tr>
<tr>
<td>Repairing or replacing major electrical goods</td>
<td>38%</td>
<td>41%</td>
<td>40%</td>
<td>39%</td>
</tr>
<tr>
<td>Replacing worn out or broken furniture</td>
<td>23%</td>
<td>23%</td>
<td>21%</td>
<td>20%</td>
</tr>
<tr>
<td>Colour TV</td>
<td>22%</td>
<td>21%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>A local telephone</td>
<td>16%</td>
<td>16%</td>
<td>10%</td>
<td>22%</td>
</tr>
<tr>
<td>A car</td>
<td>19%</td>
<td>20%</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>A mobile phone</td>
<td>19%</td>
<td>15%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>A computer</td>
<td>16%</td>
<td>10%</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>Internet connection</td>
<td>13%</td>
<td>9%</td>
<td>7%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Source: European Commission, Special Eurobarometer 279 “Poverty and Exclusion”, p. 63

The green coloured rows show which item was mentioned most frequently as ‘absolutely necessary’. Yellow indicates which item was second most widely regarded as necessity and red shows the items that got the third highest score.

Figure 6: Categories and sub-categories of the MIS study for household type

A food and non-alcoholic beverages
   A1 food
   A2 catering
B alcohol and tobacco
   B1 alcohol
      B1A alcohol at home
      B1B alcohol away from home
C clothing and footwear
D housing costs
   D1 rent
   D2 mortgage interest
   D3 water
   D4 council tax
   D5 household insurance
   D6 fuel
   D7 other housing costs
E household goods and services
   E1 household goods
E2 household services
  E2A communication
    E2A1 postage
    E2A2 telephone
  E2B childcare
  E2C other household services

F personal goods and services (inc health)

G transport
  G1 motoring expenditure
  G2 fares and other travel costs

H social and cultural participation
  H1 leisure goods
  H2 pets
  H3 entertainment and recreation
  H4 TV licence and rental
  H5 foreign holidays
  H6 UK holidays

**Source:** Centre for Research in Social Policy, Latest MIS Results
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