

## College of Management of Technology



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The Universal Postal Service in the communications area:
Adapting to changing markets and customer behavior

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#### **ABSTRACT**

This study is making the case that the Universal Postal Service as currently defined at the European level should be modernized. The European Union plans to liberalize and build up an internal market for postal services by 2009 with the aim to foster improved services and innovations in the postal sector to benefit the customer. This paper argues that the European Union has to improve it's Universal Service rules to take into account technological changes that increasingly shape consumer behaviour and in fact make the existing Universal Service Obligation (USO) obsolete. If the EU is to take postal innovation outside the existing USO initiated by postal operators and changing consumer behaviour into account then a new and updated USO has to be less strict and more encouraging of further innovative developments. Indeed, the fact that the postal sector innovates outside the USO shows that the market is fully capapble of catering for the needs of customers.

The study takes the perspective of a fully liberalized postal sector driven by the information and communication technologies. This in turn shall be supported by an USO that supports innovation and dynamicsm in the industry so to offer the customer the best service available.

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#### INTRODUCTION

The definition of the Universal Postal Service in Europe as defined in the Postal Directive 1997 basically reflects the situation of the 1990s (and before) as a codification of the services traditionally provided by the public posts those days and since then has never been critically reviewed, or questioned. However, we think that there is substantial room for review and improvement of the Universal Postal Service as historically defined, and this without any loss or decline of what the European citizens and customers want and need. Rather the opposite should be the case, as we think that a modernized Universal Postal Service would be much better in line with the European citizens and consumers' demands and needs. This study therefore develops the argument that the Universal Postal Service, as it is currently defined, can and must be modernized.

To recall, it is one of the key objectives of the European Union to guarantee and even to improve the Universal Service in each of the liberalized sectors. Indeed, EU citizens should, thanks to liberalization, be able to take fully part in Europe's economic and cultural life, and this regardless of their geographical location and of their socio-economic background. The Universal Service is of special concern in the case of the liberalized network sectors, where there is indeed always a possibility that some parts of the European population may actually not constitute a sufficiently attractive clientele, and therefore be left out of the services the market provides.

Thus, it is also the aim of the European Union to not only harmonize the European Postal market and generate efficiency, innovation, and economic growth thanks to competition, but also to guarantee a high quality Universal Service in the liberalized sectors, should such liberalization not lead to providing such services.

It is sometimes suggested that a further opening of the postal services market in Europe will lead to problems of providing the Universal Service. As a consequence, some say, Europe may be faced with the dilemma of either guaranteeing the Universal Postal Service while giving up its goal of further market liberalization or of continuing liberalization, yet giving up on its goal of guaranteeing the Universal Postal Service. We will argue that this dilemma need not be since it is perfectly possible to maintain Universal Services while liberalising the European postal market. This requires that the definition of the Universal Postal Service is adapted to the current state of the postal business as well as to the evolving needs of the European users, rather than left defined in a way that no longer corresponds to reality or to the citizens' needs and demands. As we will argue in this study, this redefinition will have to take into account the growing use the European citizens make of the information and communication technologies.

In other words, we argue that it is perfectly possible to further liberalize the postal sector while at the same time guarantee and even improve the Universal Service. It is even possible, we think, to redefine the Universal Postal Service in a way that it contributes to further stimulating an innovative and customer oriented European postal sector.

Empirically, our study is based on desk research, as well as on significant experience in the postal sector. Methodologically, we have first described the definition and the state of the Universal Postal Service in Europe. Then we have tried to extrapolate the recent evolution of the postal sector into the near future. In parallel, we have identified the main trends in the information and communication technologies and tried to assess, from there, what this means for consumer behavior in regard to postal

services. From there, we have combined the dynamics of postal sector evolution with the changing consumers' demands and needs. Finally we have confronted this combined postal dynamics and needs to the currently prevalent definition of the Universal Postal Service. It is this confrontation which allows us to propose what we think should be the future definition of the Universal Postal Service. This study is therefore essentially conceptual in nature.

This study is structured as follows: in a *first chapter*, we will briefly re-examine the basics and the issue of the Universal Postal Service as it is currently defined and also practiced in Europe.

In a *second chapter*, we will then present the transformation processes many of Europe's historical postal operators, as well as the postal sector as a whole, have been undergoing since the beginning of postal liberalization. We will show, in particular, that most of Europe's historical operators have not only modernized their operations and become efficient in the process, but that they also have significantly developed their products and services, and by doing so responded to the evolving demands of their customers, especially the business customers.

In a *third chapter*, we will analyze how the consumers' communications demands and needs have also evolved over time, and this as a combined result of the growing penetration of the ICTs along with substantial societal changes.

In a *fourth chapter*, we will define guidelines for a modernisation of the Universal Postal Service adapted to both the new reality of the postal sector and to the new communications' behaviours of the European consumers.

In short, we will argue that, also after full market liberalization, together with significant progress in the information and communications technologies, postal services will satisfy the demands and needs of most of Europe's customers today, and that this will be even more the case in the future. Nevertheless, there does remain a need to define a Universal Postal Service in terms of a safety net This should be done in a way that stimulates, rather than discourages, postal operators to increase their productivity, their flexibility, and their sensitivity to the consumers' evolving needs and demands.

#### 1. WHAT IS THE UNIVERSAL POSTAL SERVICE?

In this first chapter, we look at the Universal Postal Service as it is currently defined and practiced. More precisely, we will have a look into its "history" and evolution at the European level, analyze how the Member States have put it into practice, and derive from there both the main problems and the key principles of how the Universal Postal Service should look like in the future. This chapter thus constitutes the conceptual foundation of our study.

#### 1.1 The EU's definition of the Universal Postal Service

In the late 1980s and early 1990s the European Commission had launched a systematic analysis of the postal sector, building, in particular, on the observation of the importance of postal services as regulated services and its role for the European society and economy. This analysis followed and paralleled other similar analyses in key European network sectors, which were also to be modernized by gradually introducing and increasing competition (e.g. the telecommunications sector, the railways sector). Simultaneously, it aimed at guaranteeing a Universal Postal Service, so as to protect all customers in Europe, should liberalization lead to any problems.

The first important step towards this goal was its Green Paper in 1992, in which, for the first time, a European postal policy was outlined, the logic of postal market liberalization was spelled out, and the philosophy of Universal Service protection was defined. It must be remembered that, at that time, the postal world was basically divided into the "national public posts", i.e., the historical public operators on the one hand and the so-called "integrators" (e.g., Fedex, DHL, TNT, UPS), i.e., private efficient globally operating firms on the other. The "public posts" were mostly deficit-making and operating inefficiently, burdened with the legacy of state administrations. Competition was therefore not only considered a means for improving posts as a European infrastructure, but also a means for modernizing these public operators, forcing them to become more efficient, more customer oriented, and more innovative. Furthermore, it was well understood that the public posts needed a transition period so as to adapt to the new market conditions.

After a long discussion lasting five years, the Council and the European Parliament adopted the first Postal Directive in 1997, in which significant political decisions were taken and subsequently implemented, both in terms of liberalization and Universal Service protection. Member States have been heavily divided regarding speed and extent of liberalisation and as a matter of fact the 1997 Directive introduced a rather small step in terms of liberalisation by opening less than 3% of the public posts' receipts (average) to competition. Much more important in terms of liberalisation was actually the agreement on a schedule for "the further gradual and controlled liberalisation of the postal market" with a next step to come into effect January 2003.

As for the Universal Postal Service, this was defined as basically covering the traditional postal offer by the national public posts. Thereby, the Universal Service at the European level was defined in a way that allowed Member States to leave the national "public postal service" untouched. This analysis has most recently been confirmed by the Commission in its Second Application Report, describing the universal postal service as defined by the Postal Directive mainly as a codification of "pre-existing arrangements". <sup>1</sup>

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<sup>&</sup>lt;sup>1</sup> Commission of the European Communities, Commission staff working paper, Annex to the Second Application Report of the Postal Directive (Directive 97/67/EC), 23.03.2005, p. 12.

Politically speaking, for most Member States it did not seem opportune to liberalise the postal market to a large extent and in one step, while simultaneously reducing the scope of the public postal services. The definition on the Universal Service in the 1997 Directive thus reflects this uncertainty concerning possible impacts. Consequently, the opening of the market was planned only in small steps.

Furthermore, the definition of the Universal Postal Service as retained by the Postal Directive conceives the universal postal service as a right of access to postal services encompassing a certain range of services of a certain specified quality to be provided throughout the territory of a Member State at an affordable price. More precisely, the Universal Postal Service is defined by the services involved as well as criteria such as accessibility, frequency, quality of service, and price.

Table No.1: The Universal Postal Service as defined by the 97 Directive (Art. 3).

Range of services	Postal items up to 2 kg (items of correspondence, direct mail, books, catalogues, newspapers, periodicals)  Postal packages (parcels) up to 10 kg (or 20 kg)  Services for registered and insured items	
Accessibility	Density of the points of contact and access points according to the needs of users	
Frequency of clearance and delivery	One clearance and one delivery every working day and not less than 5 days a week	
Quality of Service (transit time)	In line with standards for intra-Community cross-border mail (D+3 85%)	
Prices	Affordable and so that all users have access	

In 2002 the Council and European Parliament adopted the Second Postal Directive. As suggested by the original proposal of the Commission, this Second Directive focused on liberalisation by further reducing the scope of the reservable area, but left out any reconsideration of the Universal Postal Service. And there is good reason to believe that any such discussion would have significantly delayed further progress in terms of market liberalisation.

Interestingly, the Commission in the Explanatory Memorandum referred to the postal market as being "at the crossroads of markets vital for the European economy, namely communications, advertising, and transportation/logistics, markets "largely open to competition and experiencing rapid development, driven by market demands and technological change". The Commission strongly argued for the need for the postal market to develop in harmony with the changes taking place in these markets and to keep pace with modernisation. As a consequence, the Commission argued for more liberalisation of the market, while the implications of this development on the universal postal service remained untouched.

In its First Application Report issued in November 2002, the Commission graphically presented the new understanding of the postal market and its strategic positioning as follows:.<sup>3</sup>

COM (2002) 632 final, 25.11.2002 (EC report on the application of the Postal Directive), cited by WIK, Main Developments in the Postal Sector, Bad Honnef, July 2004, p. 28.

<sup>&</sup>lt;sup>2</sup> Commission of the European Communities, Proposal for a European Parliament and Council Directive amending Directive 97/67/EC, Brussels 30.05.2000 (COM 2000, 319 final).

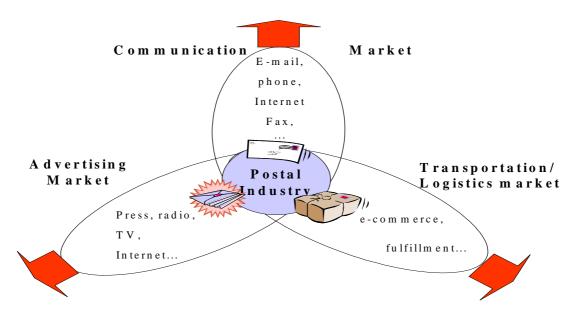


Figure No.1: The strategic location of the postal services market.

In its Second Application Report, the Commission's services elaborated somewhat on the relationship between postal services and the broader scope of communication and distribution markets, pointing to the opportunities involved but without any more in-depth analysis or considerations on the universal postal service.<sup>4</sup>

Nevertheless, in this report, and when referring to the coming debate on the future of postal policies, the Commission identified as the key issues to be addressed in the "third postal round" in particular the questions of "how to best promote the postal sector, how to ensure the financing of the universal service, and what kind of postal universal service is needed in the future". But let us also mention that, even if the question of the future Universal Postal Service has not really been raised yet at the European level so far, a discussion on this issue has however already started in some Member States (e.g., the Netherlands and the UK).

To sum up, the "European" definition of the Universal Postal Service goes back to the early 1990s (and even beyond), reflecting (or codifying) existing "public service" arrangements of Member States. Thereby, and certainly in light of the rather modest degree of liberalisation at that time, a quite extensive and a quite static definition of the Universal Postal Service was retained.<sup>5</sup> Also, it is important to consider that 15 years ago the use of new communication technologies was still very low as compared to today.<sup>6</sup> As a matter of fact, no one at that time could have foreseen the significant and even revolutionary changes in communication technologies that were experienced since the late 1990s. Therefore, any elaboration on the question of "what kind of Universal Postal Service is needed in the future?" as recently tabled by the Commission will have to take these developments into account.<sup>7</sup>

<sup>&</sup>lt;sup>4</sup> Commission of the European Communities, Commission staff working paper, Annex to the Second Application Report of the Postal Directive (Directive 97/67/EC), 23.03.2005.

<sup>&</sup>lt;sup>5</sup> Commission of the European Communities, Green Book on the Development of the Single Market for Postal Services, 11 June 1992, p. 2.

Telecommunication Indicators in the Eurostat Area by the International Telecommunications Union for Eurostat, 2001.

Commission of the European Communities, Green Book on the Development of the Single Market for Postal Services, 11 June 1992, p. 2.

## 1.2 Transposition by the Member States

In line with the principle of subsidiarity, the Postal Directive thus satisfies itself with setting rather general requirements for the Universal Service (see table No.1 above), whereas it is a matter for the Member States to specify these requirements. Not astonishingly then, one can identify significant diversity when it comes to the implementation of the Universal Postal Service in the different Member States (see Annex No.1 "Current definition of national Universal Postal Service obligations", which provides an overview of the different definitions of the Universal Postal Service in the Member States). Several observations can be made here:

- Our overview confirms that what was originally defined as Universal Postal Service in the different Member states is essentially a codification of the previous practices. For example, Member States requiring a 5 days instead of a 6 days delivery service (days/week) already did so before transposing the 97 Postal Directive.<sup>8</sup> And the same goes for Member States requiring 6 days services instead of 5 days services. The weight limits for parcel services (10 kg or 20 kg) provide another example.
- Whereas the vast majority of Member States do not distinguish between single piece mail and bulk mail, it is interesting to note that two members, the Netherlands and the UK have excluded bulk mail services (entirely or partly) from the Universal Postal Service definition.
- The reality in particular regarding the post office network is not really covered by legal provisions in the sense that, in practice, significant political constraints may well go beyond legal requirements (an example is Italy).

All in all, one can say that, within the framework of the Postal Directive, the transposition of the universal service requirements varies significantly between the Member States and may be basically explained by Member States' traditions in terms of public postal services.

## 1.3 Concepts, problems, and key features

This diversity is in fact very much in line with the European Union's tradition of subsidiarity. As a matter of fact, the European Commission refers to the concept of Universal Postal Service as being "fully compatible" with the principle of subsidiarity: "Where the basic principles of universal service are defined at Community level, the implementation of these principles can be left to the Member States, thus allowing different traditions and specific national and regional circumstances to be taken into account". Discussing a modern concept of universal service has therefore to consider the principle of subsidiarity.

Nevertheless, it is important to have a common concept of universal services. To recall, this concept has been developed specifically for network industries, first in the telecommunications sector, followed by the postal sector, and currently the electricity sector. The source of the universal service concept is the liberalisation undertaken in these industries previously and traditionally characterised by state monopolies. As such universal service is a key accompaniment to market liberalisation in the

<sup>&</sup>lt;sup>8</sup> Commission of the European Communities, Commission staff working paper, Annex to the Second Application Report of the Postal Directive (Directive 97/67/EC), 23.03.2005, p. 12.

<sup>&</sup>lt;sup>9</sup> Commission of the European Communities, Green Book on Services of General Interest, 21 May 2003, p. 16.

European Union. It is consequently conceptualised as a "saftey net" which aims at guaranteeing the availability of services in a liberalised market where the market do not satisfactorily provide services. More precisely, it seeks to protect the consumer in three particular dimensions, namely accessibility to the services, quality of the services, and affordability of the price of the service. In short, whereas the idea underlying liberalisation is that services are best provided by competition, the idea underlying universal service is to ensure the provision and availability of services where the market or competition does not serve.

It is important to distinguish the concept of Universal Service from the broader concept or notion of Services of General Interest covering wider public policy objectives, such as for example employment, environmental protection, regional development, and others more. In the case of the postal sector, an example for such Service of General Interest going beyond Universal Services is subsidisation of the press for cultural or politically reasons or requirements pertaining to public geographic presence. In other words, conceptualising Universal Postal Service as a safety net therefore constitutes a politically defined protection of a "market" demand not satisfactorily served by the market.

It is also crucial to point to the Universal Service as a dynamic concept.<sup>10</sup> It is commonly agreed that political, social, economic and technological developments have to be taken into account when defining the Universal Service.<sup>11</sup> Therefore the definition (not the concept) of universal service should be regularly reviewed in line with market developments so that it can be accordingly adjusted and modernized. Key to any such critical review is the question: who needs protection or where do the market dynamics not serve as socially or economically required?

To sum up, we can derive the following three considerations, which will all be important when defining a modern concept for the Universal Postal Service:

- First, there is a need to clarify whether the current definition of the Universal Postal Service is still appropriate, considering in particular the changes the postal and adjacent markets have been undergoing during the last decade and are most likely to continue to undergo in the coming years.
- Secondly, it will be important not to confuse the universal service with services of general interest
  as a much broader concept, thereby charging the universal service with policy objectives that have
  nothing to do with the universal service understood as guaranteeing the availability of a postal
  service in a liberalised environment.
- Thirdly, one has to be aware that regulation of universal service represents an intervention into the markets. One has therefore to watch out that an outdated definition of the Universal Postal Service does not lead to the wrong incentives.

When defining the Universal Postal Service in 1997 Framework Directive, the European Union basically codified pre-existing national arrangements. As for the up-coming debate on future postal policy one may therefore question whether today's Universal Postal Service is still adapted to the needs and demands of the consumers, and whether these specifics do not actually hinder future postal sector development and growth.

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Commission of the European Communities, Green Book on Services of General Interest, 21 May 2003, p. 16.

Commission of the European Communities, Directive 97/67/EC of the European Parliament and of the Council, 12.12.1997, Article 5 (last ident).

# 2. POSTAL SERVICES AS BUSINESS AND CONSEQUENCES FOR THE SCOPE OF THE UNIVERSAL SERVICE

In this chapter, we show how postal operators have adapted to a changing market, the lines along which competition is developing, and as a conclusion the consequences for the scope of the Universal Service. We highlight the substantial transformations Europe's historical postal operators - and therefore the entire European postal market - have been undergoing as a result of both liberalization and the systematic use of the information and communication technologies, ICT development has actually affected the postal sector in two different ways. On the one hand, it drives substitution of traditional mail by electronic communication, thereby causing a considerable decline in mail volumes. On the other hand, it also helps the historical operators adapt to change, both in process and subsequently in product innovation. This situation has matured to the point that it is possible today to clearly distinguish between various types of postal customers, each of which has and wants to be treated in its own right. Building on the arguments of the previous chapter, this new postal reality indicates that the Universal Postal Service can be redefined, as posts and postal markets have developed and are developing independently of and beyond the initial definition of the Universal Service.

As pointed out among others by the European Commission's Second Application Report, <sup>12</sup> the postal landscape has substantially changed as of the second half of the 1990s: most of the European incumbents have significantly restructured and modernized, many have been corporatized, and a few have even been privatized. Overall, the incumbents are now customer oriented, more efficient, and more competitive.

These changes have mainly been driven by the substitution of mail by electronic communication. Indeed, with the rapid growth of internet and e-mail, the share of mail in the overall communications market started to decline rapidly. Figure 2 clearly shows the contrast between the modest growth figures in the postal market and the huge growth in telecom and e-mail traffic.

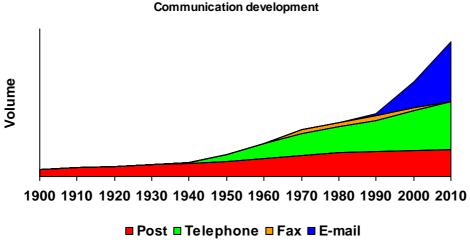


Figure No.2: Communications developments. Based on estimates of UPU and Institute for the Future.

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Commission of the European Communities, Report from the Commission to the European Parliament on the Application of the Postal Directive, COM (2005) 102 final, 23.03.2005, Brussels.

The European postal market is currently estimated at approx. €8 billion annually, or about 0.9 percent of EU GDP, with 5 million jobs directly and indirectly involved in the sector. <sup>13</sup> Furthermore, the initial postal sector has evolved into two or three directions or markets, and the postal operators currently play a significant role in the broader communications market (mail) and in the transport/logistics markets (parcels/express), as well as also in the advertising market.

As is usually the case in mature industries, modernization and innovation of the incumbents first focused on process and later extended to products. Without almost any exception, such postal modernization and innovation made substantial use of the ICTs. Today, it can be said that most of the historical EU15 postal operators have successfully mastered these challenges and become efficient and innovative firms responding to customers and market needs.

Let us make here a clear distinction of postal modernization as it has happened over the past years approximately: in a first stage historical postal operators have started to make systematic use of the ICTs so as to modernize both their logistics and their relationships with their customers. This has to be distinguished from a second stage, characterized by the systematic ICT uptake on the part of both business and individual customers, which in turn has forced the postal operators to respond in terms of new products and services. This second stage also coincides with a much more integrated and much more liberalized postal market, as well as with a redefinition of the entire postal sector, which increasingly spans from communications to logistics, and beyond. In short, if the first stage can be characterized mainly by process innovation, the second one can be characterized by product and services innovations, as well as by an evolution and to a certain extent integration of the postal market into the communications and the logistics markets.

Though there are still significant differences among the European historical postal operators when it comes to modernization, most of them have already engaged in process innovation and a significant number of them have also made product and services innovation which is ongoing and still expanding.

#### 2.1 Process innovation

This section aims at illustrating some of the major process changes the historical postal operators have been making over the past years, many of which have been achieved thanks to the systematic use of the ICTs. This has led to significant efficiency gains for most of the incumbents, a development which, in turn, has stimulated the market.

Of particular interest here is the way the historical operators have made use of the <u>ICTs</u> when innovating: let us mention, in particular, the tracking and tracing technologies, as well as other investments into improving speed and quality of the postal service, such as for example high tech sorting centres. Indeed, thanks to the ICTs the historical postal operators have managed to simultaneously achieve several goals, namely efficiency gains in the production process, speed and faster delivery times, as well as significant quality improvements. Today, most European historical postal operators do make active and systematic use of the ICTs in their production processes, and such improvements in the production process have also led to new products (e.g., tracking and tracing).

<sup>&</sup>lt;sup>13</sup> Ibid. p.2.

Like in all other sectors that have opened up to competition, the customers have overall profited and the market has been stimulated and to a certain degree integrated at a supra-national level.

#### 2.2 Product Innovation

However, improving the postal production process is only one part of the picture. The other part is constituted by the transformation and improvement of the postal products, which took place at about the same time, and which, again, made significant use of the ICTs.

To recall, in the early 1990s, and up to today, many warned that letter mail would become obsolete, as new ICT-based substitutes – especially electronic mail and more generally the internet – emerged. Postal services, it was argued, was now a declining industry. Especially the substitution of letter mail was considered an existential threat to postal companies for instance, threatened by new communication technologies such as emails and short-messaging services (SMS) with mobile phones, because letter mail still contributes 60 percent of the revenue of postal operators in industrialised countries. <sup>15</sup>

However, it turns out that next to being substituted by the ICTs, the postal sector has also managed to turn the ICT threat to its advantage. Historical postal operators have developed attractive new services which make much more active use of the ICTs. For example, Posts now offer all kinds of services that can be accessed via the internet.

#### Some examples of new services:

- online application to design and send direct mailings (including the online sale of mailing addresses),
- online ordering of all kinds of material, including stamps with the design and business logo of the customer,
- online shopping for stamps, envelopes, packaging material, letterboxes, storage and forwarding of mail, to different addresses and on different delivery days,
- integration of physical and non-physical mail through a dedicated, customized web-site (e.g. the mail is presented electronically and the customer may choose what he wants with it: deliver, archive, print, delete. Also other services are possible here like payment of bills),
- address changes (forwarding mail and also informing mailers about the address change),
- instead of trying to deliver the parcel in a standard way (irrespective whether the customer is at home or not) the recipient receives a notification through email or SMS with several delivery options (e.g. to dropoff points with 24-hours availability).

Finally, there are also more flexible options for package returns, payments, and others more.

The Universal Postal Union (UPU) has created the term "*e-post*" to characterize the fact that the ICTs can and are being used to generate new postal business in the form of new services and perhaps even new postal business models. Rather than simply transporting letters and parcels from A to B, the ICTs do indeed offer significant new possibilities to add value to such transport, and, by doing so, to help the historical postal operators become much smarter, as well as more customer focused. As a

<sup>15</sup> Universal Postal Union (2004), *Postal Market 2004 – Review and Outlook*. Bern, p. 5.

<sup>&</sup>lt;sup>14</sup> Nader, Fouad H, Mail Trends, Stamford, December 2004, p. 1.

<sup>&</sup>lt;sup>16</sup> Universal Postal Union (2004). Guide to Postal Reform – Module I – Foundation for Reform. Bern, p. 8.

result, the traditional postal services, says the UPU, evolve as follows:<sup>17</sup> traditional letter mail evolves into messaging services, parcels evolve into ICT-supported logistics services, and numerous new services and business opportunities emerge for the historical postal operators, taking the form of value-added services (e.g., express, certification, etc.). It remains to be seen whether these propositions will hold up in the market, but at least they generate a certain dynamics of innovation within the historical operators, which is already positive in itself.

So, next to decreasing the amount of mail sent caused by substitution, the internet and other new technologies could also increase the amount of mail sent and the ability of the historical operators to use them to their own advantage. According to Nader, for example, new possibilities such as customer relationship mail or election-related mail have enabled the postal industry to protect the volume of letter mail. Nader believes that whatever substitution was expected has already happened, as in fact email as a technology is not anymore a new communication mode but really one of the 1990s. Consequently, one should not expect more substitution to happen as those who wanted to move over from letter mail to electronic mail have already done so. Indeed, Nader goes so far as to suggest that new technologies like e-mail may even hurt telephone calls more than traditional mail.

However, this may be a too optimistic assessment, as substitution of transaction mail like bank statements is still in progress given the increasing use by consumers of e-banking. When it comes to direct mail (advertising mail), as in contrast to correspondence mail, it seems that new technologies are in fact increasing the volume of such mail as even new internet companies have to advertise for their products before they can win any customers.<sup>21</sup> In short, we can distinguish here three subsegments of letter mail, each of which is affected differently by the ICTs. The first sub-segment is correspondence mail and it is quite likely, as we have shown above, that substitution has, to a large extent, already happened, given that email is not anymore a new technology. The second sub-segment is transaction mail, where volume will certainly continue to decrease as a result of the increasing use of e-banking and electronic bill presentment. The third sub-segment is advertising (direct) mail and this sub-segment is clearly profiting from the emergence of new communication technologies.<sup>22</sup>

As a result, therefore, traditional postal services clearly evolve into two main directions, namely from mail messaging services on the one hand and from parcels to logistics services on the other:

• Mail to messaging services: whereas in the past a postal operator would only collect and deliver simple letter mail and other printed matters, he is now using information technologies so as to offer hybrid mail, as well as messaging services. Since most printed matter can now be digitalized, it becomes possible to send such communication via the internet or even the mobile phone. For postal operators, hybrid mail appears as a new opportunity: customers, mostly businesses, but in principle also individuals, can compose a letters or other publications and send their digital copy to the postal

Nader, Fouad H, Jimenez, Louis, *Substitution Patterns*, *Substitution Patterns*, Background Paper No.5, Stamford, April 2005, p. 3-4.

<sup>&</sup>lt;sup>17</sup> Ibid. p. 9-10.

<sup>&</sup>lt;sup>19</sup> Ibid. p. 15.

<sup>&</sup>lt;sup>20</sup> Ibid. p. 21.

<sup>21</sup> Ibid.

<sup>&</sup>lt;sup>22</sup> Michael J. Critelli, The Global Mailstream: Separating Myths from Realities, presentation 20 Jan 2005.

operator who then will print and deliver it to the recipient. Tracking and tracing technologies allow the customers to know where their mail item is at during each step of the process, and receive confirmation when it is received. Other added value services here constitute mail room management services, printing, packaging, and others more.<sup>23</sup>

• Parcels to logistics services: similar developments of course also apply to parcel services. But unlike mail, parcel services are slightly growing, both because parcels cannot be substituted electronically and because the use of electronic communication actually generates parcels traffic. And indeed it appears that the customers are perfectly willing to pay for efficient and reliable parcel services, as illustrated by the rapid growth of online stores, which subsequently use parcels and express operators to deliver their products. Further proof for the efficiency of postal operators is the fact that companies increasingly outsource their entire logistics chain to postal or logistics operators, who now not only collect and deliver parcels but increasingly also take responsibility for storage, forwarding, as well as for reverse logistics. Again, the postal and other logistics operators have managed to successfully take advantage of the ICTs, expand their products and services, and by doing so acquire new, mainly business customers. The emergence of e-commerce is only strengthening this process and opening up new business opportunities to postal companies.

In short, the proactive and systematic use of the ICTs by the historical and other postal operators in both product and process innovation has enabled them to face the threat of substitution in the mail segment and to actually take advantage of the internet and corresponding customer behaviour in the parcels segment of the market. In both cases, this has been achieved thanks to the fact that, through the ICTs, value has been added to the traditional mail and parcels services. Obviously, a modern definition of the Universal Postal Service should encourage, rather than hinder such initiatives and developments.

It is questionable whether deregulation of the postal sector has actually played a significant role in these developments. Rather, we think that growing competition from new entrants in the parcels sector, as well as technology competition in the mail sector have stimulated both markets and the market operators. Furthermore, the growth, especially of these value added postal services, illustrates that customer demands have successfully been met, and this without any additional obligation put by the public authorities on the historical postal operators. Rather, the Universal Postal Service Obligation as initially defined increasingly appears at odds with this dynamic evolution of postal products and services.

In other words, it clearly appears that the historical postal operators, at least in Europe, are adapting to the changing demands of the customers, and this without any additional public services obligations. On the other hand, this does not necessarily mean that the historical Universal Postal Services Obligations are obsolete. Rather, it simply indicates that postal operators can and do adapt to the changing and evolving customer demands when given the opportunity to do so by means of a commercial approach.

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<sup>&</sup>lt;sup>23</sup> Trust, identification, certification, authorization, electronic passport delivery, etc, are key characteristics of the Posts (historical operators) which could allow of the development of a new business.

## 2.3 Postal services user groups and their evolving needs

In adapting to their customers' demands, postal operators, like any other market-oriented operators, have increasingly come to segment their customers. Thus, in this section, we will identify the main user groups of current postal services, and discuss their potential needs for Universal Service protection. We will distinguish here between the individual customers (households) and the business customers, and we will distinguish two main types of products, letter mail and parcels. Subsequently, we can identify four main basic market segments, namely C2C, C2B, B2C, and B2B.

- <u>C2C</u>: overall, it appears that what household customers send to each other in the industrialized countries actually is only a small fraction of the postal market. In a recent study dated from 2003, C2C postal traffic is only 8% in terms of letters and 10% in terms of parcels.<sup>24</sup>
- <u>C2B</u>: This is a form of postal communication where individuals send letter mail and parcels to businesses and other official bodies (e.g., authorities, other non-private households). Here the share of letter mail sent by private households to businesses and other non-private addressees is 7 % of total volume.<sup>25</sup> In the parcels business the share of consumers sending such mail to non-private households is 5 percent within the European Union.<sup>26</sup> As such C2B constitutes the smallest share of the postal market.
- <u>B2C</u>: On the other hand, it is the inverse traffic which constitutes by far the biggest share of the postal market with 51 percent for letter mail sent by firms to individuals and 60 percent for parcels sent by businesses to private households.<sup>27</sup>
- B2B: Finally, postal traffic among business themselves constitutes 35 percent of total mail volume in industrial countries, and parcels sent between companies constitute 25 percent of the total mail volume in European Union countries.<sup>28</sup>

Table 2: Market segments by types of customers (case of the Netherlands).

Sub-segments	Letters (Industrialised Countries)	Parcels (European Union)	
Business to business (B2B)	35%	25%	
Business to consumer (B2C)	51%	60%	
Consumer to business (C2B)	7%	5%	
Consumer to consumer (C2C)	8%	10%	

Note: numbers indicate percentages of overall mail volume.

Source: Concurrentieontwikkeling in the postmarkt: verwachte effecten in een viertal scenario's, Ecorys, Rotterdam, 2003.

<sup>26</sup> Ibid.

Concurrentieontwikkeling in the postmarkt: verwachte effecten in een viertal scenario's, Ecorys, Rotterdam, September 2003, p. 14.

<sup>25</sup> Ibid.

<sup>&</sup>lt;sup>27</sup> Ibid.

<sup>28</sup> Ibid.

The figures above show that businesses constitute by far the largest group of senders of letter mail with 86 percent and of parcels with 85 percent of total mail volume in the industrialized countries. In short, what we observe here is a clear dominance of direct mail. These figures are confirmed by similar figures from postal operators, which show that approx. 80% to 85% of both volume and turnover stem from business customers, be it in parcels or in letter mail.

## 2.4 The development of competition in a liberalized market

The overall objective of liberalization in the postal sector and elsewhere is to introduce competition. One can observe that competition in the parcels market has indeed been created in Europe over the past 10 years or, leading the historical operators to lose significant market share. In other words, competition in the parcels market is working and will still increase in the future, though we probably will observe, as in all other liberalized network industries, a concentration process in the future.

Concern has been voiced about competition in the letter market. Indeed, historical operators so far generally remain in control of 90% or more of their national letter market, and in countries where monopoly protection of the historical operator has been abolished competition did nevertheless only emerge on small scales. Nevertheless, we can observe interesting experiences in several European countries, which show that, to the extent end-to-end competition has been allowed over the whole or part of the sector, competitors have been able to launch profitable operations even on a small scale. There are quite some examples in this respect. CityMail is successfully operating in densely populated area's of Sweden. EP Europost is rapidly expanding its network for unaddressed delivery across Germany and is currently turning this into a network for addressed mail delivery. Selekt Mail and Sandd are doubling their turnover year after year in The Netherlands and are operating profitably in the direct mail segment. TNT UK has just started to gain market share in Great Britain.

Without exception, these new market parties choose a substantially different business model than the historical postal operators. The presence of multiple mail streams (e.g., correspondence mail, transaction mail, advertising mail) with different service requirements means that competitors have a number of potentially successful entry strategies to choose from. Entry can begin on a small scale, for instance by targeting certain customer segments (large mailers), certain regions, certain types of mail, etc.

Due to the fact that a large proportion of the business mail does not require the service levels as defined by the current Universal Postal Service requirements, new entrants do not have to set up collection, transport, sorting or delivery facilities – if at all – at the same scale as the incumbents. Consequently, competitors can have very different cost structures and are for this reason able to reach profitability quickly.

Most of large mailings are sorted in cooperation with the mailer: address databases are sorted and mail items printed on distribution sequence. If distributed once or twice a week, new entrants can combine mail volumes and rapidly attain economies of scale. And this, in turn, significantly reduces costs of delivery, even with a relatively small volume. Consequently, and thanks to such new business proposition, market entrants already are and increasingly will be able to acquire substantial mail volumes, which in turn will have a significant impact on the market. But over time, it can be expected that these new entrants will expand their business also to other, more complicated mail streams. Once a distribution organisation is established, extra volumes can be added with only limited extra

complexity and costs. In other words, although new market players will never start with a full-service concept, it is to be expected they will gradually migrate towards it.

On a more theoretical level, let us recall that the postal sector is not a network industry in the narrow sense of the term: therefore, there are no physical monopolistic bottlenecks, which would prevent market entry. "There is consensus amongst economists that while some segments of the postal sector are characterized by considerable economies of scale, there are generally no natural barriers to entry in the form of monopolistic bottlenecks. In other words, each and every element of the incumbent's business can be duplicated."<sup>29</sup> Thus, as new entrants and competitors more generally become more experienced, they will gradually enter the mail market, as for example confirmed in Germany, the Netherlands, the United Kingdom, and Sweden.

As a result of the postal market moving away from urgent, two-way communications (see also chapter 3), and in the absence of any natural entry barriers, a large section of the postal market will be accessible after full liberalization. Currently, regulatory uncertainty regarding the conditions under which access to the Universal Service Provider's delivery network will be possible or available, probably makes potential competitors for end-to-end services reluctant to invest, thus limiting the development of competition. In short, also in the mail market competition is mostly to grow, even though it is unlikely that a full-fledged end-to-end competitor will enter any given country. Competition will therefore grow in a stepwise manner, and competition regulation, rather than sector specific access regulation for example, is likely to suffice.<sup>30</sup>

Admittedly, business customers are well served by the liberalized market. One may therefore legitimately question whether business customers – i.e., bulk mail – are in need of a Universal Postal Service protection, as is currently the case in some countries. Indeed, business customers would obviously not send for example advertising mail or parcels if there would be no commercial reason for doing so.

In short, one must conclude here that in an increasingly competitive market customers are being segmented. Like in any other commercial activity, postal operators are thus catering to the needs and demands of the customers. Generally, postal operators, like any other business, are most responsive to the business customers, who most often have a choice. Having such bargaining power, it is our opinion that the business customers do not need consumer protection in general and a postal safety net in particular.

## 2.5 Consequences for the scope of the Universal Postal Service

Let us examine, in this last section, what this all means for the Universal Postal Service. As shown above, the historical postal operators have substantially modernized over the past 15 years, and this mainly as a result of a combination of market pressure and competition from the other communication media (fax, telephone, and most recently the internet). In particular, they have modernized by making systematic use of the ICTs in both process and product improvements and innovations. In doing so,

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Bijl, P., van Damme, E. & P. Larouche (2005). *Light is Right. Conditions for Competition and Regulation in the Postal Market*. Tillburg: TILEC (Tillburg Law and Economics Center), Tillburg University.

<sup>30</sup> Idem.

they have not only come to understand their customers better, but they have come to adapt to their customers needs and demands. In particular, they have identified and responded to their business customers, often under the pressure of specialized competitors who precisely target the same business customers.

One can therefore say that, today, the large businesses are well served by market parties. For this reason, in a liberalized market it is not necessary to include businesses – i.e., bulk mail – in a Universal Postal Service protection. Or, in other words, business customers do not need, in our opinion, the protection of a postal safety net.

However, there remains clearly a market segment that is not attractive to competition: this is the segment of single-piece postal items (letters and parcels), i.e., the mail sent by individual households (and small businesses). The challenge here for the new entrants is not so much to establish a large scale collection organisation, but to compress the operational processes in a 24-hours time schedule. In addition, the total mail volume is generally too small to achieve economies of scale in distribution. For example, the Dutch competitor Sandd, which expects strong growth, explicitly states that it has no plans to develop a J+1 service for consumer mail.<sup>31</sup> Therefore, it is our opinion that small consumer mail and parcels should continue to be protected by the Universal Postal Service, and thus constitute the essence of the new postal safety net.

In short, this chapter has highlighted how the historical postal operators in particular and the postal industry in general have successfully adapted to the customers, notably because of systematic use of the ICTs in both process and product innovations. Furthermore, we have introduced a distinction between parcels and letter markets and shown that competition varies significantly across these two markets. We have also highlighted that the vast majority of the mail stems from business customers. Economic research provides evidence that business customers do not need to be protected by a Universal Postal Service Obligation, whereas individual households and small business customers continue to need protection.

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<sup>&</sup>lt;sup>31</sup> IGH Management Consultants (2003). Marktontwikkelingen en praktijkcases tonen toegankelijkheid van de Nederlandse postmarkt aan. The Hague.

#### 3. CHANGING CONSUMER DEMANDS AND NEEDS

So far, we have seen how the postal operators have adapted to the changing market and customer needs. In this chapter, we want to go further and place the evolution of the postal market within an even broader dynamics. Indeed, the dynamics that drive and underlie such postal sector transformation can und must be studied in their own right. We have seen that, in the postal sector for example, a significant amount of the changes are driven by the ICTs and their adoption by the historical operators. However, the ICTs are not just affecting firms. Moreover, they are also affecting the behaviour of the citizens and consumers – their demands and their needs –, be it in postal or other matters. Therefore, this chapter will outline how the ICTs affect consumer behaviour and through consumer behaviour the demands and needs of the citizens when it comes to postal matters. In a first section we will identify the underlying drivers of such changing consumer behaviour and then derive from there their new demands and needs in terms of posts. Finally, we will link this to the evolution of the postal sector more generally.

## 3.1 Overall drivers of change

Building on the observations of the previous chapter, we think that the ICTs are indeed a major underlying driver not only of posts, but more generally of all the network services. This in turn has to do with the fact that, as a result of ICT developments and take-up by the consumers, behaviour patterns will be significantly altered, a process which will not leave the postal sector unaffected. More precisely, we want to distinguish and present here three underlying drivers of the future consumers' behaviour, namely ICT technology, EU policy (i.e., the systematic effort of the Commission – in particular DG Information Society and Media – to promote technological developments, to develop eservices, and most importantly to redefine the Public Service of the EU in terms of "e- ..."), and cultural changes (mobility and the need for ubiquitous access, individualism, etc.). These three drivers are interconnected, and together will shape what the future behaviour of the European citizens will look like, be it postal and other matters.

#### 3.1.1 Technology

The main driver of changing consumer demand has without doubt been the development of the ICTs and their subsequent take-up by consumers in Europe and the world. In this section, we will examine some key indicators, so as to show that Europeans are now widely using these new communications technologies whereas old communication modes such as fixed line telephony and postal mail is stagnating at best and in the case of letter mail in a process of modest decline.

According to the European Commission, the value of the electronic communications market in the European Union (EU25) has increased from a total of €226 bn to €277 bn in 2004 alone.<sup>32</sup> The Commission also states that due to innovation in mobile and broadband services, the sector will grow faster than normal GDP for the EU25 for the foreseeable future. For our purposes it is important to

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European Electronic Communications Regulation and Markets 2004, European Commission, December 2004.

note that the Commission speaks of a united electronic communications market<sup>33</sup>. In our view postal services constitute part of this wider communications market and should be added here.

#### **Personal computers**

According to Eurostat, in 1990, all in all just 26m personal computers were in use in the then European Economic Area, which includes the EU15 plus Iceland, Norway and Switzerland.<sup>34</sup> With a population of 370m this corresponded to a penetration rate of only 7 percent. By 1999 the number of personal computers had almost increased five-fold to 99m. This meant that almost 26 percent of all Europeans were using a computer. In 2003, the last year before the EU expanded to Central and Eastern Europe, 142m personal computers were on the desks of Europeans, a 35 percent increase as compared to 1999 and an increase of over 446 percent (!) as compared to our base year of 1990.

#### **Internet**

The use of a new technology like the internet has shown a similar fast rate of growth in the European Union. Whereas in the year 2000 there were almost 87m internet users, that number had increased within 3 years to 151m.<sup>35</sup> Another statistic supporting this is the amount of internet hosts used on the web. According to the ITU this figure increased from 43m in 1990 in the EEA area to 9,227m in 1999 and doubled again until 2003 to 17,674m.

#### **Fixed telephony**

Main fixed telephone lines in the EEA area<sup>36</sup> (prior to EU enlargement in 2004) increased from 159m in 1990 to 210m in 1999<sup>37</sup>. This amounted to an increase of 32 percent over the period. This is quite remarkable, as the fixed line telephony market is actually a very mature market.

#### Mobile telephony

The market for mobile telephony has grown from 3.4m subscribers in 1990 to 93m subscribers in 1998. In 2003 this figure had reached 333m corresponding to an increase of 257 percent as compared to 1998. For the period 1990 to 2003 the growth in subscriber numbers is actually over 9,600 percent! Equally, the ten new members of the EU that joined in May 2004 (Cyprus, Czech Republic, Slovakia, Poland, Hungary, Malta, Slovenia, Lithuania, Estonia, and Latvia) have shown strong growth in mobile phone user figures. Here the numbers have increased from 5.4m in 1998 to 45.7m in 2003. The growth rate with 744 percent was even higher than for the comparable time period of the old members where growth has been "only" 257 percent.

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<sup>33</sup> Ibid.

Telecommunication Indicators in the Eurostat Area by the International Telecommunications Union for Eurostat 2001

Internet statistics provided on the web pages of the International Telecommunications Union, <u>www.itu.int</u>, 2005.

<sup>&</sup>lt;sup>36</sup> Includes Switzerland.

<sup>&</sup>lt;sup>37</sup> Telecommunication Indicators in the Eurostat Area by the International Telecommunications Union for Eurostat, 2001.

#### **Broadband connections**

According to the European Commission, also the broadband sector has grown rapidly between 2002 and 2004 by increasing the number of broadband fixed lines from 8.8m to 29.7m in this period. This corresponds to an increase in 236 percent within only two years.

At a penetration rate of only 6.5 percent for the EU25 the level of deployment of this new technology is very low and therefore (and based on past experience of adoption of new technologies) can only be expected to go on growing very rapidly.

Table No. 3 summarizes the above information.

	Computers	Internet users	Internet hosts	Telephones	Mobile phones
1990	26	Na	43	159	3.4
1999	99	87*	9,227	210	93**
2003	142	151	17,674	220	333

All data in millions. \*data for the year 2000, \*\*data for the year 1998.

Source: International Telecommunications Union, www.itu.int

The above table, as well as all other figures indicate that the behaviour of the European citizens in matters of communications are changing rapidly, and that they are likely to further evolve in the years to come. But, more importantly than what these figures show for 2002 or 2005, for example, is the trend, the speed, and the ICT coverage of all aspects of society. ADSL and soon VDSL expands rapidly to constitute a formidable standard of high-speed processing for all businesses and a considerable proportion of individual consumers, not to speak of expanding means of information processing and Internet communication accessible from within public space. Wireless options, also rapidly growing and changing, promoted by a variety of stakeholders private and public may stimulate this competition towards even higher expectations and diversity of services. Mobile telephony, on the verge of becoming more important than fixed telephony, is likely to merge soon with wireless.<sup>38</sup> Young customers and even customers who could not have dreamt of affording buying a computer will access Internet-based services. Other contenders may seem to make the picture more complex: new generation of fiber optic cable implementation and also powerline distribution, Hyperlan-type of solutions for indoor continuations, standards for mobile communication, etc., are just competing/converging towards new levels to pervasiveness.

As for usages, pioneering domains such as e-administration, e-banking, e-custom, e-health in particular, have helped build the information society, which is everyday more pervasive and ubiquitous. For businesses, using these facilities is common practice and the individual consumer is following. More sophisticated designs will boost overall effectiveness (grid computing, peer-to-peer communication, universal cards, etc.) which are already part of the menu for the coming years. The level of expertise to make best use of these tools is increasingly trivial and more and more considered as normal knowledge.

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See for instance: Jenett (2004), January 8, 2004, in The Digital Web magazine, <a href="http://www.digital-web.com/articles/ip\_rules\_convergence/">http://www.digital-web.com/articles/ip\_rules\_convergence/</a>, as well as Ahmad (2005) on multi-standard convergence, The Shosteck Group study (2004) or Zeng, Yen, Hwang & Huang (2003).or even Reding (2005) report to the Commission on the issue of convergence.

In short, the information and communication technologies and their uptake by the citizens and the businesses of all industrialized countries are exponentially growing. It is not possible that these technologies will not affect the behaviour of the citizens and businesses in postal matters in the years to come. Though exact figures are lacking, one may think that citizens and businesses will more and more be turning to electronic means, at least when it comes to urgent communications.

#### 3.1.2 EU policy

On top of the above technological developments, the European Commission has an explicit policy to promote the use of the ICTs, so as to make the European Union both more competitive internationally and to create jobs and growth. In this regard, it makes sense to focus on the so-called Lisbon process as the most recent and also most comprehensive EU project.<sup>39</sup> In this Lisbon strategy, the European Commission sets out 10 points, so-called "Central Policy Areas", which identify these issues that have to be addressed by the European Union in order to become a competitive economy creating jobs and prosperity for its citizens.<sup>40</sup> The following three policy areas seem to be particularly relevant in our context.

- Extend and deepen the internal market: the completion of a single European market is a key policy area of the European Union and one of the core reasons for the entire European integration project. There is clearly merit in thinking that a large European market would not only increase competition and thereby lower price and increase quality for the consumer, but also that a large home market is necessary to help European companies (large or small) to become ready for a globalized future. In the view of the Commission one can clearly find the idea that there should be a functioning European postal market, even though it is not entirely clear how such a postal market relates to the communication and the logistics markets.
- <u>Develop and improve European infrastructures</u>: the expansion and improvement of infrastructures is obviously a necessity to create markets at all. Without a well functioning infrastructure it is not possible to bring supply and demand of goods and services as well as people together. The Commission very much believes that liberalization of so-called network industries is the main instrument of this policy. However, the Commission's strategy to develop European-wide infrastructures does not include the postal sector. Indeed, the Commission distinguishes a communication infrastructure as well as a transport infrastructure, but not really a postal infrastructure.
- <u>Facilitate innovation and the uptake of the ICTs:</u>

  the European Commission believes that the use of information technologies will help increase productivity, but also improve the services for the citizens. Thus the Commission promotes e-Europe, e-services, e-government, etc.

  42 Obviously,

Lisbon Action Plan incorporating EU Lisbon program and recommendations for actions to member states for inclusion in their national Lisbon programs, European Commission, February 2005, Brussels.

<sup>40</sup> Ibid

See for the WEF review of the Lisbon process: <a href="http://www.weforum.org/site/homepublic.nsf/Content/Global+Competitiveness+Programme%5CLisbon+Review">http://www.weforum.org/site/homepublic.nsf/Content/Global+Competitiveness+Programme%5CLisbon+Review</a>

See <a href="http://europa.eu.int/information-society/eeurope/2005/index-en.htm">http://europa.eu.int/information-society/eeurope/2005/index-en.htm</a>, the eEurope website, its past accomplishment and state of affairs, on such Information Society promoting areas as broadband, e-learning, e-government, e-business, e-health, e-inclusion, digital rights management. In particular, it is worth discovering the 2010 challenges as the eEurope programs sees them: <a href="http://europa.eu.int/information-society/">http://europa.eu.int/information-society/</a>

when promoting such e-Europe, the Commission is not thinking of the postal sector as a vehicle. However, quite clearly, the postal sector as envisaged in this study would fit the overall framework of eEurope 2005.

In other words, the European Commission does have a clear vision of how to promote the global competitiveness of the EU. This competitiveness is best fostered, among others, by the promotion of an internal market, the development of efficient infrastructures, and the promotion of EU-wide services. In all three dimensions, the Commission heavily relies on the ICTs: they are not only there to increase efficiency and competitiveness of the firms and by doing so promote an internal market, they are also instrumental to making the infrastructures more performant, and finally they are key for a new type of European-wide e-services. However, a closer analysis shows that the postal sector is not well considered in this overall endeavour: at best it is a market, if the postal market is not diluted into the communication and the logistics markets. Therefore, it is not astonishing that the current definition of the Universal Postal Service is not forward but rather backward oriented, as we have seen in chapter 1. In other words, what the EU promotes is in essence ICTs and their systematic uptake by businesses, governments, and consumers (see also for that Reding 2004). We suggest that, in the future, the postal services are fully integrated into this overall picture of promoting the European information society.

#### 3.1.3 Cultural change

The third and probably most important driver of changing consumer behaviour is culture. Without consumers changing their behaviour, it would in fact be impossible for the EU or national governments to push for ICT uptake and e-Europe, for example. Therefore, in this section, we will especially look at the usage of the internet in Europe which may serve as an indication of underlying cultural change. Besides academic literature, we will also refer to more practical studies so as to examine the impact of the internet on the consumers and their behaviour. The United States will be used as a reference simply because Americans are ahead of Europeans when it to comes to internet use, and this is of course something the European Commission precisely wants to change through its Lisbon process. Moreover, American data will be compared with German data, as Germany seems to have an average internet usage profile.<sup>44</sup>

According to economist Hal Varian, "every now and then a technology, or set of technologies, comes along that offers a rich set of components that can be combined and recombined to create new products. The arrival of these components then sets off a technology boom as innovators work through the possibilities" The internet is clearly such a technology that has completely transformed the lives and cultures of individuals in industralized countries. Therefore, indeed, it is a technology that has

<u>eeurope/ i2010/index en.htm</u>, both with expanding new possibilities in several of the above-mentioned domains, as well as key problems to be solved, socially speaking.

Hearing of European Commissioner designate for Information Society and Media-Speech, Viviane Reding, 29 september 2004, <a href="http://www.openforumeurope.org/index.php?option=com\_docman&task=doc\_download\_&gid=70&Itemid=102&mode=view">http://www.openforumeurope.org/index.php?option=com\_docman&task=doc\_download\_&gid=70&Itemid=102&mode=view</a>

Federal Statistical Office Destatis, Informationstechnologie in Haushalten 2003, Wiesbaden.

<sup>&</sup>lt;sup>45</sup> Hal R. Varian, Economics of Information Technology, Berkeley, July 2001, downloaded from <a href="http://www.sims.berkeley.edu/~hal/Papers/mattioli/mattioli.html">http://www.sims.berkeley.edu/~hal/Papers/mattioli/mattioli.html</a>

been taken up vigorously and maybe even euphorically by consumers in Europe, as if it was a technology that the population just waited to be invented. Unlike many other technologies, such as for example the mobile phone, which simply have displaced previous technologies and practices, the internet seems to be different in that it does not replace cultural behaviour, but rather exacerbate it. Internet users, for example, read more books and newspapers, visit museums more often and even play sports more frequently. Obviously the internet as an interactive tool to communicate and receive and send information seems to have a beneficial effect on the social lives of internet users. Indeed DiMaggio et al. support the view that the increased use of email as a new form of electronic communication is not corroding social ties, but in fact strengthening those ties since it is now much easier (and cheaper) to stay in touch with family and friends.

In short, the internet already is and increasingly will provide new opportunities for different groups of society and allow them to participate in social and cultural life by individualizing their needs and habits. Neuman argues that the internet is an "interconnected network of audio, video, and electronic text communication that will blur the distinction between interpersonal and mass communications" and therefore will only strengthen changes in consumer demand". <sup>48</sup> The internet is the perfect medium that satisfies the needs of a highly fragmented and individualistic society and yet keeps this society together in the virtual world by giving its users the ability to coexist with others on the same platform. As we will discuss below, and if the above analysis of the internet is true, it will not replace postal activities, but rather change them.

After looking at the academic literature about the use and impact of the internet, let us now examine the specific purposes that this new medium is being used for. We identify three main functions for which the internet is being used, i.e., first the communications function (which includes information gathering), second the economic function (which includes all sorts of administrative issues as well), and finally the cultural function which will include all sorts of entertainment and hobbies conducted via the internet.

• Social function: in the United States 63 percent of adult Americans go online everyday and 58 million of them use some form of email service for communication. <sup>49</sup> Europeans are not far behind with 50 percent of all adults in the European Union using the internet. <sup>50</sup> 86 percent of households in the European Union now use emails as a form of communication. <sup>51</sup> According to surveys conducted by Pew between 2000 and 2001, i.e. at a time when the internet was still a new medium to use, already 65 percent of respondents said that the internet has helped them in their relationships with friends and for 56 percent the same has happened with their relationships with

Meyrowitz, Joshua, No Sense of Place: The Impact of Electronic Media on Social Behavior. New York, 1985, Oxford University Press, p. 93 ff.

<sup>50</sup> Federal Statistical Office Destatis, Informationstechnologie in Haushalten 2003, Wiesbaden.

<sup>&</sup>lt;sup>47</sup> Paul DiMaggio, Eszter Hargittai, W. Russell Neumann and John P. Robinson, Social Implications of the Internet, in Annual Review of Sociology, 2001, 27:307-36.

Neumann WR, The Future of the Mass Audience, New York, 1991, Cambridge University Press, cited from DiMaggio et al.

<sup>&</sup>lt;sup>49</sup> Pew Internet & American Life Project, <u>www.pewinternet.org</u>

EU Telecoms Services Indicators 2004, Ipsos for the European Commission, DG Information Society, Brussels.

family members.<sup>52</sup> For 19 percent of Americans the internet is a helpful tool to get to know new people. In Germany 80 percent of internet users have relied on email to communicate with one another according to the Federal Statistical Office. The internet has been used by 83 percent of American users for information gathering activities; in the EU the ratio is at 80 percent.

- Economic/commercial function: the internet also plays an important role in commercial activities for consumers both in the United States and in Europe. In the USA 61 percent of internet users have purchased a product online according to Pew.<sup>53</sup> According to the Statistical Office of Germany only 38 percent of Germans bought goods online in 2003, though this figure has increased sharply as compared to 2002 when only 28 percent did so. The figure for the EU stands also at 45 percent for the year 2004, with 60 percent of households using the internet to gain information on products and services. 52 percent of all American online users have made travel reservations in 2002 via the internet, whereas in Germany this figure stands at 36 percent for the year 2003. In 2002 30 percent of American users have conducted banking business online. Germans had been trailing the Americans in 2002 only slightly with 28 percent of them doing bank transfers online, this figure has risen markedly in 2003 to 35 percent. In the European Union this figure has increased to 41 percent of European households in 2004. When it comes to job hunting 47 percent of Americans online have used the internet to search for jobs whereas so far only 32 percent of Germans have used this medium.
- <u>Cultural/entertainment function</u>: let us now look at cultural activities of internet users in the United States and Germany to see what role the internet plays here. For example, 32 percent of Americans have downloaded music from the internet in 2002 whereas 25 percent of Germans did so in 2003 (corresponding figure for 2002 was 23 percent). In the United States 44 percent of users have used the internet to get hold of information about their favourite sport. 37 percent of American internet users have played online games. European households are very active in this field as well since in 2004 52 percent of them have used the internet for entertainment purposes. 53 percent of American users have used the internet for educational purposes in 2002 whereas 44 percent of Germans did so in 2003 (compared to 44 percent of all European households in 2004). Finally, when it comes to reading a newspaper online to get political or other information 40 percent of American internet users did so and 26 percent of German users read magazines and newspapers online.<sup>54</sup>

Be it for professional, entertainment or personal communication purposes, the internet appears to rapidly become a significant tool for the citizens and consumers of the industrialized countries. Probably, the consumers embrace this new technology very euphorically, most likely precisely because of its multi-functional qualities. Of course, Europe is tailing the United States in the use of the internet by a few years, but the stated aim of the Lisbon strategy is to precisely close this gap. However, the probability that Europe will catch up with the United States is very high, especially because the usage of mobile phones in Europe is already higher than in the United States. The marrying of wireless technology with WiFi and WIMAX technology, where Europe leads, will probably close the gap very rapidly. As we have seen in section 3.1.1. there is growing interoperability and convergence of all sorts of electronic and communication devices and therefore the

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Pew Internet Status 2005, to be found on <a href="https://www.pewinternt.org">www.pewinternt.org</a>

Pew Internet & American Life Project, America's Online Pursuits, December 2003, p.43.

<sup>&</sup>lt;sup>54</sup> All information to be found on <u>www.pewinternet.org</u> and on <u>www.destatis.de</u>.

creation of a single ICT based communication infrastructure. Again, the question therefore is how this profound ICT-based cultural change is going to affect the postal sector.

Let us mention here for example that, according to a WIK study, medium and low income member states (especially the ten new member States that joined the European Union in May 2004) report slower growth in mail volume between 1998 and 2002. One may therefore speculate that the link between GDP growth and growth in mail volume seems to be braking down<sup>55</sup>. Even though mail volume in these countries is still growing, it is doing so at much slower speed than would normally have been anticipated. Especially so-called transactional mail does not seem to correlate anymore with economic activity whereas as advertising mail still grows in line with GDP growth.<sup>56</sup>

The most likely explanation here is that new technologies are substituting transactional mail in all member states, irrespective of prosperity levels. At the same time, though, direct mail (advertising mail) is still growing. Therefore, there seems to be a split in the market at least between mail used for transactions (increasingly done through new media) and mail used for advertising purposed (generated by companies and targeting households).<sup>57</sup> It is also important to see that the uptake of other communications technologies such as mobile telephony is far higher in Eastern Europe than in Western Europe. This proves very much our point that the ICTs will enable the postal industry to vastly improve their offerings to customers by using information technology to create new products and services. For less developed regions of the EU, which would include regions in Western Europe such as East Germany or the Mezzogiorno in Italy, this means the opportunity to catch up with the rich north of the continent at a much faster pace than previously possible.

Finally, let us mention that the above highlighted drivers of change – i.e., changing cultural behaviours, EU policies, and ICT-based technological developments – are most likely only going to accelerate in the years to come. Combined with further liberalization in all the network industries, this is creating a stimulating institutional framework, which be deeply favourable (and not just necessary) for technological and social innovation. Such innovation and dynamics will not leave the postal sector unaffected. Let us therefore examine, in the next section, how this affects the consumers' demands and needs.

## 3.2 Implications on the behaviour of the consumers

Obviously, consumers' behaviours, needs and demands in communications matters have evolved greatly over the past 10 to 15 years and are very likely to do so in the future. Without doubt, these behaviours already do and increasingly will affect postal matters, be it parcels or letters. Unfortunately, so far, we only have early indications of such changes. In this section we will try to conceptualize the evolving communications demands and needs of the individual household consumers, especially in light of the rapidly evolving ICTs, EU policies, and changing cultural behaviours. The focus on individual household consumers is grounded on the argument developed in chapter 2, and which concluded that it is the household consumers that, perhaps, need to be protected

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<sup>&</sup>lt;sup>55</sup> Main Developments in the European Postal Sector, WIK Consult, Bad Honnef, 2004, p. 179.

<sup>&</sup>lt;sup>56</sup> Nader, Fouad H, Mail Trends, Stamford, December 2004, p. 4.

<sup>&</sup>lt;sup>57</sup> Ibid. p. 5.

in a liberalized postal environment. In essence, the core argument of this section is that, in all three above identified functions – e.g., communication/two-way interaction, economic/commercial, and cultural/entertainment – the most urgent needs and demands of the individuals are increasingly being satisfied by the internet and other ICT-driven interactions. In addition, we argue that physical mail – both letters and parcels – are becoming appendices of the internet and other ICT-based interactions.

It seems obvious that consumers do change their behaviour, which in turn is the result of their evolving demands and needs. To recall, in this study, we want to understand how the consumers' demands and needs evolve in postal matters, so as to be able to define the most appropriate and most up-to-date Universal Postal Service to protect them. Generally, a significant portion of the consumers' changing behaviour is triggered by new products and services becoming available. And obviously, the modern consumer has significantly increased the use of modern electronic and communications equipment over the past years. Thus, consumers are now using more sophisticated and multi-layered ways of communicating. This is in sharp contrast with the two-dimensional world of the 1980s and before, when consumers were using only the post and telephone for communicating (both for business and for private purposes). As a consequence, people use electronic and mobile communications on top of the traditional postal communications (not as mere substitution choice). For example, the Universal Postal Union forecasts that the share of physical mail will have dropped from 27.9 percent of the whole communications market (which includes email, fax, hybrid mail, and telephone) in the industrialized world in 1995 to 19.8 percent in 2005.<sup>58</sup> In the same period the share of email communication will have almost doubled from 12.2 percent in 1995 to 23.7 percent in 2005. Of course, these are relative figures, as the overall communications market will have grown exponentially during this same period. (see figure No.2).

In order to more deeply analyze the emerging demands and needs of the consumers in matters of communication in general and of postal services in particular, we have to introduce a conceptual distinction between communication demands and needs on the one hand and the needs and demands for "physical" deposit, transport, and delivery on the other.

• Communication: to recall, communication is primarily a social, a cultural, and increasingly also an economic function. A person wants to stay in contact or communicate with other persons. In this case such communication is interactive. But, communication can also be a one-way process when a person is watching TV or reading a newspaper. In this case it is television or the newspaper that is "sending" out information and the person is only receiving it. The main changes the ICTs have introduced into communication, as is generally admitted now, pertain to speed, volume, and especially interactiveness. Indeed, the ICTs, as opposed to the traditional, especially postal communication means, allow for almost instant two-way interactions. This interactiveness has, by the way, not only changed individual communication patterns, it has moreover increased the power of the consumers over the business. Overall, it has strengthened buyers over suppliers. Given the fact that the electronic media are much more interactive than the traditional postal service, it therefore increasingly appears that the two-way or so-to-speak generic communication demands and needs of the individuals are increasingly going to be satisfied by the electronic media, which, in addition to being interactive are also safe. In other words, while the new communication technologies are increasingly responding to the two-way interactive communication demands and

The Postal Market in the Age of Globalization, Universal Postal Union, Bern, 2002, p. 17.

needs, the traditional postal mail will certainly remain relevant for the communications which happen to be less urgent. This is not to say that the traditional postal operators are not capable of responding to these new emerging speedy and interactive communications needs, for example by means of tracking and tracing technologies. However, as we have seen in the previous chapter, such innovative responses of the traditional postal operators to the changing communications needs of the customers have taken place outside of the area which traditionally was defined as postal service, and to which criteria of Universal Postal Services were applied.

• Physical deposit, transport, and delivery: to recall, the second main segment in which postal operators have historically been active are parcels. This form of communication is about the actual transport of tangible goods like food, cloths, and medicine. This form of communication can also be described as logistics and is obviously of immense importance to both the historical postal operators, as well as to their customers. Most currently available data and studies indicate that such physical transport of parcels is growing. Early data suggest that this growth is correlated with the growing use of the consumers of the ICTs in general and of the internet in particular. One may think that especially B2c, but also B2B, C2B, and even C2C (e.g., eBay) logistics are significantly induced by the information and communication technologies. In short, one may conclude that a significant and growing portion of parcel traffic is in fact induced by the ICTs<sup>59</sup>.

In other words and as an intermediate conclusion, one can say that, as far as the individual consumer is concerned, ICTs increasingly lead one to distinguish between urgent and less urgent communications, a distinction, which for postal operators is mainly relevant in the mail market. Here, urgent communications are increasingly being substituted by the new electronic media, while the less urgent communications remain in the realm of physical mail (which of course also has to be rapid). Transport of physical parcels, on the other hand, fully remains in the realm of the postal operators, but needs to be put into relationship with the evolving communications patterns, as a significant portion of parcels is actually induced by the new two-way ICT-based communications.

As shown in chapter 2, postal operators are responding to this situation, mainly by responding more rapidly to the customers' needs and demands, especially when it comes to parcels deliveries. We have also seen that the operators are increasingly using the ICTs so as to be better in line with the consumers' ICT behaviours, offering internet or SMS-based services such as changing addresses, mail forwarding, retrieving mail at dedicated locations, etc.

In this chapter we have shown how the ICTs are significantly affecting the demands and needs of the consumers, both in businesses and for individual consumers. In particular, we have seen how, thanks to the ICTs, urgent, two-way interactive communication behaviours shift away from traditional mail operations to the new information and communication technologies (e.g., electronic mail), while less urgent communications remain in part paper- and therefore letter-mail based. In short, in the letter mail segment postal operators are losing their more urgent communications function to the new technologies of interactive communication, a process which will still be exacerbated by the official recognition of electronic signatures, as for example advocated by the EU and many countries. As for the logistics or transport function, this is increasingly induced by the ICTs, inasmuch as physical shipments follow two-way interactions. Such "induced" postal products

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It is worth mentioning here the work carried out several researchers on the so-called rebound effect of ICTs over mobility patterns, undoubtedly an increase factor for several key mobility indicators (see Rossel 2003).

and services will be express items, less urgent parcels, or letter mail to follow up electronic transactions. As shown in chapter 2, changing consumer behaviour actually opens up new business opportunities for postal operators, especially in the logistics market. And, as we have also shown, most of them have taken up these opportunities and are responding to these changing demands and needs. We have put these changes within the wider perspective not only of ICT development, but also of the EU policy towards a liberalised postal sector and more broadly within the emergence of a deep cultural change. Such developments – in both consumer behaviour and postal response – can only be welcomed, not the least because they are in the interest of the consumers. But what does this ultimately mean for the Universal Postal Service?

#### 4. DEFINING THE UNIVERSAL POSTAL SERVICE OF THE FUTURE

So far, we have examined the existing Universal Postal Service, discussed how the postal operators have been adapting to the changing customer demands and needs as well as to the growing role played by the ICTs. Furthermore, we have analyzed how these ICTs and the internet do affect the behaviour of consumers. In this chapter, we will now bring these different analyses together and outline the Universal Postal Service of the future. We will do so in two steps: in a first step, we will recall the main lessons learned from chapters 2 and 3 in regards to the Universal Postal Service, and in a second step we will put these lessons into a relationship with the key principles of the Universal Postal Service as defined in chapter 1. This combination will indicate how the future postal safety net should look like in broad terms.

#### 4.1 Lessons learned

In chapter 2 we have described the evolution of the postal sector in Europe. We have highlighted how the historical postal operators in particular and the postal industry in general have started to adapt to the need of the customers, notably because of systematic use of the ICTs in both process and product innovations. But we have also shown that this mainly applies for the large business customers. We have concluded that business customers – i.e., bulk mail – do not need to be protected by a Universal Postal Service Obligation, whereas individual households and small business customers – i.e., single-piece postal items – continue to need protection.

Furthermore, we have introduced a distinction between parcels and letter markets and shown that competition varies significantly across these two markets. While the degree of competition should not influence the definition of the Universal Postal Service from a policy point of view, there is nevertheless a relationship between the two: on the one hand, the degree of competition affects efficiencies and ultimately price, which benefits the consumer. I.e., the more efficient the market, the less Universal Postal Service protection is necessary. On the other hand, we have precisely argued that the definition and extent of the Universal Service may impede competition from developing in the first place. We have concluded this second chapter stating that the Universal Postal Service should be focussed on individual households and small business customers only, i.e., on single-piece mail items. As we already concluded in Chapter 1, regulation of the Universal Service represents an intervention into the (by then liberalized) market. By limiting the Universal Postal Service to single-piece mail items, the potential market distortion and wrong incentives that could result from such intervention will be significantly reduced.

Finally, we have seen that the postal operators do come up with innovate solutions to serve their customers if allowed to do so. So far, most of these solutions have been developed for the business customers, but there is no reason to believe that such innovative solutions cannot also be developed for individual households and small business customers, if the postal operators are allowed sufficient flexibility by the regulators to do so. For example, picking up parcels at business addresses is standard in postal operators' service for business customers. In the Netherlands, competitors have started to offer this service to consumers. This in turn should encourage regulators to give more leeway to the historical postal operators when executing their Universal Postal Service obligation.

In chapter 3 we have shown how the ICTs are significantly affecting the demands and needs of the consumers. In particular, we have seen how, thanks to the ICTs, urgent, two-way interactive communication behaviours shift away from traditional mail operations to the new information and communication technologies (e.g., electronic mail), while less urgent communications remain in part paper- and therefore letter-mail based. In short, in the letter mail segment (i.e., in particular in transaction mail) postal operators are losing their more urgent two-way communications function to the new technologies of interactive communication, a process which will still be exacerbated by the official recognition of electronic signatures, as for example advocated by the EU and many countries. Thus, the importance of speed in mail transport and delivery will somewhat be reduced.

As for the logistics or transport function, this is increasingly induced by the ICTs, inasmuch as physical shipments follow two-way interactions. Such "induced" postal products and services will be express items, less urgent parcels, or letter mail (e.g., correspondence mail and advertising mail) to follow up electronic transactions. As shown in chapter 2, changing consumer behaviour actually also opens up some new business opportunities for postal operators, especially in the logistics, but also in some segments of the letter mail market (e.g., advertising mail).

We have put these changes within the wider perspective not only of ICT development, but also of the EU policy towards a liberalised postal sector and more broadly within the emergence of a deep cultural change. The implications of this evolution for the Universal Postal Service are clear: first, the urgency and speed of mail delivery can therefore in our opinion somewhat be relaxed. Secondly the Universal Postal Service providers must be encouraged and given the flexibility to make active use of the ICTs when providing the Universal Postal Service. Thirdly, the provision of the Universal Postal Service, and especially its regulation (see below) must be seen, from now, within the larger framework of communication services, as well as in light of larger cultural changes in communication patterns, and therefore constantly adapted according to the changing consumer needs, demands, and behaviours in communication matters.

Finally, in chapter 1 we had seen that the European Commission had developed an original concept to protect the consumers, should the liberalization of the network industries in general and the liberalization of the postal sector in particular leave out particular individuals or groups. In its essence, a Universal Postal Service is a safety net, which guarantees, on the territory of Europe, accessibility, quality, and affordability. We stated that this concept is good and must remain valid in the future. However, when defining the Universal Postal Service in its 1997 Framework Directive, many countries and the European Commission basically took over the previously existing national public service practices of the incumbents. We have therefore argued that the specifications of this Universal Postal Service have to be adapted to both the evolving postal sector and the changing needs of the consumers. In the next section, we will indicate on how this adaptation should look like, in particular in light of the arguments developed in chapters 2 and 3.

#### 4.2 The Universal Postal Service of the future

In defining the Universal Postal Service of the future we proceed along two steps: in a first step we apply the considerations from chapter 2 and limit the universal service to individual households and small business, i.e., to single piece items. All bulk mail is therefore not part of the Universal Service of the future. In a second step, we apply the considerations from chapters 2 and 3 to the three main

criteria of an Universal Service, i.e. accessibility, quality, and affordability. These considerations in turn pertain to the following two aspects, namely flexibility (where we have argued that the Universal Postal Service providers should be given more flexibility when fulfilling their Universal Postal Service obligation), and adaptability (where we have argued that the very scope and content of the Universal Postal Service should regularly be assessed and adapted to the changing needs of the citizens and customers). The following figure summarizes this methodology in graphic form:

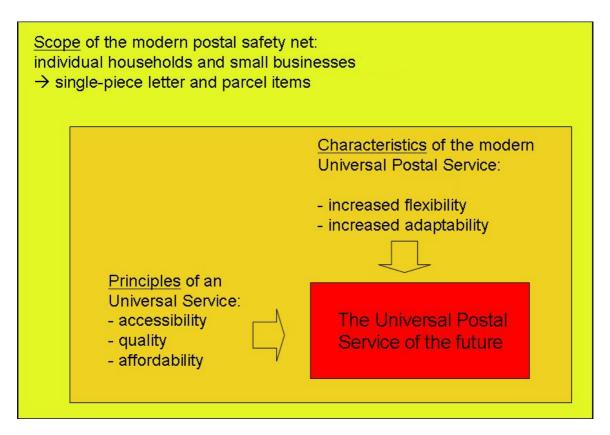


Figure No.3: the Universal Postal Service of the future.

The purpose of this study was not to define the Universal Postal Service of the future in detail, but rather to develop the arguments why such a new definition was needed and how it broadly should look like. As a matter of fact, we hope that this study will trigger a discussion and that from this discussion, and subsequent studies, a much more precise definition of the Universal Postal Service of the future will emerge. At this stage, we would simply like to outline some broad considerations as to how this future Universal Postal Service may be defined. We do so along the above methodology, namely by discussing each of the three Universal Service principles and applying to them considerations of increased flexibility and reduced urgency. The consideration on increased adaptability will be treated in a separate section below.

• Accessibility: sending and receiving of single-piece mail and parcels (by individual household and small business customers) must remain part of a postal safety net and as such guaranteed by an Universal Postal Service obligation. However, the Universal Postal Service providers should be given the flexibility to develop innovative ways for allowing the customers to send and receive mail and parcels, making in particular use of the ICTs. There are currently already many experiences with such innovative practices for sending (e.g., packstations, drop-off points) and receiving. An example may be offering a particularly remote households a full-fledged "house"

service" with a "pick-post" concept by which customers can ask their parcels to be dropped off at gas stations of their choice. To mention another example, stamps are sold not only in post offices, but also in a high number of postal agencies and shops. In addition, both physical stamps and estamps are offered online. Such innovative approaches to accessibility should not only be allowed by a modern definition of the Universal Postal Service, even more so they should be encouraged and actively rewarded.

- Quality: as with accessibility, the quality i.e., the safety and the reliability of the specified service range of single-piece letters and parcels must be guaranteed to the household and small business customers throughout Europe. While there should be no change when it comes to safety, and while reliability should and could actually be increased in particular thanks to the ever more widespread use of the ICTs (e.g., tracking and tracing, notification services), speed of delivery may be somewhat loosened in light of the same above consideration. Again, the Universal Postal Service providers should be given maximum flexibility here, so as to adapt the service range to the needs and demands of the customers. And indeed, the ICTs already do and increasingly will offer more possibilities to increase quality, both in terms of standardized and personalized services. In general, the quality of collection and sorting processes has been significantly improved and stabilized by the use of ICT. The automatic sorting rate has increased dramatically and as a result the sorting and delivery quality have improved accordingly.
- Affordability: although we think that affordability must remain an important principle of Universal Postal Service provision, the relevance of this issue should not be overestimated. For example, in the Netherlands, in 2000 an average individual household spent €22 per year on postal services while €15 was spent on telephone. In Germany, corresponding figures are 4,40 Euro in average per household per month, while spending for telecommunications is at least ten times bigger. On top of this, the rapid development of mobile telecommunications and internet cause a further decline in the relative share of postal spending of consumers. Therefore, it is difficult to argue that small price increases would jeopardize affordability.

## 4.3 Adaptive regulation of the Universal Postal Service

As a postal safety net remains a political objective, regulation to guarantee its provision will be necessary. However, such regulation must be lean and effective, and distort neither the market, nor create disincentives for innovation. Consequently, postal sector regulation will have to make sure that the criteria of accessibility, quality, and affordability are being met by the Universal Service Provider.

In any case, it is important to stress that postal regulation must exclusively assess whether the Universal Postal Service objectives (criteria) are met, and not intervene into operations, i.e., not intervene in the way the Universal Postal Service provider meets these objectives. This will be especially the case if the Universal Postal Service provider is allowed more flexibility in responding to the needs of the customers or criteria. As a matter of fact, Universal Postal Service providers should not only be encouraged to always come up with the most cost-effective and most innovative (e.g., ICT-based) solution to meet their obligations, furthermore they should also be rewarded by the regulators whenever they come with such practices. This new approach to regulation, called "incentive regulation", should be systematically implemented in the future, as current regulatory approaches and practices are in essence static and past- rather than future-oriented.

In this chapter we have thus concluded that the individual households and small businesses still need a postal safety net, and this both when it comes to single-piece letters and parcels; that this postal safety net must obey the main criteria of a Universal (Postal) Service as defined by the European Commission, i.e., accessibility, quality, and affordability; that the Universal Postal Service providers need to be given more flexibility when responding to their Universal Postal Service obligations; that innovation in Universal Postal Service provision should be actively rewarded; and finally that that the definition of this very postal safety net must be regularly critically examined and adapted to the changing needs of the European consumers.

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