FINAL REPORT

Public

Contract n°: HPSE-CT-2002-00138
Project number: SERD-2002-000191

Project Title: The Provision of Basic Services in Liberalized Markets (BASIC)

**Project coordinator:** The Interdisciplinary Centre for Comparative Research in the Social Sciences, Vienna, Austria

**Partners:**
The Free University of Amsterdam, Economic and Social Institute, Amsterdam, The Netherlands
The Centre for European Economic Research (ZEW), Germany
Ecoplan, Bern, Switzerland
Jagiellonian Universitity, Institute of Management, Poland
Sussex University, The Sussex European Institute, Sussex, The United Kingdom
Zentrum für soziale Innovation (ZSI), Vienna, Austria
Le Centre Interdisciplinaire pour la Recherche Comparative en Sciences Sociales, Paris, France
Institute of Studies for the Integration of Systems (ISIS), Rome, Italy

**Project Website:** [www.iccr-international.org/basic](http://www.iccr-international.org/basic)

Reference period: from 1 February 2003 to 31 July 2005
Starting date: 1 February 2003
Duration: 30 Months
Date of issue of this report: January 2007

Project financed within the Key Action Improving the Socio-economic Knowledge Base
Fifth Framework Programme

Thematic Programme “Improving the Human Research Potential and the Socio-Economic Knowledge Base”

The Provision of Basic Services in Liberalised Markets (BASIC)

(Project number: SERD-2002-000191)

Deliverable 8 – Final Scientific Report

A Synthesis Report edited by Michael Schmidt, ICCR Vienna on the basis of contributions from researchers in the BASIC Network

January 2007

Co-ordinator:
The Interdisciplinary Centre for Comparative Research in the Social Sciences, Vienna, Austria

Partners:
The Free University of Amsterdam, Economic and Social Institute, Amsterdam, The Netherlands
The Centre for European Economic Research (ZEW), Germany
Ecoplan, Bern, Switzerland
Jagiellonian University, Institute of Management, Poland
Sussex University, The Sussex European Institute, Sussex, The United Kingdom
Zentrum für soziale Innovation (ZSI), Vienna, Austria
Le Centre Interdisciplinaire pour la Recherche Comparative en Sciences Sociales, Paris, France
Institute of Studies for the Integration of Systems (ISIS), Rome, Italy
Table of Contents

ABSTRACT 5

1 EXECUTIVE SUMMARY 6

THE STATE OF SECTORAL REFORMS 6
STAKEHOLDER PERSPECTIVES 8
THE IMPACT OF LIBERALIZATION 8
REGULATION OF NATURAL MONOPOLIES OR OLIGOPOLISTIC MARKETS 10
NON-LIBERALIZATION RELATED FACTORS FOR BASIC SERVICE PROVISION 10
POLICY IMPLICATIONS 11
EU BASIC SERVICE LEGISLATION? 12

2 PROJECT OBJECTIVES 13

3 SCIENTIFIC DESCRIPTION OF THE METHODOLOGY AND PROJECT RESULTS 16

3.1 METHODOLOGY 16
3.1.1 GEOGRAPHICAL SCOPE 17
3.1.2 LITERATURE REVIEW AND DOCUMENT ANALYSIS 18
3.1.3 STAKEHOLDER ANALYSIS 18
3.1.4 INDICATORS 19
3.1.5 DATA COLLECTION 22
3.1.6 DATA AVAILABILITY, QUALITY AND COMPARABILITY 23
3.1.7 DATA ANALYSIS 24
3.1.8 CASE STUDIES 25
3.1.9 EXPERT INTERVIEWS 25
3.2 THE CONCEPT OF BASIC SERVICES 26
3.3 ON THE DEREGULATION OF PUBLIC UTILITIES 28
3.3.1 ELECTRICITY 28
3.3.2 TELECOMMUNICATIONS 30
3.3.3 POSTAL SERVICES 31
3.3.4 PUBLIC TRANSPORT 32
3.3.5 CONCLUSIONS 33
3.4 EU POLICY ON BASIC SERVICES 34
3.5 STAKEHOLDER PERSPECTIVES 37
3.6 NATIONAL POLICIES 39
3.6.1 ELECTRICITY 39
3.6.2 POSTAL SERVICES 41
3.6.3 TELECOMMUNICATIONS 43
3.6.4 URBAN PASSENGER TRANSPORT 46
3.7 SECTOR AND COUNTRY COMPARISONS

3.7.1 TELECOMMUNICATION 50
3.7.2 ELECTRICITY 51
3.7.3 POSTAL SERVICES 52
3.7.4 PUBLIC TRANSPORT 53

3.8 EFFECTIVENESS AND EFFICIENCY OF BASIC SERVICES 55

3.8.1 ELECTRICITY 56
3.8.2 POSTAL SERVICES 60
3.8.3 TELECOMMUNICATION SECTOR 63
3.8.4 PUBLIC TRANSPORT SECTOR 67

4 CONCLUSIONS AND POLICY IMPLICATIONS 75

4.1 OVERALL CONCLUSIONS AND ADVANCE IN THE STATE OF THE ART 75

4.1.1 AN OPERATIONAL CONCEPT OF BASIC SERVICES 76
4.1.2 THE IMPACT OF LIBERALIZATION 77
4.1.3 NON-LIBERALIZATION RELATED FACTORS FOR BASIC SERVICE PROVISION 79

4.2 POLICY IMPLICATIONS 80

4.2.1 BASIC SERVICES / SERVICES OF GENERAL ECONOMIC INTEREST 80
4.2.2 TRANSPARENCY 81
4.2.3 NATURAL MONOPOLY 81
4.2.4 POLICY IMPLICATIONS FOR THE POSTAL SERVICE SECTOR 81
4.2.5 POLICY IMPLICATIONS FOR THE ELECTRICITY SECTOR 82
4.2.6 POLICY IMPLICATIONS FOR THE PUBLIC TRANSPORT SECTOR 82
4.2.7 POLICY IMPLICATIONS FOR THE TELECOMMUNICATION SECTOR 82

4.3 NEED FOR FUTURE RESEARCH 83

5 DISSEMINATION AND EXPLOITATION OF RESULTS 84

5.1 DISSEMINATION TO THE SCIENTIFIC COMMUNITY 84
5.2 DISSEMINATION TO POLICY MAKERS AND SOCIETAL ACTORS 84
5.3 OVERVIEW TABLE OF DISSEMINATION ACTIVITIES 85

6 ACKNOWLEDGEMENTS AND REFERENCES 87
Abstract

The BASIC project analyzed the provision of basic services or 'services of general interest' in the electricity, telecommunication, public transport and postal service sectors in eight European countries, namely, Austria, France, Germany, Italy, the Netherlands, Poland, Switzerland and the UK. It was funded by the European Commission under the 5th Framework Programme and carried out by an international and interdisciplinary consortium of nine partners.

The study was carried out in the context of the ongoing changes in the electricity, telecommunication and postal service sectors. Its overall aim was to provide an analysis of the problems, shortcomings and strengths of service provision under different regimes of public control and liberalization.

The results of the BASIC project identify only two clear impacts of liberalization, namely a decrease of employment and a loss of transparency. On other impacts that are generally expected from liberalization, like effects on service quality and prices, the project's results are mixed.
1 Executive Summary

The BASIC project analyzed the provision of basic services or 'services of general interest' in the electricity, telecommunication, public transport and postal service sectors in eight European countries, namely, Austria, France, Germany, Italy, the Netherlands, Poland, Switzerland and the UK. It was funded by the European Commission under the 5th Framework Programme and carried out by an international and interdisciplinary consortium of nine partners. The overall aim of the project was to provide an analysis of the problems, shortcomings and strengths of basic service provision under different regimes of regulation and liberalization.

The study was carried out in the context of the ongoing changes in the electricity, telecommunication and postal service sectors, most notably the increasing tendencies towards liberalization. Two key characteristics render the liberalization of these industries somewhat atypical: first, their network properties and thus the problems associated with the regulation of natural monopolies; second the expectation that the services they provide represent, at least in part, a public good insofar as they are attached to social rights, and that they continue to do so even if privately managed or submitted to the rules of competition.

The results and conclusions of the BASIC project are drawn from many areas of study, ranging from a literature review and stakeholder analysis to the quantitative and qualitative analysis of different country and sectoral models.

The state of sectoral reforms

Except for the UK, the development of the national legal frameworks in the electricity, telecommunication, postal service and railway sectors has largely been driven by EU regulatory. However, there remain some important differences between sectors and countries.

The sectoral differences reflect in part the different timelines of EU regulatory activity. For example, the liberalization of public transport services has not yet been agreed upon at the EU level. As a result considerable diversity in the types of regime in different member states remain. In contrast, full liberalization of the telecommunication sector has been in place for over seven years, and this has meant that the relevant directives are for the most part transposed at national level, even if the subsequent reforms have sometimes been slow to be implemented. Indeed the pace of implementation – in telecommunication, energy and postal services as well as with regard to some parts of the railway reforms – is the area where national differences are greatest.

Telecommunication was one of the first sectors to be liberalized during the 1990s (the UK introduced competition already in 1984). The sector is unique for its rapid technological changes during the last 15 years. In terms of the absolute quality,
reliability and cost of basic service provision, the sector is performing reasonably well by most standards. The main problem is related to the formation of oligopolies and/or the misuse of power by former incumbents. In countries like Germany and Italy liberalization has greatly increased the number of operators but has still not led to truly competitive markets. Thus the main challenge in the telecommunication sector is to set up regulatory regimes that lead to fair competition.

In most countries, electricity sector liberalization started after the EU Directive on partial liberalization in 1996 (UK 1989). The speed of implementation of EU legislation varies greatly across countries. While countries like Germany, the Netherlands and Italy proceeded rather quickly, other countries, like France, were slow to follow. An exception is the Non-EU Member Switzerland where liberalization has been put off until 2007. Even though liberalization is proceeding rapidly in the EU Member States this has not led to real competition. So far the market opening has failed to break up the oligopolistic or monopolistic structures of the national electricity sectors and, on a European scale, there is even an ongoing process of increasing concentration. Furthermore the current form of sector organization appears to be unable to tackle the emerging problem of the security of supply. Both in terms of grid capacity and in terms of generation capacity the current levels of investment do not appear to be adequate to ensure the long term sustainability of the system.

Postal services were separated from telecommunications in the mid to the late 1990s (UK 1980s). While the telecommunication sector was immediately liberalized, in the postal service sector a more gradual approach was taken. Following the first EU Directive on liberalization in 1997, the market was essentially divided in a reserved part that remained a monopoly and a non-reserved part with competition. Full liberalization on the basis of EU legislation will only be enforced from 2009 onwards. However, even the partial liberalization of the market has already led to significant changes in the provision of basic services. Even though the number of parcels and letters delivered by the postal service sector has remained largely constant over the past 15 years, the number of post offices (incl. postal partners such as small shops) was reduced dramatically in most countries. On the other hand changes in technology and lifestyle have altered the role of the postal service system in modern societies and thus justify the need of a modernization of the European postal service sector. What type of modernization is deemed desirable is first and foremost a political question but the current regime is certainly moving away from full territorial coverage with post offices and letter boxes.

The public transport sector differs from the other three sectors insofar as, and with the exception of railways, the EU has no competencies to influence its development. Only one of the eight countries in the BASIC project (the UK) has so far attempted a large scale liberalization of the public transport system. In recent years most other countries have slowly started to introduce tendering services for some local and regional bus services but in most cases there is still no effective competition. In the UK earlier liberalization and privatization policies are being partly reversed due to a wide range of problems in specific areas like a lack of infrastructure investment. The legislative frameworks in Austria, France, Germany, Italy, the Netherlands and Poland are showing an increasing tendency towards a more diverse organization of local
public transport services. Prior to the year 1996 most services were owned, organized and operated directly by municipal or regional authorities. Since then, all the above mentioned countries have passed legislative acts allowing for some sort of private involvement through tendering procedures. In some cases like the Netherlands this has become obligatory but in most other countries it is at the discretion of the responsible public authorities to how to organize the services. In order to avoid problems with EU rules on state subsidies all laws contain provisions on the fulfillment of public service obligations. An attempt of the European Commission to make public tendering mandatory for the payment of state subsidies in local public transport was turned down by the European Court of Justice in 2003.

In the railway sector the European Union started the creation of a common market for rail transport in 1991 with its first railway liberalization package. At first this was limited to freight transport but towards the end of the 1990s the legislative framework was extended to cover also passenger transport. The Member States have been slow to implement EU legislation on railway liberalization but within the next five years the process should be complete. Apart from the UK it is too early to assess the effects of passenger railway liberalization. One of the main failures in the UK, namely the privatization of rail infrastructure, will most likely not be attempted in the other seven countries in the near future. As for the other problems in the UK experience, most notably the coordination of schedules on different lines and integrated ticketing services, it remains to be seen how regulatory authorities in Continental Europe will address this problem.

**Stakeholder perspectives**

The dominance, over the last couple of decades of the (regulated) deregulation paradigm is evidenced at the level of stakeholders such as political parties, business organizations, trade unions or consumer organizations and documented in the media. There are of course differences between these stakeholders depending on their perspective and the interests they represent; moreover, insofar as political parties and trade unions are concerned these differences run across the left-right cleavage. At the same time, most stakeholders accept the need of reform – many on ideological grounds, some as a result of pragmatism.

**The impact of liberalization**

Liberalization is arguably the most important of many factors influencing the past and current development of the four sectors studied in the BASIC project. It has been advocated by the belief that competition would increase efficiency and service quality. However, the international literature on the effects of regulatory reform is inconclusive and controversial, especially concerning distributioal effects. The success or failure of regulatory reforms depends on a variety of factors such as industry concentration,
risk premiums, various types of transition costs, consumer and environmental protection and technological and organizational changes which influence industry structure.

Overall, the primarily economic analyses of regulatory reforms agree that some change in the existing arrangements was required. However, substantiating the extent or even the existence of benefits as a result of the reforms is not a particularly visible feature of the literature. While some account of price effects has been given on a general basis along with more limited range of in-depth analyses of reforms these accounts are often hedged by various qualifications which raise questions about the overall effect, particularly in distributional terms. The uncertainty regarding the overall effect of reforms reflects misgivings over the emerging structure of the liberalized markets and the effectiveness of the regulation overseeing their development.

The results of the BASIC project identify only two clear impacts of liberalization. First and foremost, in all countries and in all sectors the degree of liberalization tends to correlate with a decrease of employment. In the electricity, postal service and public transport sectors this has been equivalent to a decrease in the absolute number of employees. In the telecommunication sector the fast growth has mostly offset the reduction of employees and in many countries their absolute number has grown since the beginning of the liberalization process. In some cases the reduction of the number of employees leads to a corresponding loss of service quality (e.g. fewer post offices), in other cases it appears to be part of a process of rationalization without a loss of service quality. However, in both cases the lack of sufficient data on maintenance costs and investments raises questions about the impact of employment reduction on the long term sustainability of the system.

The second impact of liberalization is a loss of transparency. Contrary to a popular argument by which liberalization should increase transparency as compared with government provision, the BASIC project found that liberalization decreases transparency in many different ways. Regulators generally receive only a fraction of the information, especially regarding the internal cost structures of the companies, they would need to provide a fair and efficient regulatory framework (see section on regulation below). Governments have hardly any reliable information on private infrastructure investments and service quality. And last but not least, customers have to face uncoordinated public transport schedules and ticketing systems, price discrimination, etc.

Two impacts that are generally expected from liberalization could not be clearly identified by the BASIC project. Liberalization does not appear to always have a significant effect on service quality (with the exception of the postal service sector) and the effects on prices are mixed. Only in the telecommunication sector did prices drop significantly during the last ten years but it is unclear how much of this is due to liberalization and how much to changes in technology. In the electricity sector overall prices are currently somewhat lower than before liberalization (despite higher prices for fossil fuels) but in this case it is unclear whether this might correspond to lower levels of investments in electricity grids and generation capacities. It is interesting to note that there does not seem to be a relationship between the level of employment
and electricity prices across different countries. Also electricity is the only sector with significant **regional price differentiation**. This is due to different charges for the publicly owned grids and not to price differences in the liberalized part of the market.

Particularly in the electricity sector but partly also in the telecommunication sector **market concentration** is a major concern. In most countries the market liberalization has not yet led to a competitive market for electricity for household consumers. Price data shows that high prices are (weakly) correlated to the degree of market concentration and currently there appears to be a tendency towards even more concentration rather than towards more competition.

**Regulation of natural monopolies or oligopolistic markets**

The mixed results on price changes after liberalization may be due to oligopolistic market structures (or collusion) but they may also be due to the fact that large network services constitute typical "natural monopolies" in the economic sense. In both cases it would be necessary to strengthen competition and anti-trust authorities as well as regulatory authorities both in terms of their legal possibilities as well as in terms of their resources.

However it is difficult to say how realistic it is to achieve truly effective regulation of network services and at what costs. Theoretically this requires perfect knowledge of the internal cost structures of all companies by the regulators. Without this knowledge economically correct decisions about adequate prices for the unbundling of lines or illegal practices such as cross subsidies within a company or the abuse of market power are very difficult to take. However, most data on internal cost structures is commercially sensitive and thus highly confidential. But even if this data were supplied to regulators it is not clear whether it would be technically and economically feasible to check the accuracy of the information.

**Non-liberalization related factors for basic service provision**

Apart from liberalization, four factors stand out as the most important ones for the development of basic service provision; technology, demography, geography and history.

**Geography**, in combination with settlement structures, often determines the cost of providing network services. Mountainous areas, islands or sparsely populated parts of the continent constitute specific challenges for basic service provision and thus also for their regulation. The project's results show geographical differences in **service quality** for the postal service and public transport sectors but almost no differences in the telecommunication and electricity sectors. This is mostly due to the nature of the service infrastructure (virtual networks vs. fixed physical lines) but also differences in
regulation that often do not specify a minimum service level (e.g. maximum distance to
next bus station, minimum frequency of public transport). In terms of prices the only
significant regional differences can be found in the electricity sector due to different
public grid charges.

Technology is most important in the telecommunication sector. Due to technological
changes the boundaries of speech telephony, internet, multimedia services, fixed line
and mobile/wireless services are getting increasingly blurred. The scope of services
which can be considered to be basic services is constantly changing and growing.
Broadband internet, for example, used to be a luxury good only a few years ago but
now it quickly becoming a necessity for access to certain private or public services. In
the other three sectors, technology is not of such crucial importance but nonetheless
efficient regulation of the sectors is dependent on keeping up to date with certain
changes.

Demographic changes can have an important impact on basic service provision by
changing the demand side in terms of the age of customers, their sociological
structures, etc. Examples include the different demands for public transport in rural
areas depending on the number of school children, commuters and pensioners, or the
importance of local post offices depending of the percentage of the local population
owning a private car.

Historical factors play a major role in terms of the economic structure of the sectors
and differences in the understanding of the concept of basic services which is in turn
reflected in the legislative and regulatory frameworks of different countries. The results
of the BASIC project show a number of such historical differences and their influence
on the current situation. Most notable examples are the development of basic services
in Poland during the 15 years since the end of Communism, the French model of state
control and the British model of early liberalization.

Policy implications

The BASIC project found a satisfactory level of basic postal services in all countries
in terms of delivery times and prices. The single most important problem is the
reduction of the number of post offices. According to the project's results the density of
the postal service network decreases with liberalization. This is possible because the
universal service obligations are usually very specific about issues such as delivery
times and prices but they are vague (or do not cover at all) the issue of the maximum
allowable distance to the next post office. Without changes in the regulatory and
legislative framework explicitly determining the density or number of post offices this
number will continue to be decreased.

Regional price differences in the electricity sector tend to be very high in some
countries and almost non-existent in others. Since the price of electricity and the taxes
are identical within each country the price differences are only due to different
transport prices charged by the regional public electricity grids. Thus in order to tackle
those regional differences transport prices would either have to be harmonized or – in certain cases with justifiably high costs – subsidized.

For the public transport sector the results of the BASIC project show that the introduction of competition does not have a significant impact on prices or on the quality of services. Thus, in terms of policy implications, it appears that the only promising advantage of liberalization may be a reduction of costs. The UK case, being the only long term example to study bus deregulation in Europe, suggests that deregulation may lead to a substantial decrease of costs. In the UK, however, after the initial period of intense competition between small bus companies the sector is now dominated by a handful of large companies giving rise to concerns that they may be able to exploit their growing market power.

In terms of basic service provision, the BASIC project found the telecommunication sector to be the least problematic. There is no significant problem with universal access and due to competition and technological advancement prices have been steadily falling over the last decade. The only policy implication arising from the BASIC project is related to the scope of basic services in the telecommunication sector. At the time the current legislative framework was designed, basic services encompassed fixed net services and, in some countries, also mobile phone services. Due to the pace of technological changes broadband internet and internet voice telephony are quickly becoming "basic services" and should be included in the scope of services for which universal access has to be granted.

**EU basic service legislation?**

The general idea of what constitutes basic services or services of general economic interest is reasonably straightforward. The European Commission in its White Paper recently put forward an official definition and all Member States agree on the principle of specific consumer/citizen rights with regard to those services (such as universal access, minimum quality standards, etc.). On the European level there is an ongoing discussion whether a framework directive should be drafted to provide a basis for establishing an overall legal and regulatory framework in the Member States for all services of general economic interest.

The results of the BASIC project lead to the conclusion that the sectors in question differ from each other in so many important ways that an overarching operational concept for all basic services will hardly be suitable for achieving the goal of an effective, efficient and socially balanced service provision. Such a concept would only be useful for providing a general (methodological) framework and/or as a constitutional principle.

Rather than providing an inevitably incomplete and misdirected umbrella of general provisions it appears to be more promising to address basic service issues at the sectoral level. Many countries already have implicit or explicit sectoral provisions along the line of universal service obligations but they are usually defined in terms of
maintaining a certain current, and thereby arbitrary, level of services. To make matters worse, many of the universal service obligations contain loopholes and are very weakly embedded in the legal system for enforcing sanctions if certain obligations are not met.

The results of the BASIC project suggest that it may be more effective to create a legal framework that defines for each relevant sector a certain minimum level of basic services for each citizen / consumer. Such a framework would have to include clear provisions on the quantity and quality of services, e.g. the maximum distance to the next post office or the minimum frequency of bus services. The detailed project results on service quantity and quality in different parts of the EU could be used as a starting point in a discussion about reasonable levels of basic services for each sector and for different regional characteristics.

2 Project Objectives

The liberalization of the markets for telecommunications and electricity is well advanced, and the liberalization of public transport and postal services is under discussion or has already been realized. Two key characteristics render the liberalization of these industries somewhat atypical: first, their network properties; second the expectation that the services they provide represent, at least in part, a public good insofar as they are attached to social rights, and that they continue to do so even if privately managed or submitted to the rules of competition.

The term ‘basic service’ is a term that has come to replace the term ‘public service’ or ‘public utility’ and has itself been recently replaced by the term 'service of general interest'. Public service was for a long time used as a generic term for describing those services provided by the state to its citizens in the framework of social citizenship. Next to the standard social areas of health, education and welfare provision, public services included network services such as electricity, telecommunications, the post as well as transport. The term ‘public service’ began to become obsolete with the onset of privatization; not so the principle of services provided ‘in the public interest’.

Most goods and services in Europe are provided by the market in a satisfactory manner and without significant government intervention. There are, however, also specific goods and services that are not automatically provided by a functioning market. Therefore, basic services refers to all commercially not fully viable services in a certain market that are provided in the public interest by the public or the private sector.

Service is here defined with regard to price, quality and quantity. A basic service is a service that is provided at an affordable price, taking into account regional differences and income differentials; and it is a service that is provided at standard levels of quality and in an adequate quantity. Insofar as network services are concerned, quality and quantity are, in turn, functions of the density and accessibility of the related
infrastructure as well as the frequency of the service provided therein. What constitutes ‘reasonable’ levels of price and quality is determined through the democratic political process.

There are many possible reasons behind the frequent inability of the market to provide on its own, i.e. without state regulation or intervention, services that meet the above criteria:

- **Spatial reasons** – Networks are generally less profitable to operate in sparsely populated rural areas. Without government regulation and/or cross subsidies this can lead to higher costs and lower quality of services for consumers.
- **Social reasons** – Certain social groups are often limited in their choice of network services by their income, age (e.g. mobility), disabilities, language barriers, etc.
- **Ecological reasons** – Safety, health and the state of the environment are frequently influenced by the quality, price and density of network services. Examples include the benefits of public transport and the impacts on land use.
- **Economic reasons** – Network industries form the basic infrastructure for economic development. Their positive external effects on other industries are often not taken sufficiently into account. Secondly, in some cases network infrastructures represent a prime example of ‘natural monopolies’.

By introducing competition into network services, liberalization is considered a good instrument for rendering these services more efficient, hence profitable, and eventually cheaper for the average consumer. However, what the market alone cannot regulate is re-distribution to the extent that persons or households at-risk-of-poverty and/or persons living in remote regions are equally provided for in an adequate manner. Furthermore, without regulations, private service providers will not, on their own accord, invest into long-term ‘external’ considerations such as environmental sustainability. In combination, the prerequisites of social justice and environmental sustainability render network services of ‘general’ or ‘public’ interest subject to regulation and state intervention also after privatization or in a liberalized environment.

Against this background, the overall aim of the BASIC project was to establish how to best guarantee the provision of affordable and reliable basic services in and across the sectors for electricity, telecommunication, public transport and postal services in Europe.

More specifically, the BASIC project had the following objectives:

1. To analyze concept of basic services to contribute to a European discourse on this specific topic.
2. To assess the effectiveness and efficiency of network service provision in different countries.
3. To provide the research and policy making communities with an analysis of the problems, shortcomings and strengths of service provision under different regimes of public control and liberalization.

In order to achieve these objectives, the BASIC project undertook a series of country studies into the process and outcomes of the liberalization of the electricity, telecommunications, postal and public transport industries focusing on the supply side. This included the collection and secondary analysis of quantitative and qualitative data on various sectors and policy fields over time and at different levels of aggregation. The data collected in the course of the project and the methods used to process these are described in the methodological section of chapter 3 that follows. Subsequently we proceed to present the project results. Chapter 4 advances policy and research recommendations based on these results. Chapter 5 addresses dissemination and exploitation.
3 Scientific description of the methodology and project results

This chapter presents the methodology and results of the BASIC project. It is structured in eight sections as follows:

Section 3.1 describes the methodology of BASIC project. It lays out the geographical and sectoral scope of the project and describes the list of indicators for the quantitative part of the analysis. Furthermore it lists the problems encountered during the data collection and explains how these influenced the data analysis and thus also the project outputs.

Section 3.2 discusses the concept of basic services while section 3.3 outlines the state-of-the-art with regard to regulatory reform in each of the sectors under consideration and from a historical perspective.

Section 3.4 deals with the policy of the European Union on basic service provision. It discusses the latter’s historical development, sector-specific provisions and the influence of cross-cutting policy areas such as competition policy.

Section 3.5 presents the results of the stakeholder analysis describing the position of different societal and political groups towards basic service provision and the shifts of positions during the last decade.

Section 3.6 summarizes the national policies on electricity, postal services, telecommunications and public transport. In most cases and in the majority of countries, EU policies determined the framework for regulatory reform implementation towards liberalization. There remain differences, however, both with regard to the pace and the scope of regulatory reform. How these compare and what their implications might be in view of further regulatory reform at EU level is discussed in section 3.7.

Finally, section 3.8 critically assesses the available empirical evidence with regard to the effectiveness and efficiency of basic service provision in the sectors under consideration and across the countries participating in the BASIC project.

3.1 Methodology

Issues relating to basic services are usually addressed within economics. The BASIC project adopted instead an interdisciplinary perspective combining, besides economics, insights from political science and sociology. This is also reflected in the methodology toolkit of the project which, broadly speaking, included literature reviews, a stakeholder analysis, collection and analysis of quantitative data and expert interviews. The geographical coverage and the use of each of these methods in the BASIC project is described in more detail in the following sections below.
3.1.1 Geographical scope

The choice of geographical coverage was largely dictated by the nature of the subject matter and by practical considerations. Due to the specific properties of network services local and regional differences in service provision are of prime importance. An aggregate analysis of service quality and quantity at the national level tends to average out the differences between densely populated parts of the country and sparsely inhabited rural areas, thus undermining the policy relevance of the results. At the same time, the companies providing basic services are generally organized and regulated at the national level and operate within a legal framework that is increasingly set at the European level. In turn, European just like national developments, are significantly influenced by global trends.

Consequently, the BASIC project had to cover the international, the European, the national and the regional (NUTS 3) levels, albeit in different ways:

- The international academic discourse was covered by a literature survey; the latter’s results are discussed in sections 3.2 and 3.3.

- At the European level the focus of the project was to track and analyze changes in European legislation and the ongoing policy discussions on how to organize basic service provision and how to safeguard certain levels of quality, sustainability and social equality. This was undertaken through a review of existing literature and relevant policy documents. The results of this analysis are presented in section 3.4.

- Even though the legal framework is increasingly set through European directives, the regulation of network services remains the responsibility of member states. How the international and European discourse on the regulatory reform of basic services was perceived and reproduced at the national level is discussed in section 3.5 with reference to key stakeholders and the media. The role, in turn, of the national regulator was exemplified through policy structure reviews. The BASIC project analyzed the regulatory structures and relevant national data in eight countries, namely Austria, France, Germany, Italy, the Netherlands, Poland, Switzerland and the UK. National policies on electricity are outlined in section 3.6.1; those on postal service in section 3.6.2; telecommunications is dealt with in section 3.6.3 while public transport is addressed in section 3.6.4. How regulatory reforms compare across countries and sectors as well as they reflect upon and feedback on EU policy reform is discussed in section 3.7.

- The quality and quantity of basic service provision was studied at the local/regional level (NUTS 3) in the eight participating countries. Approximately ten regions per country were selected, each representing a different ‘typical type’ of region in terms of income, population density and location within the country. A detailed description of the criteria is presented in section 3.1.3 below. The results are presented in section 3.8 that deals with the effectiveness and efficiency of basic services.
3.1.2 Literature review and document analysis

The literature review in the BASIC project covered a wide range of international academic and non-academic texts such as books, journals, conference papers, policy documents and publications of international organizations. The scope was defined by the subject matter rather than by disciplinary boundaries and thus literature from a wide range of academic disciplines was included.

During the course of the BASIC project four rounds of literature and document reviews were carried out. The first round covered the state of the art on the historical development of basic service provision, conceptual issues compared across countries, sectors and time, and differences in the approaches and concepts across academic disciplines. The results of this review are presented in section 3.2.

The second round of literature and document review was dedicated to the academic literature and the legal documents dealing with the definition of basic services in the four sectors and eight countries covered by the project (see section 3.3).

A third round analyzed the legislation and policy documents related to basic services at the EU level. This included overarching policy documents such as the Green and White Papers on Services of General Interest as well as the legislative framework and policy developments in each of the four sectors. An overview of the documents and the results is presented in section 3.4.

The final round of the literature review looked at the regulation and actual provision of basic services in the eight participating countries. Due to the large sectoral differences this presented separately by sector and country in section 3.6.

3.1.3 Stakeholder analysis

The aim of the stakeholder analysis was to capture the different positions of societal groups towards the issues of basic service provision, liberalization, deregulation and the role of the state. For this purpose a survey of daily newspapers and other published documents of stakeholders was carried out.

In each participating country one leading quality newspaper was chosen as a 'reference newspaper' and scanned thoroughly for any article relating to basic service provision. On the basis of the findings in the 'reference newspaper' key points in the debate on basic service provision were identified and compared with the reports in all other major national newspapers. The time frame for this survey was from the first availability of electronic archives (usually the early 1990s) to the date of the research work, i.e. the year 2004.

Other published stakeholder documents used for this analysis included party programs and position papers by various societal groups such as chambers of labour and commerce and NGOs. In some cases where the availability and quality of media
archives was not satisfactory, interviews with stakeholders were used to gather more information about their respective positions. The results of the stakeholder analysis are presented in section 3.5.

### 3.1.4 Indicators

Indicator data were collected at two geographical levels in the eight participating countries: first, at the national level and second, in ten selected NUTS3 regions per country.

For each sector between 20 and 40 indicators were compiled. The choice of indicators reflected the main focus of the project, i.e. the effectiveness and efficiency of the system. In addition, more general performance indicators were collected to understand the overall structure and size of the sector.

**Effectiveness of service provision is a function of three components, namely, the quality of service, access and price.**

**Efficiency** taps on the operating and infrastructure investment costs associated with running a service at a certain level of quality.

In order to analyze the developments over time and to assess the impact of liberalization, the project attempted to collect data for the year prior to liberalization/deregulation of the respective sectors in each country, and for the years 1990, 2000 and 2004.

#### 3.1.4.1 Electricity

In the electricity sector the main focus of the project was to analyze the grid access of private consumers, price differences, effective competition in the market and the operating costs and investments of the electricity industry.

Table 1 below presents the 20 indicators identified as relevant for the electricity sector. They cover a wide range of areas, including issues such as reliability (‘downtime per year’, ‘capacity limits’, ‘share of households affected by capacity limits’), general information about the network (‘grid length’, ‘total consumption’) and social aspects (‘number of disconnections due to default of payment’). None of the indicators below is available in a disaggregate format at the sub-national level.
Table 1. Indicators for the electricity sector

| Quality: reliability          | Downtime per year, number of incidents with downtime |
| Quality: access              | Number of households with grid access, number with electricity generators |
| Quality: flexibility         | Freedom to choose supplier, minimum contract duration |
| Quality: price               | Average annual expenditures for electricity (by household type) |
| Quality: infrastructure      | Distribution grid length, total electricity production and consumption, parts of the grid close to capacity limits and share of households affected, capacity caps for households, |
| Environment                  | Number of customers with green tariffs, electricity consumption of consumers with green tariffs |
| Equity / distribution        | (Uniform) electricity prices within the grid area, number of disconnections (due to default of payment), (uniform) network access tariff within the grid area |
| Economic                     | Persons employed in the electricity sector, total electricity consumption of households |

3.1.4.2 Postal services

In the postal service sector the main focus was to assess the quality, reliability and accessibility (geographical coverage) of the service. Table 2 below presents the 20 indicators selected for the postal service sector. Most of these are available for the last few years but only a few are available for the time prior to liberalization. The accessibility indicators were collected on the NUTS 3 level while most other indicators were available only for the national level.

Table 2. Indicators for the postal service sector

| Quality: reliability          | Guaranteed delivery time of standard letter, Percentage of deliveries within time |
| Quality: access              | Number of post offices, number of letter boxes |
| Quality: scope               | Opening hours of the postal head office and branch offices |
| Quality: speed               | Number of letters, promotional post and parcels delivered |
| Quality: safety              | Average delivery time of standard letter and parcel |
| Quality: price               | Share of lost letters, lost parcels, damaged parcels |
| Economic                     | Delivery prices of standard letters and parcels |
|                             | Persons employed in postal sector and persons employed in the mail sector, total investments (time series) |

3.1.4.3 Telecommunications

For the telecommunication sector the main emphasis was to attempt a comparison of prices and service qualities of fixed line and mobile phone services. For this purpose 57 indicators was selected to reflect the complexity and diversity of the market for
fixed network voice telephony, mobile communication and (high speed) internet access (see table 3 below for an overview).

Almost none of the indicators is available as extended time series. In some cases this is due to the fact that the service under investigation did not exist some years ago (e.g. DSL internet and mobile phones); in other cases, the absence of information is related to the absence of comprehensive data collection systems during the time of state monopoly provision.

Since no regional differentiation was found in any of the countries the data was only collected at the national level.

<table>
<thead>
<tr>
<th>Table 3. Indicators for the telecommunications sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality: reliability</strong></td>
</tr>
<tr>
<td><strong>Quality: access</strong></td>
</tr>
<tr>
<td><strong>Quality: flexibility</strong></td>
</tr>
<tr>
<td><strong>Quality: scope</strong></td>
</tr>
<tr>
<td><strong>Price</strong></td>
</tr>
<tr>
<td><strong>Equity / distribution:</strong></td>
</tr>
<tr>
<td><strong>Economic</strong></td>
</tr>
</tbody>
</table>

3.1.4.4 Public transport

A total of 76 indicators was specified for the assessment of the public transport sector (see table 4 for an overview). Most were only collected at the NUTS 3 level to capture the specific differences in service quality and accessibility within different parts of the countries and between countries. The emphasis was on the frequency and density of services and on the costs of providing the services.
### 3.1.5 Data collection

The process of data collection was divided into four parts. First, the consortium developed a common framework for selecting meaningful and representative spatial entities in each country to obtain the best information about the service provision in different regions within a country and of the service provision between two comparable regions in two different countries.

A preliminary analysis of the differences of the provision of basic services in different parts of the participating countries showed that the most crucial aspect for obtaining meaningful results was the homogeneity in terms of population density and geographical structure within the spatial entity under study. More specifically, aggregate figures for an entire country or a NUTS 2 region give only average values and hide the fact that within the region there are usually urban areas with very good basic service coverage as well as rural areas with very poor service coverage. The largest spatial entity which was found to be homogeneous in many cases (i.e. only rural or only urban; only mountainous or only flat; etc.) was the NUTS 3 level.

As hardly any official statistics or service providers break up their data on basic service provision into NUTS 3 regions, these data had to be collected in the field for each NUTS 3 region separately, sometimes from local providers and sometimes from national providers by ploughing through disaggregated data. Due to the amount of work involved for each region and the fact that in Germany alone there are approx. 400 NUTS 3 regions the project consortium decided to select 10 regions in each country which represent the wide spectrum of regions in terms of population density, GDP/income per person and geographical factors. In order to ensure the international

<table>
<thead>
<tr>
<th>Table 4. Indicators public transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality: reliability</td>
</tr>
<tr>
<td>Quality: access</td>
</tr>
<tr>
<td>Quality: level of service</td>
</tr>
<tr>
<td>Quality: flexibility</td>
</tr>
<tr>
<td>Quality: safety</td>
</tr>
<tr>
<td>Price</td>
</tr>
<tr>
<td>Economic</td>
</tr>
</tbody>
</table>
comparability of regions across different countries the GDP/income figures were derived from two common sources for all countries.\(^1\)

The second step in the preparation of the data collection was the preparation of a general market overview of the four sectors under study in each of the eight countries. The purpose of this market overview was to improve the consortium’s knowledge about the structure of the market, the size of the main providers and the regulatory framework, in order to target the data collection at the right organizations and improve the efficiency of this exercise.

Third, the consortium prepared a comprehensive list of indicators required for assessing the effectiveness and efficiency of service provision before and after liberalization.

Finally, the partners carried out the data collection in their respective countries and regions. The main sources for obtaining data were companies/service providers, regulatory authorities, official databases (EUROSTAT, national statistical offices, etc.), research reports of previous studies, various websites (mostly again those of providers, regulators, etc.) and expert interviews.

The outcome of the data collection is a vast list of information about the four sectors, the ten regions in the respective countries and the eight countries themselves. The data itself has been provided on CD-ROM to the European Commission.

### 3.1.6 Data availability, quality and comparability

The BASIC project encountered great difficulties with the collection of the above mentioned indicators. Only a small fraction was available for the most recent year (2004) on the national level. At the regional NUTS 3 level and for previous years even less data was available. The four main reasons were confidentiality, changes in the industry over time, lack of regional differentiation and fragmentation of the industry.

Since hardly any of the above indicators are available in official statistics the prime sources for data in a deregulated market are the regulating authorities and the companies. The regulating authorities only receive very specific types of data from the companies and are not allowed to pass on anything that may be commercially sensitive. The companies themselves are very reluctant to provide any data that gives insight on the way they conduct their business.

Changes in the industry over time reduce data availability and make comparisons more difficult. This is especially problematic in the telecommunication and postal service sectors where the public monopolies were replaced by a large number of private companies and the data from the old monopolies is largely lost.

\(^1\) EUROSTAT and the “Western- and Eastern- European market - database” (GFK Marktforschung GmbH/ Bereich Regionalforschung (2001))
All network industries follow their own regional zoning systems (e.g. in electricity distribution grids) and hardly any of them correlate to statistical NUTS regions. Thus in most cases companies or regulators were not able to provide certain indicators on the NUTS 3 level.

The fragmentation of the industry leads to problems of coordination and transparency. With several hundred companies operating in some telecommunication and public transport markets it becomes virtually impossible to derive any meaningful performance indicators, let alone meaningful time series for the past 15 years.

In summary, the above mentioned factors reduced the data availability in the BASIC project to limited national data for the year 2004 in the electricity and telecommunication sectors and to limited national and NUTS 3 data for the year 2004 for the public transport and postal service sectors.

In terms of data quality the available indicators appear to be quite robust. Most of the data was compared to available proxies, historical data and data from other countries and regions. Outliers were double-checked and the reasons for their anomaly identified.

The comparability of data between countries and regions is partly limited by country differences in the precise nature and scope of the service. However, in most cases the comparability of the available data appears to be quite good.

3.1.7 Data analysis

The indicators compiled were used to compare the effectiveness and efficiency of basic service provision across countries.

The analysis of effectiveness was conducted as a comparison of (normalized) indicators across countries, regions and, where available, over time. Examples include the number of post offices per square kilometer or the price of electricity.

In a second step, the project used the data to scrutinize a set of well-known assumptions or hypotheses about the likely efficiency effects of market liberalization based on technical or economic principles.

The hypotheses were tested by running the collected data and indicators on the degree of liberalization from existing studies through a simple regression analysis to establish potential correlations.

The results of the quantitative analysis are presented in section 3.8.
3.1.8 Case Studies

The collection and analysis of quantitative data raised two problems. Firstly, there were large gaps in data availability either across time or at a disaggregate level of analysis. Secondly, the patterns observed were remarkable less for their regularity but more for the exceptional instances. In order to complement the quantitative analysis the BASIC project carried out nine case studies in selected countries and regions (Table 5).

The choice of case studies was based on a variety of factors: we sought to include in the analysis both models that appeared to be working remarkably well as well as those worked remarkably badly; furthermore, we considered those models that inhibited unique properties that warranted further analysis. The analysis was mostly based on qualitative data that was collected through interviews and desk research of literature and policy documents.

The results of the case studies provided complementary insights to the quantitative analysis of effectiveness and efficiency and are part of the project results presented in section 3.8.

<table>
<thead>
<tr>
<th>Table 5. Case studies in BASIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
</tr>
<tr>
<td>Austria</td>
</tr>
<tr>
<td>France</td>
</tr>
<tr>
<td>Italy</td>
</tr>
<tr>
<td>Netherlands</td>
</tr>
<tr>
<td>Netherlands</td>
</tr>
<tr>
<td>Poland</td>
</tr>
<tr>
<td>Switzerland</td>
</tr>
<tr>
<td>UK</td>
</tr>
<tr>
<td>UK</td>
</tr>
</tbody>
</table>

3.1.9 Expert Interviews

A large part of the BASIC project relied on qualitative information which was collected mostly through literature reviews and expert interviews. Expert interviews were carried out with public administration officials, regulating authorities, suppliers of network services, consumer protection organizations, and key company employees.

The interviews were mostly carried out with the qualitative empirical social science method of *semi-structured interviews* where the interviewer/researcher has a list of...
issues to be addressed and questions to be answered. The guidelines/questions for those interviews were based on common work carried out within the consortium.

Expert interviews were carried out during several phases of the project. In total, between 10 and 20 interviews were carried out in each of the eight participating countries.

3.2 The concept of basic services

The term basic services is comparatively new. However, there is an extensive discussion on the issues concerning the governance and provision of these services in the framework of the theoretical, largely North American, literature about public utilities, regulated natural monopolies/networks or infrastructures as well as universal services. The terms of these debates have shifted over time in the light of experience and new ideas, particularly about regulation. While it is true that the US model of basic services is often very different from that which pertains in Europe, many of the broader principles articulated in that context have informed debates and policy proposals in European member states.

The concept of public utility that originated in the US describes those services that call for some form of ‘social control’ of private firms in charge of providing so-called ‘essential’ services (Miller, 1995: 273). The most critical issue in defining a certain sector as a public utility was whether the sector was ‘affected with a public interest’ (Bonbright et al. 1988: 7). In the US context, the organization and management of public utilities are, for the most part private, but the central economic decisions are subject to governmental regulation (Khan, 1970: 2). A vertically integrated and private owned monopoly control of public utilities became dominant governance in the US during the 1970s (Chandler, 1990; Hughes, 1983; Brock, 1981).

A natural monopoly refers to a market configuration where it is socially optimal that only a single firm supplies a (set of) market(s) (or is able to do so at lower cost than any larger number of firms) or where single firm supply is the market outcome (Khan 1970, Voelgsang 1997). A natural monopoly tends to emerge in sectors where a substantial capital investment for establishing infrastructure and networks is necessary, where capacities brought about by technological efficiency are difficult to break down among smaller suppliers, and where costs only tend to decrease in the long-run (Khan 1971, Baumol 1977).

A central concern of economic theory is the efficiency of resource allocation. Regulatory policy is expected to determine the institutional setting needed for achieving this efficiency. The public interest theory based upon balancing efficiency and equity was the fundamental basis for regulation in the economics and law literature prior to 1970 (Kahn, 1970). This framework assumes that the basic purpose of regulation is to correct market failure. Regulation protects the consumer from an arbitrary exercise of monopoly power by producers and serves the public interest by preventing the exclusion of those network subscribers that might be ‘uneconomic’ to
serve. Regulation is, furthermore, the proper response if there are technological limitations to achieving an effective market (Brock, 1981).

The natural monopoly argument for public utilities has been attacked and criticized by three strands of scholars.

− First, the government failure approach played an important role in turning the intellectual tide against interventionist theories. Bernstein (1955: 7) argues that regulation in the US ‘encourage(d) a showing of favouritism to the regulated groups, a narrow view of the public interest, an unrealistic concept of the democratic political process, and the maintenance of localism and particular interests in Congress’.

− The regulatory capture argument was proposed by Stigler (1971) and Posner (1974) and deepened by Peltzman (1976), and Becker (1983). They argue that the demand for regulation comes from firms’ interests rather than from consumers in need of protection from monopolies; indeed, firms can use regulation to enhance collusion, to erect barriers to entry, to restrict competition from substitute products, or to obtain direct government subsidies.

− The theory of rent seeking (Tullock, 1967; Krueger, 1974; Buchanan et al., 1980) also contributed to critical debates on the regulation of public utilities. Rent seeking can be defined as the investment of resources in the expectation of ‘obtaining an increase (avoiding a decrease) in [the] wealth [of specific groups] as a result of securing (blocking) changes in legal rights; or maximizing the benefits (minimizing the cost) of earlier policy changes that created non-exclusive rights’ (Hartle, 1983: 539). Building on some of these insights and drawing upon agency theory, a group of authors have analyzed the effect of asymmetric information on regulation (Baron and Myerson, 1982; Sappington, 1991; Laffont and Tirole, 1993). They argue that firms tend to gain rents in the situation where the firm (the agent) has more information than the regulator (principal). Gasmi et al. (2002) argue that asymmetric information is a fundamental feature of the relationship between public utilities and regulators.

The emerging critique of natural monopoly regulation (and economic regulation more generally) fed the debate on regulatory reform over the last three decades. A number of additional factors facilitated the turn towards deregulation in the 1970s. These included changes in economic conditions (Joskow 1989) and technological innovations (Baumol and Sidak, 1994).

On the other hand, Derthick and Quirk (1985) emphasize the political shaping of the deregulation while Noll and Owen (1983) argue that deregulation involved a number of groups with special interests. Kearney and Merrill (1998) conclude that the two most persuasive explanations for the shift towards deregulation were first, that interest groups discovered that regulatory change would be in their interests, and, second, that an ideological consensus has emerged among economists and other policy elites that the original paradigm entailed risks of regulatory failure that exceeded the risks of market failure under the new paradigm.
3.3  **On the deregulation of public utilities**

The process of regulatory reform in public utilities and its effects in the US have been analyzed by many authors, notably by Winston (1993; 1998), Winston and Crandall (1994), White (1996), Joskow (1989), Kearney and Merrill (1998), Hirsh (1999), Trebing (2000), and Crew and Kleindorfer (2002). Deregulation of public utilities has been advocated by the belief that, in theory, ‘intensified competition and increased operating freedoms that will cause the industry to become more technologically advanced, to adopt more efficient operating and market practices, and to respond more effectively to external shocks’ (Winston, 1998: 92).

The effects of regulatory reform are inconclusive and controversial, especially concerning distributional effects (Trebing 2000, Winston 1985, 1988, Philips 2002). Trebing (2000: 61) points out that there are many factors that will affect the success or failure of regulatory reforms: growing industry concentration and thus market power, the increased risk premium attached to market trading of electricity, various types of transition cost, the organization and governance of the transmission network and the adequacy of consumer and environment protection. Institutional economists focus on issues concerning ‘perceived political power, disparities among stakeholders, distributional impacts when citizens are priced out of the market for essential services, and technological and organizational changes which influence industry structure’ (Berg and Tschihart, 1995: 311).

The sector specific literature on the effects of deregulation is not less controversial.

3.3.1  **Electricity**

The consequences of reform for the energy sector as a whole have been thoroughly reviewed, especially in the UK. The energy policy literature confirms the positive effects of privatization and liberalization with regard to technology and fuel choice and overall system stability (Thomas 1994, Stirling 1994, Newbery and Pollitt 1997, Stirling et al. 1996). In contrast, distributional issues have been relatively under-researched.

Domah and Pollitt (2001) used CBA to appraise the effects of the privatization and restructuring of the distribution and supply businesses and found that privatization did yielded net benefits but that these were unevenly distributed across time and groups: the bulk of gains accrued to the companies themselves; consumers only began to gain with lower prices after 2000 following the imposition of tougher price controls. Kirchner (2002) also notes for Austria the unequal distribution of price decreases after liberalization, arguing that only large commercial customers have substantially benefited from price decreases after liberalization, while for private households, not even the 10 percent decrease that was estimated ex ante did actually take place. O’Mahony and Vecchi (2001) confirmed the same trend of long-run price declines, but also cautioned that these had to be assessed against price increases immediately prior to privatization – a process described by Hope (1988) as ‘fattening up’ prior to sale.
As liberalization was rolled out to all domestic consumers Hancock and Waddams Price (1998) used household data to model the effects of changes. They found out that the overall outcome was mixed, with some groups of vulnerable consumers (notably poorer pensioners) being adversely affected. In later work with Otero (2001) Price also found that utilities were discriminating between different classes of household consumers while most recently with Salies (2003) she concludes that prepayment customers are at greatest risk from incumbent utilities exercising market power. Some research, however, suggests that the reason for price cuts falling behind expectations had also to do with the unwillingness of consumers to switch suppliers, a process that affects less affluent consumers more (Guy and Marvin 1998). This is also concluded by Slaa & Steendijk (2001) for the Netherlands who compared the liberalization processes in the electricity and telecommunications sectors.

According to Theeuwes (2003), for the long term it is also important to consider security availability (the degree of certainty that sufficient sources are available now and in the future) and security of delivery (the degree in which clients can count on delivery). Spare capacity is important, and in that context there are two main sources of concern: financing this spare capacity and dealing with risks. With regard to security of supply, a concern has been raised in Austria that liberalization will lead to more complicated conditions regarding the estimation of consumer demand and capacity planning and to reduced incentives for utilities to invest in new generation and network capacity (Fickert 2001, Kaupa 2003, Knoll/Kratena 1999, Brauner 2002).

Another aspect which has received attention in the literature is the impact of deregulation on the economic structures. A more general assessment by AER (2003) has raised concerns about the extent to which the original objectives of liberalization will be met. Drawing on comparative data, AER notes that while in some cases consumer prices decreased in the short term the longer-term market structure seems to be one of static oligopoly with a few very large players taking a dominant position in each region, engaging in strategic behaviour; the outcome is likely to be limited competition and as a result little innovation or price reduction. Insofar as the Dutch market is concerned, the ECN (2003) attributes some of these problems to the fact that the electricity market is still a regional island. According to Bijkerk, Poort & Schuurman (2003) competition among regional electricity networks is possible only on a limited scale.

Similar concerns are raised in the German literature. An important aspect in liberalized electricity sectors is the potential of strategic behaviour of firms and the exercise of market power. The structure of the German electricity sector promotes an oligopolistic market. An increased concentration of suppliers might be observed in the future (Haupt and Pfaffenberger 2001). Several studies analyzed the effects of an oligopolistic German electricity market by means of game theoretic modelling tools (Kemfert 2000, Ellersdorfer 2000, Weber 2001). All studies show electricity prices above marginal production costs and, thus, see the possibility of market imperfections.
3.3.2 Telecommunications

Telecommunications is the sector where liberalization has been longest established and where significant reforms have been undertaken in a number of countries since the 1980s. As a result the literature regarding this sector has been able to explore some of the details of the reform process relatively extensively. Even so it appears that the field is better covered in some countries than in others.

A key component of the early post privatization policy in the UK was the system of limited competition – the duopoly policy. The failure of duopoly policy has been analyzed by many authors including Beesley et al. (1997), Pye (1990), and Gillick (1987, 1991). Throughout the duopoly period, Mercury could not compete effectively with British Telecom in both local and trunk networks. The literature has been equally highly critical of the subsequent attempt to introduce competition through the local loop (Harper 1995; 1996; Armstrong 1996) given the high initial investment cost associated with infrastructure.

What of the regional and distribution effects of liberalization? Price and Hancock (1998) argue that some vulnerable households, especially pensioners, were adversely affected by the liberalization because price rebalancing removed the cross subsidies sustained by monopoly. They also argue that much greater changes are likely to follow as the competition is being developed. Helm and Jenkinson (1997: 9) also point out that the effect of competition is to undermine cross-subsidies; unless other policies are adjusted there will be losers. Hills (1989: 143) argues that the claim that liberalization and privatization would increase ‘universal service’ defined in terms of penetration rate and usage of the telephone has not been proved’. According to Yarrow (1996), however, ‘social objectives in telecoms, particularly in the form of universal service objectives, have traditionally provided a rationale for regulatory interventions that, among other things, have served to suppress competition and to remove choice from final consumers’ (Yarrow, 1996: 82).

According to Bayliss (2002) privatization has demonstrably damaged the poor, whether through loss of employment and income, or through exclusion from, or reduced access to, basic service mainly because private firms are principally concerned with profits, prices and costs, and are highly selective as to sectors and types of consumer.

For France, Herisson (2002) identified a number of benefits stemming from the opening to competition: for consumers there were large price reductions, the development of new services and a diversity of technologies and uses. Dang Nguyen and Phan (1997) highlight instead the likely tension between the principles of competition and public service: the authors are especially concerned with the strategies adopted by France Telecom to preserve its dominant position; they highlight the contrast between Telecom’s defensive approach within the domestic market (through aggressive commercial practices including the sale of certain services at a loss) and the offensive approach in the international market (via acquisitions and alliances). According to Larcher ((2002) the threefold strategy involving lower prices
and improved services, development of new businesses in the internet and mobile sectors and accelerated international development has resulted in the accumulation of a massive debt, which is not sustainable.

In Germany, both the market for service provision and the market for infrastructure have been interesting for potential market newcomers. In the three years after market liberalization, a lot of companies tried to enter the market. Most of them had failed, especially in the local loop market. Backhaus analyzed that the reason for the lack of market newcomers is not only in economic aspects but also in the bad professional acting of these companies (Backhaus 1998). He concludes that the competitive markets are those in the highly dense areas.

3.3.3 Postal services

Given that it is arguably the oldest of the basic services it is perhaps surprising that the postal sector has not been the subject of more extensive academic analysis. Paradoxically, perhaps it may be the very longevity and the lack of radical shifts in ownership and organization over much of that period that has kept it out of the academic spotlight. Moreover the basic principles on which postal service provision has rested (universal service provision and uniformity of pricing) have been left relatively unchallenged. The limited literature may also be explicable by the high degree of specialization in the sector and of in-house research and analytical capacity. Finally, the fact that postal services have been a relatively recent target for radical reform may also kept it off the academic agenda.

There has been some assessment of the impact of regulatory reforms in Germany. BMWi (2002) states that the reform policy has increased the efficiency of the Deutsche Post AG. Additionally, there emerged competition in the courier, express and packet-market accrued. But in the letter distribution market, there is no competition noticeable. Overall, not much competition in German postal service markets takes place. In 2001, four years after the introduction of the license system in the delivery services for letters up to 1,000g, the market share of licensees is only 2.4 percent. The remaining letters up to 1,000g are delivered by the Deutsche Post AG. In the fully liberalized market of delivering for example letters heavier than 200g or letters costlier than 2.55 Euro, the market share of licensees adds up to only 7.1 percent (RegTP, 2002).

The Monopolkommission (2001) states that there is no competition in the area of letter distribution despite the fact that more than 660 private companies are licensees in the postal service sector. In 2001, the market share of private companies was 1.6 percent. Reasons that explain the insufficient development of competition concern the legal exclusive license for the Deutsche Post AG, and the possibility of cross-subsidies. Cross-subsidizing is possible for the Deutsche Post AG by connecting the activities in the area of exclusive rights with activities in the area of competition. Secondly, there are some structural competition restraints, including advantages of the Deutsche Post AG due to the size and the well known trademark.
3.3.4 Public transport

Public Transport as a basic service has been a long standing focus for wide ranging research in the academic field. Since the 1980s the principal focus of economic, transport studies has been the re-organization of the various modes of public transport.

The UK literature on bus deregulation and privatization is probably the most extensively covered in the economics literature given that the policy has been in place for over twenty years (Mackie and Preston 1996). Mackie (2001) identifies a wave of mergers in the bus sector over the period of operation with five groups now controlling two thirds of market. In the light of experience it is clear that those commentators who questioned the competitive effects were largely vindicated. Mackie (2001) refers to the sector as a weak natural monopoly. As Preston (2001) notes in a review of bus and rail reform, competition for the market appears to be more effective than competition in the market.

The literature also makes it clear that the question of competition cannot be separated from the issue of subsidies. Mackie (2001) stresses the externality (congestion) effects. Glaister (2001) modelled the effects of such subsidies for large cities in the UK in order to establish which combinations of policy measures offer the best value for money. He concludes that that subsidies for buses are amongst the most cost-effective measures.

Whereas the literature on bus reforms portrays a rather mixed set of outcomes arising from the processes of deregulation and privatization, the literature on rail reform illustrates how the principle of competition has been edged off the policy agenda. Gibb et al (1998) contrast the ideological context of BR privatization and its actual practice. They note that while the privatization of rail was premised on the need for a radical restructuring, in practice there has not been any increase of competition. Shaw (2000) charts the process whereby the initial intention of introducing greater competition into railway services has largely been sidelined as the difficulties in privatizing, regulating and running the service have multiplied.

In the literature on urban public transport, the French scientific literature is focused less on the evolution of market conditions than on the redefinition of public service missions and on the ways in which externalities can be evaluated in order to improve the attractiveness of this mode of transport. Bonnafous distinguishes between two principles of public service in transport provision: services for those users most lacking in alternative modes of transport through a tariff which is subsidized from public finances; and services for the bulk of the population with the aim of achieving positive externalities against emissions, congestion etc. Concerning the evaluation of externalities (positive and negative) a report coordinated by Boiteux (1994) calls for more rigour in the assessment of projects, particularly in terms of their impact on the environment and safety. An integrated approach taking account of sustainable development is required, particularly in terms of external costs. Bonnafous and Matheu (1995) complement this analysis by emphasizing the focus upon the
dysfunctions and inconsistencies in transport policy regarding questions of investment, pricing and financing.

In Italy, research suggests that the best strategy for introducing competition in the bus industry can be ensured through a competitive tendering approach for an area of given dimension and not through a route-by-route tendering. In searching for the optimal dimension it should be considered that there is a trade-off in the definition of the size of the bus service area to be assigned through a competitive tendering process. On the one hand, the definition of a small service area to be assigned, for instance a bus line, can guarantee a high level of competition because many operators will be able to participate in the tendering process. On the other hand, a small service area cannot guarantee an optimal exploitation of the economies of scale (Filippini and Cambini 2001, p17).

The German economic literature on public transport has addressed a wide range of issues. This has included attempts to identify the sources of market failure in the sector. Willeke (1993) argues that policy should balance external costs and external benefits in order to derive a social allocation optimum. Similarly, Knapp (1998) is of the opinion that a superior instance should calculate social external effects of different options for action in the transport sector to facilitate the valuation of these options. Knapp recommends a combination of measures for the use in the traffic sector, namely ‘soft policies’ (which provide information to passengers), pricing measures, and a special public transport policy (which improves the attractiveness of public transport).

Several authors criticize the development of the German public transport sector. Ewers and Ilgmann (2001) state that the German railways face no substantial competition. In 2000 only three to four per cent of the overall transport distance was generated by competitors of the DB AG. Ewers (2000) emphasizes, that the competition between the carriers of bus and tram services is very weak. Several years after the railway reform only four per cent of the volume of sales in the Bahn local travel is obtained by newcomers, the rest by DB Regio. Most of the urban transport services are subsidized and therefore no fair competition takes place.

3.3.5 Conclusions

Overall, the primarily economic analyses of regulatory reforms agree that some change in the existing arrangements was required. However, substantiating the extent or even the existence of benefits as a result of the reforms is not a particularly visible feature of the literature. While some account of price effects has been given on a general basis along with more limited range of in-depth analyses of reforms these accounts are often hedged by various qualifications which raise questions about the overall effect, particularly in distributional terms. The uncertainty regarding the overall effect of reforms reflects misgivings over the emerging structure of the liberalized markets and the effectiveness of the regulation overseeing their development.
For some sections and countries – both those most engaged in reform and those most
slow to reform – there is a debate about the longer term consequences of
liberalization. This embraces questions of general sectoral development (technical
change in the telecoms sector, supply security in the electricity case) but often returns
us to questions of distribution.

3.4 **EU policy on basic services**

National approaches to sectoral reform do not develop in a vacuum. Changes at the
EU level are the decisive factors in shaping national reforms: for most states in most
sectors, national reforms have been driven by the need to adapt the regulation and
organization of basic service provision in line with policies agreed at the EU level.

The European Union’s interest in reforming the public utilities dates back to the 1980s
and was part of a much broader shift in the conventional wisdom regarding the
organization of these industries. First, there was a significant change in how these
industries were regarded, particularly, but not only, in the United States. These
changes were in line with the Commission’s own perception of a need for economic
reform and the potential of Community law to drive forward such reform: the
proponents of the single market program and the increasingly pro-active competition
policy authorities saw the need to move away from nationally protected public utilities
towards European markets for these services. Finally as the policy was introduced in
one country and/or sector there developed a constituency of support for further reform,
despite the fact that research, which was emerging in the meantime, suggested the
need of a reconsideration of the original reform objectives. In other words, we are here
faced with a classical case for ‘institutional path dependency’ as known from political
science.

Thus, starting in the telecoms sector, the initiative for reform spread first to the energy
sectors in the late 1980s and then to postal services and public transport in the 1990s.
In each case the reforms involved

- a gradual and closely negotiated market opening,
- a separation or unbundling of different functions within the sector,
- the establishment of independent regulation, and
- the specification of mechanisms to pursue broader public policy objectives,
  including public/universal service obligations.

The original deregulation drive has thus been gradually replaced by a ‘regulated
deregulation’ process.

In tandem with this process of sector specific legislation there has also been an
increased application of the EU competition rules as issues of market conduct, the
positions of incumbents, corporate restructuring and government support became more salient.

The development of a European policy to liberalize electricity supply was effectively launched with the publication of the 1988 paper on the Single Market in Energy. This outlined a program to increase competition in all the energy sectors. For electricity (and gas) the main aim at this stage was to encourage greater trade between member states and increase transparency of prices. Market liberalization was postponed for a later stage. First proposals were advanced in 1992. A relevant directive proposing partial liberalization was agreed upon in 1996, this entered into force two years later. Further liberalization steps were adopted in the wake of the Lisbon Council in 2002. Following negotiations the final legislation allows for a full liberalization of the electricity markets for the commercial sectors by 2004 and an extension of the market for domestic consumers by 2007. The 2002 directive foresees also the establishment of independent regulatory authorities and clearer commitments to public service.

The policy on telecommunications liberalization was launched in 1987 with the Telecoms Green Paper which set out to liberalize monopoly segments, harmonize rules and standards and apply competition policy. Following the Green Paper a number of legislative acts were proposed by the Commission including the 1988 Terminals Directive, the 1990 Services and Open Network Directives and the 1991 Equipment Directive. These measures were followed in the early 1990s by a series of legislative measures to extend liberalization and to provide for some limited re-regulation of the sector for setting terms for universal service obligations for telecoms operators. By 1998 the telecoms market was fully liberalized. However, given the pace of technical change, a more flexible regulatory regime was regarded as necessary. The new regulatory framework comprises five harmonization directives adopted in 2002 covering access and interconnection, authorization, universal service and users' rights and privacy protection. The most important dimension of the reform is a move towards the use of competition policy as the principal component of regulation in the sector. The measures also delegate much of the responsibility for regulation to the national level.

In the current legislation universal service is deemed to refer to the provision of a defined set of services to all end-users regardless of their geographical location and, in light of specific national conditions, at an affordable price. The legislation also makes provisions to enable designated providers of such services to be compensated for any net cost where it can be shown that the service can only be provided at a loss or non commercial return.

A Green Paper on the Single Market in Postal Services was published in 1992. The following year the Commission published guidelines for policy which were subsequently formulated into legislative proposals. The Directive was agreed at the end of 1997, entering into force in early 1998. Its principal objectives were to introduce liberalization into the provision of postal services and set out the principles for the authorization or licensing of such services. Provisions on universal service were also outlined in the 1997 directive. This required that universal service providers guarantee every working day and not less than five days a week, as a minimum: one clearance;
one delivery to the home or premises of every natural or legal person or to appropriate installations. The universal service should cover at a minimum: the clearance, sorting, transport and distribution of postal items up to ten kilograms as well as services for registered items and insured items. On 10 June 2002, the European Parliament and the Council formally adopted the Directive 2002/39/EC, which amends the initial Postal Directive by defining further steps in the process of gradual and controlled market opening. The new Directive sets 1 January 2009 as a possible date for the full accomplishment of the Internal Market for postal services, to be confirmed (or changed) by co-decision procedure, in other words, with the agreement of both the European Parliament and the Council.

The provisions of the treaty and much of the Community’s activities in the transport sector were focused upon freight transport and interstate commerce. European policy on passenger and public transport is restricted by subsidiarity. The main issues to be addressed by the Commission have been relationships between public transport operators and national governments. In a series of regulations dating from the 1960s the Commission’s aim has been to render these relationships more transparent and to ensure that social objectives are directly supported by governments. Regulation (EEC) No 1191/69 concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway set out some general principles on how assistance should be given to operators. This was updated in 1991 while in 2000 a proposal was put forward for a regulation which would introduce a system of controlled competition for public transport operations through competitive tendering. A revised proposal was circulated earlier in 2005.

The interpretation of EU provisions on public subsidies for local/regional public transport and, in fact, the question whether they were applicable at all remained unclear until the European Court of Justice ruled in a landmark decision in 2003. This decision was based on a lawsuit of a private bus operator against a German municipality and clarified the application of European legislation for local/regional public transport (Case C-280/00, 24 July 2003). The ruling of the court defended the right of a member state to grant subsidies as a compensation for the provision of basic services.

While the bulk of EU-level interventions have concerned conditions in particular sectors providing basic services, there has been a more general impact of European rules and law. The main factor here has been the application of competition policy. The role of competition policy in these sectors has developed rapidly, partly through the direct use (or threat of use) of one of the Competition articles but more generally through the use of the general competition rules relating to market collusion, abuse of dominant position, state aid control and mergers. The use of competition policy has been particularly important given that in most cases these sectors have been moving from market conditions of monopoly or near monopoly towards greater market openness. Still, the process of change has often left incumbents with considerable market power.

The use of competition policy in these markets has also raised a related debate on how competition policy rules can be reconciled with the social and regional policy
objectives associated with basic services. Article 90 (now 86) of the Treaty declared that, for public undertakings and undertakings enjoying special or exclusive rights, member states would not enact the competition rules. It went to declare (90/86.2) that undertakings carrying out services of general economic interest were also subject to the rules of the Treaty but only insofar as such rules did not obstruct the performance of those tasks.

The potential article 90 as both an agent of liberalization and for mitigating liberalization became apparent in the 1980s when its third provision was used to ‘kick start’ telecoms liberalization. The discussion of its possible application in other utilities provoked a reaction amongst a variety of groups including some governments, a number of utilities and organizations and unions and civil society organizations. Beginning in the early 1990s, there emerged a campaign, directed at a number of Community institutions, to rescind the final provision of the article or to give greater weight to the provision of services of general economic interest. Over the same period Community law has impinged on the issue, partly in the form of a series of Court judgements which have set out various criteria about the status of such obligations and partly in the form of Commission rules over the use of state aids to support the provision of such services.

In 2003 the European Commission turned its attention explicitly to the issue of the general/public interest of network services. With the publication of its Green Paper on Services of General Interest (EC 2003) it launched a discussion and consultation process addressing issues such as Community action vs. subsidiarity, governance, types of universal service, financing and service quality. The subsequent 2004 White Paper on Services of General Interest (EC 2004) spoke against the idea of adopting specific European legislation on services of general interest by stating that ‘the powers currently conferred on the Community with regard to services of general interest are appropriate and sufficient in order to ensure that well-functioning services can be maintained and developed throughout the Union’ (ibid, p.6). According to the White Paper, the role of the European Institutions should be largely confined to their present activities, such as evaluating the performance of basic services, ensuring competitive open markets and increasing transparency.

A more far reaching involvement of the European Institutions in the field of services of general interest was proposed in Article III-6 of the Constitutional Treaty of the EU. However, given that the Treaty has still to be approved by all member states, the scope for European intervention remains for the time being unchanged.

3.5 Stakeholder perspectives

The dominance, over the last couple of decades of the (regulated) deregulation paradigm is also evidenced at the level of stakeholders such as political parties, business organizations, trade unions or consumer organizations and as documented in the media. There are of course differences between these stakeholders depending on their perspective and the interests they represent; moreover, insofar as political
parties and trade unions are concerned these differences run across the left-right cleavage. At the same time, most stakeholders accept the need of reform – many on ideological grounds, some as a result of pragmatism.

A shift of consensus has taken place at the political level. Throughout the 1990s, acceptance for the need of regulatory reform regarding network services grew across all political parties. However, this shift was easier for some groups as compared to others. Parties of the centre right have generally found it easier to adapt to (or lead) the process of reform than parties of the centre left. Given the emphasis in traditional left wing discourses on solidarity, equity, employment and the relative virtues of public over private, and state over market the adaptation was both harder and proved often more divisive.

Equity and cohesion issues also shape the reactions of trades unions and for the most part these reactions have also been rather defensive. Concerned about the impact of reforms on employment structures and overall labour market demand, unions have generally been hostile towards privatization and liberalization. Here again, however, we can observe significant variation with radical unions attacking any reform whatsoever, while others adopt a more pragmatic approach, especially once the process of reform has already been determined.

By contrast the most unambiguously positive perspective on reform has come from business organizations. As users of the utility and infrastructure services which have traditionally been bundled up with basic services, and as potential beneficiaries of competition, these groups have generally been keen to see the process of reform accelerated. While generally not opposed to special arrangements for basic services, their view is generally that such support should be kept to a minimum and should not be allowed to cloud a relatively limited set of regulatory commitments (which should themselves be designed to promote competition wherever possible).

While commercial and industrial consumers see gains from liberalization, groups representing households as consumers have generally been ambivalent in their response to reform. On the one hand, many such organizations welcome the opportunity to reduce prices for basic services and often set about helping consumers to identify the best deals and to tackle market abuses by suppliers. On the other hand, the question of the consequences of competition – both in terms of the knock-on effects from commercial/industrial liberalization or from competition in the household sector itself – has left such organizations campaigning to see the distributional effects of liberalization carefully monitored and compensated for.

The above positions have been reproduced through the media over the last years. The media has thus contributed to consolidating a general acceptance of the expected benefits of liberalization; ambivalence is also visible in the attitude of the media towards liberalization. In most countries there has been a growing acceptance of the need for such reforms - the degree of enthusiasm varying to some extent with the political affiliation of the newspaper - but concern at the effects (or shortcomings ) of liberalization.
3.6 National policies

3.6.1 Electricity

In the **United Kingdom**, the switch to a more market based system came in the early 1980s when the recently elected Thatcher government announced that it would no longer pursue the traditional pattern of energy policy. After an unsuccessful initiative to increase competition – the 1983 Energy Act – the government opted for a mixed strategy of privatization and liberalization. This is outlined in the Electricity Act of 1989. The Office of Electricity Regulation (Offer) was established to promote the development of competition and to regulate those aspects of the sector which were not open to competition and to set service quality standards with the utilities. Offer oversaw the liberalization of the market which was completed in 1998.

Reforms introduced in the Utilities Act 2000 led to a merging of the gas and electricity regulatory offices into a single organization, Office of Gas and Electricity Markets (OFGEM), and the promotion of consumer interests to a primary regulatory objective, particularly with regards to disadvantaged customers. The status of consumers is to be reinforced by the creation of a Gas and Electricity Consumers Council.

The **German** electricity sector has been largely regulated by a mix of the federal Energy Law and competition policy. In transposing the 1996 EU electricity directive Germans chose to adopt the option of negotiated TPA which left the country with a system of regulation on the basis of competition policy rather than the creation of a specific regulator. An independent regulatory authority was only established following the next wave of EU electricity reforms in the summer 2005.

The electricity sector itself has undergone a number of major changes in the last two decades. Although there remain around 1000 companies involved in the production transmission, distribution and supply of electricity ten companies dominate the sector. These ten comprise a number of integrated utilities operating inside Germany and other countries as well as a number of regional and municipal companies. Another trend in recent years has been the increasing privatization of municipal and regional (Länder) utilities.

In **Austria** the Electricity Industry and Organization Law (EIWOG) was passed in 1998 and since then changed a number of times (in 2000, 2002 and 2004). The law incorporates and supersedes the EU directive on the electricity single market: the Austrian electricity market is completely liberalized since the beginning of October 2001. The new energy law dating from 2004 draws a strict distinction between grid operation and energy supply. The law imposes public service obligations of common interest on the grid operators: non-discriminating treatment of all net users, general obligation with reference to connection, obligation to accept green electricity and construction and maintenance of sufficient grid infrastructure. There are also provisions to ensure service quality, both technical quality and commercial quality.
Aspects pertaining to quality are part of the concessions issued to grid operators by the regulator.

The law further obliges the net operators to invest in infrastructure, but there is no official federal planning board. This is also the law’s weakest part, especially considering that Austria displays the largest weak spot in the European system of high voltage transmission lines. Given the low investment rate in generation plants and maintenance, supply problems are as likely as interface problems.

The basic legislation for the electricity sector in the Netherlands is dealt with in the Electricity Law also dating from 1998. The law established an independent regulator (DTe) and a system operator (TenneT), and set out procedures for organizing the market and resolving disputes. The other main element of the law was setting a timetable for market liberalization: by opening the market to the largest third of suppliers in 1998, the next third by 2002 and the rest of the market by 2004, the law went further than was required by the 1996 directive.

In Italy, the transposition of the EC Directive 96/92 likewise began in 1998 but has proceeded much slower. Among else, this has led to the establishment of the National Grid Operator GRTN and the selling from the ex-incumbent ENEL of internal power generation to other operators. However, as the recent blackout crisis on September 2003 has demonstrated, there are still crucial policy issues to be discussed. Important aspects for completing the reform such as breaking up the dominant position of ENEL, are still at a standstill, and a common vision regarding market liberalization is still missing. Moreover, the conduct of regulatory authorities is controversial.

The French electricity market re-structuring only began in 2000. French legislation restricts itself to the minimum requirements of the directive, hence the electricity market in France is only 37 per cent open to competition. EDF (Electricité de France) continues to control some 95 per cent of the French generating market. What has changed is that most of the public service obligations incumbent on EDF proceed less from a relation of ‘natural’ authority than from a negotiated partnership through so-called framework contracts.

In terms of public service obligations, the obligations of electricity providers (de facto, EDF) are organized around three principles, namely, the territorial uniformity of prices for consumers, the uninterrupted supply of electricity and the obligation to optimize territorial coverage accounting for environmental issues and relations with neighbouring countries.

Electricity regulation in Poland is covered under the 1997 Energy Law which adjusts Polish law to EU directives. Regulation is carried out by the Energy Regulation Office on the basis of ordinances issued by the competent Ministry. The regulator is responsible for the granting of concessions to companies engaged in electricity production, transmission, distribution and supply. Such companies have to comply with certain conditions of ownership, finance and competence. Concessions are
granted for limited period of time (10 to 50 years). Tariffs rules are fixed by companies themselves, but are affirmed by the regulator.

A new electricity market law on the sector’s liberalization and the definition of basic service was rejected in Switzerland by public referendum in 2002. The law is currently under revision and will be brought forward in 2007. The main motor behind liberalization of the electricity sector in Switzerland are small and medium size enterprises which pay considerably higher prices for electricity than their counterparts throughout the EU.

3.6.2 Postal services

The legal framework of the postal sector in Austria is given by the postal law from 1997. This law essentially implements the relevant EU Directive 97/67 into Austrian law and follows the Directive’s model. On universal service the law states that the operator is obliged to provide a continuous service covering the entire national territory at affordable prices while maintaining a reasonable quality. These very general obligations are specified in more detail in a separate government decree (Universaldienstverordnung) which was issued in the year 2002. The law grants the reserved service (covering letters up to 100g (from 2006: 50g) exclusively to the Österreichische Post AG. Tariff regulation and accounting are overseen by the Austrian Minister for Transport, Innovation and Technology who is officially the head of the regulation authority (Postbüro). The Post AG currently has a monopoly for the reserved services while it is facing increasing competition in the non-reserved universal services and all other areas. From 2009 onwards the currently reserved services will be opened completely to competition.

The French postal system is undergoing major structural change as a consequence of transposition of the European directives of December 1997 and June 2002. According to the most recent bill from 2005, the monopoly area of La Poste covers domestic and foreign correspondence including advertising material weighing less than 100 grams and costing less than three times the price of a minimum-weight first class delivery, without exceeding the cost of one Euro. At the present time, and since January 1, 2003 more than half of the sales figures of La Poste is open to competition, a proportion that will grow in the years to come. The regulatory tasks regarding postal services have been assigned to the Telecommunications Regulatory Authority ART which has thus become the ARTP Telecommunications and Postal Regulatory Authority.

In Germany, a new postal Act with the aim of promoting competition in the postal service sector and guaranteeing an adequate service quality all over the country was passed in 1998. In addition the government has changed the status of Deutsche Post and partially privatized the company over the last ten years. A regulatory authority – RegTP – is inter alia responsible for the license allocation and inspection for the postal sector. The Deutsche Post AG has the exclusive license to deliver correspondences
under 200g and mass mailings under 50g. But, competitors are allowed to offer value-added services such as on-the-day delivery.

In May 2002, the Post- und telekommunikationstechnisches Bereinigungsgesetz was passed. By this law, some legal adjustments were enforced in order to come up to the liberalization process of the postal service market. The Post-Universaldienstleistungsverordnung (PUDLV, Provision of Universal Postal Services Order) defines universal postal services as well as quality characteristics of letter posting, packet deliveries as well as newspaper and magazine deliveries are determined. According to the rules, there have to be at least 12,000 postal service facilities. Additionally, there have to be enough letter boxes to ensure users in areas, which are connected covered with buildings, to reach a letter box within one kilometre distance. The maximum delivery time for letters is framed as follows: At least 80 percent of all letters should be delivered within one working day, and at least 95 percent within two working days. Beside the quality aspects, the fees are regulated as well.

In order to guarantee the quality of the postal service the Italian Ministry of Telecommunication set the quality of service standards focus in particular on routing and delivery times, regularity and reliability of services. Universal Service Obligations including cross-border services encompasses (Legislative Decree 261/1999) the following: the clearance, sorting, transport and distribution of postal items up to 2 kilograms; the clearance, sorting, transport and distribution of postal packages up to 20 kilograms; services for registered items and insured items. The Ministry of Telecommunication administers the compensation fund for the financing of the USO and defines quality standards in relation to universal services, in addition to a periodic monitoring activity on the related services.

The Law on Postal Services from 2000 contains the basic legislation on this sector in the Netherlands. It replaced various amended versions of the ‘Postwet 1954’. The law was designed to implement the 1997 directive, including the reserved services, universal service provisions and the establishment of the regulatory authority (OPTA, the telecommunications regulator). Further legislation is planned which will meet the government’s stated objective of completely liberalizing the postal market by 2007. Over this period the government has also introduced legislation to partially privatize the national postal operator.

In Poland, the EU directive on postal liberalization was implemented through the Postal Law of June 2003. In the postal service sector it outlines three categories: reserved common postal services; non-reserved common postal services; and other postal services. The first category are established as a monopoly for Polish Post as a public operator. There are additional responsibilities according to this issue imposed by the minister referring to: minimal quality standards (as far as collection and delivery of mail and postal orders are concerned) level of services (including protection of clients’ interests) and requirements of international standardization bodies.

In Switzerland the postal services are divided into a universal service area and a non-regulated area. The universal area is again divided into two parts: the reserved part
(reserved to the monopolist, Swiss Post) and the non-reserved part. The difference between the non-regulated area and non-reserved area is that the monopolist is forced to provide the services in the non-reserved area while Swiss Post is free to offer services in the non-regulated area. In the non-reserved area and in the non-regulated area the Swiss Post has to deal with competition. We find competition in the parcel market and in special markets such as express mail. Swiss Post is obliged to guarantee free access to the universal services (both to the reserved and non-reserved areas) and to provide these services in all parts of Switzerland according to equal principles, in good quality and for reasonable prices. The prices in the reserved area have to be granted by the relevant department.

The Post Office in the United Kingdom was deemed to be too controversial a target for privatization or even extensive liberalization, even under the Thatcher regime. For the most part however the major reforms of the 1980s involved internal restructuring of the Post Office. At the same time the emergence of a small but significant private postal sector and demands from large users increased the pressure for further liberalization of the postal market. With the change of government in 1997 there was a renewed interest in reforming the postal service, providing for greater commercial freedom.

Initial reforms were introduced in order to implement the 1997 Directive. The 1999 Postal Services Regulation amended existing legislation applicable in the sector. This regulatory structure along with changes to the Post Office’s role and to competition in the market were spelt out in the 2000 Postal Services Act. Partly this legislation was concerned with the redefinition of the Post Office itself: it allowed for its conversion from a public corporation to a public limited company, 100% owned by the government. The legislation also brought into primary legislation the implementing measures for the 1997 Directive. The bulk of the legislation, however, was concerned with the powers and duties of the postal regulator.

3.6.3 Telecommunications

The United Kingdom was again one of the first countries to open its telecommunications market when it privatized BT in 1984 and nurtured a competitor, Mercury, with creation of a quasi-independent regulatory body, OFTEL. In 1985, the two cellular operators, Cellnet and Vodafone, began commercial service. In 1990 November, a ‘Duopoly Review’ began with a Department of Trade and Industry consultative document. In March 1991, the duopoly policy was ended and international simple resale to destinations with equivalent freedom to the UK was allowed. The access deficit contribution (ADC) system was introduced. During the transition period of 1991 and 1997, various pro-competitive policies were introduced to encourage new entrants build their own networks. OFTEL forced service providers to buy network operators’ facilities at retail price. OFTEL did not levy equal access obligation on cable operators. Entry assistance has been justified as promoting competition.
From 1998 onwards, UK regulatory policy was aligned with EU rules, first in 1998 and then 2002. Provisions for the latter reforms were included in 2004 Communications Act which shifted the UK away from the current licensing regime to a new regime where companies will operate under general conditions of entitlement. The Act also established a new Communications regulator OFCOM which embraced a range of communications activities including those formerly dealt with by Oftel.

Liberalization in all other countries set in between 1996 and 2000.

The German telecommunication law from 1996 implements the analogous EU Directive. In 2002 a new EU Directive has been passed with the focus on and not on the transfer to workable competition. Germany is late in transferring the recommendations into an update of the telecommunication law.

Universal service is specified by the law. Universal services characterize a minimum level of telecommunication service provision: Every user should have access to a defined quality of telecommunication services at an affordable price. Among other things, the regulation of fees is determined. In the Telecommunication Customer Protection Order, the rights and duties of providers of public telecommunication services are regulated. Inter alia the discrimination of telecommunication service users is ruled out: Market dominating providers of telecommunication services have to provide everybody with their services at the same conditions.

Because the former monopolist of the telecommunication markets, Deutsche Telekom AG, will remain market dominating for some time, a regulator has to control the market power of the dominating providers. At the beginning of 1998, the RegTP Regulation Authority for Telecommunication and Postal Services was established.

Due to the application of the Law of July 26, 1996, France Télécom’s total monopoly on fixed connections ended on January 1st 1998 for national, international, and cell phone-directed calls, and on January 1, 2002, for all local calls. However, France Télécom retains control of the local network, and all access by other operators is conditional on a France Télécom connection which is billed additionally and separately from other subscriptions or call charges. In practice, this means that clients of alternative operators are obliged to engage in a separate subscription with France Télécom in addition to their contract with their current service provider. This situation, which distorts competition, should be progressively phased out through the practice that allows alternative operators the option of controlling little by little access to the local network without having to go through France Télécom, on the condition that they control their own national network. This practice of opening up access is late compared with other EU countries, but seems to be picking up speed since the beginning of 2003. Regulatory competence is shared between the Minister of Telecommunications and the Telecommunications Regulation Authority, set up in 1997.

Public service in telecommunications in the context of competition was defined by the law of July 26th 1996. It is based on the principles of equality, continuity, and adaptability, and comprises three components: (1) universal telecommunication
service, (2) compulsory telecommunications services (including country-wide provision of digital services, leased lines, packaged transmission, advanced vocal services and telex), and (3) public interest obligations relating to defense, security, research, and higher education. The universal service operator must provide affordable telephone service to all. It must provide for free emergency calls, a directory enquiries service, and a paper and on-line directory. It guarantees the availability of call boxes country-wide. It must also provide special conditions for people who have difficulty accessing the telephone service because of disability or low income. As a result of the general principle of territorial uniformity and of compulsory consultation between France Télécom and local authorities, regional disparities are currently virtually non-existent concerning normal vocal and digital communications.

The Austrian telecommunications law came into force at the first of August 1997 to realize a liberalized market for telecommunications services as demanded by the EU by the January 1st, 1998. In 2003 the revised TKG came into effect, implementing the new European legal framework.

Universal service comprises the following services: access to the public telephone services with a connection at a fixed location that is capable of operating a fax machine and a modem, including data communications at rates sufficient for access to internet (narrow band net connection, not ISDN); provision of operator-spanning directory enquiry service; provision of operator-spanning directories of participants of public telephone services as well as access to the directory, and; area-wide provision of public pay telephones on commonly and anytime accessible places. Implementation of these rules are the responsibility of three bodies, namely, the Telecom Control Commission (TKK), the Austrian Regulatory Authority for Broadcasting and Telecommunications (RTR), and the Federal Minister for Transport, Innovation and Technology (BMVIT).

In Italy, the first step toward the adoption of the EC Directives was realized through the legislative decree no. 103 (17 March 1995). Law no. 650 (23 December 1996) authorized the government to transpose the EC Directives on satellite television, full competition, and open network provision. An important role for the adoption of the EC directives was also played by the Law no. 249 (July 31 1997) which established an independent regulator – the Authority for the Communications and determined January 1st, 1998 as the deadline for the liberalization of telephone services.

The regulator publishes interconnection fees in order to favour the access to the network for new operators in non discriminatory way and defines the application of the price cap mechanism for certain services. Special programs for less favoured people have been devised: people earning up to € 7,000 yearly can claim tariffs reduction by 50%. According to AGCOM data, over a potentially 1,300,000 users eligible for tariff reduction, only 55 thousand have requested tariffs reduction (April 2002). It also sets general and specific service quality standards with each operator adopting a ‘Charter of services’.

In the Netherlands, the basic legislation on telecommunications is dealt by the Law on Telecommunication from 1998. It replaced a number of previous laws, which had
directly or indirectly to do with telecommunication, most notably the law on Telecommunication Provisions of 1987. Although no explicit reference to any European guideline was given, the 1998 law followed the requirements of the EU’s telecom legislation (establishing independent regulators, terms of access for competition, universal service and consumer protection, etc). The Act was revised in 2004, bringing into Dutch law the requirements of the most recent Telecoms Package. In addition, legislation from the 1980s allowed for the steady privatization of the national telecoms operator.

Market reform in the Polish telecommunication sector began in the early 1990s and has been accelerated by necessity of implementing EU rules. There was, however, strong resistance to liberalization caused by fears that prices would increase. A new Telecommunication Law was introduced on 21st July 2000, effective since 1st January 2001. The law replaced the system of concession through permissions for public telecommunication stationary network exploitation. Other types of activity in this sector require only a registration with the Telecommunication and Post Regulation Office. The main aim of the statute was total liberalization of national telephone connections. Latest amendments were introduced on 22nd May 2003 (valid since 1st of August). Changes concerned definition of common service, its terms, ability to transfer telephone number to network of other service operator, ability to choose an operator, and elimination of imprecise regulations, discovered while practical usage of the statute by ministry units.

The Swiss telecommunication sector has been liberalized to a great extent. In the market for fixed network connections there are a few competitors in a price fight. This led to innovation activities and falling prices. However, the Swisscom share in domestic fixed network connections is still high (around 80%). In international calls, the Swisscom share is clearly lower. On the market for narrow band one-off connections Swisscom still has the monopoly (last mile). However, the Federal Government wants a liberalization of the market for narrow band one-off connections. There is no market for public phone boxes. Swisscom still holds the monopoly though other suppliers could also set up public phone boxes.

The license for basic services is given to one supplier every five years. The license obliges the supplier to provide all basic services following telecommunication legislation. However, the license does not give the exclusive right to offer the basic services. Today, the obligation to provide basic services in telecommunication is given to Swisscom until 2007.

3.6.4 Urban passenger transport

Although member states have had to align their transport policies with EU rules, this is probably the sector where there is still considerable scope for national policies to be pursued. Thus there is substantial diversity in the approaches adopted and the factors prioritized in different national contexts. Nonetheless in recent years the impact of the EU on national policies and laws has been increasing.
The two EU railway liberalization packages have led to a complete restructuring of the railway sector in Austria. However, in the area of local and regional public transport the impact of EU legislation has hitherto been rather small. The legal framework for public transport is given by three main pieces of legislation: the law on the organization of public local and regional transport (1999); the law on passenger transport by bus (1999) and; the Railway law (1957). The railway law is at the core of all the substantial changes in terms of the liberalization and deregulation of the railway market. Most of the recent changes to this law are driven by European legislation, most importantly by the Regulation 1191/69 on public service obligations in transport. The law on the organization of public local and regional transport provides a comprehensive legal framework for the organization and financing of the operation of public transport services. The law on passenger transport by bus governs licensing of bus companies operating scheduled services. All relevant public transport operators in Austria are still owned 100% either by the national government or by the regional authorities. The only private transport operators are currently a few local train companies a few small bus companies. Their overall market share on the national level is estimated to be well below five per cent.

According to the Transport Planning Law of December 30 1982, the responsibility of organizing public urban transportation in France falls to municipalities or municipal agglomerations. Responsible local authorities are also called, in professional terms, Urban Transportation Organizing Authorities (AOTU). The market structure is complex and there are a wide range of operators with varying legal statuses. Generally speaking, urban transport is run on the basis of a monopoly public service delegation by private, public, or mixed companies, and in some cases directly by the local authority / AOTU and Paris, with the RATP. The first solution, the public service delegation, was chosen by over 90% of the AOTUs. The public service delegation takes various forms: either private companies are simply remunerated in return for providing a service (service provider function), or they assume the commercial risk (service provider and service commercialization function). The Law relative to urban solidarity and renewal of December 13, 2000 (called the SRU Law), indicates that ‘people whose resources are equal or inferior to a certain ceiling should benefit from a tariff reduction of at least 50%, or by default, equivalent aid in another form’.

The German Federal Ministry of Transport, Building Industry, and Housing is of the opinion that competition is necessary for the provision of customized services in the public transport sector. The enactment of the ‘Conveyance of Passengers Act’ is a step towards more transparency and competition in public transportation. The main elements of the reform are the institutional reorganization, the debt write-off, and the privatization of the DB AG. There are two groups of public transport services, namely those that are cost-effective and those that are not. The latter, representing basic services, are tendered and subsidized.

In Italy, the Legislative Decree 422/1997 and the deriving regional laws, have regulated the provision of local transport services. The decree transfers to Regional laws the definition of the minimum qualitative and quantitative transport services to be guaranteed. The following criteria should be fulfilled: ensuring accessibility to public health and cultural services; ensuring commuters’ mobility needs and reducing
congestion and pollutant emissions. Important transport planning competencies are assigned to Regional governments more generally. The law states that in principle the Local Transport Operators (LTO) need to cover at least 35% of service costs with revenues raised from the users, through tariffs. The remaining part is financed through subsidies.

Legislation on public transport in the Netherlands was until relatively recently premised on two long established laws - ‘Spoorwegwet’ of 1875 and the law on passenger transport of 1939. The 2000 passenger transport law established principles for the tendering of transport services. In 2003 a new Railway Law and an a Concession law were also introduced. In both cases the new laws were at least partly designed to implement EU policies. The laws also ensure that public transport operators do not abuse their market position by unfair competition on related markets. The most important aim of this law is to increase efficiency of public transports and to increase the number of travelers. Therefore a duty for working with concessions is introduced: the bus company with the best public transport package at a reasonable price gets the exclusive right to transport in that region.

In Poland, the Road Transport law requires that transport businesses obtain an operating certificate and the certifying authority is determined by the territorial range of the business. Carriers have to meet a number of conditions and set out the terms of their operation including the routes prices and schedules as well as professional qualifications and indications of financial and legal suitability. The Law is enforced by the Road Transport Inspectorate which has taken over many of the responsibilities of the police in this area. Local government also plays a role in regulating the sector, within parameters set by the Transport Ministry. Public transport is also regulated by the Conveyance Law. In terms of price controls the only requirement is to publish pricelists, which are fixed by transport companies. However there are a number of conditions, especially on qualitative factors, and liabilities established (with the aim of consumer protection in the result of any cancellations). Local authorities have a primary responsibility for the provision of public transport as a public utility. Local authorities may create their own firms or contract with others to provide such services. The legislation also provides for competitive tendering and price controls.

The characteristics of the market structure in Switzerland are as follows: the public authorities pay for the basic infrastructure and order a certain amount of transport services. They also bear the calculated deficits (customer-/provider-principle). Today, there is no enforcement to issue an invitation to tender. In the second railway reform it is planned to introduce compulsory tenders in certain cases for regional public transport whereas the interurban (national) transport remains a monopoly of the Swiss Federal Railways (SBB). With the second railway reform in 2005 and the implementation of the new financial equalization system, the share of the federal contributions to regional public transport will be reduced. The cantons determine the basic service provision in regional public transport, the Federal Government in long-distance traffic. The Swiss Federal Railways decide about the priorities in the infrastructure (within their agreement with the administration). Additionally, there is an arbitration commission to which it can be appealed in case of disputes.
Finally, in the **United Kingdom** policy towards public transport in bus and rail services has followed rather different pathways though for larger metropolitan areas there is some attempt to coordinate activities across modes.

For many years bus transport was subject to heavy regulation and for much of that time has been largely in public ownership. This system was overturned in the 1980s. The 1980 Transport Act partially liberalized fare setting and market access rules for local bus services. In the 1985 Transport Act full liberalization was introduced (except in London where a system of franchising had been introduced). Concerns over the performance of the bus sector and the recognition of the need for more integrated and coordinated local transport systems led to the Transport Act 2000 which introduced a number of new measures as well as amending the 1968 and 1985 Transport Acts. The Act set out a statutory basis for local transport plans with particular regard to the needs of the elderly and people with mobility problems. Other provisions of the Act allowed for enhanced cooperation between bus operators and with the local authority. Thus the Act revised the applicability of competition rules to the bus sector, removing the constraint imposed in the 1985 Act.

The railways were nationalized after the second world war and eventually took the form of a single company British Railways. After an attempt to put the sector on a more financially viable footing with a program of substantial line closures in the 1960s a system of public service obligations was established in 1968. However after a long period of loss making the government set out to restructure the industry and improve its productivity. In the 1980s the sector was substantially reorganized, albeit within public ownership. In 1993 the government sought to privatize and liberalize the sector, breaking up the industry into a number of component parts including a separate infrastructure company. The legislation also established organizations for the award of franchises and for regulation. The objective of competition was, however, largely abandoned as the difficulties of running a disintegrated railway network emerged. Legislative changes in 2000 saw the replacement of the franchise office by a Strategic Rail Authority SRA to set out long term planning objectives for the sector. The following year the government replaced the privately owned infrastructure company with a ‘public interest’ company. Most recently, the 2005 Railways Act provides for the dissolution of the SRA and the return of most of its powers to the Department of Transport.

### 3.7 Sector and country comparisons

During the past ten years the development of the national legal frameworks in the electricity, telecommunication, postal service and railway sectors has largely been driven by the requirements of EU reforms in those sectors. This was also true for Poland at a time when it was not yet a member of the EU and to a certain extent also for Switzerland.

However, there are still some important differences between sectors and countries. The sectoral differences are largely a function of the extent to which the EU is passing
legislation on market liberalization. For example, the liberalization of public transport services has not yet been agreed to at the EU level. As a result considerable diversity in the types of regime in different member states remain. By contrast, full liberalization of the telecommunication sector has been in place for over seven years and most states have adapted their national rules, even if the subsequent reforms have often been slow to be agreed. Indeed the pace of implementation – in telecommunication, energy and postal services as well as with regard to some parts of the railway reforms – is the area where national differences are greatest.

In a number of cases (Germany on electricity, France on postal services) legislation to transpose EU rules has been very late, prompting infringement procedures by the Commission. Moreover there are often variations in the interpretations of the directives, with some going beyond what is required (UK and in some sectors the Netherlands) and others adopting a more minimalist reading (France and Italy).

The following sections below provide a comparison of the development across countries for each of the four sectors. This comparison is analyzed in the context of EU developments and summarizes the assessment of the process of regulatory reforms.

### 3.7.1 Telecommunication

Telecommunication was one of the first sectors to be liberalized during the 1990s. The UK introduced competition already in 1984; all other countries launched the liberalization process in the 1990s as a result of implementing European legislation. At the time of writing this report all countries had fully opened their markets to competition.

The telecommunication sector is unique for its rapid technological changes during the last 15 years. Even within the three year period of this study high speed internet access has mutated from a cutting edge technology to a basic service for every household. For this reason a comparison of service quality and quantity over time is next to impossible.

In terms of the absolute quality, reliability and cost of basic service provision the sector is performing reasonably well by most standards. The main problem is related to the formation of oligopolies and/or the misuse of power by former incumbents. In countries like Germany and Italy liberalization has greatly increased the number of operators but has still not led to truly competitive markets. Thus the main challenge in the telecommunication sector is to set up regulatory regimes that lead to fair competition.
### Table 6. Milestones in the Telecommunication Sector

<table>
<thead>
<tr>
<th>Period</th>
<th>Country</th>
<th>Event/Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>EU</td>
<td>Green Paper</td>
</tr>
<tr>
<td>1988</td>
<td>EU</td>
<td>Terminals Directive</td>
</tr>
<tr>
<td>1990</td>
<td>EU</td>
<td>Services and Open Network Directives</td>
</tr>
<tr>
<td>1991</td>
<td>EU</td>
<td>Equipment Directive</td>
</tr>
<tr>
<td>1996</td>
<td>EU</td>
<td>Directive on Voice Telephony</td>
</tr>
<tr>
<td>1998</td>
<td>EU</td>
<td>Full liberalization</td>
</tr>
<tr>
<td>2002</td>
<td>EU</td>
<td>Five Harmonization Directives: Access and Interconnection; Authorization; Universal Service; Users’ rights; Privacy</td>
</tr>
<tr>
<td>1997</td>
<td>Austria</td>
<td>Telecommunication law (market liberalization)</td>
</tr>
<tr>
<td>2003</td>
<td>Austria</td>
<td>Law implementing the 2002 EU Harmonization Directive</td>
</tr>
<tr>
<td>1996</td>
<td>France</td>
<td>Law abolishing the telecommunication monopoly</td>
</tr>
<tr>
<td>1997</td>
<td>France</td>
<td>Telecommunication regulatory authority set up</td>
</tr>
<tr>
<td>1998</td>
<td>France</td>
<td>End of monopoly for international, national long distance and cell phone calls</td>
</tr>
<tr>
<td>2002</td>
<td>France</td>
<td>End of monopoly for local calls</td>
</tr>
<tr>
<td>2003 --</td>
<td>France</td>
<td>Ongoing opening of access to competition</td>
</tr>
<tr>
<td>1998</td>
<td>Germany</td>
<td>Regulatory authority for telecommunications and postal services</td>
</tr>
<tr>
<td>1996</td>
<td>Italy</td>
<td>Telecommunication law implementing 1996 EU Directive</td>
</tr>
<tr>
<td>1997</td>
<td>Italy</td>
<td>Regulatory authority for telecommunications services set up</td>
</tr>
<tr>
<td>1998 --</td>
<td>Italy</td>
<td>Open access but largely oligopolistic market</td>
</tr>
<tr>
<td>2004</td>
<td>Netherlands</td>
<td>Revision of telecommunication law in line with EU legislation</td>
</tr>
<tr>
<td>2000</td>
<td>Poland</td>
<td>Telecommunication aiming at full liberalization</td>
</tr>
<tr>
<td>Ongoing</td>
<td>Switzerland</td>
<td>Largely liberalized by Swisscom still dominant</td>
</tr>
<tr>
<td>1984</td>
<td>UK</td>
<td>Privatization of BT and creation of the regulator OFTEL</td>
</tr>
<tr>
<td>1985</td>
<td>UK</td>
<td>First two cell-phone operators (Cellnet and Vodaphone)</td>
</tr>
<tr>
<td>1991</td>
<td>UK</td>
<td>Duopoly review and introduction of competition</td>
</tr>
<tr>
<td>1998 --</td>
<td>UK</td>
<td>Alignment with EU rules</td>
</tr>
<tr>
<td>2004</td>
<td>UK</td>
<td>Communications Act establishing a new regulator (OFCOM)</td>
</tr>
</tbody>
</table>

### 3.7.2 Electricity

In most countries, electricity sector liberalization started after the EU Directive on partial liberalization in 1996. As in all other sectors, the UK started the liberalization process much earlier, in the case of electricity in the year 1989.

The speed of implementation of EU legislation varies greatly across countries (see table below). While countries like Germany, the Netherlands and Italy proceeded rather quickly, other countries, like France, were slow to follow. An exception is the Non-EU Member Switzerland where liberalization has been put off until 2007.

Even though liberalization is proceeding rapidly in the EU Member States this has not led to real competition (see next section). So far the market opening has failed to break up the oligopolistic or monopolistic structures of the national electricity sectors.
and on a European scale there is even an ongoing process of increasing concentration.

Furthermore the current form of sector organization appears to be unable to tackle the emerging problem of the security of supply. Both in terms of grid capacity and in terms of generation capacity the current levels of investment do not appear to be adequate to ensure the long term sustainability of the system.

<table>
<thead>
<tr>
<th>EU</th>
<th>1988</th>
<th>Program for Single Market in Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
<td>Directive on partial liberalization</td>
</tr>
<tr>
<td></td>
<td>2002</td>
<td>Directive on complete liberalization in 2004 for commercial customers and 2007 for private customers</td>
</tr>
<tr>
<td>Austria</td>
<td>1998 – 2001</td>
<td>Electricity and industry organization law</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>Liberalization complete since 2001</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>Public service obligation on grid operator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commitment to invest in infrastructure but no planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum requirement: 37% opening of market</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Still dominated by EDF</td>
</tr>
<tr>
<td>Germany</td>
<td>1998</td>
<td>Complete liberalization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000 companies, ten dominate</td>
</tr>
<tr>
<td></td>
<td>2005</td>
<td>Independent regulatory authority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increasing privatization of utilities owned by the municipalities and regions</td>
</tr>
<tr>
<td>Italy</td>
<td>1998 – ongoing</td>
<td>Transposition of EU Directive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENEL still dominant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Independent regulator (Dte) and system operator (TenneT)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full liberalization by 2004</td>
</tr>
<tr>
<td>Poland</td>
<td>1997 – ongoing</td>
<td>Energy law</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regulation office</td>
</tr>
<tr>
<td>Switzerland</td>
<td>2002 – ongoing</td>
<td>Proposal for electricity market law rejected</td>
</tr>
<tr>
<td></td>
<td></td>
<td>New proposal for electricity law under preparation</td>
</tr>
<tr>
<td>UK</td>
<td>1983</td>
<td>Energy Act aiming to increase competition unsuccessful</td>
</tr>
<tr>
<td></td>
<td>1989</td>
<td>Electricity Act – mix of privatization and liberalization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Office of electricity regulation (OFFER)</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td>Liberalization completed</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>Utilities act merges gas and electricity regulators</td>
</tr>
</tbody>
</table>

### 3.7.3 Postal Services

Apart from the UK, postal services were separated from telecommunications in the mid to the late 1990s (see table below). While the telecommunication sector was immediately liberalized, in the postal service sector a more gradual approach was taken. Following the first EU Directive on liberalization in 1997 the market was essentially divided in a reserved part that remained a monopoly and a non-reserved
part with competition. Full liberalization on the basis of EU legislation will only be enforced from 2009 onwards.

However, even the partial liberalization of the market has already led to significant changes in the provision of basic services. Even though the number of parcels and letters delivered by the postal service sector has remained largely constant over the past 15 years the number of post offices (incl. postal partners such as small shops) was reduced dramatically in most countries.

On the other hand changes in technology and lifestyle have altered the role of the postal service system in modern societies and thus justify the need of a modernization of the European postal service sector. What type of modernization is deemed desirable is first and foremost a political question but the current regime is certainly moving away from full territorial coverage with post offices and letter boxes.

<table>
<thead>
<tr>
<th>Table 8. Milestones in the Postal Service Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EU</strong></td>
</tr>
<tr>
<td>1992</td>
</tr>
<tr>
<td>1997</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td><strong>Austria</strong></td>
</tr>
<tr>
<td>1997</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2009</td>
</tr>
<tr>
<td><strong>France</strong></td>
</tr>
<tr>
<td>2003</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
</tr>
<tr>
<td>1998</td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td><strong>Italy</strong></td>
</tr>
<tr>
<td>1999</td>
</tr>
<tr>
<td><strong>Netherlands</strong></td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2007</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
</tr>
<tr>
<td>2003</td>
</tr>
<tr>
<td><strong>UK</strong></td>
</tr>
<tr>
<td>1981</td>
</tr>
<tr>
<td>1999</td>
</tr>
<tr>
<td>2000</td>
</tr>
</tbody>
</table>

3.7.4 Public Transport

The public transport sector differs from the other three sectors insofar as, and with the exception of railways, the EU has no competencies to influence its development. Only one of the eight countries in the BASIC project (the UK) has so far attempted a large scale liberalization of the public transport system. In recent years most other countries have slowly started to introduce tendering services for some local and regional bus services but in most cases there is still no effective competition. In the UK earlier liberalization and privatization policies are being partly reversed (e.g. through the 2005
Railway Act) due to a wide range of problems in specific areas like a lack of infrastructure investment.

The legislative frameworks in Austria, France, Germany, Italy, the Netherlands and Poland are showing an increasing tendency towards a more diverse organization of local public transport services. Prior to the year 1996 most services were owned, organized and operated directly by municipal or regional authorities. Since then all the above mentioned countries have passed legislative acts allowing for some sort of private involvement through tendering procedures. In some cases like the Netherlands this has become obligatory but in most other countries it is at the discretion of the responsible public authorities to how to organize the services. In order to avoid problems with EU rules on state subsidies all laws contain provisions on the fulfillment of public service obligations. An attempt of the European Commission to make public tendering mandatory for the payment of state subsidies in local public transport was turned down by the European Court of Justice in 2003.

In the railway sector the European Union started the creation of a common market for rail transport in 1991 with its first railway liberalization package. At first this was limited to freight transport but towards the end of the 1990s the legislative framework was extended to cover also passenger transport.

The Member States have been slow to implement EU legislation on railway liberalization but within the next five years the process should be complete. Apart from the UK it is too early to assess the effects of passenger railway liberalization. One of the main failures in the UK, namely the privatization of rail infrastructure, will most likely not be attempted in the other seven countries in the near future. As for the other problems in the UK experience, most notably the coordination of schedules on different lines and integrated ticketing services, it remains to be seen how regulatory authorities in Continental Europe will address this problem.
Table 9. Milestones in the Public Transport Sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>1969</td>
<td>Regulation 1191/69 on Public Service Obligations</td>
</tr>
<tr>
<td></td>
<td>1991</td>
<td>Directive 91/44 – start of railway liberalization</td>
</tr>
<tr>
<td></td>
<td>1992 – 2005</td>
<td>Second and third railway liberalization packages</td>
</tr>
<tr>
<td>Austria</td>
<td>1957</td>
<td>Railway law</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>Law on public local and regional transport</td>
</tr>
<tr>
<td></td>
<td>2004</td>
<td>Amendments to railway law implementing EU legislation</td>
</tr>
<tr>
<td>France</td>
<td>1982</td>
<td>Transport planning law</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>Law on sustainable territorial development</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>Law on urban solidarity and renewal</td>
</tr>
<tr>
<td>Germany</td>
<td>1994</td>
<td>Law on re-organizing the railways</td>
</tr>
<tr>
<td></td>
<td>1996</td>
<td>Amendment of the Passenger Transport Law</td>
</tr>
<tr>
<td>Italy</td>
<td>1997</td>
<td>Decree on the provision of local transport services</td>
</tr>
<tr>
<td></td>
<td>1999 – ongoing</td>
<td>Liberalization of the railway sector</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2000</td>
<td>Passenger transport law</td>
</tr>
<tr>
<td></td>
<td>2003</td>
<td>Railway law implementing European legislation</td>
</tr>
<tr>
<td>Poland</td>
<td>2000</td>
<td>‘Conveyence Law’</td>
</tr>
<tr>
<td>Switzerland</td>
<td>2005</td>
<td>Railway reform introducing public tenders for regional public transport</td>
</tr>
<tr>
<td>UK</td>
<td>1980</td>
<td>Transport Act</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td>Liberalized market access for local busses</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td>Transport Act</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>Full liberalization of bus services</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td>Privatization and liberalization of the railway sector</td>
</tr>
<tr>
<td></td>
<td>2000</td>
<td>Transport Act</td>
</tr>
<tr>
<td></td>
<td>2005</td>
<td>Increase quality and establish integrated system</td>
</tr>
<tr>
<td></td>
<td>2005</td>
<td>Railways Act</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dissolution of the Strategic Rail Authority and return of its powers to the Ministry of Transport</td>
</tr>
</tbody>
</table>

3.8 Effectiveness and efficiency of basic services

This section presents quantitative evidence of the differences in the provision of basic services in eight European countries. For each sector, key figures about service quality, quantity, prices or employment are taken into account and the main differences between countries and regions are presented. Moreover, some possible driving factors behind the observed differences are identified.

The analysis is based on data collected in the framework of the BASIC project on both national and regional levels. The choice of the spatial level for carrying out the analysis – i.e. the regional NUTS 3 level or the national level – was determined by two factors, namely, the specific nature of basic service provision in the different sectors and data availability. An analysis of the former factor showed that particularly in the telecommunication and electricity sectors many important indicators showed no
regional variation within countries. This is, for instance, the case of consumer prices for telecommunication or for posting letters and parcels). In those cases where no regional variation was observed the comparative analysis was carried out at the national level. An analysis of the regional differences was carried out in those cases where regional differences were observed and sufficient data on the NUTS 3 level was available to allow for a comparison across regions.

3.8.1 Electricity

In the BASIC project effectiveness with regard to the electricity sector was defined with reference to the level of service provided to the consumer. In turn, level of service comprises three components: access to the grid, regional price differentiation and interruptions of electricity supply. Issues related to the supply side of the system, such as the long-term sustainability of investments in the electricity grids or generation capacities, were not considered in our definition of effectiveness but they are undoubtedly significant from a system perspective (see chapter 4).

The results of the analysis for the electricity sector revealed only one potentially significant problem with the effectiveness of electricity provision, namely regional price differences. In all countries studied in the BASIC project every household was found to have access to the grid for the same price and the interruptions of electricity supply were negligible. Nevertheless, in some countries, regional price differentiation is quite significant. Differences are mostly due to different transmission and distribution grid charges and not so much to the seller's price of electricity. At the time of writing the grids in most regions were still owned by the state while generation capacities had already been partly privatized.

In Austria, Germany and Switzerland regional differences in electricity prices correlate with population density, i.e. the more densely populated regions are also those with the lower electricity prices. A second reason for the large regional variation of electricity prices in Austria is the traditionally fragmented structure of the national electricity sector.

Poland and the Netherlands display the least regional heterogeneity in electricity pricing. In Poland, the homogeneity of prices appears to be due to the highly regulated market for electricity. In the Netherlands it seems to be due to the high population density and small size of the country.
Figure 1: Regional electricity prices
(pp adjusted, relative to BASIC study average, 2004)

Source: BASIC Regional Case Studies

Figure 2 below compares the average electricity prices for households across different countries and for the years 1995 and 2005. The nominal prices presented in Figure 2 remained constant or fell slightly over this ten year time period, thus leading to a reduction in real prices of approximately 20%. During the same period of time the average real price of natural gas in the EU (excluding taxes) increased by 8% and the average real price of crude oil by nearly 50% (five year moving average).
In terms of the **efficiency** of service provision we sought to scrutinize the basic hypotheses concerning the correlation between prices, competition, liberalization, population density and employment. The key premise of liberalization proponents on grounds of efficiency is that liberalization, measured in terms of market concentration, leads to lower prices for the consumer despite decreases in employment within the sector as such.

Table 10 displays for each of the BASIC countries the declared market opening, the cumulative share of capacity of the top three generators (both indicators of market concentration) and contrasts these with average household electricity prices, on the one hand, and the ratio of employees in the electricity sector as a percentage of the total labour force. The data are not all from the same year but from a comparable period (2000-2005).
Table 10: Key efficiency indicators for the electricity sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Declared market opening (%)</th>
<th>Top three generators’ share of capacity (%)</th>
<th>Average price in € per kWh</th>
<th>Share employees in electricity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>100</td>
<td>33</td>
<td>0,09</td>
<td>0,35</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>100</td>
<td>37</td>
<td>0,08</td>
<td>0,12</td>
</tr>
<tr>
<td>Germany</td>
<td>100</td>
<td>61</td>
<td>0,13</td>
<td>0,16</td>
</tr>
<tr>
<td>Italy</td>
<td>66</td>
<td>72</td>
<td>0,15</td>
<td>0,15</td>
</tr>
<tr>
<td>Netherlands</td>
<td>63</td>
<td>33</td>
<td>0,08</td>
<td>0,15</td>
</tr>
<tr>
<td>Poland</td>
<td>51</td>
<td>25</td>
<td>0,08</td>
<td>N/A</td>
</tr>
<tr>
<td>France</td>
<td>37</td>
<td>86</td>
<td>0,09</td>
<td>0,25</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>0,35</td>
</tr>
</tbody>
</table>


Electricity prices are similar across countries with the exception of Germany and Italy where prices are significantly higher (see also Figure 2). Both of these countries display a high market concentration despite full or near-to-full declared market opening. This would appear to confirm the first part of the efficiency hypothesis – market concentration leads to high electricity prices. At the same time, we find no significant price difference between Austria and the United Kingdom, on the one hand, and Poland and France, on the other hand. Both Austria and the United Kingdom are countries with 100% declared market opening and low market concentration. Poland has a moderate market opening and a low market concentration; while France is a heavily concentrated market with low market opening. These results suggest that insofar as prices are concerned, market concentration might be a better predictor of low prices than declared market opening.

Insofar as employment intensity (see also Figure 3) is concerned, the emerging picture is more complex. The country with the most liberalized market and lowest concentration, namely the United Kingdom, is also the country with the lowest employment in the electricity sector. This result as much as that for the Netherlands (with a close to full declared market opening and equally low market concentration) would appear to confirm the hypothesis. In contrast, the data for Germany show that the employment levels can also be low in a market displaying more concentration; while the data for Austria suggest that employment intensity is high even in conditions of high market opening and low concentration. The data for France exhibits a negative correlation. France has a low declared market opening and a continuing dominance of EdF as well as a high share of electricity employees. The high share of employees in the electricity sector in Switzerland is in line with the absence of competition (except for large institutional consumers).
In conclusion it can be said that prices in the electricity sector are determined by the degree of market concentration, significantly less so by the declared market opening. The continuing market concentration might also explain, at least in part, the absence of any clear link between liberalization and employment intensity. However longer time series data is needed to establish the real impact of liberalization on employment. Finally, the key problem in the electricity sector remains the significant scope of regional variation in pricing regimes. It is important to note, however, that in most countries these variations are entirely due to differences in transmission charges by regional public distribution grid monopolies.

3.8.2 Postal services

The effectiveness of basic service provision in the postal services sector is a function of accessibility with reference to the network density, as well as the reliability and speed of the services. The available data on reliability and speed of services did not reveal any significant problems, thus effectiveness was primarily assessed in terms of accessibility.

The efficiency argument with regard to the postal services postulates that liberalization will bring about a reduction in the density of post offices; yet that this will

---

2 In the Netherlands and Austria the total number of employees comprises people employed in both electricity and gas sectors.
not impact significantly on speed and reliability by reason of the reducing significance of traditional forms of communication. Insofar as employment intensity is concerned, this too is expected to decrease in line with the re-structuring of the postal service.

The BvDP liberalization index documents the stage reached in liberalization on postal markets. ‘0’ indicates a market which is still fully regulated and has not been liberalized at all, ‘100’ indicates an open market. According to the BvDP liberalization index for 2001, the liberalization of postal markets is most advanced in the Netherlands and Germany, followed by the UK, Austria, and Italy. Switzerland is ranked lowest. Table 11 displays the liberalization index and contrasts this with data on the density of post offices and employment intensity within the sector.

Table 11: BvDP liberalisation index, post office density and employment

<table>
<thead>
<tr>
<th>Country</th>
<th>Liberalization index</th>
<th>Density of post offices</th>
<th>Employee share in postal sector %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>71</td>
<td>0,12</td>
<td>0,43</td>
</tr>
<tr>
<td>Germany</td>
<td>70</td>
<td>0,36</td>
<td>0,16</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>60</td>
<td>0,71</td>
<td>0,35</td>
</tr>
<tr>
<td>Austria</td>
<td>53</td>
<td>0,49</td>
<td>0,33</td>
</tr>
<tr>
<td>Italy</td>
<td>50</td>
<td>0,62</td>
<td>0,26</td>
</tr>
<tr>
<td>France</td>
<td>46</td>
<td>0,72</td>
<td>0,56</td>
</tr>
<tr>
<td>Poland</td>
<td>43</td>
<td>0,67</td>
<td>0,07</td>
</tr>
<tr>
<td>Switzerland</td>
<td>41</td>
<td>0,96</td>
<td>0,61</td>
</tr>
</tbody>
</table>

Sources: The BvDP Liberalisation Index (BvDP 2001); Density of post offices established on basis of data collected in BASIC; Employment statistics: national statistical offices / regulatory offices

There are indeed significant national differences with regard to the density of the network of post offices and letter boxes (figure 4). Furthermore these differences persist over the last ten years despite regulatory reform. There is nevertheless a clear tendency towards a higher density of postal offices in regulated postal markets, which confirms the above hypothesis. The outlier is the United Kingdom with a high density of post offices and a high level of market opening.
Figure 4: Density of post offices (2004)³

![Bar chart showing postal offices per 1,000 households](chart)

Source: BASIC national data collection

Figure 5 shows the share of persons employed in the postal services sector. A weak relationship between the degree of liberalization and the number of persons employed in the postal services sector can be observed. Employment intensity is lowest in Germany and Poland. Germany is liberalized to a great extent; the opposite is the case in Poland. The Netherlands (liberalized) displays a similar employment intensity to France (less liberalized).

³ The value for UK is for the year 2000. The value for the Netherlands corresponds to the number of postal offices TPG aims to achieve in 2005.
Similarly, the share of people employed in the postal services sector is higher in France than in Italy, while the liberalization index shows only a small difference in market opening for these two countries. In Italy the most important supplier is a private company, which may explain why the share of persons employed in the sector is relatively low.

In conclusion we may state that the liberalization of the postal services would appear to support the reduction in the number / density of postal services, thus affecting the effectiveness of the basic service provision of the sector. The association with employment intensity is less clear. In both cases, the lack of systematic time series data does not allow us to draw any definite conclusions. The assessment of the impact of technological developments on communication needs and, in turn, the demand for the traditional form of basic service provision in the postal sector remains likewise to be assessed.

3.8.3 Telecommunication sector

The analyses for the telecommunication sector is limited to the national level for two reasons; first, very little data is available at the regional level given that most of these data is commercially sensitive and the companies are very anxious not to reveal any relevant information. Second, due to technological reasons and regulation, the

---

4 The data for Poland and the UK are for the year 2000.
observed differences between or within regions in terms of prices and accessibility of the network/density of services are very low or non-existent.

Figures 6 and 7 show the prices of local and national long distance calls for the years 1997 and 2005. In all countries the prices of local calls decreased a little bit while the prices of long distance national calls decreased enormously. The only striking outlier are the high UK prices for local calls in 1997; this is probably due to profit skimming by private operators without serious competition on the local level.

Two hypothesis were tested regarding the correlation between competition, prices and employment. The underlying assumption, once again, was that liberalization would lead to a reduction of both prices and employment. It should be here added that with regard to telecommunications, price is the key indicator of the effectiveness of basic service provision given the extensive network coverage at a high level.

Figure 6: Price of local calls in 1997 and 2005 (price of a standard 10 minute call, nominal prices)

Source: Eurostat
Italy is the only country with an oligopolistic market structure characterized by few large operators for the fixed net as well as the mobile telecommunication market (see Table 12). Germany, the Netherlands and the UK also display an oligopolistic market structure characterized by few operators in the mobile sector; insofar as the fixed net sector is concerned, we find one operator dominating instead. Austria and France display competitive markets in the mobile sector and an oligopolistic market with a dominant player in the fixed net. In the remaining countries, Poland and Switzerland, there is one large operator dominating the oligopolistic market in both sub-sectors.

Table 12: Market structures in the telecommunication sector

<table>
<thead>
<tr>
<th>Market structure</th>
<th>A</th>
<th>CH</th>
<th>D</th>
<th>F</th>
<th>I</th>
<th>NL</th>
<th>PL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oligopoly, few large operators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oligopoly, one large operator</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: BASIC national data collection

The correlation analysis shows no clear picture between competition and overall price levels. One of the reasons appears to be the differentiated structure of the market where mobile and fixed net services are mostly perfect substitutes and the distinction between local calls and national long distance calls is increasingly blurring.
The situation is not much clearer with regard to employment levels. Figure 8 shows the share of persons employed in the fixed net and Figure 9 those in the mobile phone sector in the year 2000. In the fixed net section there is a weak tendency towards lower employment levels in more competitive markets. The outlier is the Netherlands where there is one dominant provider in an oligopolistic market but the share of persons employed in the sector is the lowest of all countries.

A similar picture emerges for the mobile phone markets. The mobile telecommunication market in France is characterized by a competitive market structure; thus, the low employment levels are in line with the hypothesis. The same is true for the high employment levels in Italy and the UK (oligopolistic market), and Switzerland (one large incumbent dominating the market) in Switzerland. Surprising is the high labour intensity in Austria given the fact that the mobile sector is highly contested with five operators competing for a comparatively small market.

**Figure 8: Share of persons employed in the fixed net sector (2000)**

![Graph showing the share of persons employed in the fixed net sector in 2000](image)

Source: National statistics and regulators

---

5 Data for the Netherlands is for the year 2004.
In conclusion it can be stated that the overall price levels for fixed line telephony have fallen dramatically over the past eight years but their current levels do not appear to be correlated to the degree of competition. This could possibly be hinting at the fact that mobile telephony has recently become viable substitute. As this process is likely to continue and in the near future will also encompass internet telephony any future analysis of prices (including the Eurostat data series) should drop the distinction between the different technologies offering essentially the same product. Finally, employment levels do appear to be weakly correlated to the degree of competition but the lack of time series data does not allow for an analysis of the impact of the process of liberalization.

3.8.4 Public Transport sector

For the public transport sector three hypothesis were tested concerning the relationship of liberalization, prices and quality. The first hypothesis postulates that transport prices will tend to decrease with liberalization. The second hypothesis that competition improves the quality of service. The third hypothesis that tendering of transport services decreases prices.

Hypothesis 1: The more liberalized the sector, the lower transport prices.

As a measure of liberalization the LIB-Index is used. It compares the market opening in the EU Member States, Switzerland and Norway. It consists of:

---

\textsuperscript{6} Data for Italy is for the year 2000.
o the LEX-Index (weight of 30%), which measures i) the regulation of market access, ii) the responsibilities of the regulation authority, and iii) the incumbents' organizational structure.

o the ACCESS-Index (weight: 70%) which measures access barriers such as the level of track charges.

It should be noted that the index considers passenger as well as freight traffic, whereas the BASIC project is only concerned with passenger transport (the weight of local passenger traffic in the LIB-Index is only 25%).

According to the LIB-Index 2004, the situation can be described as follows (see Figure 10):

- The UK, Germany, the Netherlands, Italy and Switzerland are ‘on schedule’ with the implementation of the EU railway liberalization packages. Great Britain has the highest index value, followed by Germany and the Netherlands. Italy and Switzerland exhibit the lowest values in this group.

- Austria, Poland and France belong to the countries with delayed market opening. France has the lowest index value.

**Figure 10: LIB-Index 2004**


---

7 “On schedule” means the laws of the country favour third party access, and there are sound practices of market access.
Figure 11 shows single ticket prices for local and regional rail for the year 2004 for a trip of 20 kilometers. The prices are average prices of the regions in the countries under study and are adjusted for regional purchasing power parity.

Germany and the Netherlands as well as Switzerland from the group ‘on schedule’ have the highest prices. Only Italy, with low prices and ‘on schedule’ in terms of liberalization, and Austria, with high prices and ‘delayed’ in terms of liberalization, show values that fit in with the hypothesis. Poland and France have quite low prices for countries with a delayed market opening.

Only in Germany there is potential competition in regional public transport. But even here there is no effective competition concerning basic services. In Poland, Switzerland and the UK, there is limited competition.

We do not observe large differences across countries. Moreover, the stage of the liberalization process does not appear to influence the level of prices in public transport. Thus, the above hypothesis is not confirmed by the empirical data available.

Figure 11: Single ticket price for local and regional rail (2004), pp adjusted

Source: BASIC data collection

---

8 Average of the prices for the regions (20km distance). The numbers for Italy are for a travel distance of 40 kilometers (year 2000).
As mentioned above there is a very low degree of liberalization in the public transport sector. However, in some of the countries, there are calls for tender for providing public transport services. Do countries which apply this instrument have lower prices in public transport?

Hypothesis 2: Competition correlates with a higher quality of services.

The operation time of services for typical main and peripheral lines during the working days for local and regional rail for the year 2004 is used as one possible indicator of the quality of services (see Figure 12). A main line is defined as a relation connecting two centers of a region.

Table 13: Countries with a call for tender for local and regional rail

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>CH</th>
<th>D</th>
<th>F</th>
<th>I</th>
<th>NL</th>
<th>PL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call for tender?</td>
<td>o</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>o</td>
<td>✓</td>
<td>n.a.</td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ yes      o no      n.a. not available

Source: BASIC data collection

Austria and Italy do not have calls for tender in the rail transport sector. For Poland there is no such information available. In the rest of the countries there are calls for tenders. Comparing these facts with Figure 11, it becomes clear that there is no relationship between tendering and the level of prices. Thus, the existence of competition for public transport markets by means of tender does not have a discernible influence on prices.
Figure 12: Operation time of services: Typical main line(s) during the working days local and regional rail (2004)

Germany, France, the Netherlands and Poland all have long operation times for local and regional rail, with Germany and Poland even reaching a level of 24 hours a day of rail service in some of the regions. Switzerland, Austria and, especially, Italy have lower levels of operation time and also greater regional differences as compared to the other countries.

Comparing these results with Figure 10 and Table 12, the hypothesis cannot be confirmed. Switzerland and Italy are among those with the lowest supply levels but they belong to the countries on schedule concerning market opening as well as Germany and the Netherlands. France and Poland have a delayed market opening according to the LIB-Index while they have longer operation times.

Figure 13, which shows typical peripheral line(s), shows a slightly different picture (a peripheral line is a relation where either the origin or the destination of the corridor is located in a rural area): Italy is still the country with the lowest level of operation time, but in Poland there are large regional differences. The highest level of supply can be found in the Netherlands, followed by Germany, Switzerland, France, and Austria.

Source: BASIC data collection

---

9 The operation times of services for Italy are for the year 2000.
Comparing this again with the LIB-Index (see Figure 10 above), liberalization does not seem to affect the quality of services (measured by operation time of services).

Figure 13: Operation time of services: Typical peripheral line(s) during the working days local and regional rail (2004)\textsuperscript{10}

![Operation time of services graph]

Source: BASIC data collection

Measured by the operation time, the supply quality is higher on main lines as compared to peripheral lines. In the Netherlands there are almost no differences between these two types of lines. In all the other countries, there are shorter operation times concerning the relations where either the origin or the destination of the corridor is located in a rural area. Thus, there is a higher level of basic services in urban areas.

Hypothesis 3: Tendering of transport services lowers prices.

Table 13 shows countries with calls for tenders in the bus sector. In Germany, France and the Netherlands, this is the case. In Austria, the UK and Switzerland (in some cantons), tendering is possible. There are no calls for tenders in Italy (for Poland, no information was available).

\textsuperscript{10} The operation times of services for Italy are for the year 2000.
Table 14: Countries with calls for tenders for buses

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>CH</th>
<th>D</th>
<th>F</th>
<th>I</th>
<th>NL</th>
<th>PL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call for</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>o</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>tenders?</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>o</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>✓ yes</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>o</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>o no</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~ partly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n.a. not</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: BASIC data collection

Figure 14 shows the prices of single tickets for regional public bus transport for a distance of 10 km.\(^{11}\) As mentioned, all prices are adjusted for the regional purchasing power parity.

The data do not confirm the above hypothesis: Calls for tender do not necessarily lead to lower prices. Italy belongs to the countries with the cheapest bus tickets even though there is no tendering mechanism. In the Netherlands, in contrast, ticket prices are high despite the widespread use of tendering of bus lines. The most likely reason why competition does not lead to lower ticket prices are public subsidies to bus companies; potential efficiency gains of tendering can be used to reduce subsidies instead of ticket prices.

\(^{11}\) In the Netherlands, prices are the same for all regions. The small differences in the Dutch case are due to the adjustments of prices by regional purchasing power parities. The data for Italy and Poland is for the year 2000.
In conclusion we can state that due to the low degree of liberalization in most countries no consistent picture emerges in the local public transport sector. Neither tendering procedures nor complete liberalization appear to decrease consumer prices. The equally important issue of cost coverage / subsidies for local public transport systems is difficult to assess because data is either not available or not revealed by public authorities. On the whole the specific regional variations (even within some countries) related to population density and geography are still the main determinants of price and service quality.
4 Conclusions and policy implications

4.1 Overall conclusions and advance in the State of the Art

The overall conclusions of the BASIC project are drawn from the specific results obtained during the 30 month project period. Those results relate to many different detailed areas of study, ranging from a literature review and stakeholder analysis at the beginning of the project to the quantitative and qualitative analysis of different country and sectoral models in the second half of the project. All materials and results are available in great detail in the project deliverables 1 to 7 and their respective annexes.

The main value of the project results and its conclusions lies in the comparison of basic service provision across eight European countries and across four sectors. The current state-of-the-art in research on basic services (or services of general economic interest) tends to concentrate on single sectors.

The broad spatial and sectoral comparison conducted by the BASIC project only became possible through the European Commission's financial support in forming a team of nine organizations from eight different countries, each with different sectoral specialization.

Secondly, – to the best knowledge of the project consortium – the BASIC project represents the first attempt to analyze basic service provision in a comparative way across a number of representative NUTS 3 regions. Previous projects either carried out their research on larger spatial entities which are, by their nature, not internally homogeneous in terms of population density or they conducted case studies on the NUTS3 level but without an international comparison with other regions.

Thirdly, the project results reflect the interdisciplinary nature of the research, particularly with respect to the political and social nature of the issues concerned. Previous research covered almost exclusively the economic aspects.

The main conclusions of the BASIC project are grouped into three parts; an operational concept of basic services on the European and the Member State level, the impact of liberalization on basic service provision in different European countries and regions and the impact of other factors on basic service provision.
4.1.1 An operational concept of basic services

The general idea of what constitutes basic services or services of general economic interest is reasonably straightforward. The European Commission in its White Paper recently put forward an official definition and all Member States agree on the principle of specific consumer/citizen rights with regard to those services (such as universal access, minimum quality standards, etc.). On the European level there is an ongoing discussion whether a framework directive should be drafted to provide a basis for establishing an overall legal and regulatory framework in the Member States for all services of general economic interest.

The results of the BASIC project lead to the conclusion that the sectors in question differ from each other in so many important ways that an overarching operational concept for all basic services will hardly be suitable for achieving the goal of an effective, efficient and socially balanced service provision. Such a concept would only be useful for providing a general (methodological) framework and/or as a constitutional principle.

The four sectors studied in the BASIC project have two things in common: the social aspect of being indispensable for people's everyday lives and the economic property of network industries tending to be 'natural monopolies'.

Most other relevant properties are different for all four sectors. The most important ones include the technology used, the physical nature of the network, the organizational structures, the spatial dimension, and, maybe most importantly, the entirely different nature of the specific part of the system that is crucial for basic service provision. The latter refers to the fact that not all parts of the system in a given sector are equally important or problematic for basic service provision. For example, in the electricity sector the experience of the last decade has shown that issues like universal consumer access to the network and spatial price discrimination can theoretically be dealt with by proper regulatory authorities. The really difficult issue for basic service provision lies in the security of supply. The latter is primarily determined by the generation capacity and its spatial distribution, as well as by the capacity and quality of the transmission networks. Most countries are currently finding it difficult to provide a legal and/or regulatory framework to properly address this problem.

In the other three sectors there is no equivalent for this issue of generation capacity but each of them have other, distinctively different problems. For example in the postal service sector the main issue is the density of the network of post offices while the regulation of other factors, like delivery times and prices, currently appears to be only a minor problem in most countries. In public transport one of the main problems for regulation is infrastructure investment (rail) and in the telecommunication sector regulation is struggling with not being able to keep up with the fast change of technology.

All these examples illustrate that it is exceedingly difficult to formulate a common legal basis for securing basic services in all sectors. Rather than providing an inevitably
incomplete and misdirected umbrella of general provisions it appears to be more promising to address basic service issues at the sectoral level. Many countries already have implicit or explicit sectoral provisions along the line of universal service obligations but they are usually defined in terms of maintaining a certain current, and thereby arbitrary, level of services. To make matters worse, many of the universal service obligations contain loopholes and are very weakly embedded in the legal system for enforcing sanctions if certain obligations are not met.

The results of the BASIC project suggest that it may be more effective to create a legal framework that defines for each relevant sector a certain minimum level of basic services for each citizen / consumer. Such a framework would have to include clear provisions on the quantity and quality of services, e.g. the maximum distance to the next post office or the minimum frequency of bus services. The detailed project results on service quantity and quality in different parts of the EU could be used as a starting point in a discussion about reasonable levels of basic services for each sector and for different regional characteristics.

In terms of the commonalities between the four sectors, it is important to note that their common properties as ‘natural monopolies’ provide partly similar challenges to regulatory regimes and infrastructure investment, particularly in the rail and electricity sectors. This is a vital precondition for the long term functioning of basic service provision and it can not adequately be dealt with in the framework of the current regulatory regimes. (The reason being that the main purpose of regulation is to provide a level playing field to enable fair competition but not to ensure a certain level of infrastructure investment.) The same is also partly true for the water sector and a comparison across sectors would be useful in identifying adequate strategies for medium to long term infrastructure development plans.

4.1.2 The impact of liberalization

Liberalization is arguably the most important of many factors influencing the past and current development of the four sectors studied in the BASIC project.

The results of the BASIC project identify two clear impacts of liberalization. First and foremost, in all countries and in all sectors the degree of liberalization tends to correlate with a decrease of labour intensity (ratio of personnel expenditure to total expenditure or turnover). In the electricity, postal service and public transport sectors this has been equivalent to a – sometimes very large – decrease in the absolute number of employees. In the telecommunication sector this trend is visible in relative terms (number of employees / turnover) but the fast growth has mostly offset the reduction of employees and in many countries the absolute number of persons employed in the telecommunication sector (incl. internet and mobile) has grown since the beginning of the liberalization process.

In general, the reduction of the number of employees in a given sector is either part of a ‘genuine’ rationalization process or it leads to a corresponding loss of service
quality. Not surprisingly, the results of the BASIC project suggest that in the large network industries the liberalization process has lead to both forms of job reductions.

In the postal service sector, for example, large investments into new automatic distribution centers have lead to a less labour intensive and more efficient distribution system without any (necessary) reduction in service quality. At the same time, however, liberalization has lead in all countries to a dramatic reduction in the number of post offices. In this case, the corresponding loss of employees has led to a clear reduction of service quality for the customers.

However, without sufficient data on maintenance costs and the level of investments the reduction of employment raises questions about its possible impact on the long term sustainability of the system.

The second impact of liberalization is a clear loss of transparency. Contrary to a popular argument by which liberalization should increase transparency as compared with government provision the BASIC project found that liberalization decreases transparency in many different ways. Moreover, this lack of transparency is not unrelated to the absence of comprehensive data sets on the network sectors across regions and time periods. Regulators generally receive only a fraction of the information, especially regarding the internal cost structures of the companies, they would need to provide a fair and efficient regulatory framework. Governments have hardly any reliable information on private infrastructure investments and service quality. And last but not least, customers have to face uncoordinated public transport schedules and ticketing systems, price discrimination, etc.

This loss of transparency is arguably the most important negative impact of liberalization because it makes it exceedingly difficult to regulate the market in a way that would guarantee fair competition and thereby efficiency. On the other hand it is difficult to see how transparency in a liberalized market could be improved. In order to achieve this, private companies would have to provide detailed data (cost structures, investments, etc.) which are clearly commercially sensitive to public authorities.

Two impacts that are generally expected from liberalization could not be clearly identified by the BASIC project. Liberalization does not appear to always have a significant effect on service quality (with the exception of the postal service sector) and the effects on prices are mixed. Only in the telecommunication sector did prices drop significantly during the last ten years but it is unclear how much of this is due to liberalization and how much to changes in technology.

In the electricity sector prices are currently somewhat lower than before liberalization (despite higher prices for fossil fuels) but in this case it is unclear whether this might correspond to lower levels of investments in electricity grids and generation capacities (see below). It is interesting to note that there does not seem to be a relationship between the level of employment and electricity prices.

Particularly in the electricity sector but partly also in the telecommunication sector market concentration is a major concern. In most countries the market liberalization
has not yet led to a competitive market for electricity for household consumers. Price data shows that high prices are (weakly) correlated to the degree of market concentration and currently there appears to be a tendency towards even more concentration rather than towards more competition.

Telecommunication, public transport and electricity services require large scale physical infrastructure networks. While there is no shortage of private and public investments in telecommunication networks, the acquisition of funds for the construction and maintenance of rail, road and electricity networks has become increasingly difficult during the last decades. Prominent examples of under funding in those sectors include the problems of Railtrack with maintaining the railway infrastructure in the UK and the electricity blackouts in California caused by a lack of investments in electricity grids and power plants.

Except for the short-lived UK attempt to privatize the rail infrastructure transport and electricity networks in Europe are still mostly owned by the state and thus the issue of investments is only indirectly related to liberalization. In the electricity sector, for example, the BASIC project found that regional differences in the household price of electricity were entirely due to (public) transmission charges and the liberalized part of the market, i.e. the electricity itself, did not exhibit significant regional price differentiations. However, private investments do play a major role in electricity generation (i.e. power plants) and the quality and maintenance of rolling stock.

4.1.3 Non-liberalization related factors for basic service provision

Apart from liberalization, four factors stand out as the most important ones for the development of basic service provision; technology, demography, geography and history.

Technology is most important in the telecommunication sector. Due to technological changes the boundaries of speech telephony, internet, multimedia services, fixed line and mobile/wireless services are getting increasingly blurred. The scope of services which can be considered to be basic services is constantly changing and growing. Broadband internet, for example, used to be a luxury good only a few years ago but now it quickly becoming a necessity for access to certain private or public services. In the other three sectors, technology is not of such crucial importance but nonetheless efficient regulation of the sectors is dependent on keeping up to date with certain changes.

Demographic changes can have an important impact on basic service provision by changing the demand side in terms of the age of customers, their sociological structures, etc. Examples include the different demands for public transport in rural areas depending on the number of school children, commuters and pensioners, or the importance of local post offices depending of the percentage of the local population owning a private car.
Geography, in combination with settlement structures, often determines the cost of providing network services. Mountainous areas, islands or sparsely populated parts of the continent constitute specific challenges for basic service provision and thus also for their regulation. The project’s results show geographical differences in service quality for the postal service and public transport sectors but almost no differences in the telecommunication and electricity sectors. This is mostly due to the nature of the service infrastructure (virtual networks vs. fixed physical lines) but also differences in regulation that often do not specify a minimum service level (e.g. maximum distance to next bus station, minimum frequency of public transport).

Historical factors play a major role in terms of the economic structure of the sectors and differences in the understanding of the concept of basic services which is in turn reflected in the legislative and regulatory frameworks of different countries. The results of the BASIC project show a number of such historical differences and their influence on the current situation. Most notable examples are the development of basic services in Poland during the 15 years since the end of Communism, the French model of state control and the British model of early liberalization.

4.2 Policy Implications

4.2.1 Basic services / services of general economic interest

The BASIC project clearly shows significant differences in the ways basic services are perceived in different European countries. The lowest common denominator can be summarized as recognizing the importance of quality, affordability and universal access to basic services. This common denominator, however, is far from "[confirming] the existence of a common concept of services of general interest in the Union" (Commission of the European Communities, 2004a:4). It rather reflects the very abstract nature of the terms quality, affordability and universal services which makes them well suited for any kind of trans-national agreement. Without going into too much detail, it should be noted that, depending on the country, the term universal service can take somewhat different meanings. In public transport, for example, this may refer to intention of the state to preserve or achieve a certain overall, local or regional service level, the rights of a citizen or consumer to a certain service level or the obligation of an operator how to cover an area with transport services. The definitions of the terms quality and affordability are even less clear.

At the two extreme ends of the European spectrum are the French and the British notions of the concept of basic services. While the former see them as integral part of the ‘service public’ the latter stress the free market aspect of providing those ‘economic services’ including the erosion of universal service obligations in certain sectors. One would expect this fundamental conceptual difference to have wider implications for issues such as price solidarity, cross financing, public subsidies, the
role of the user (citizen vs. consumer), etc. but in fact the results of the BASIC project contradict some of those expectations.

In terms of policy implications, the results of the BASIC project suggest that the overall concept of basic services is too different across countries and too abstract to formulate any concrete common European legislation beyond the general provisions contained in the Treaty and the proposed EU constitution.

More important – and more promising – may be the support of the development of services on the sectoral level. On this more practical level, concrete service obligations and definitions of terms like quality and affordability could be proposed.

4.2.2 Transparency

According to the European Commission "the principle of transparency is a key concept for the development and implementation of public policies regarding services of general interest" (Commission of the European Communities 2004a, p.10). The research work carried out in the BASIC project found that liberalization poses a great problem for transparency and tends to decrease it significantly. A large proportion of the relevant information required by public authorities to carry out efficient regulation is commercially sensitive data and thus not being made available by operators. In addition, transparency in liberalized markets is reduced simply by the fact that there is more than one operator.

In order to increase transparency in a liberalized market policy makers and regulators would have to force operators to provide insight into their internal cost structures. However, in reality it is not clear whether it is technically and economically feasible for public authorities to check the accuracy of the information they receive.

4.2.3 Natural Monopoly

Apart from the telecommunication sector, the BASIC project shows somewhat mixed results on price reductions after liberalization. This may be due to oligopolistic market structures or collusion but it may also be due to the fact that large network services constitute typical "natural monopolies" in the economic sense. In the former case it would be sufficient to strengthen competition and anti-trust authorities but in the latter case the main emphasis would have to be on strengthening regulatory authorities both in terms of their legal possibilities as well as in terms of their resources.

4.2.4 Policy implications for the postal service sector

The BASIC project found a satisfactory level of basic postal services in all countries in terms of delivery times and prices. The single most important problem is the reduction
of the number of post offices. According to the project's results the density of the postal service network decreases with liberalization. This is possible because the universal service obligations are usually very specific about issues such as delivery times and prices but they are vague (or do not cover at all) the issue of the maximum allowable distance to the next post office. Without changes in the regulatory and legislative framework explicitly determining the density or number of post offices this number will continue to be decreased.

4.2.5 Policy implications for the electricity sector

Regional price differences in the electricity sector tend to be very high in some countries and almost non-existent in others. Since the price of electricity and the taxes are identical within each country the price differences are only due to different transport prices charged by the regional public electricity grids. Thus in order to tackle those regional differences transport prices would either have to be harmonized or – in certain cases with justifiably high costs – subsidized.

4.2.6 Policy implications for the public transport sector

The results of the BASIC project show that the introduction of competition does not have a significant impact on prices or on the quality of services. Thus, in terms of policy implications, it appears that the only promising advantage of liberalization may be a reduction of costs. The UK case, being the only long term example to study bus deregulation in Europe, suggests that deregulation may lead to a substantial decrease of costs. In the UK, however, after the initial period of intense competition between small bus companies the sector is now dominated by a handful of large companies giving raise to concerns that they may be able to exploit their growing market power.

4.2.7 Policy implications for the telecommunication sector

In terms of basic service provision, the BASIC project found the telecommunication sector to be the least problematic. There is no significant problem with universal access and due to competition and technological advancement prices have been steadily falling over the last decade.

The only policy implication arising from the BASIC project is related to the scope of basic services in the telecommunication sector. At the time the current legislative framework was designed, basic services encompassed fixed net services and, in some countries, also mobile phone services. Due to the pace of technological changes broad band internet and internet voice telephony are quickly becoming "basic services" and should be included in the scope of services for which universal access has to be granted.
4.3 Need for future research

The results of the BASIC project suggest that the primary need for future research is on the detailed assessment of the level of basic service provision in the postal service and public transport sectors on the local / regional level in Europe. For both sectors, the spatial entities chosen for research should be small enough to ensure homogeneity of population density, settlement structures and income within the regions.

Due to the lack of data availability from private companies and regulatory authorities, data collection appears to be more promising if carried out on demand side, i.e. customers. This may be the best way of obtaining reliable data on the actual level of services (prices, quality, etc.).

In the electricity sector the main focus of any further research should address the issue of security of supply, with an emphasis on generation and distribution. Also the issues of oligopoly and collusion appear to be particularly problematic in the electricity sector after liberalization.

In the telecommunication sector the BASIC project found that the basic service issue is currently not such a pressing problem as in the other three sectors. Nonetheless further research may be warranted to follow and investigate the dynamics of the sector and to extend the scope of the basic service definition to broadband internet services.

Finally, comparative research over a longer period of time and across a broader range of European countries and sectors (including for example the water sector) is needed to analyze the developments over time and identify certain patterns of strengths and weaknesses in different forms of service provision.
5 Dissemination and exploitation of results

The dissemination strategy adopted by the BASIC project addresses two distinctly different communities of users for the project’s results, namely the scientific community on the one hand, and the policy making community including various societal actors on the other hand. The strategy rests on three pillars; scientific publications (and their presentation at conferences), electronic communication (such as website and press releases) and direct targeting of policy makers and societal actors (with short and easily readable policy recommendations and rapid reports).

All consortium partners were involved in dissemination. Individual partners were encouraged to publish individually, including in their own languages. Thus whilst all deliverables were written in English, some of the publications are in French, others will be in English and one or two may be in German.

5.1 Dissemination to the scientific community

The dissemination of project results to the scientific community follows a completely different rationale than the one to the policy makers and societal actors. Most of the early results of the project, such as the literature review, the discourse analysis and the work on conceptual differences of the idea of basic services in different countries are exclusively of interest to the academic research community and are contributions to the academic discourse on those subjects. Consequently the dissemination strategy during the first two thirds of the BASIC project was oriented towards the publication of academic articles, the attendance of academic conferences and the direct networking within the academic community, especially with those groups of researchers who currently work on similar projects.12

The activities of academic publication and presentation continued throughout the project and will be completed during a six month period following the end of the project. During this time the final results will be published in form of a book (published by Ashgate, UK).

5.2 Dissemination to policy makers and societal actors

The BASIC project has the clear aim to inform the policy-making community about the effectiveness and properties of various approaches to providing basic services and thus the dissemination of the empirical and policy-related findings are of prime importance.

12 e.g the EUROMARKET project funded by the 5th FP.
http://mir.epfl.ch/euromarket/
During the project the consortium partners were encouraged to raise awareness of the BASIC project in their respective countries. This involved the organisation of meetings at ministries, other administrative authorities and non-government organisations to carry out interviews and present the BASIC project. This has had the added benefit of making them aware of the potential outcomes of the empirical findings of the project. The databases compiled during this process are currently being used to disseminate the final results of the project.

The two “products” of the BASIC project used for the dissemination of the project’s results are the document “Regulating Network Services” (Deliverable 7 of the project) and a rapid report. The former is a 40 page report with an executive summary in easily readable format containing the main results and policy recommendations of the project. The later is a four page summary of the main results with colour graphics. Originally it was planned to produce and distribute a total of three rapid reports during the course of the project (month 12, month 24 and month 30) but due to delays in the data collection policy relevant results only became available during the final year of the project.

The results is also being disseminated to the public at large through press releases in all eight participating countries. The press releases contain a reference to the BASIC website (www.iccr-international/basic) from where the research reports, summaries and rapid reports can be downloaded.

5.3 Overview table of dissemination activities

During the course of the project a number of dissemination activities along the lines outlined above were undertaken. Table 5-1 below lists each of the publications, conference presentations, website, etc. and provides information on the partners involved the date and relates the dissemination to the relevant project results.
<table>
<thead>
<tr>
<th>Title of the project result</th>
<th>Dissemination activity</th>
<th>Partners Involved</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>All project results</td>
<td>Set up project website (<a href="http://www.iccr-international.org/basic">www.iccr-international.org/basic</a>)</td>
<td>ICCR</td>
<td>April 2003</td>
</tr>
<tr>
<td>Results of the Literature Review (D1)</td>
<td>Presentation of the BASIC project and its early results to the Swiss federal office for economic affairs.</td>
<td>Ecoplan Sussex Univ.</td>
<td>January 2004</td>
</tr>
<tr>
<td>Results of Deliverable 4 – country studies on defining basic services</td>
<td>Presentation of preliminary project results at the annual conference of the European New Town Platform (ENTP) in Tatabanya, Hungary</td>
<td>ICCR</td>
<td>June 2004</td>
</tr>
<tr>
<td>Results of Deliverable 4 – country studies on defining basic services</td>
<td>Participation as an expert in a stakeholder workshop of the Austrian government on providing basic services</td>
<td>ICCR</td>
<td>June 2004</td>
</tr>
<tr>
<td>Results of the Deliverables 1, 2 and 4 i.e. literature review, societal discourse and country definitions of basic services</td>
<td>Three papers published in the French journal &quot;L'Economie politique&quot;, No.24, October 2004: 'Le service public &quot;à la francaise&quot; face à l'Europe' by Emmanuel Brillet, CIR Paris 'Un consensus en mutation' by Francis McGowan, Sussex University 'Libéralisation: un bilan&quot; by Michael Marti, Michael Schmidt and Urs Springer, Ecoplan, CH and ICCR, Vienna</td>
<td>CIR, Sussex Univ. Ecoplan ICCR</td>
<td>October 2004</td>
</tr>
<tr>
<td>Final results (D5, D6, D7, D8)</td>
<td>Distribution of a rapid report to policy makers and societal actors contained in the project database</td>
<td>ICCR</td>
<td>October 2005</td>
</tr>
<tr>
<td>Final results (D5, D6, D7, D8)</td>
<td>Distribution of a rapid report to policy makers and societal actors contained in the project database</td>
<td>ICCR</td>
<td>October 2005</td>
</tr>
<tr>
<td>Final results (D5, D6, D7, D8)</td>
<td>Press release in Austria, France, Germany, Italy, Netherlands, Poland, Switzerland, UK</td>
<td>All partners</td>
<td>October 2005</td>
</tr>
<tr>
<td>All project results</td>
<td>Book publication “The Provision of Services of General Economic Interest in Europe”. Ashgate publishing company, UK</td>
<td>All partners</td>
<td></td>
</tr>
<tr>
<td>Specifically selected project results</td>
<td>Paper contributions to a special issue of the Journal &quot;Innovation – The European Journal of Social Science Research” on services of general economic interest</td>
<td>To be decided</td>
<td></td>
</tr>
</tbody>
</table>
6 Acknowledgements and References


Boiteux, M (1994) Transport : pour un meilleur choix des investissements, rapport au Commissariat Général du Plan, Paris, La Documentation française,


Buchanan et al. (1980), Toward a Theory of the Rent-Seeking Society, College Station Texas A&M University Press.


ECN, Position of Large Power Producers in Electricity Markets of North Western Europe, April 2003.


Guy S. ; Marvin S.(1998) "Electricity in the marketplace: reconfiguring the consumption of essential resources" Local Environment 3, no.3


Shaw, J (2000) Competition Regulation and the Privatisation of British Rail, Avebury

Slaa, P., and C. Steendijk, Liberalisering van de energiemarkt: paralellen met de telecommarkt, Tijdschrift Privatisering, jaargang 8, nr. 6, 8-134.

Stirling, A (1994) "Diversity and ignorance in electricity supply investment" Energy Policy Vol 22 No 3


Thomas, S (1994) "Will the UK power pool keep the lights on?" Energy Policy Vol 22 No 8


