PhD programme

Innovation in Services – in the Public and Private Sectors

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1 Introduction

1.1 Subject and focus

The PhD programme “Innovation in services” focuses on innovation and innovation processes in service production in the public and private sectors. Therefore the full title is: “Innovation in services – in the private and public sectors”. The PhD programme includes the framework conditions, the instruments and the implementation processes linked to innovation. We use a broad definition of innovation.

Edquist (2009, 24) defines innovation as “…new creations of economic significance”, in other words, new creations of economic (or societal) value. Although this is a general definition, Edquist specifically applies it to new products or production processes (product and process innovations respectively). New products can be material goods or intangible services which include organisational measures that change production processes. Important criteria for innovation, also reflected by the above definition, are that the innovation activity should result in the creation of something new for those who want to implement the innovation (Rogers 2003), and that these new features are received and used in a market or society (SOU 2003, 90; Olsen 2004; Fagerberg 2005).

Our starting point is the typology of innovation used in the “Community Innovation Survey”; product, process, organisational and marketing innovations (OECD 2005). The reason for this is that it facilitates a wider interpretation of innovation than that put forward by Edquist, Hommen & McKelvey (2001) and Edquist (2005). Edquist (ibid.) only distinguishes between product and process innovations, including organisational changes in the latter category. However, it is important to focus on the organisational aspects. Sundbo & Gallouj (1999, 2000) maintain that service innovations relate in particular to changes in organisational and inter-organisational practices. Lam (2005) argues that organisation and management are such fundamental aspects of innovation processes that organisational innovations should be regarded as a separate category.

In the “Community Innovation Survey” market innovations are also identified as a separate category, i.e. the introduction of well-known products to new customer groups. Of course this is not a new idea. Schumpeter (1934) introduced this type of innovation. In brief, the PhD programme is based on a relatively broad interpretation of the concept of innovation, but it is nevertheless in keeping with the accepted definitions of innovations in the service sector. A range of perspectives on service innovation, typologies and operationalisations are discussed in greater detail in Chapter 2.1.2.

The PhD area does not include general studies of change and development in services. However, for example, policy changes that have a significant effect on services are relevant and are considered and studied as determinants (external drivers) of innovation activities.

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1 The terms ‘service provision’ and ‘service production’ are used as synonyms.
We believe that the inclusion of both public and private service production in research on service innovation would be fruitful for the PhD programme. Firstly, the distinction between the public and private sector is partly related to the distribution mechanism chosen; whether this is market driven or politically driven. Services that are provided as a result of policy decisions at one time may be offered as market-based services at another time, or vice versa. Secondly, the same type of services can be produced by both public and private actors simultaneously (for example, various kinds of health services). Thirdly, services may be provided in an interaction between public and private actors (for example, public museums and private travel companies). In addition, a number of public sector innovation activities are carried out in collaboration with private actors. Moreover, a comparative perspective will be fruitful at a time when the public sector largely mirrors the models and concepts of the private sector.

In a long term perspective we do not want to set restrictions concerning the types of service production or the type of service area to be studied under the programme. In the short term, the main focus will be on services in the welfare sector, on policy determinants in the public sector, on the tourism and experience-based industries and on the energy market in the private sector, in addition to the interaction between public and private sector initiatives for business sector development.

1.2 Motivation, significance and relevance

The aim of the PhD programme “Innovation in services – in the public and private sectors” is to promote greater research expertise through the education of doctoral candidates and to develop and strengthen an interdisciplinary research environment in this field.

The production of services is of great socio-economic importance. The service sector encompasses a significant proportion of economic activity in modern society (Miles 2005). Today, major resources are employed on innovation in both public and private service provision. Nonetheless, there appears to be poor correspondence between the high level of activity related to renewal and innovation, also in the service area, and the development of research and knowledge in the field. For example, many studies and evaluations are devoted to reforms in the public sector, to the reorganisation of services etc., but very little of this is viewed from the perspective of innovation.

Innovation research originally focused on process innovation in manufacturing industries (technological and organisational). Innovations of products (goods) in manufacturing later became a key research area (Edquist, Hommen & McKelvey 2001). Relatively little research has been conducted into service innovation and even less into service innovation in the public sector. Our PhD programme will help to promote research in this area.

Innovation in services in the private sector is crucial to survival in the market, to job-creation, to the income base and to a viable local community. According to key political documents, enhancement of the competitive and innovative edge is essential, for example Report no. 7 (2008-2009) to the Storting (the Norwegian Parliament), Innovasjonsmelding (White Paper on innovation). Political demands for cost-cuttings, efficiency and new solutions are key factors driving the public sector into continuous change and renewal processes. Report no. 7 (2008-2009, 6) to the Storting states that the public sector will face ever more challenging tasks in the years ahead and must undergo a continual
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process of renewal in order to develop the welfare society throughout the country. Report no. 20 (2004-2005) to the Storting, Forskningsmelding (White Paper on research) stressed the importance of research as an instrument for renewal of the public sector.

Since innovation processes are central and necessary to society, the systematic development of knowledge is of particular importance. Enhancing knowledge and expertise on service innovation is not only essential on account of the sector’s important role in value creation and welfare in a broad sense, but also because the costs and scope of innovation activities are so enormous that there will be a growing need for knowledge about the implementation and result of such processes and measures. The goal of the PhD programme is to help to develop systematic knowledge about what hinders and promotes innovation in the service sector.

Today innovation is a subject of focus through innovation centres, administrative positions and courses at a number of universities and university colleges. According to the report of the Stjernø committee (Official Norwegian Report 2008, 3) this reflects the desire for education and research also to play an instrumental role in business sector development. The Research Council of Norway has announced funding for the establishment of centres for research-based innovation. One of these centres will probably be devoted to service innovation. We regard this as a sign of the current interest in the area of research covered by the PhD programme. Its relevance today is further emphasised by the Government action plan “Entrepreneurship in Education and Training (2009-2014)” (Ministry of Education and Research 2009). The stated main objective is that all students in higher education should acquire skills in innovation processes and creativity.

As a follow-up of its responsibility for research and innovation in the public sector, the Research Council of Norway commissioned a report on plans and strategies for change in the public sector (Statskonsult 2006). Based on the considerable needs for development and research and also as a follow-up of the programme on renewal and innovation in the public sector (“Fornyning og innovasjon i offentlig sector” (1997-2001)), the Research Council attempted to launch an initiative to promote value creation and innovation in the public sector (“Verdiskaping og innovasjon i offentlig sector” (VIOS) in the first half of the 2000s (Research Council of Norway 2004; Røste & Godo 2005). This was unsuccessful and we consider that there is an even greater need to promote a PhD programme that will specifically include the public sector.

1.3 Background

Academic staff from the Faculty of Economy and Organisation and the Faculty of Health and Social Work at Lillehammer University College, have jointly developed this PhD programme in innovation in services in the public and private sectors. Over time academic expertise has been built up in order to be able to offer both teaching and research in this knowledge area. The programme is interdisciplinary: economics, political science, sociology and geography are represented. In our opinion this strengthens a doctoral programme in the field of innovation significantly. In addition, master’s degree programmes have been developed that support the new PhD initiative (See Ch. 7).

Traditionally these environments with their varied academic approaches have addressed teaching and research linked to the development and renewal of the public and private service sector. Many researchers have conducted research into reorganisation, change processes and measures within
public sector services, particularly in relation to different kinds of welfare services (work, health and the social service area). If the usual definitions and descriptions of innovation in the public service are used as a basis, cf. Hartley (2005) and Fuglsang (2008b), part of this research has been concerned with different kinds of innovation. Other areas of the research are of relevance from an innovation perspective. For example, members of the academic staff have worked with regulatory regimes, reform processes and organisational changes. Some of this research comes under what is referred to in the terminology as process or organisational innovation; other research is in the field of determinants (drivers or determining factors) for innovation. Some of the academic staff targets their work towards services in the private sector, especially the tourism and experience-based travel industries. For many years, research has been conducted into the link between the public and private sectors regarding the interaction of the authorities and private actors in the creation of business sector development.

In order to coordinate and systemise innovation efforts, the staff of the two academic communities is grouped in the Centre for Innovation in Services (CIS). The Centre has the academic responsibility for managing the PhD programme at Lillehammer University College, and is headed by Professor Anne Marie Berg, with a management group: Professor Rolf Rønning, Professor Mehmet Mehmetoglu, and Associate Professor Martin Rønningen. In addition, a core group of 15 researchers is also attached to the Centre, consisting of eight professors and seven associate professors. The Centre has also two Adjunct Professor positions: Professor Charles Edquist, CIRCLE (Centre for Innovation, Research and Competence in the Learning Economy), Lund University, and Associate Professor Lars Fuglsang, Roskilde University. At the beginning of 2010, 14 research fellows were affiliated with the Centre. (Further information on the organisation is provided in Chapter 4).

At present the research community is engaged in a number of projects in the field, including:

- “Programme for Regional R&D and Innovation” (VRI) (2007-2010). Lillehammer University College participates as a partner in VRI-regional, and has the academic responsibility for the development of expertise and collaboration in the tourism and experience-based travel industries.
- “Social Factors contributing to sickness absence” SOFAC (2009-2011). A renewal project under the Research Council of Norway’s programme on sickness absence and exclusion from working life.
- “Tjenesteorganisering i fire Europeiske velferdsstater – et komparativt prosjekt om spredning og nasjonale tilpasninger” (Organisation of services in four European welfare
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In order to enhance CIS’ own expertise in the field, its members have also contributed actively to the publication of several books in recent years; Johnstad and Hauge (2009); Rønning and Teigen (2007); Teigen, Mehmetoglu and Haraldsen (2009); Veggeland (2007, 2009, 2010a, 2010b).

2 Elaboration of the knowledge area

Research interest in studying innovation and innovation processes in service production has grown since the 1990s. As a result, research-based knowledge about innovation has increased in the last decade, but the need for knowledge is still considerable (Edquist, Hommen & McKelvey 2001; Miles 2005; Sundbo, Orfilia-Sintes & Sørensen 2007; Hjalager 2010). In recent years the concept of innovation has been increasingly used in studies of the public sector (Hartley 2005; Windrum & Koch 2008; Fuglsang 2008a). The PhD programme is positioned within these research areas.

Change and development in the service sector has been the subject of studies in a range of academic fields and research traditions. There is a considerable body of literature on change management and organisational change, organisational development and studies of administrative and operative reforms. Research into renewal and development processes in the public sector has increased considerably since the mid 1980s in line with the higher pace of change (Grønlie & Flo 2009; Trygstad et al. 2006). There appear to be fairly impregnable barriers between the relatively new field of innovation research and the traditional academic fields that are concerned with studies of reforms and measures in the public sector and conditions for development and learning, for example organisational development. The use of a broad concept of innovation (cf. definition in section 1.1) may give reason to question the difference between these two research areas. Contributions from these knowledge areas may prove fruitful for the understanding of service innovation in both the public and the private sector, and we wish to promote such research.

This chapter examines the academic background for the knowledge area as a research, developmental and educational field. Firstly, we discuss what service provision or production actually is, different approaches and interpretations, and also various innovation typologies. Then we examine the relationship and the unique qualities of public versus private sector services, viewing this from an innovation perspective. In the last part of the chapter we consider the different interpretation variables that are to be found in both theoretical and empirical analyses of innovation behaviour.

2.1 Provision of services and service innovation

A classic definition of service provision is as follows: “A service is a change in the condition of a person or a good belonging to some economic unit, which results from the activity of another economic unit, with the agreement of the former” (Hill 1977, 318). Key features are that the service provision is of an intangible nature and is realised in the encounter between the service provider and the service recipient, in other words when the recipient makes use of the service. Consequently the relational aspect is crucial in the production of services. Vargo & Lusch (2004) stress this when they
claim that in goods-centred production the physical resources – products, information and systems (operand resources) – are central, while the logic of service-centred production indicates that the deciding factor is the competence, ability and motivation of the staff (operant resources).

Today service provision plays a significant role in the economies of many countries (70-80 per cent) measured on the basis of both employment and percentage of the gross national product (Miles 2005). Service production is extensive in both the public and private sectors. A recent comparison of innovation activities in the public and private sectors in Norway indicates a higher level of innovation activities within Norwegian municipalities than in the private sector (Teigen, Skjeggedal & Skålholt 2010).

The rapid growth in service production since the mid 1990s has resulted in a growth in research interest in the sector. The research field is complex and includes for example research into the different understandings of service production and its characteristic features, comparisons of development trends in manufacturing and services respectively, and a range of studies of specialised service production in both public and private sectors.

2.1.1 Different interpretations of service innovation

Some of the growing body of research into innovation in service industries has been devoted to the conceptual framework, taxonomy and analytical models. One question that has been in sharp focus is whether innovation in service production can or should be interpreted and measured in the same way as innovation in the manufacturing industries (Tether 2005; Sundbo & Gallouj 2000; Edquist, Hommen & McKelvey 2001). There is a variety of interpretations of – or approaches to – innovation in service production, i.e. assimilation, demarcation and synthesis approaches (Coombs & Miles 2000; Tether 2005).

The assimilation approach posits that there are no fundamental differences between service production and goods production. Thus there are no basic differences between the innovation phenomenon in the two key industries. Consequently studies of innovation in service production industries can employ the same concepts and instruments of measurement as the manufacturing industries. The inclusion of the service industries in the 1997 European Community Innovation Survey (CIS-2) was based on this approach. Those who have argued in favour of the industrialisation of services (Levitt 1972) belong to this school of thought.

Sundbo & Gallouj (1999) criticised the assimilation approach, arguing that service innovation will normally entail only minor changes in services or procedures. In addition, they believe that the knowledge element in service innovation will centre around experienced-based knowledge and non-codified knowledge to a greater extent than in manufacturing production.

Two innovation studies have also been conducted relatively recently on the tourism and experienced-based travel industries, using the same measurement instrument as that used in the CIS (Rønningen 2009; Fuglsang, Højland, Sundbo & Sørensen 2008). Enterprises in these industries have experienced no difficulty in relating to this measurement instrument.
A competing interpretation is the demarcation approach, which is highly sceptical towards the use of the conventional interpretation of innovation in innovation studies in the service sector (Coombs & Miles 2000; Tether 2005). This applies particularly to the operationalising and highlighting of product innovation. It is claimed that innovation in service production enterprises will differ in form and content from manufacturing enterprises and so-called technology companies (Boden & Miles 2000; Gadrey & Gallouj 1998; Gallouj & Weinstein 1997; Sundbo & Gallouj 2000). Furthermore, it is argued that innovation in service production enterprises will centre around societal features or organisational and inter-organisational practices to a greater degree than is the case for manufacturing where the focus is most often on technology. The reason for this is that service products are intangible, and that it is therefore more difficult to pinpoint exactly when a new service is available compared with change in tangible products. Moreover, services are produced in the interaction between supplier and customer, which means that it is almost impossible to reproduce the exact same service. Since services must frequently be adapted to different customer groups, there is also a blurred distinction between customer-adapted variants of a service and product innovation. The adaption of a service for a demanding customer can provide experience and learning that over time will lead to a significant and lasting change or improvement in the service, which can then be characterised as a product/service innovation. As a result the development of services can be said to be a continual process rather than a process of discrete changes as is often the case in the development of tangible products (Tether 2005). Such processes can also be termed incremental service innovations. On account of the emphasis on process in the development of services, there will also be a lack of clarity in the interpretation of what is considered to be product and process innovation respectively. Moreover, according to Tether (ibid), there will also be unclear conceptions of the dichotomy between process and organisational innovation. The lack of clarity is an interesting phenomenon as well as an indication of the need for further research in the field.

The third approach mentioned is the synthetic approach, also known as the integrative perspective. Sundbo contends that the synthetic approach, or the integrative perspective, appears to be fruitful when studying innovation in service production (Sundbo & Gallouj 2000; Sundbo, Orfila-Sintes & Sørensen 2007). The basis for this is the understanding that service and goods production do not have such dissimilar trajectories as the demarcation approach suggests. A key argument in the synthetic approach is that studies of the service sector and the accompanying innovation activities may reveal aspects of innovation that have been neglected and overlooked, and this applies to an increasing extent also to goods production and technology-intensive enterprises. The goal is to develop theoretical and empirical approaches to innovation that embrace both manufacturing and service industries without favouring individual industries and their forms of innovation (Gallouj 2002; Tether 2005; Edquist, Hommen & McKelvey 2001).

Although those who favour the demarcation approach put forward strong and relevant arguments, it seems to be unnecessary to reject more traditional interpretations of the innovation phenomenon. Such an assessment is supported by the two surveys from the travel industry and the comparative analyses of Sundbo, Orfila-Sintes & Sørensen (2007). As a result we will initially pursue the arguments for using the integrative perspective. These issues will be discussed both in conceptual activities and in empirical research in the PhD programme.
There are several different innovation typologies, i.e. the categorisation of types of innovation. The European Community Innovation Survey (CIS) makes use of a typology that distinguishes between product, process, organisational and market-related innovations, inspired by Schumpeter’s (1934) five classic forms of innovation. Sundbo and Gallouj (1999) have proposed a categorisation of types of innovation in the service sector that resemble the CIS’ typology, even though it was later established that in practice it may be difficult to distinguish between product and process innovations because of the interactive and relational nature of service production (Sundbo & Gallouj 2000). They highlight process and interaction both within the service enterprise and between producers and customers/users. This is a feature of service innovation that is stressed in many publications (for example Gadrey, Gallouj & Weinstein 1995; Evangelista & Sirilli 1998; Fuglsang 2008b; Toivonen 2010). Furthermore, Sundbo and Gallouj (ibid) point out that innovation in service enterprises often assumes a different form and is often organised differently than in the case of goods production. These issues will be dealt with in research activities in the PhD programme.

In innovation research there is an ongoing discussion of which phenomena may be regarded as innovations in themselves and those phenomena that are more characteristic of changes promoting or creating frameworks for innovation. For example, Hjalager (1994; 2002) introduced a typology that to some extent parallels the categories mentioned above. The most significant deviation is that Hjalager employs the concept of institutional innovation. Here she refers to changes or the introduction of collaborative or regulatory structures that cut across the public and private sector, changing the basic rules for production. Hjalager appears to be inspired by the typology of Abernathy and Clark (1985) which also operates with a type of innovation that is regarded as more radical than the others. Abernathy and Clark (1985) refer to this type as architectural innovations that entail a basic shift in competence and in the organisation’s relationship to its surroundings. Architectural innovations often entail a redefinition of infrastructure, the legal framework (so-called legal rules of the game) and attitudes and norms. This corresponds to what other authors describe as social innovations (Pol & Ville 2009). The typologies of both Hjalager, and Abernathy and Clark permit the characterisation of changes in regulatory regimes and public bodies (for example fundamental changes in infrastructure) as innovations – institutional and architectural innovations respectively. Regulation and regulatory regimes are regarded as innovations in themselves (Veggeland 2009, 2010a). However, this is uncommon in conventional innovation literature in which regulation, policies and public initiatives in the form of instruments or infrastructure are more commonly regarded as prerequisites for or drivers of innovation processes. This approach will be adopted in the PhD programme.

Proposals for categorisation of innovation activity in the public sector have also been put forward. The Publin project (Windrum & Koch 2008) operated with six types of innovation (or objects of innovation) in the public sector: products and services, processes (service delivery), organisation and administration, conceptual, policy innovations and finally systemic innovation (Røste & Godø 2005, 17; Windrum 2008, 8). Much of the same typology is reflected in the SerPINN project (Langergaard & Scheuer 2009). Hartley (2005, 28) partly operates with the same categories of innovation, but also introduces some other types: product innovation, service innovation (new services and new methods of service delivery), process innovation, position innovation (new contexts or users), strategic
innovation (for example, new targets), governance innovation (new forms of citizen/user involvement, democratic institutions) (see also Moore & Hartley 2008), and rhetorical innovation (new language, new concepts). A key distinction in respect of organisational innovations is the type of innovation concerned with new kinds of organisational solutions, etc. (Clark 2003; Lam 2005; Pedersen 2007), and process innovations (often organisational in nature) in which the objective is to organise the actual innovation processes (Sundbo 2008, 28; Fuglsang 2008). Developing and defining more precisely such kinds of taxonomies will form an important part of the PhD programme.

A number of the typologies mentioned above introduce implicitly or explicitly a distinction between gradual changes and more fundamental changes. This is often referred to as incremental and radical innovations, or continuous or discontinuous innovations (Bessant 2005; Philips, Noke & Bessant 2006). Radical innovations are large-scale, fundamental leaps in the development of products/services, in production processes or in organisation (Osborne 1998). In the market-based economy, radical innovations are often described as market destruction (Afuah 2003). In the public sector, major reforms may be in the nature of radical innovations. Service innovations are often incremental. As previously mentioned, several service innovation researchers posit that innovations in service production will often take the form of continual minor changes, but that over time the total amount of change may be significant. Moore (2005) and Fuglsang (2010) also stress this in association with innovations in the public sector. The PhD programme will help to develop descriptions and theories of incremental innovations.

In addition to the dichotomy between incremental and radical innovations, imitation is a supplementary concept. If innovation carried out by an organisation/enterprise is a copy of other organisations’ solutions, it is natural to use the term “imitation” (Teigen 2007a). Teigen points out that it may be difficult to truly copy not only services but also organisational and management models. Even though the starting point is a copy, this must nevertheless be adapted to the enterprise/organisation’s structure, technology and context. Consequently, when a known solution is adapted to a new context, this is called adaptation. This reasoning is also given in new institutional theory in political science (Røvik 2007). The European Community Innovation Surveys (CIS) include imitations/adaptations in the operational definitions of various kinds of innovation.

In brief, there are a number of perspectives and fundamental interpretations of the phenomenon of innovation. Innovation research can be seen to be in a state of flux, and importantly the concept of innovation is being employed in an increasing number of new contexts. This requires adaptation of the taxonomy, the logical reasoning and the models. The wide variations within the service sector concerning objectives, technology, competence (type and level), degree of interaction in the encounter between the supplier and the customer/user and the degree of industrialisation (Miles 2005) reflect this. As Miles points out, innovations in the service sector can focus on the interaction between supplier and customer/user/client as well as on conventional product and process features, independently of the nature of the services. In other words the typology must be adapted to the area of study.
There is little point in drawing sharp distinctions between the public and private provision of services. Initially it is more useful to consider what kind of interaction there is between actors in the individual service. Private actors can be both commercial actors in the market and non-profit actors (3rd sector). There may be greater differences among various public services than between the public and private sectors. A long time has passed since the well-known political scientists Dahl and Lindblom argued that it would be more correct to regard the public and private sectors as a continuum, not a dichotomy (Dahl & Lindblom 1953).

Nevertheless, there are also differences between the public and private sectors that justify questioning the similarities and dissimilarities of innovative behaviour. Research has been carried out into the special characteristics of non-profit organisations and their innovation behaviour (McDonald 2007; Osborne 1998). However, innovation as an area of study, including both theoretical and empirical aspects has been chiefly linked to the private sector (Windrum 2008; Hartley 2008), and as a discipline it is dominated by economics (Fagerberg & Verspagen 2009). According to Hartley (2008, 287), innovation research in the public sector today is far too dependent on theory and data from the private sector and therefore there is a considerable need to develop concepts, theories and empirical concepts of innovation in public sector services. Moreover, Hartley states that: “In theoretical terms, there is a need to explore the concepts and theories about innovation as they may apply to public governance and public services.” (op. cit., 198).

There is general agreement that research into innovation in public services is relatively limited (Albury 2005; Borins 2001a, 2001b, 2001c; Hartley 2005, 2008; Mulgan & Albury 2003; Mulgan 2009). In 1986, an anthology of articles on innovation in the public sector was published (Merritt & Merritt 1985) which highlighted the need for increased research into differences between the public and private sectors in relation to learning opportunities and innovation (Deutsch 1985). The book also discusses general conditions for innovation and creativity. In 2009 we carried out a search of the literature, focusing on articles with titles that contained the terms ‘innovation’ and ‘public’. This revealed that in the 1970s there were very few articles, in the 1980s there was a growing number and the 1990s showed a considerable increase, while from 2000 and onward interest in research into innovation in the public sector has grown substantially.

At the end of the 1980s various kinds of competitions and awards were widespread both in the public and private sectors (Berg 1995; Borins 2008; Bovaird & Löffler 2009). Most of these awards centred on good leadership, success and quality of service. In studies of well-performing organisations, the ability and capacity to innovate were one of several criteria for success (Berg 1997). In the US, an award was created in 1990 dedicated to innovation in the public sector (Ford Foundation and the Kennedy School of Government, “State and Local Government Innovation”). Data from this award have been used in research (Borins 2001a, 2008). In the UK a corresponding study was carried out based on data from a selection of local authorities (The Beacon Scheme: dissemination and good practice, knowledge dissemination, organisational change and service improvement) (Hartley 2008).

These innovation studies adopt a broad definition of innovation; they deal with organisational change and improvements, ordinary innovations that may be reform-driven or new practices locally, new kinds of measures or methods of service delivery. In addition, the development of structural reforms,
new models of governance, policy changes and new methods are included in the concept. The studies focus on both extensive, large-scale innovations (radical) and minor changes resulting from continual innovation and learning in organisations (incremental), which over time amount to significant change (Moore 2005; Veenswijk 2005). A European project on innovation in the public sector (Publin project 2000-2005) dealt with policy innovations as well as with innovations in the health and social sectors (Røste 2004, Windrum & Koch 2008). In Norway, the introduction of user choice and private solutions in the care of the elderly was described as an example of innovation (Godø 2008). Fuglesang et al. (2008) discussed reflection, reflexivity, interaction and cooperation in innovation processes. The significance of users and user networks as well as co-producer networks has become a key research area within private service provision (Methlie & Pedersen 2005). Such perspectives and approaches can also be applied to public sector service provision and will form part of the focus of the PhD programme. This introduces a completely new set of perspectives in analyses of innovation behaviour in the public sector. The development of understanding and of innovation tools will entail a change of focus and provide new understanding of value creation processes in the public sector.

Borins’ (2001a) study of innovations in public enterprises in the US found that innovations were holistic, resulted from collaboration between a number of actors, incorporated several kinds of services for clients, used new information technology, included process improvements, lead to the empowerment of the clients/users and were conducted in partnership with the private sector. As a rule the innovations were a response to internal problems and made it possible to improve performance rather than being a response to public (visible) crises. The initiative for innovations usually came from middle management and the front line rather than from the political level and senior management. The main finding in Borins’ study was largely confirmed by corresponding studies from other countries (Borins 2001a, 5-6). These findings were also confirmed by our own 2010 study on innovation in the municipal sector (Teigen, Skjeggedal & Skålholt 2010). The results cut across what is regarded as a classic form of innovation in the public service sector; via political decisions and implemented by leaders further down in the organisations. A large part of the innovation processes in the public sector were initiated in the organisations themselves. In the US, approximately 51 per cent of the innovations came from middle management or the first line, while in the UK and Australia this amounted to as much as 82 per cent (Borins 2001c).

Innovation in the public sector will not only target improvements in efficiency and effectiveness, it will also relate to other factors and values that are important for a well-functioning public administration, such as distribution, democracy and due process of law (Christensen & Lægreid 2002; Berg 2008, 2008; Rønning 2008). The relationship between innovations and values, for example the various types of value creation, is an area that should be explored further (Moore 1995, 2002).

2.2 Factors that help to explain innovation

Many innovation studies use one set of explanatory variables that are found in both theoretical approaches and empirical analyses of innovation behaviour. Some of these variables are characteristics and qualities found at the level of the enterprise/company (internal drivers) while other variables are centred on external drivers. Some of the same variables or “determinants” are
employed in studies of renewal and change processes in both the public and private sectors. In other words they are common features of empirical studies of innovation and research targeted towards renewal and change processes more generally. In the literature explicitly devoted to innovation, Edquist (2005) developed ten theses of activity or drivers that promote innovation activity in innovation systems. The activities include knowledge processes in the broad sense (access to R&D, competence building and consultancy services), appropriate organisational changes, networking, institutional changes, the formation of new product markets, the articulation of quality requirements from the demand side with regard to (new) products, incubation activities and financing of innovation processes. Even if these activities are described as system processes, they affect – and partly take place at – the enterprise level as well. Sundbo and Gallouj’s (2000) reasoning on drivers distinguishes more clearly between internal and external drivers in the analysis of systemic characteristics of service innovations compared with Edquist. They operate with three categories of internal drivers: management (management and strategy), employees, and in-house units with responsibility for R&D and innovation. Based on a comprehensive study of the literature, Sundbo and Gallouj conclude that employees and management are the key internal drivers. In the case of external drivers, a distinction is made between the external actors on the one hand (competitors, customers, suppliers and public sector actors) and trajectories on the other hand. This centres around ideas, logic and certain knowledge factors that are disseminated through different kinds of social systems. Furthermore, a distinction is made between service professional, technological, management-oriented, institutional and social trajectories. Thus different enterprises are marked to a varying degree by these trajectories, depending on the company’s size, type of service production, work-force skills, market base, etc. Of the external actors, customers and suppliers appear to be particularly important (Sundbo & Gallouj 2000). This is confirmed in a new Norwegian study (Teigen, Skjeggedal & Skålholt 2010). In addition, policies and politically determined framework conditions, i.e. the result of the decisions of political actors, will be an important determinant, even though Sundbo and Gallouj (2000) do not devote much attention to this. One of the factors that most powerfully distinguishes between innovation in the public and the private sectors is that the political sphere is a more important driver in the public sector. This means that political priorities govern public sector innovation to a large degree (Pollitt & Bouckaert 2004; Considine, Lewis & Alexander 2009).

2.2.1 Internal drivers within enterprises (organisational level)

Many research studies have indicated the internal organisational features that are of significance for the ability of enterprises to innovate. Important examples of organisational and management-related conditions are: the size of the enterprise, knowledge processes, learning and competence, the involvement of employees in development processes, the involvement of the unit in collaborative structures and network relationships, export orientation and the ability to attract public sector (financial) instruments, the quality of service, and the ‘moment of truth’ – the importance of personal relations in the meeting between customer/client and producer/supplier (Hjalager 2002; Tether 2005; Mohnen et al. 2006; Karlsen 2008, Ronningen 2009). These variables are manifested at enterprise and organisational level, but also point towards other levels: the network and system levels.

The qualities or personal characteristics of the employees, and the significance of how the employees are categorised, are also treated in the literature on innovation, although little research has been
carried out in this area. Nevertheless, only a few studies examine the importance of gender in entrepreneurship or in the context of innovation (Guldvik & Lauritzen 2009, Blake & Hanson 2005; Petterson 2004; Berg & Foss 2002). Schilling & Werr (2009) include gender as one of the nine areas that they believe should be researched further in the area of service innovation.

Employees are a particularly important internal driving force in innovation activities, perhaps in service enterprises in particular (Sundbo & Gallouj 2000). This is demonstrated in two ways. On the one hand the employees must interact with customers and users in order to deliver the service. Through such interaction processes the employees register customer/client requirements and preferences. As a result, employees often initiate innovation processes based on experience garnered through contact with the customer or user. This results partly in ad hoc innovations (customer-adapted services that are not necessarily reproduced) that over time can lead to more sweeping changes in services, in production processes or in the organisation of the enterprises. A special variant of reasoning on the significance of interaction for innovation can be found in the literature on the so-called service-dominant logic. From this perspective, service innovation is understood as value created for the customer/user through the consumption of services. The customer/user thereby plays the role of “co-creator” or “co-producer” in interaction with the service provider (Edvardsson et al. 2010; Kristensson, Matthing & Johansson 2008). The same arguments may be applied to user participation initiatives (user empowerment) in public sector services (Rønning & Solheim 1998; Andersen et al. 2006; Askheim & Starrin 2007). Innovation considerations are primarily linked to the result of the interaction between customer/user and service provider. Even though this perspective stresses the role of the customer/user as “co-producer”, employees in the service enterprises are undoubtedly co-producers of added value for the customers/users.

On the other hand employees themselves can be drivers of innovation. They may possess, or may develop knowledge, that can trigger innovation. In addition to the development of experience-based and tacit knowledge, employees may have codified knowledge that impacts on the innovation ability of the enterprises. The service sector is heterogeneous, and far from all service productions primarily exploit experience-based knowledge in innovation activities. In some knowledge-intensive productions the staff’s high formal competence may be considered as a driver of the ability to innovate (Edquist, Hommen & McKelvey 2001). Sundbo & Gallouj’s (2000) thoughts on “service professional innovation patterns” are also pertinent. The common denominator is the focus on employees as the internal driving force of innovation; employee-driven innovation (de Jong & Kemp 2003; Kesting and Ulhøi 2010, 66). Sundbo (2008) stresses the importance of top management promoting the involvement of both managers and staff in innovation processes. The main conclusion reached by Schilling and Werr (2009, 42) in their summary of the knowledge gaps in research into service innovation is that there is a need for more research into the role that service employees play in innovation processes specifically. The role of employees as an internal driving force and in innovation is a research topic in our PhD programme.

Management – or rather organisation and leadership – of enterprises can also be an internal driver of innovation (Schilling & Werr 2009). This is partly a question of how the management system deals with the prioritisation of objectives, communication, the shaping of strategy, external relations, decisions on the design of the organisation, involvement of employees in development processes, conditions for learning and knowledge processes (see for example Borins 2002; Burnes 2009;
Gjelsvik 2007; Phillips, Noke & Bessant 2006). The lack of professional management tools can hinder the innovation ability (Fussing Jenssen, Mattson & Sundbo 2001; Andersen 2010).

The internal organisation can affect the ability to carry out coordinated and systematic innovation activities. Certain innovation patterns in the service sector can be partly explained by the fact that the enterprises have a clear strategy or internal innovation strategy that sets the parameters for and helps to coordinate employees’ work on innovation (Sundbo & Gallouj 2000). The establishment of marketing departments is an organisational measure that strengthens the ability to innovate in various kinds of service-providing enterprises, because the requirements of the demand side to quality or new products are a major source of innovation (ibid.). Marketing departments often play a major role because internal R&D activity in service enterprises is often low or non-existent. However, in some countries internal R&D activity in the service sector has increased since the mid 1980s (Miles 2005). Different organisational conditions for innovation will form part of the focus of the PhD programme.

Collaboration and network relations have also been documented as having a strong impact on the ability of enterprises to innovate (Inkpen & Tsang 2005). These are variables that can be analysed both at the level of the enterprise and the network/system level. The collaborative ability of enterprises is associated with management and strategic choices (Birkenshaw, Bessant & Delbridge 2007). At the level of enterprises, the ability to collaborate may be regarded as a key competence because many of the skills, knowledge factors and resources that contribute to the innovative activity of companies are frequently external (Asheim & Coenen 2006; Tinsley & Lynch 2008). Organisational and management forms, knowledge transfer models, work forms etc. can also be innovations in themselves (Lam 2005). It is also the case that a type of general organisational or institutional change may promote innovative behaviour although this has not explicitly been a stated objective. For example, Verhoest, Verschuere & Bouckaert (2007) considered two aspects of New Public Management, finding that greater management autonomy, as well as more emphasis on performance and results, and competition have promoted innovative behaviour.

As mentioned previously, knowledge and knowledge-generating processes are highlighted as crucial innovation prerequisites in the literature on innovation. Conventional innovation theory has stressed the significance of formal and codified knowledge in the shape of research-based knowledge. In recent years, greater attention has been devoted to other forms of knowledge. For example, Edquist (2005) focuses on knowledge processes in the form of competence building that includes training, individual learning, and the acquisition of skills in addition to formal education. Sundbo & Gallouj (1999, 2000) have pointed out that experience-based knowledge plays an important role in service innovations.

Maskell & Malmberg (1999) have shown that unique and locally-underpinned knowledge acquires increased significance in modern societies in which knowledge and information can be disseminated rapidly, for example through the use of ICT. Nonaka and Takeuchi (1995) have dwelt explicitly on how to exploit company-specific knowledge and skills. In respect of organisational theory and cognition, i.e. knowledge building at company level, the distinction between explicit and tacit knowledge is important (Argyris & Schön 1978; Krogh, Ichijo & Nonaka 2000; Lam 2005, 116). Isaksen and Asheim (2008) divide knowledge bases into three main types: analytical (scientific knowledge), synthetic (experience-based knowledge), and symbolic (cultural/artistic knowledge). The predominant knowledge bases of different industries vary (Asheim & Gertler 2005). In light of
this, there are sound reasons to include more than codified knowledge in studies of innovation capacity, and to be open to the possibility that combinations of codified and non-codified knowledge may promote the ability to innovate.

Organisational knowledge forms an integral part of processes, procedures, routines and structures, and the key question in connection with innovation is not only how knowledge is created but also how such knowledge can be exploited. For example: How can motivation systems be created that will persuade the individual to share (externalise) his/her silent knowledge (Behn 2008)? Organisational knowledge building demands interaction, i.e. a dynamic process centred on problem definition and problem solving. Formal and informal organisational constellations (communities of practice) are regarded as crucial in developing and disseminating tacit knowledge (Asheim & Gertler 2005) and in generally promoting and developing knowledge (Brown & Duguid 1991; Lave & Wenger 1991). Such continual learning processes are stressed as essential for knowledge development and innovation processes in the public sector (Fuglsang & Sørensen in press; Fuglsang 2010; Moore 2005).

Descriptions of the context of innovative behaviour can also provide insight into significant differences between the public and private sector. For example, risk taking will often function differently in the private and public sector. Innovation in the private sector shows acceptance for failure. In the world of competition, the markets function on the basis of trial (experimentation) and error (fiasco) (Parsons 2006, 4). In the public sector, in which political responsibility is a factor, failure is not easily accepted, and it is difficult to learn from errors (Albury 2005, 55). This may be a scenario for risk avoidance (Albury 2005, Hartley 2005, Koch & Hauknes 2005).

2.2.2 External drivers, institutional frameworks and systemic features

The political arena gives important guiding principles for service production in both public and private organisations. Government policy is then understood as the formulation of general goals and other governance signals and regulation, including innovation policies and instruments.

To understand the public sector as a promoter of innovation, three factors must be considered (Teigen 2007a): its role in production, organisation and policy formulation. The public sector’s role as a knowledge producer through its dominating role in education and research is of key significance in relation to new economic growth theory; the production of health services is important for the quality of the workforce, etc. The public sector is also a driver of innovation through public procurement (Econ 2006). In the case of the organisational process a structure of policy instruments has been built up at municipal, county and state level to support and foster business activity. Innovation policy is set out in Report no. 7 (2008-2009) to the Storting: Et nyskapende og bærekraftig Norge (An innovative and sustainable Norway). Education, competence and research are emphasised as important conditions for Norway’s innovative ability. Furthermore, such policy instruments are described as a new strategy for small and medium-sized companies: promoting entrepreneurship and cluster development, access to capital and international markets, etc. Both the travel and experience-based industries in particular and the service industries generally are described as special areas of commitment. Innovation policies have only to a very limited extent been directed towards the public sector in Norway. However, the public sector and public sector service provision are included in the Storting report mentioned above. Aspects mentioned include the involvement of
the citizens, user surveys, the use of open standards, participation in strategic EU initiatives to improve ICT services, and the need for new solutions and services in the health and care sector. One of the areas of academic focus in the PhD programme is knowledge of how framework conditions determined in the political arena affect innovation ability in public and private service production.

As previously mentioned, the demand side can be regarded as an external driver of innovation in the service sector. The mechanisms which transform the demand side’s input into innovation are described in somewhat different ways in the literature on the subject. Nonetheless, the common denominator is that customer/user assessments of services in some way encourage or force service producers to change or improve their services. (This was dealt with in greater detail in 2.2.1.) Knowledge of customers and users is therefore an important aspect of analyses of renewal and change in service production (Rønningen 2009). The new user perspective linked to public sector services is also growing in importance for decisions on services.

In the private sector competitors and competition factors are usually an important driver of innovation processes. Suppliers can also be involved as a driving force. Studies have shown that they are often part of the company/organisational network and may be important advisers, competence providers, and channels for technology transfer (Rønningen 2010a). In principle it is conceivable that suppliers can also play a similar role for public sector service producers.

External knowledge providers are often mentioned as a determinant for the innovation ability of enterprises. The R&D and university and university college sectors are of course important knowledge providers, but consultancy services relevant to innovation processes can be assumed to increase innovation ability (Edquist 2005). Business and interest groups may also transfer knowledge through their R&D departments, which produce and disseminate knowledge (Hjalager 2002).

Technology does not play the same pivotal role in innovation processes in the service sector as in the goods producing sector (Sundbo & Gallouj 2000; Tether 2005; Miles 2005). The most usual procedure is that ICT-based solutions are developed “to order” and are often the result of other changes. However, ICT can also be a driver of innovation (Bekkers, Djuivenboden & Thanes 2006), i.e. the options created by new ICT-based solutions trigger a demand. New technology is being employed in a growing number of ways in service production, e.g. in promotion packages in experience-based travel, in new solutions for case processing in the public sector, and for increasing efficiency in service, orders, booking and payment systems. Information technology is thus an important part of the production process for many services, but not necessarily part of the product itself (in a narrow sense). The introduction of such technology requires training that involves competence enhancement. In addition, knowledge is an integral part of the technology so that companies and organisations are given access to embedded knowledge when they make use of the technology (Hjalager 2002; Rønningen 2010b). But technology opens up large areas of public sector service provision for co-production, for example the electronic tax return, self-administered job searches and registration with the Norwegian Labour and Welfare Administration (NAV). Such new technological solutions will be the object of research in the PhD programme.

As described above there is a set of external actors and characteristics in the surroundings of enterprises that are relevant for innovation processes at enterprise level. It is then natural to refer to a system perspective. Increased innovation ability is assumed to tie in with how relations and links in
both financial structures and institutional arrangements affect learning, and the flow of knowledge and information.

The key proposition in the innovation system perspective is that innovation takes place through systemic activities and interactive processes in which different actors collaborate (Edquist 2005; Lundvall 1992; Spilling 2007). There may be interaction between companies, research and knowledge institutions, demanding customers and suppliers, public authorities etc. (Sæther, Isaksen & Karlsen 2008). The authorities play a key role both as the owner of knowledge organisations, and as a political actor with responsibility for framework conditions and the various policy instruments. Normally it is assumed that the authorities play the coordinating role in this system. Various concepts and models have been prepared in order to describe innovation systems, including a variety of types (national, regional, sectoral (Asheim & Gertler 2005; Braczyk, Cooke & Heidenreich 1998; Lundvall 1992; Malerba 2004), the cluster model (Porter 1998) and the Triple-Helix model (Etzkowitz & Leydesdorff 2000).

The flow of knowledge and learning are of central importance to all the different understandings of such systems. Access to knowledge and learning in one form or another is regarded as the decisive factor for innovation (Hall & Williams 2008). Whether this is internal or external knowledge varies from company to company, but the innovation ability and activity are often viewed as reliant on external knowledge (Lazonick 2005). The innovation system perspective is seldom employed in studies of service innovation, and not at all in studies of innovation in the public sector. Sundbo and Gallouj (2000) do in fact identify loosely linked systems that promote innovation in the service sector but these are quite clearly differentiated from the conventional understanding of innovation systems. In addition, Sundbo et al. (2007) claim that even though there is no fully developed innovation system, there may be fragments of sectoral innovation systems in some service branches. Hjalager et al. (2008) also maintain that they can demonstrate sectoral innovation systems with a local adaptation in the tourism sector. Moreover, a number of simpler, smaller-scale systems sharing some of the same features as the sectoral innovation system have been shown to exist (Mattson, Sundbo & Fussing Jensen 2005; Rønningen 2010a).Irrespective of the question of whether an innovation system exists or not, knowledge about the system perspective is relevant for the understanding of service innovation. This applies particularly to the emphasis on the interaction between actors, the exchange of knowledge and learning. The role of the central government authorities (policies, regulation and instruments) should also be kept in mind whether adopting a system perspective or not. The same elements may be of relevance for studies of innovation in the public sector.

3 The knowledge areas and the contribution of the academic community

The planned PhD programme focuses on service innovations in both the public and private sector as described previously. This chapter presents key aspects of the research community’s activities in the PhD’s knowledge areas.

Research activities on innovation are in progress both in tourism and experience-based services and the service provision industries generally. Another research activity is the comparison of public and
private service innovation in light of the frequency of innovation. In public sector service provision, innovation in welfare services is a key area, in particular NAV’s service areas and the health and care sector. The ultimate goal is to develop knowledge of innovation activity in many industries and service areas.

Based on the academic community’s areas of expertise, three knowledge areas are highlighted, namely (A) policies, governance, regulation and instruments; (B) customers/users; (C) service innovation in the public and private sectors, as illustrated in figure 1. This emphasis reflects those areas where the academic community has the most expertise. Over time the key areas of academic expertise will be developed and extended. These knowledge areas must not be seen as limitations in relation to relevant research projects and doctoral theses.

There is an association and interaction between areas A, B and C. The first two areas can be regarded as determinants or drivers of innovations (C), while at the same time there is interaction between them.

The examples from the academic environment at the Centre for Innovation in Services (CIS) mentioned below are therefore discussed in relation to the key areas of academic expertise. The projects referred to are examples, and thus do not fully cover the projects of individual researchers. Also, we refer here to previous and ongoing projects. We have indicated future areas of focus in Chapter 2.

**Figure 1: The PhD programme’s knowledge areas**

In the figure, knowledge areas (A) and (B) describe relationships that function as determinants of service innovations (C). Where there is interaction between innovations and determinants, the arrows illustrate possible links and feedback loops between the areas.

**A: POLICIES, GOVERNANCE, REGULATION, INSTRUMENTS**

The topic ‘policies, governance, regulation and measures’ represents an important knowledge area for the PhD programme and for our research.

The policy aspects represent central framework conditions for the development of services. These institutional and organisational frameworks are undergoing change. It is not only important to study
such changes as drivers or determinants of innovation in themselves, but also to examine in what sense such changes create new frameworks and guidelines that affect change behaviour, renewal and innovation opportunities (Rønning 2007). The academic community has studied different aspects of these frameworks – at the superior levels; state, regional and municipal - as well as at the organisational and service levels.

The impacts of the various government instruments and other policy measures are documented in our analyses of innovation in the travel industry and of destination development (Lien & Teigen 2009; Rønningen 2009; Teigen, Skjeggedal & Skålholt 2010). In addition, research has shown that co-governance, i.e. the cooperation between public and private actors, affects the development trajectory of destinations (Rønningen & Sæther 1995). The opposite is also true; new services can trigger needs for regulation or changes in policies and governance instruments.

Policy changes in the shape of new regulations and statutes can also affect the consumers or users of public services. There may be changes in consumer-related legislation, the statutory framework related to the regulation of competition or of citizens’ rights in the health and social services as well as regulation of the environment. These can influence the demand for market services or social welfare services to a varying degree. PhD students will be given the opportunity to choose such research issues, particularly aspects related to the social welfare services.

The problems or needs of consumers/users can also affect policy-making, for example via government focus on problematic areas. Of equal importance is the influence of and feedback from customers/users (Bergum 2004; Slåtten, Svennson & Sveri in press). In the private sector, the traditional market-based relationship between customer and supplier, between supply and demand, is the key to decisions on products and services.

The relationship between state and municipality, autonomous local government and democratic challenges are central themes linked to developing and designing services and to business sector development (Selstad & Lesjø 2006; Teigen, Skjeggedal & Skålhold 2010). The relationship between the authorities and the citizens is in a process of change and is being challenged by the new forms of communication from new technology. This affects not only democratic forms of expression but also the population both as consumers and citizens. This topic is the focus of a PhD project at Lillehammer University College.

Policy decisions on the distribution of responsibility and tasks between state and municipality are also of significance for clarifying not only what services are offered at what administrative level, but also the manner of service delivery. Studies have been conducted on alcohol-related policies and local government (Andersen 1996, 1999, 2000), on disabled people (Andersen 2001, 2003, 2007) and on policy instruments (Lien & Teigen 2009; Teigen 2003, 2007b).

The restructuring of governance and economic systems over the last 20 years has played a major role in the regulation of state and municipal activities, i.e. service delivery. Moreover, a range of systems assuring the quality of services and case processing has also become part of the new regulatory regime. This is described by Berg and Lauvdal (2001) as well as by other authors. We have also examined how such forms of regulation create organisational conditions or hindrances that impede groundbreaking research or innovation (Berg, Heen & Hovde 2002; Rønning 2007; Veggeland 2009,
2010a). Otherwise few studies have focused on organisational instruments, forms of management and control in the case of renewal and innovative behaviour. This will be a possible research topic for doctoral research projects at the University College.

The last decades in particular have been characterised by the adaptation to new regulations prescribed through Norway’s membership of the EEA. Lillehammer University College has contributed significantly to the mapping and description of these new regulatory forms, for example in relation to the state as regulator (Veggeland 2007, 2009, 2010a, 2010b), impacts on societal planning (Veggeland 1998, 2009), and their significance for petroleum activities and policies (Austvik 2007, 2009, 2010). There is a need for more research in this area and a research fellowship is dedicated to this field.

Nationally initiated changes in organisation and governance forms, particularly in connection with the regions, have also been studied (Veggeland 1998, 1999; Pedersen 2009, 2010). Governance forms and regional development have been a topic of central importance for Veggeland (2003, 2004). Furthermore, analyses of the unique features of regional peripheries in relation to the innovation potential have been conducted (Teigen 2009). Regional partnerships as a new development and their significance for regional planning have been the subject of doctoral research activities at the University College (Higdem 2007). Partnerships represent not only new forms of cooperation but also new types of governance such as agreement-based governance or public-private partnerships (Veggeland 2003, 2004; Higdem 2007, 2009).

The public sector is a key actor in paving the way for innovation both in the public and private sector. Both the state and the municipality play a role in developing the business sector and promoting innovation. In order to understand the role of the public sector as a promoter of innovation, a threefold division can be made (Teigen 2007b): its role in production, organisation and policies. Financial instruments or other initiatives are specifically developed for the private sector, including both national and regional measures. For a number of years Lillehammer University College has conducted research into public sector measures and regional business development (Amdam, Selstad & Vike 2004; Selstad 1997, 1999; Teigen, Nordengren & Spilling 1995; Teigen 2001). It is important to examine not only how such instruments function but also whether they are organised in the optimal manner. One PhD project at the Centre for Innovation in Services has the organisation of Innovation Norway as its focus.

Innovation systems are a key research field in relation to goods production in the private sector. Little research has been carried out on the service sector, and little if anything on the public sector. We will conduct research activities focusing on innovation systems and systemic features both within private service production and in relation to service production in the public sector, and these activities will be spearheaded by Charles Edquist. Some works have been published by the academic staff at Lillehammer University College, including one in a publication that deals with systems and actors regionally (Johnstad & Hauge 2009), and one dealing with distributed innovation (Bergum 2007, 2009a, 2009b, in press).
B. CUSTOMERS AND USERS

'Customers and users' is the second knowledge area in the PhD programme. In the market economy, demand-related conditions are viewed as a determinant of the development of products and companies. In public sector service production it is also evident that the need and demand for services affects service development.

In private service production, the PhD programme will focus on how knowledge of markets and consumers can be exploited in the innovation of services, production processes, and organisation or marketing activities/distribution. Also included is the manner in which companies deal with external market expertise/information. Such contexts are part of research activities on innovation in the tourism and travel industry. In addition, the academic community has produced a substantial body of research on consumer behaviour, in particular in the field of holidays and leisure time (Kleiven 2009; Mehmetoğlu 2005, 2006, 2007a, 2007b, 2007c; Rønningen 1998, 2001; Slätten 2009; Thrane 1997, 2002, 2005, 2008). In relation to services in the welfare sector, the user perspective has been the central focus in many projects. Today, user participation is a central objective in the majority of welfare services and it is often backed by objectives stating that support mechanisms must facilitate the empowerment of user groups. The University College has contributed a number of projects and publications on empowerment, for example Askheim & Starrin (2007) and Solheim (2009). Empowerment is also a separate subject in master’s degrees in the Faculty of Health and Social Work (15 ECTS).

In the public sector, market-like principles have been adopted through the use of new management forms (New Public Management) and the users of public welfare services are largely treated as customers (Berg 2001, Rønning 2004, 2007). This means emphasising the importance of creating feedback systems for users (customers) and creating conditions for user participation in the design of services. User participation in various service areas has been studied by a number of researchers at the University College (Andersen et al. 2006; Askheim 2005, 2009; Guldvik 2003; Rønning & Solheim 1998; Solheim 2009).

At present, two doctoral degree projects are examining user participation in the creation of customer-service practices. These are linked to the project “Sosialkontoret som verksted for selvtilt” (the social welfare office as a workshop for self-confidence) in which attempts have been made, in cooperation with the host municipality, to find out whether social help can be given in such a way that the users’ own resources are brought into play to a greater degree. In several cases, Rønning has studied the situation of social welfare recipients in connection with the design of the services offered (Rønning 1988, 1995, Rønning & Bugge 1991).

For a number of years the University College has collaborated with the Eastern Norway Research Institute on various projects linked to user-controlled personal assistance for the handicapped. This is the welfare measure that most clearly cultivates user influence in the welfare services since users assume a management role vis-à-vis their assistants. Moreover, this is a clear example of a scheme initiated through a bottom-up approach, i.e. by handicapped users of the welfare services. The projects have examined assessments of the scheme given by users, assistants and municipalities. Project activities linked to this innovation have resulted in several books and articles. Guldvik, Askheim and Andersen from the Centre for Innovation in Services have participated in this work.
(Askheim & Guldvik 1999; Guldvik 2003; Askheim, Andersen & Guldvik 2004). Andersen (2007) has placed the reform in the framework of innovation theory. As part of the ServPPIN project, a researcher at the University College has been involved in sub-projects focusing, for example, on the situation of diabetes patients (Type 2) and of persons with mental disorders. A main focus in these projects has been to pinpoint the opportunities and limitations of allowing the user groups themselves to develop the range of services offered.

So far the emphasis has been on the influence of the user and demand side on service development. In principle, the opposite could be the case, i.e. that new services can affect the market/users and the demand patterns.

Figure 1 also indicates that there are links between policies, governance, regulation and instruments on the one hand and the market/users on the other. Our PhD students will be given the opportunity to choose such research issues, particularly in social service contexts.

C. DEVELOPMENT OF SERVICES – PROCESSES, DESIGN AND IMPACTS

This knowledge area includes studies of processes that lead to new services and the design of new services. In addition, it covers research on the intended and unintended impacts of new services. The same applies to studies of new methods of service delivery and the introduction of services to new market segments or user groups. An established topic in organisational research is what kind of behaviour or structure promotes or hinders renewal and innovation in organisations. Organisational behaviour that promotes innovation will be a key research area in the PhD programme in the future. In brief, the knowledge area encompasses product, process and organisational innovations as well as market innovations.

The University College has currently a research programme into innovation in private service provision. Innovation in the tourism and experience-based travel industries is being mapped and analysed. This represents a targeted research initiative that includes a strategic university college project (‘Innovasjon i reiselivsnæringene’ (Innovation in the travel industries)) and four research fellowships. The project centres on three overarching research issues: firstly the innovation patterns and conditions that can help to explain variations in innovation activity; secondly the impacts of innovation policy instruments; and thirdly innovation in experienced-based options. One of the four research fellows is studying the importance of networks for the ability to innovate, while another is focusing on entrepreneurship. Moreover, a third is examining employee-driven innovation while the fourth is concentrating on experience-based and aesthetic dimensions in nature-based tourism.

In addition to the project, the University College has carried out a national questionnaire survey of innovation in the tourism and experience-based travel industries, as a supplement to Statistics Norway’s (SSB) national surveys of innovation. The first publications are now available and deal with variations in innovation activity, factors that help to explain variations, and the impacts of innovation policy instruments (Lien & Teigen 2009; Rønningen 2009, 2010b). Also, a number of those involved in the project are engaged in the publication of their research work, for example on innovative behaviour in front line functions (Slåtten & Mehmetoglu in press) and on aspects of new experience-based products (Mehmetoglu & Engen in press).
A research project on innovation in service industries generally, based on SSB’s regular surveys of innovation in the Norwegian business sector, has also been commenced. In addition, a study of innovation in the municipal sector has been conducted in cooperation with the Eastern Norway Research Institute (Teigen, Skjeggedal & Skålholt 2010). Innovative behaviour in business sector development has also been analysed (Selstad & Sjøholt 2007).

The public sector generally is in a process of great change. Not only are new services being delivered almost continually, but one subordinate agency after the other is being reorganised and challenged in conjunction with new forms of organisation and ways of working. Which of these changes can be characterised as innovation must (and should) be discussed. However, the adoption itself of an innovation perspective in studies of new services or processes will increase our knowledge of what promotes value creation in the public sector.

For example, the development of quality and efficiency are often two opposing objectives in the case of reforms. Berg (2006) and Berg, Heen & Hovde (2002) have examined how new routines and systems for the quality assurance of public-sector management tasks and services can cut across what employees experience as their discretionary power to innovate. How public management and service organisations and their staff are able to create “bottom-up” innovations or adapt “top-down” innovations has been studied by Berg (1995, 1997, 2005), and Berg (2008) and Andersen (2010) have studied organisational and management forms that promote innovation.

New institutional theory can be applied to innovation processes with interesting results. One of our doctoral degree candidates is examining how the design and implementation of the New Norwegian Labour and Welfare Administration (NAV) office is progressing. Bergum (2009b) has studied the new forms of organisation in the Norwegian Public Roads Administration as an example of distributed innovation.

Perhaps the best-known example nationally of a radical organisational innovation in a large service area is the reform of the Norwegian Labour and Welfare Administration (NAV reform). This also represents a development or redefining of three different service areas as one. In addition to the project mentioned above, several doctoral degree candidates on the PhD programme are studying different aspects of the NAV reform. Studies have also been conducted of new and innovative ways of organising municipal welfare services (Andersen 2007; Solheim 2004, 2009), as well as of variants of the corporate Norwegian model for the organisation of welfare measures (Solheim 2007, 2010).

Today new methods of service delivery will often involve new technology. Bergum (2004) has studied the role of ICT and the customer as a source of innovation in organisation. The design of net-based information channels and the impact on users have also been examined (Berg et al. 2004). This work is continued in current doctoral degree research into competence and organisational challenges linked to IT-based case processing in the NAV area from an actor-network perspective.

In a broader perspective the NAV reform is part of a wave of reform that characterises a number of welfare states in Europe. The extent to which the reorganisation of Norwegian welfare services can be regarded as part of an international trend towards a new model is the focus of a comparative study.
of welfare organisation. This is a follow-up of a project linked to the Research Council of Norway’s programme; “Research for innovation and renewal of the public sector” (see Appendix 3).

Certain kinds of interaction between the public authorities and market actors and non-profit actors (for example NGOs) can represent important organisational innovations. For example, different forms of municipal partnerships and network management have been studied by Higdem (2007), and new municipal forms of governance by Pedersen (2009). Such cross-sectoral cooperation is not a new phenomenon in the Norwegian welfare system, but the form and extent have changed considerably. Within the welfare sector such models have become common, for example within the health sector, the care of the elderly and welfare services for children and adolescents. All the groups mentioned can initiate such arrangements. The role of the public authorities in such partnerships is a key topic in ServPPIN, the EU project in which Lillehammer University College participates (see Appendix 3).

In the field of public service provision, the PhD programme will also focus on how services function vis-à-vis different groups. The University College has a long tradition of studying how various social benefits are experienced by the recipients (social welfare, disability benefit and home services). Ever since educational programmes on health and social work were established at Lillehammer University College in 1991, a stated objective has been that they should maintain a user perspective. Therefore the organisation expects us to have research projects that shed light on this, in keeping with changes in service content and needs. For example, Solheim has worked with the recipients of social benefits and social welfare as well as with young people who are in a border area between work and social benefits, in order to reveal how users are affected by the range of services and changes in these (Solheim 2009). Drawing on a comprehensive body of interview material, Rønning (2004) has examined how different organisational-type solutions (and innovations) have influenced quality for users. This also raises the question of economy versus ethics in connection with innovations (Jørgensen 2009).

The focus on service provision and the situation of users will remain central in the PhD programme. However, in future activities we will consider how institutional and organisational circumstances set framework conditions that hinder or promote solutions. Studies of such processes and organisational solutions will become an important part of the PhD programme.
4 Organisation of the knowledge area

The Centre for Innovation in Services (CIS) was established in 2006 (Originally under a different name). A group from the academic communities at the Faculty of Health and Social Work and the Faculty of Economy and Organizational Science respectively was co-located in the new centre.

CIS has responsibility for the development of a PhD programme. Professor Rolf Rønning, Professor Anne Marie Berg and Associate Professor Martin Rønningen have formed the core group in this work. Adjunct Professor Charles Edquist has made a major contribution to the development of the application. An application for approval of the PhD programme was submitted to the Norwegian Agency for Quality Assurance in Education (NOKUT) in December 2010.

The Centre will have the academic responsibility for running the programme when it is approved. The Centre is headed today by Professor Anne Marie Berg, with an advisory council: Professor Rolf Rønning, Professor Mehmet Mehmetoglu, and Associate Professor Martin Rønningen. In addition to those mentioned above, the Centre has a large academic community:

- Associate Professor Jan Andersen
- Professor Jon Aarum Andersen
- Professor Ole Petter Askheim
- Associate Professor Svein Bergum
- Associate Professor Ingrid Guldvik
- Associate Professor Ulla Higdem
- Professor Jon Helge Lesjø
- Professor Gudbrand Lien
- Professor Halvor Nordby
- Associate Professor Tor Helge Pedersen
- Professor Tor Selstad
- Associate Professor Terje Slaatten
- Associate Professor Liv Solheim
- Professor Håvard Teigen
- Professor Christer Thrane
- Professor Noralv Veggeland

In order to strengthen the academic community’s special expertise in general innovation theory and in innovation in service provision, the Centre has two positions for adjunct professors: Charles Edquist, Professor at the Centre for Innovation, Research and Competence in Learning Economies (CIRCLE), University of Lund, and Associate Professor, Dr. Phil. Lars Fuglsang, Institute for Communication, Business and Information Technology, University of Roskilde.

The Centre has also created a post-doc fellowship in service innovation to recruit competence at professor level in the field. This position is held by Associate Professor Martin Rønningen. In addition, the University College will recruit special expertise in the field of innovation in service provision by recruiting a professor in a full-time position.

The PhD programme as outlined will be normative for:
Lillehammer University College’s recruitment of doctoral candidates to PhD programmes and doctoral research projects;

- the research centre’s work to acquire and conduct large research projects;
- National and international cooperation with external researchers in research projects that elucidate the central topics within the programme area’s field of research.

Based on the defined research field, as of June 2010 there are 14 research fellowship positions in CIS’s area of focus:

- Randi Bredvold
- Monica Breiby
- Steven Connolley
- Marit Engen
- Marit Godeseth
- Erik Haugom
- Sveinung Jørgensen
- Stine Jeanette Lien-Nasir
- Kaia Paulsen
- Maria Røhnebæk
- Trine Løvold Syversen
- Helene Kvarberg Tolstad
- Steinar Veka
- Helge Restad

One doctoral candidate (Tor Helge Pedersen) defended his doctoral thesis in 2009, and a second (Ulla Higdem) in 2007.

All the doctoral candidates have a supervisor from CIS and have been admitted to accredited PhD programmes at various institutions.

CIS has a central ambition to become a national centre for competence with international relevance in its area. In addition to those who are affiliated to CIS on a daily basis, we will make every effort to ensure that visiting researchers from other educational and research institutions have the opportunity to stay at the Centre for a period of time. CIS contributes to subject development at the University College in various ways:

- The PhD courses offer open lectures.
- A series of subject-related meetings on innovation are held each semester. Often external lecturers are invited.
- Subject-related meetings are arranged regularly and targeted specifically at the academic needs of doctoral candidates. Here doctoral candidates can present their projects, while specific scientific topics are discussed.
- The academic staff contributes to research-based teaching at the University College by means of lectures at the bachelor and master’s level.

In addition to the two academic communities that are responsible for the application, CIS can draw on the academic resources of other environments at Lillehammer University College. This applies in particular to the PhD programme: “Child and Youth Competence Development” which was approved by NOKUT in June 2010. “Visual Media” is another PhD programme initiative. This PhD
programme is anchored in the Faculty of Television Production and Film Studies. The research centres (CIS and the Research Centre for Child and Youth Competence Development) are of central importance in the University College’s research efforts, and together with Visual Media they are responsible for most of the research fellowship positions at the University College.

For many years Lillehammer University College has documented a relatively high level of research initiatives. Combined with the other PhD programmes, a new PhD programme in innovation studies will give the University College a greater opportunity to develop its profile in the research arena in Norway. CIS’ work with innovation facilitates a dialogue with both regional and national development actors.
5 Literature


Innovation in Services – in the Public and Private Sectors


