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# Shared space in a municipal sports facility The case of Lyngby Idraetsby

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# Shared space in a municipal sports facility
# The case of Lyngby Idraetsby

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## ABSTRACT

**Purpose** The concept 'shared space', where different users use the same space, is expected to be a way towards a more environmental, economic and social sustainable build environment. This paper presents important aspects of establishing a shared space in a real-world context by studying Lyngby Idraetsby ('sports city') in Denmark, with the purpose of increasing the understanding of shared space as a strategy towards a more sustainable space- and portfolio management.

**Theory** Shared space in the form of coworking and hot-desking are well described in literature. The case in this paper is a public real-estate complex within sports, and the theory used will be centred on usability, user involvement and space management.

**Design/methodology/approach** The paper is based on a study of a specific case; Lyngby Idraetsby. The approach is inductive, and the information gathered via interviews with planners, facilitators and users, with additional information collected via documents and observations at planning and user meetings.

**Findings** The project shows how shared space is relevant for the users and the project as a whole, and sheds light on key challenges regarding user involvement and facilitation that have to be handled when establishing a shared space.

**Originality/value** Shared space is receiving increasing attention, as part of the topics of the 'sharing economy' etc. These themes illustrate trends in society, but there is little empirically material available when it comes to FM. This paper intends to fill part of this knowledge gap with an in-depth case study.

**KEYWORDS** shared space, facilities management, sustainable fm, public fm

## 1    INTRODUCTION

Shared space is a term that for many different people can mean just as many different things. In this paper shared space is understood as 'multiple individuals, groups, or businesses making use of the same space, either simultaneously or at different times'. Spaces is understood as anything from offices, laboratories and canteens to reception, workshop space and anything one can think of.

But why is shared space interesting? When we share we use one of the under-utilized tools we have to create value and consistency in our daily lives and in our businesses. We already share much more than we may realize, but when considering sharing most people often think about the typical aspects of sharing, such as sharing a car, a summer home, bicycles and much more. Therefore, we rarely consider the opportunity to share on a broader scale, although it may be a golden opportunity for many to not only utilize their resources better, but also in terms of what

can be gained by entering into partnerships with others. Because sharing is not confined to office space; there may be opportunities to share a myriad of different rooms and many other aspects of a business. This paves the way for intensification of use, allowing different types of users and different uses over time. Such intensification might improve the liveliness of neighbourhoods, increase sustainability, and strengthen the ties between different actors.

## 2    THEORY

The field of shared space is part of the larger topics of The Share Economy, Collaborative consumption and not least Collaborative Urbanism, all describing the same overall phenomenon (Botsman & Rogers, 2010; Owyang, Tran, & Silva, 2013; Silver, 2013). The connection and relevance to the build environment has been described by (Brinkø, Nielsen, & Meel, accepted for publishing in 2015), and looking towards more established fields, there is theory describing shared space in office environments. Here one can find literature, also from a facilities management (FM) perspective, on for example co-working, hot-desking, designing and managing open space offices (Becker & Steele, 1995; Duffy & Powell, 1997). Since the case in question is a municipal complex, another set of theories also comes in to play; public FM and user involvement (Fronczek-munter, 2011; Jensen, Alexander, & Fronczek-Munter, 2011; Nardelli, Nielsen, & Jensen, 2015). The paper by (Nardelli et al., 2015) presents the following figure, **Error! Reference source not found.**, illustrating an analytical framework with a complex relationship between actors, that is also used to guide the study in this paper.



Figure 1: Analytical framework (Nardelli, Nielsen, & Jensen, accepted for publishing in 2015)

The figure illustrates the complex situation that must be handled by the *'internal FM unit'*; which in Lyngby idraetsby is the project group/municipality. Furthermore it illustrates the importance of considering both users and clients in relation to the public buildings, and it is exactly the usability and user involvement that have been the key focus in this study.

## 3    LYNGBY IDRAETSBY, A CASE DESCRIPTION

The case investigated, Lyngby Idraetsby, is a non-profit municipal sports facility in Lyngby, Denmark, approximately 12 km outside of the Danish Capital of Copenhagen. The project is a large renovation and construction project involving many stakeholders.

The complex was completed in 1948 with a swimming pool added in 1976 and the total complex consists of approximately 13700 m$^2$ (DGI projekt- og udviklingsværksted, 2012), not counting the outdoor areas. In 2010 mould was discovered during the initial phases of renovating a club's facilities, and an investigation to determine the extent of the problem found the mould to have spread throughout the building (DGI



Picture 1: Lyngby stadium
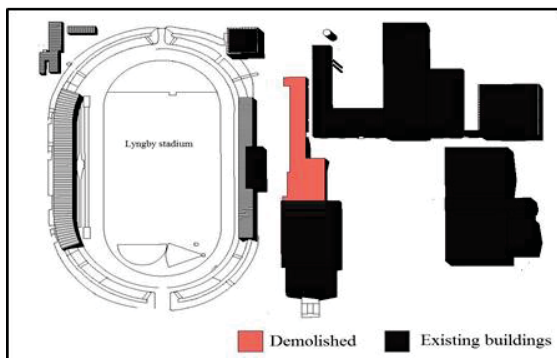[www.ltk.dk/lyngby-stadion-svoemmehal]

projekt- og udviklingsværksted, 2012). Renovating the building was estimated to be too expensive, and it was decided to replace them with new. Due to the entire complex being of an older date, a total renovation and updating of the complex into "Lyngby Idraetsby" was initiated.

## 3.1 Previous configuration: Single purpose strategy

The existing complex of Lyngby stadium can be seen in Picture 1. The stadium offer facilities for indoor and outdoor sports, among which are:

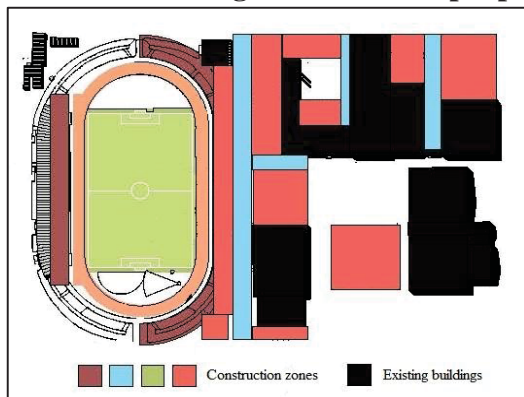Picture 2: Lyngby Stadium, with courtesy of DGI DenmarkPicture 2: Lyngby Stadium, with courtesy of DGI Denmark

- show stadium for football as well as practice fields
- fitness, sports hall and athletics stadium
- swimming pool, diving pool and baby pool
- archery ranges and space for other sports associations.

Besides these, the stadium also houses a café, lounge area and private clubrooms. The layout means that not much interaction is taking place between users, and the majority of facilities are single-purpose spaces not necessarily suitable for other uses.

**Picture 1: Lyngby Stadium, with courtesy of DGI Denmark**

## 3.2 New configuration: Multi-purpose strategy

Lyngby Idraetsby, the new complex, will consist of approximately 11800 new $m^2$ (DGI projekt- og udviklingsværksted, 2012) in addition to the existing 13700 $m^2$ of which 2420 will be torn down, giving a combined total for the new complex of 23080 $m^2$, not counting the outdoor areas. One of the proposed designs can be seen in Picture 2. The plan includes in addition to the existing facilities an area reserved for the business community, a physical education day-care and the Lyngby-Taarbaek Youth School (Lyngby-Taarbæk kommune, 2012a, 2012b). The facilities for recreational sports are meant to be shared, and are planned with multi-purpose use in

**Picture 2 : Lyngby Idraetsby, with courtesy of DGI Denmark**

mind. One of the main differences from the existing to the new complex is a plan to centre the sports associations around an "association zone". This means that no associations will have their own club rooms and no space should be usable for only one function. The association zone will be built as a specific area in connection with the sports facilities, and consist of a number of rooms the associations must share and can use to meet and gather when needed.

The vision is for Lyngby Idraetsby to be an area characterized by activity in as many hours of the day as possible, for as many different users as possible; *"Throughout the planning process there*

*has been focused on the development of space that promotes community and interaction between different groups, and strengthen new forms of activity"* (Lyngby-Taarbæk kommune, 2012, p.4). This is backed up by the project manager; *"You could say the vision for the sports city lies in that [...] there must be activities around the clock in order to attract many different types of users. [...]And this is how we have worked throughout the project – we have always planned for multi-function".* [Project manager]

## 3.4    User involvement

The user involvement process established as part of the process is an essential part of the project in relation to this study, and in the spring of 2012 a process was initiated to involve the stakeholders and collaborative partners in the process. Representatives of the sports associations as well as neighbours etc. have throughout the process been closely involved in the development of the project as illustrated in Figure 1

Figure 1: Adapted from The building design phases presented by RIBA (Royal Institute of British Architects, 2013) with illustrations of user  involvement during the project period
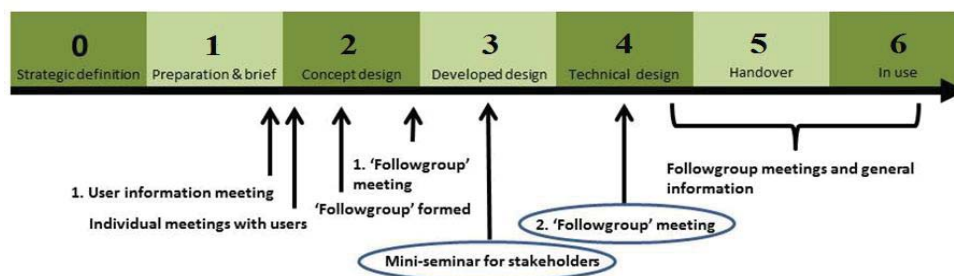


From the project's beginning in 2012 until now, the user involvement have included the initiatives marked on.  *"DGI Faciliteter og Lokaludvikling"* (DGI Facilities and local development), a Danish organisation working in collaboration with the Danish sports association DGI, were hired to facilitate the initial user involvement process. They were chosen based on their 'association-based' profile, as it was thought that users of Lyngby Idraetsby might connect better with another association instead of the municipality [Project manager]. DGI Faciliteter og Lokaludvikling were in charge of hosting the first information meeting, individual meetings offered to all associations, a workshop with architects and users, as well as to provide drawings to form the base for the project. After these initial phases the user-followgroup was established and the responsibility for user involvement instead lies with the municipal project team.

## 4      METHODOLOGY AND APPRAOCH

This paper is based on a case study of Lyngby Idraetsby in Denmark; a choice of study type that has been chosen based on its special characteristics as described by Robert Yin; *"A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context."* (Yin, 2009) and also Bent Flyvbjerg; *"For researchers, the closeness of the case study to real-life situations and its multiple wealth of details are important"* (Flyvbjerg, 2006).

Case study research as described by Yin can embrace many different epistemological orientations (Yin, 2009, p. 17). The study of Lyngby Idraetsby lies closest to philosophy of the critical realist as described by (Saunders, Lewis, & Thornhill, 2009, p. 140), and has been conducted with a mainly inductive approach. It is an exploratory study with the aim of identifying aspects of the project process that have played a significant role in relation to the outcome, both positive

and negative. The purpose is increasing the knowledge of shared space within FM, and forming a hypothesis that can be tested in additional case studies and further research.

The design is a longitudinal study of processes involved in the establishment of a shared space in a municipal leisure facility context, with special focus on the interaction between users and planners. The majority of the information used for this study has been gathered via observations at meetings and interviews with a wide variety of parties involved in the project. In addition, secondary information has been gathered via documents related to the project, to gain another perspective. The overall process is illustrated in Figure 2.

**Figure 2: Methodology and approach**
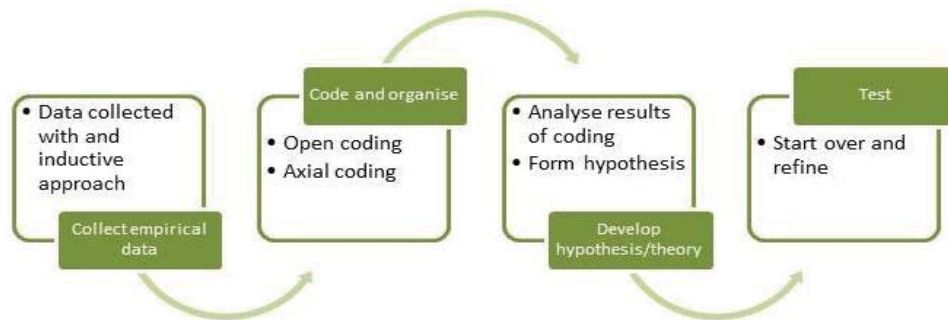


In the following, the different methods used during the information gathering and analysis process are described.

## 4.1 Observations

Observations were made by the author at user-involvement initiatives marked by a circle on Figure 1 as well as at an internal meeting in the planning group during the construction period, in total at the following three situations, during the period of May 2014 and August 2014.

- Observations at mini-seminar for users and stakeholders
- Observations at a planning group meeting
- Observations at meeting with the follow group of users

The observations have been made with inspiration from the method of participatory observations described by (Saunders et al., 2009) and as "*The researcher attempts to participate fully in the lives and activities of subjects and thus becomes a member of their group, organisation or community. This enables researchers to share their experiences by not merely observing what is happening but also feeling it*" by (Gill & Johnson, 2002)

## 4.2 Interviews

In order to gain first hand insights into different aspects and experiences during the process of planning, designing and constructing, representatives from users, architects and the municipal project group were interviewed, resulting in 5 interviews in total.

The interviews have all been conducted as semi-structured qualitative interviews based on the works of (Kvale, 2002); a type of interview that was selected based on the ability to deliver insights into a concrete topic, and ensuring the interviewer the possibility of obtaining non-anticipated information while at the same time ensuring answers to predetermined key questions. The focus of the interviews has been to gain insights in to different aspects of the project process seen from the perspective of different stakeholders, in order to understand which aspect of the project plays the biggest role from their point of view.

Users

Interviews have been conducted with representatives from 3 different user groups; the Gun association, the Handball association and the Popular Education Association (FOF). These three have been chosen based on a two main reasons. First they are three of the largest stakeholders and will be greatly impacted by the project. Second, they have been closely involved in the user involvement process, and can therefore provide insights in to how this has been experienced from a user perspective.

Architect/facilitator

An interview has also been made with a representative from the architect/facilitator organisation DGI Faciliteter og Lokaludvikling. The purpose of this interview was to learn about the user involvement process from the facilitator point of view.

Municipality

An interview with the project manager from the municipality as well as ongoing communication regarding the project, development and additional info have also been an important source of information during the gathering of empirical material for this study, in order to learn about the project from the planner and owner perspective.

## 4.3    Document analysis

In addition to the primary data collected via interviews and observations, additional information has been used to further illustrate the case. These are:

- Confidential meeting summaries from steering committee meetings
- Public meeting summaries from political discussion meetings
- Architectural drawings on the overall project as well as specific user projects
- Newsletters send out by the municipality regarding the project and official press material
- Local district plans made for the development of the area

These documents have been used and analysed based on the guidelines presented in (Saunders et al., 2009).

## 4.4    Analysing the empirical data

The methods for analysing the gathered data according to the process illustrated in Figure 2 are mainly open and axial coding as described in Grounded Theory (Boolsen, n.d.). Open coding has as mentioned been used for the initial analysis and mapping of themes, after which axial coding has been used for identifying possible connections between the previous identified themes. The purpose with doing this type of coding is to  "*to develop theoretical explanations of social interactions and processes in a wide range of contexts*" (Saunders et al., 2009, p. 185). Coding helps secure a rigorous analysis process that can be displayed and controlled, and the program used to perform and manage the coding in this study is NVivo 10.

## 5    FINDINGS

The findings from the case, illustrates some of the challenges that must be taken in to consideration and handled when establishing a shared space in a public leisure facility context. During the open coding and analysis of the empirical information, a number of aspects appeared. These were connected via axial coding, and reduced to just three aspects, illustrated in the three boxes below; territoriality, logistics, and involvement (see Figure 3, Figure 4 and Figure 5). The three aspects are located in the centre of the coloured circle, surrounded firstly by some of the aspects the specific term symbolises, and secondly by quotes from interviews that led to identifying the different aspects.
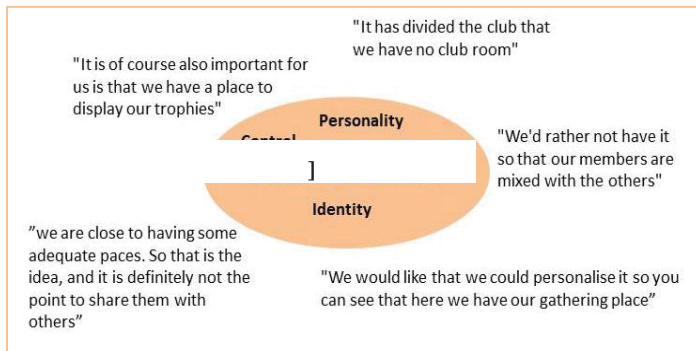
Figure 3: Territoriality. All quotes have been translated from Danish [SKL, LHK, FOF



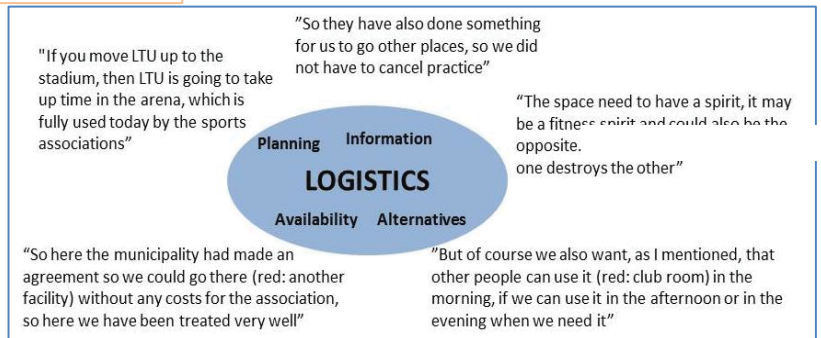Figure 4: Logistics. All quotes have been translated from Danish (LTU = Lyngby Taarbaek youth school) [SKL, LHK, FOF]



Figure 5: Involvement. All quotes have been translated from Danish [SKL, LHK, FOF]

### Territoriality

Territoriality seems to play an extremely important role when asking about a person's/groups attitude towards sharing in general. Control, individuality, personalisation, fear of losing rights etc. has been mentioned in many different forms during the interviews, and is without a doubt an aspect that is necessary to be aware of when establishing a shared space.

### Logistics

Logistics was mentioned many times as important during both the construction/renovation phase but also in the period after the space is put into use. Information and planning in regards to how "daily life" will run during construction as well as after, and also the importance of managing the different activates that must share space, so they do not interfere with each other. Not necessarily in time but in space. An example was, '*do not put fitness or Zumba right next to the yoga class unless you have good sound insulation*'.

### Involvement

Involvement was the third key aspect that was considered extremely important among users. Being heard and taken serious as well as being kept informed about the process and how it would affect a specific group was highlighted as one of the best parts of the process in this case, and also as one of the main reasons for why most had chosen to accept having to share.

The three aspects illustrates key features that through the analysis process is recognised as being of significant importance for the successful process of establishing a shared space in this context, with special focus on managing the practical aspects of working with the users and satisfying user needs.

They aspects are not blank slates within existing theory, and have been described to varying degrees within fields such as FM, architecture and psychology. So the new knowledge resulting from this study is not necessarily the three aspects in them self, but the fact that they have been identified in this specific context. This means that a lot can be learned from existing theory but with the knowledge combined in new ways and in relation to a new strategic target; ensuring the best possible chance of creating a successful shared space. Combined this can lead to an increased understanding of how to manage the complex process illustrated in the case.

## 6    DISCUSSION AND FUTURE PERSPECTIVES

The case investigated in this study is as mentioned a municipal sports and recreation centre in Denmark. It is therefore focused on sports associations and athletes, both professionally and amateurs, so what can be learned from the results outside this framework?

Well none of the three aspects identified are uniquely linked with sports facilities, but are as mentioned also of more general interest individually, within several different fields of research. Secondly, shared space and how to work with it in general is receiving increasing interest as part of the greater topic of 'the sharing economy' as described in section 2. This is also happening within FM, for example within the office environment. The results are also interesting when looking beyond this single case in a leisure setting, since it by the municipality is being considered a pilot project. The experience gained from this project is to be incorporated in other real-estate projects in the municipality, outside the world of sports, as for example regarding public housing complexes etc. The results can therefore play a role in many different types of shared space situations where the complex *user/internal FM unit/client* relationship as illustrated in **Error! Reference source not found.** is present and interaction with users is key. The knowledge and experiences gained therefore have a possibility for playing a role in relation to for example schools, kindergartens, nursing homes etc. More research though, will have to be done, to understand fully how to best handle the three aspects presented in section 5, for example by studying what has already been written on the subjects within for example architecture, phycology and existing FM research.

In addition, further studies of different types of cases from outside the leisure setting represented here, would help to support and uncover settings, in which the aspects presented here can be of importance, thereby strengthening the relevance of the results presented in this study. Studies such as these are planned for the near future.

The final result of this research is expected to be a set of guidelines and a tool to guide interested organisations or municipalities in establishing and working with a shared space in practice, thereby increasing the understanding of the concept as a way to a more optimised and sustainable space- and portfolio management

## 7    CONCLUSION

The purpose of this cases study was to gain empirical insights in to some of the processes involved in establishing a shared space in a real-world municipal context, in order to increase the understanding of how to work with shared space.

By identifying the aspects of *Territoriality, Logistics and Involvement,* presented in section 5, the goal is that organisations and groups interested in working in or with a shared space can better navigate the process, and have a better chance at securing a good result. In this way it can be a step towards creating guidelines for FM management practice on how to work with shared spaces, first of all in leisure setting, but perhaps also in the greater field of Public FM. In this way it can help to begin and fill part of the knowledge gap that exists regarding shared space and FM as a field.

**ACKNOWLEDGMENTS**

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Project manager, LTK, (28.03.2014), personal interview

SKL, Representative from gun association, (02.09.2014), personal interview

LHK, Representative from handball association, (03.09.14), personal interview

FOF, Representative from the Popular Education Association, (30.06.2014), personal interview

DGI, Representative from DGI Faciliteter og Lokaludvikling, (11.08.14), personal interview

# An approach to professionalising FM services in a Swiss Hospital

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## ABSTRACT

**Purpose**, This research sets out to explore non-nursing activities in a hospital, looking at when and whom performs them and how the quality of these non-nursing activities is controlled. The results were developed into a strategy paper to guide a major reorganisation process with the aim of professionalising Facility Management (FM) services. Hence this research focuses very much on the people who work in FM.

**Theory**, FM in hospitals enables the core activities of medicine and nursing to operate. Skills-oriented allocation of work is essential. Defining the non-nursing activities, which can be carried out by staff reporting to the FM department, instead of by nursing staff, is one way of addressing nursing shortages.

**Design/methodology/approach**, The research is based on a case study. Data collection methods included document research, structured non-participant observation on six specifically selected hospital wards, semi-structured expert interviews with nursing management from these wards, and expert discussions with representatives from both the nursing and the FM departments.

**Findings**, The results show that FM tasks are performed differently in different wards. Because many processes and the responsibilities for performing the tasks involved in these processes are not defined, the quality of service depends on the people performing the tasks rather than any pre-defined standards. The issues highlighted by this research are addressed in a resultant strategy paper.

**Originality/value**. The findings of this research provide a set of valuable arguments for professionalising FM services.

## KEYWORDS HOSPITAL, HEALTHCARE, FACILITY MANAGEMENT, WARD SERVICES

## 1    INTRODUCTION

Switzerland's  total health expenditure, expressed as a percentage of GDP, is, according to the OECD, one of the highest in the world, with the United States having the highest total expenditure (OECD, 2011). However, in contrast to the US and other countries where healthcare costs are already economically driven, the Swiss healthcare sector has benefited from a laissez-faire attitude to costs where hospitals used to be paid retrospectively for their services and bills were rarely challenged (Fetter, 1991). However, this system, which was advantageous for hospitals, has recently been changed by the implementation of the SwissDRG system, which requires hospital costs to be paid in advance, based on a diagnosis-related group system. This change to hospital financing affects the way processes are delivered (Brügger, 2010) and the provision of hospital support services. The change is designed to ensure hospitals are run more efficiently than previously (Oggier, 2012). Hence, a main and highly proclaimed benefit of this system is that it forces hospitals and health care providers in general to focus on higher process transparency as a precondition for being cost-oriented (Balmer, 2011; Cording, 2007; Hurlebaus, 2004; Mathauer & Wittenbecher, 2012; Oggier, 2012; SwissDRG, 2011). Despite the introduction of the new