

## Private investment in hospitals

### A comparison of three healthcare systems and possible implications for real estate strategies

van der Zwart, J; de Jonge, H; van der Voordt, DJM

#### Publication date

2009

#### Document Version

Accepted author manuscript

#### Published in

Conference Proceedings 3TU Research Day, Innovation in design and management of health care facilities and healthy environments

#### Citation (APA)

van der Zwart, J., de Jonge, H., & van der Voordt, DJM. (2009). Private investment in hospitals: A comparison of three healthcare systems and possible implications for real estate strategies. In J. van de Zwart, & H. Jonge (Eds.), *Conference Proceedings 3TU Research Day, Innovation in design and management of health care facilities and healthy environments* (pp. 1-8). Delft University of Technology.

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**Private investment in hospitals**  
**A comparison of three healthcare systems**  
**and possible implications for real estate strategies**  
Johan van der Zwart<sup>1</sup>, Hans de Jonge<sup>2</sup> and Theo van der Voordt<sup>3</sup>

<sup>1</sup> J. van der Zwart, University of Technology Delft, Faculty of Architecture, Department of Real Estate & Housing, j.vanderzwardt@tudelft.nl

<sup>2</sup> prof. H. de Jonge, University of Technology Delft, Faculty of Architecture, Department of Real Estate & Housing, h.dejonge@tudelft.nl

<sup>3</sup> dr. D.J.M. van der Voordt, University of Technology Delft, Faculty of Architecture, Department of Real Estate & Housing, d.j.m.vandervoordt@tudelft.nl

**ABSTRACT**

**Subject/Research problem**

Healthcare is both important and expensive, and is likely to become even more expensive in the future. To keep healthcare affordable in the future, the Dutch government is currently in the process of changing legislation in order to move from a centrally directed system into a so-called regulated market system. Although Dutch healthcare providers have always been private organisations, until recently there was tight central governmental control on quality and investment cost of health care real estate. Once the brief and design had been approved by the Netherlands Board for Health Care Institutions, the government guaranteed the financing of the capital costs. The deregulation of real estate investment that comes with the new healthcare delivery system gives healthcare organisations new opportunities, but at the same time also more responsibility and a higher risk on investments. As a consequence, healthcare organisations have to find new ways of financing. Private capital investment is one of the options. Probably this will require a review of both corporate strategies and corporate real estate strategies.

**Research Question**

What are the experiences and lessons from private investment in hospitals in different countries and what might be the implications for healthcare organisations' real estate strategies?

**Approach**

Based on a literature review and analysis of documents the healthcare systems in the Netherlands, UK and Germany have been studied in relation to different approaches of private investment in hospitals.

**Result**

The analysis of three health care systems with a different proportion between private and public investment in hospitals has been used to explore strengths and weaknesses of different care systems and possible implications for real estate strategies of healthcare organisations.

**Application**

This paper provides a better understanding of the opportunities and risks of private investment in healthcare real estate and consequences for real estate strategies. The paper is part of a PhD research project that investigates the scope, context, theories and tools of Corporate Real Estate Management in hospitals.

## 1. INTRODUCTION

Dutch hospitals have always been private not-for-profit organisations subject to strict government rules on quality and investment costs of health care real estate. The government guarantees on real estate investments made it possible to borrow the necessary capital from the private sector at favourable rates. But due to the deregulation of real estate investment decisions and the introduction of a regulated market system the position of real estate in Dutch healthcare organisations is currently changing. Since the introduction of the new system Dutch healthcare organisations have been looking for different ways of raising private investment in real estate. Other countries in Europe have different healthcare delivery systems with a different ratio between public and private responsibility. Probably much can be learnt from private investment in hospitals in other European countries. Providers of healthcare services are investing heavily in new facilities and modernizing existing infrastructure. The UK for example is spending more than £25 billion on new hospitals and other facilities. Estimates suggest that Germany may need to spend €30-50 billion to modernize its hospitals (Barlow & Wheelock, 2009). The National Health Service (NHS) in England uses Private Finance Initiative (PFI) with private investors playing a dominant role in design, finance, build and operate hospital buildings (DFBO). The Rhön Klinikum Group in Germany is an example of a private-for-profit hospital, quoted on the stock exchange, that fits within the German public healthcare system. This organisation is expanding its operation by buying and rebuilding under-performing hospitals. The present paper is a first exploration of similarities and dissimilarities of the different systems, in search for preliminary conclusions about the consequences for costs, finance and design innovation and steps for further research.

## 2. FINANCING AND PLANNING OF DUTCH HOSPITAL REAL ESTATE

In the Netherlands, healthcare is provided by private not-for-profit hospitals. Costs of individual healthcare are met by obligatory private insurance funds. On 8 March 2005, the Dutch Minister of Health, Welfare and Sports announced far-reaching changes in the real estate budgetary system and introduced a regulated market system in the healthcare sector (Hoogervorst, 2005). The centrally steered real estate budget system with governmental ex ante testing of building plans and investment proposals is being changed into a performance-based and output driven finance system. Private not-for-profit initiatives will continue to be the driving force behind hospital healthcare capacity, but in contrast to the old situation hospitals become completely responsible for the return on real estate investments. The main objective of the new system is to keep healthcare affordable by stimulating competition and reducing healthcare costs. Until the introduction of deregulation, the funding of capital investment for hospitals relied almost entirely (80-90% of a typical project) on loans from the private sector (Thompson & McKee, 2004). Since January 2008, providers in the medical sector are required to finance real estate investments and capital costs with the income from healthcare products and services. The increased risk of return on investment due to the deregulation of real estate investments goes hand in hand with more freedom in briefing, designing and managing hospital buildings. So hospital organisations have to think more carefully than ever before what will be the consequences of real estate decisions on utility value, investment costs and running costs.

Figure 1 shows the old and new healthcare delivery system in the Netherlands and the position of real estate. Real estate investment decisions are usually initiated by the hospital board. In the old system these decisions had to be approved by the

government with regard to quality (match with governmental functional standards) and investment costs (match with a cost per m<sup>2</sup> norm). After governmental approval the government gave a 100% guarantee to investors in healthcare real estate. Real estate capital costs were paid by insurance companies to healthcare providers. Deregulation of building activities for hospitals means the disappearance of the 100% government guarantee on real estate investments and the guaranteed income from insurance companies for paying real estate related costs. This changing context forces hospitals to rethink their real estate strategies and how to finance real estate. Since the announcement of the introduction of a regulated market in 2006, private investment in healthcare and healthcare real estate are more and more coming up in the Netherlands (see box 1).

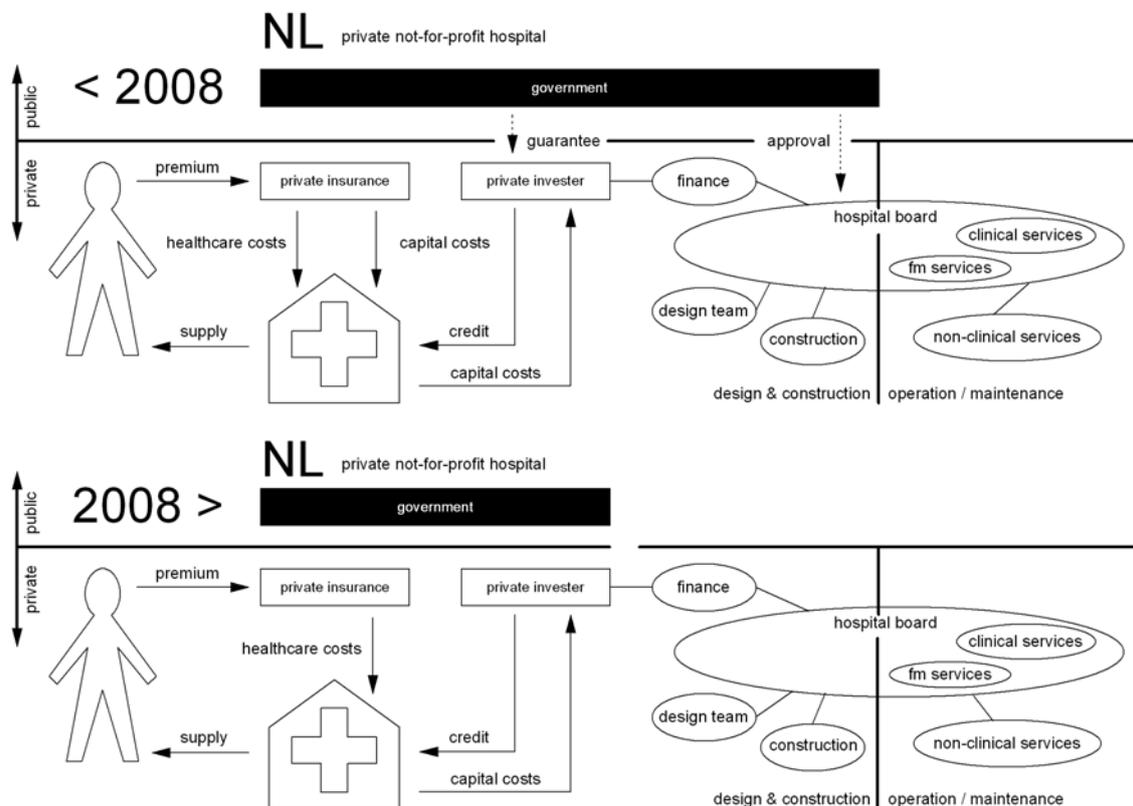


Figure 1. Old (above) and new (below) position of real estate in the Dutch healthcare system

The subject of healthcare finance and the role of private investors is a hot political issue (Verhagen & Room, (2008). Investors want a return on investment and expect a profit. Because the real estate of hospitals can consist hidden reserves, which could leak away to private investors, it is important to base decisions on the current value of real estate at the moment participation of a private investor takes place. In such a case, real estate value creation can be used to benefit healthcare delivery (Verhagen & Room, 2008).

In a comparison of the American and Dutch healthcare delivery system, Tromp & Baalman (2008) conclude that healthcare insurance companies in the Netherlands have a stronger influence on the quality of healthcare delivery. In the Netherlands, insurance companies have a quite central role in the healthcare system and feel to have an obligation to meet the demands of patients. In America, healthcare insurance companies act as an external case manager for the patient. Probably Dutch healthcare insurance companies will move to this position in the future (Tromp & Baalman, 2008).

### Box 1: Examples of private investment in Dutch hospitals

Delay due to a construction failure of the **Vlietland hospital** in Schiedam resulted in a debt for the hospital of €30 million. To overcome this debt the hospital was taken over by a not-for-profit consortium including a regional healthcare insurance company (40% ownership), medical staff and regional general practitioners. This is the first example in the Netherlands of a health insurance company that has become involved in the healthcare delivery services of a hospital. This take-over fits a trend of hospitals seeking external finance and insurance companies who want to become involved in healthcare facility operation.

(source: [www.fd.nl](http://www.fd.nl))

The **Maasland Hospital** in Sittard is being developed by Orbis Medical Centre as a joint venture with Siemens Netherlands to create a '21st Century Hospital'. Siemens' knowledge of ICT, medical equipment, facility management and electronic technology was brought to this project. ICT innovation, resulting in a paperless hospital, is a foundation for clinical services. The relatively high investment in real estate (€370 million for 425 beds and 100.000 m<sup>2</sup>) should make it possible to save on operational costs and to deliver better healthcare (quantitatively and qualitatively) for lower costs. The estimated savings of these innovations on staff people are 200 f.t.e.

(source: *Siemens IT Solutions and Services Netherlands*)

In March 2009, Orbis Medical Centre had to dismiss 700 employees due to the poor financial situation resulting from very high real estate investments.

(source: [www.fd.nl](http://www.fd.nl)).

In September 2008 it became obvious that the **IJsselmeer hospitals** in Lelystad and Emmeloord were heading for bankruptcy soon after the operating theatres were closed on the advice of the Inspectorate of health facilities. An independent advisor concluded that the hospital was not only almost bankrupt, but also had serious managerial and organizational problems. The financial and managerial participation of an investor was necessary to completely reorganize the hospital. Looking for cooperation with another hospital as a preferred partner and closing the hospital in Emmeloord was part of this advice (Lodewick, 2008). In November 2008, a private investor was found who wanted to invest €5 million in the hospital. Retaining the hospitals in both locations is part of this investment. The government has supported the reorganization and both the bank and the insurance company have agreed to postpone the repayment of debts for two years.

(source: *Tweede Kamer der Staten-Generaal, dossier ijsselmeerziekenhuizen*)

On 31 August 2006 Amsterdam's **Slotervaart Hospital** was taken over by a private investor and saved from bankruptcy. As part of the takeover, the hospital was transformed into a company in June 2007. The new CEO and co-investor expected to make a profit within one and a half year but this was achieved in the first quarter of 2007. Under Dutch legislation, a hospital is not allowed to pay any profits to the shareholders, so the profit is added to the budget of the hospital. This success is due to a central management model in which the CEO controls all expenditure, resulting in savings of €3.9 million in 2007 compared to 2006 on a balance of approximately €100 million. Rental contracts with third parties within the hospital building were evaluated, which led to the termination of some contracts. The available space will be used for the hospital's own expansion of activities. In 2007 the out-sourced cleaning company was taken over by the hospital.

(source: *Slotervaartziekenhuis B.V. year report 2007*).

Since the liberalisation of real estate investment private investment by banks in hospital real estate is not self-evident. It remains to be seen whether hospitals will be capable of paying for the interest and depreciation of real estate investments in the future. Joris de Jong, director of the Healthcare Division of Fortis Bank argues that risk analyses of banks under the former system were connected to government approval and guarantee

on investment; low risks made financing in healthcare real estate relatively straight forward (de Jong, 2008). But the new regulated market system without any guarantees will lead to more difficult decisions in real estate investment. The connection between economic life-cycle and finance construction, and the organisation's balance position and interest rates are key issues. Healthcare organisations' relationships with banks as private investors will change from borrower and lender to business partners (Jong, 2008).

Alternative finance constructions are possible such as sale and lease-back, a real estate consortium or financing based on revenue. Sale and lease-back financing enforces the organisation's solvability. The disadvantage is that healthcare organisations have to make long-term commitments with private real estate investors, thereby decreasing the flexibility for changes to the real estate, which can be a disadvantage. Separating real estate in a consortium gives the opportunity for private investors to participate but the disadvantage is that a conflict of interests can occur between investor and healthcare organisation. The advantage of cash-flow financing is that healthcare organisations are the owner of the real estate and that future real estate value creation will benefit the organisation and increase the flexibility for change. Cash-flow financing is only possible if the revenue provides sufficient scope for future interest and depreciation. Long-term commitments with insurance companies must guarantee this. Another condition is that the economic life-cycle is as long as the duration of the financing (Jong, 2008).

### **3. FINANCING AND PLANNING OF ENGLISH HOSPITAL REAL ESTATE**

In the UK, health care is provided by the National Health Service (NHS). Health care is financed mainly through direct taxation and free at the point of delivery (figure 2). Different bodies (the primary care and hospital trusts, and the strategic health authority) have responsibility for commissioning and providing services, and for regulation and performance management (Eskrine, Dowdeswell, & Watson, 2006).

Since 1992, certain capital investments come from a Private Finance Initiative (PFI) that allows private consortia to bid to finance, build and operate a hospital for a minimum period of 25 years. During this time the building is leased back to the NHS. For the government, the rationale for the introduction of PFI into hospital procurement was threefold. First, it was seen as a way of exploiting the financial strength of the private sector and renewing healthcare buildings faster than would be the case under conventional public funding models. Second, PFI was felt to be a way of maintaining facilities over the contract lifetime. Third the government saw PFI as a way of taking advantage of the private sector's 'experience and skills in order to bring innovative solutions to the needs of the health service' (Barlow & Koberle-Gaiser, 2008). The NHS commissions the work and provides clinical care; the private sector designs and builds the new facilities, and leases the premises to the NHS for 25-30 years. In hospital development, a PFI arrangement typically involves finance, design, construction, facilities management and sometimes 'soft facilities management' (non-core services such as cleaning and catering), for which fees have to be paid over the duration of the contract. The hospital trust maintains sole responsibility for all clinical services (Barlow & Koberle-Gaiser, 2008).

The cost of the planned investments is the key factor to determine which level approval must be sought. Projects over £30 million must be examined by a central capital prioritization advisory group (CPAG) in the early stages of their development, and be formally approved at a later date. Below this cost threshold, strategic health authorities have the freedom to approve projects (Thompson & McKee, 2004).

The strategic health authorities have an annual capital allocation intended for distribution to individual projects; the trusts get an operational capital allowance to maintain assets; and some funds are available at national level for specific objectives (e.g. IT infrastructure) (Eskrine et al., 2006).

Figure 2 shows the healthcare delivery system in the UK in connection to decisions on design, construction, operation and maintenance of hospital buildings. The government is responsible for the delivery of clinical services, executed by the NHS. The PFI consortium is responsible for the design, construction, operation and maintenance of the building. This consortium decides on the layout of the hospital and future alterations, based on the DFBMO contract with the clinical services of the NHS trust.

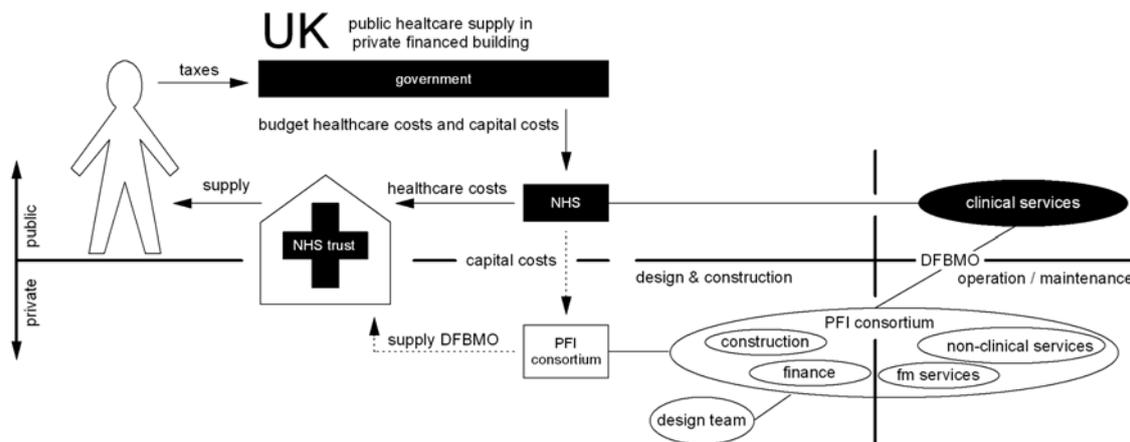


Figure 2. position real estate in healthcare system in England

As a consequence of PFI significant amounts of extra capital investment have entered the healthcare arena. On the other hand, PFI received much criticism for failing to provide clinical or architectural innovation, and for the high costs to the NHS of occupying the new premises (Eskrine et al., 2006). Most research into the UK's PFI schemes to date are normatively driven and based on surveys (Blanken, 2009). Two recent ex post studies of early examples of PFI hospitals show that the PFI-projects did not fulfil the government's original rationale in terms of quality and costs. Qualitative research of Barlow & Köberle-Gaiser (2008) of the project delivery system and the relations between funding parties, contractors and public sector client suggest that the missing link between infrastructure provision and care delivery in the PFI process has impeded innovative solutions for accommodating future changing healthcare needs through adaptable hospital infrastructure in two significant ways. First the research confirmed that inefficient allocation of risks hindered innovation. The PFI consortium bears the risk on the real estate investment, and the NHS Trust bears the risk on the production of clinical services. Alterations in real estate for greater efficiency in healthcare delivery benefits the NHS trust but the investment has to be paid by the PFI consortium. Second, innovation has been impeded by the increased complexity of the interfaces between the various components of the hospital project–operational system (Barlow & Koberle-Gaiser, 2008). In a newer "smart PFI" scheme, the design stage and tendering process are separated but this will not tackle the fundamental barrier of embedding an interest in long-term performance in public-private partnership for healthcare infrastructure. Design and construction innovation needed to support this. Until a model is developed that incorporates a coordinating and integrating function and includes clinical operations, the separation between project supply/facilities management and clinical operations will remain (Barlow & Koberle-Gaiser, 2009).

Hospital PFI arrangements should consider demand risks due to the characteristics of the facility assets, their dynamic context, and the structure of concession arrangements. The hospital facility could become outdated; the hospital organisation could become locked-in to the private investor. Flexibility in hospital PFI is therefore considered essential (Blanken, 2009).

Another recent research examined the cost of using private finance to build, finance and operate the first 12 PFI hospitals in England (Shaoul, Stafford, & Stapleton, 2008). Shaoul et al (2008) used publicly available information, including trusts' annual reports and accounts up to 2004-05. Shaoul et al concluded that PFI charges were higher than expected in a number of cases. Also the total cost of the projects over a 30-year lifetime was higher. The contracts provide numerous ways of increasing the charges under conditions where the trusts are locked into a monopoly supplier. The PFI Consortiums typically pay little tax, whereas the government assumed that PFI would provide a 22% return to the Treasury. The extra cost of private finance of the first 12 PFI projects was estimated at £5 million per year, that is £480 million a year if this experience is generalized to the whole PFI program in the UK. Although the government recognizes that private finance is more costly, it believes that this £5 million annual cost for each hospital is 'Value For Money'. It is far from clear how the actual savings made from transferring risk are to be measured in practice. Barlow & Köberle-Gaiser (2008) showed that this value for money was not to be found in design innovation. Irrespective of whether the additional cost of PFI constitutes value for money, it generates affordability pressures for the trusts. After 2008, the new funding regime with funds following patients on the basis of average prices will create even further pressures for trusts that are locked into PFI contracts. PFI creates budget inflexibilities that increase the pressure on the NHS to cut their largest cost: the jobs, working conditions and pay of their staff, and thus access to quality healthcare services. In other words, PFI heralds an emerging conflict between capital and labour in healthcare (Shaoul et al., 2008).

The "payment by result" system – with hospitals being paid a fixed tariff for treatment provided – is said to be creating affordability problems and making hospital income more unpredictable. Since hospitals under PFI hold all risks for future demand changes, hospital trusts may become more circumspect in committing to large long-term strategic investment in the future under a PFI model (Barlow & Koberle-Gaiser, 2009).

One of the lessons that can be learned from the NHS's PFI scheme for hospitals is that capital costs are ultimately higher than when the NHS had borrowed the money and built and operated the hospitals itself. Regarding the innovation and real estate's flexibility, hospital buildings under the UK PFI scheme appear to be less innovative and less flexible. To adapt real estate for more efficient healthcare delivery is extremely difficult. One reason for this is the conflict of interests between the hospital organisation (which benefits from higher efficiency in delivering clinical services) and the PFI-consortium, which has to finance alterations in real estate and bears the risk of these new investments.

#### **4. FINANCING AND PLANNING OF GERMAN HOSPITAL REAL ESTATE**

The German health system operates as a form of public private partnership (PPP), whereby the state supplies the legal framework, the public institutions contribute financing, and private partners provide the healthcare (figure 3). The costs of individual healthcare are met by the statutory insurance fund. Under Germany's Federal system, states have the responsibility for supplying hospital services and for developing guidelines for the structure of regional healthcare. The funding of capital investment for

hospitals comes from the states, in line with the regional 'hospital plan'. Any request for capital investment has to undergo a thorough and fairly lengthy approval process, which includes submission of evidence on patient need, development of a detailed functional and architectural plan, and consideration of the project on the urban fabric of the region. If approved, capital financing is released in staged payments (Eskrine et al., 2006). Any hospital, whether publicly owned or private for-profit or not-for-profit, can apply for public funds from the state in which it is situated. Hospitals are allowed to borrow funds directly from the private sector, although these are subject to approval by the state government, with decisions made on basis of healthcare need ('Krankenhaus plan') and whether the cost of funding by this means would be less expensive than using public funds (Thompson & McKee, 2004).

Figure 3 shows the German healthcare system and the position of real estate in this system. The German system is similar to the former Dutch system (figure 1 above) in the sense that a private not-for-profit hospital organisation is responsible for healthcare delivery but real estate investments are paid for by separate revenue, based on approval of the investment beforehand. The German system differs with regard to the fact that real estate investments are not financed by insurance premiums, but by taxes paid to the central government. Under the German healthcare delivery system private for-profit hospitals can operate as well. Rhön Klinikum is an example of this. Its position within the German healthcare system is also illustrated in figure 3. Healthcare costs are paid by statutory insurance companies, but Rhön Klinikum does not primarily make use of the separate revenue for real estate investments, which makes them independent from the government with regard to decision-making on real estate investment.

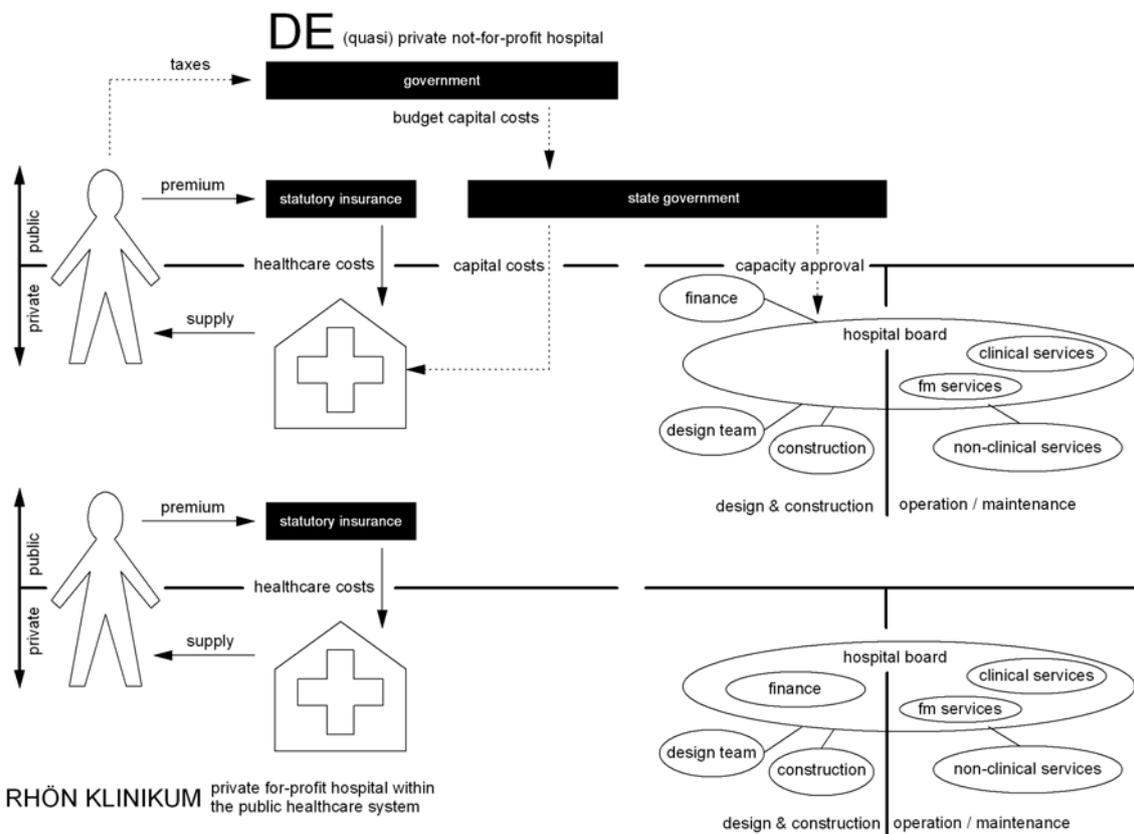


Figure 3. position real estate in healthcare system in Germany (above), with the functioning of the Rhön Klinikum Group as a private for profit healthcare provider within this system (below).

The Rhön Klinikum Group is a private for-profit hospital group, listed on the stock-market that operates under German healthcare legislation. In its annual report of 2007, the Rhön Klinikum Group identifies itself as a leading private hospital service provider committed to the highest standards of patient-oriented care by combining the very best quality of service with good value for everyone at all times (Pföhler, 2008). Achieving this aim requires a long-term approach to all of its activities, rather than a short-term approach. Initial investment on acquisitions as a prerequisite for establishing the quality of acquired facilities are generally written off over at least ten years and have to be supported by sustained and reliable operator concepts oriented to the needs of patients.

The long-term investment strategy is based on the acquisition of inefficient hospitals fitting within the overall location criteria of the Rhön Klinikum Group; there should be a Rhön Klinikum hospital within a one-hour drive from all points in the country. In 2007, the national public hospital construction program was cut back but in the same year Rhön Klinikum invested €260 million, (including €180 million of its own funds) on construction projects to redesign hospitals taken-over in 2004.

Decisions about real estate investments are made at the highest level within the organisation. The Investment Committee, chaired by Eugen Münch who is also chairman of the Supervisory Board and the biggest shareholder, is the largest committee in the organisation. The Investment Committee is responsible for discussing and agreeing the overall strategy of the Board of Management concerning the development of the company into which the specific investment project and financing measures have to fit. At each meeting, the Board of Management routinely submits an acquisition report, which, along with an overview of the national health market, also serves as a basis of discussion on planned and ongoing acquisitions. Past acquisitions are reviewed and restructuring is assessed as part of re-calculation (Pföhler, 2008).

What appears particularly effective is a combination of favourable physical conditions and adequate organisational measures. At the Rhön-Klinikum, the remuneration of all staff on the payroll includes a substantial performance-related component. Great emphasis is placed on efficient patient logistics. There are four levels of care: intensive care, intermediate care, normal care and low care. This makes it possible to ensure that medical staffing levels are properly geared to the demand for care. The consequence is that patients are moved to another level of care if their health condition changes. According to the Chairman of the Board of Directors, this hospital has achieved above-average productivity by combining intelligent layout (walking distances reduced by clustering the departments around a central patient hall; all facilities available in the departments themselves), efficient patient logistics and an appropriate business culture, and 25% fewer staff are required for the support functions.

The level of capital investment of the Rhön-Klinikum Group is nearly three times higher than in traditional German Hospitals. Despite this high level of capital investment, Rhön-Klinikum is able to make a profit, by combining three important principles: (1) integrated capital and revenue profiling; (2) work process systematization; and (3) a compact and adaptable building concept. An important lesson to be learnt from this strategy is the benefit of a good fit between the building and the primary process. Much attention is paid to functional relationships with short distances between related functions, in order to reduce nursing costs. As a result, Rhön-Klinikum has abolished nursing departments according to medical disciplines (Bjorberg & Verweij, 2009).

The relationship between real estate investment and the delivery of clinical services is another important lesson which can be drawn from the Rhön-Klinikum Group. Real estate is used as a resource for production. The real estate strategy is part of the

organisation's growth strategy. Investments proposals and alterations in real estate are decisions made at the highest level of the organisation. Investments have to be profitable within a period of 10 years. Innovation and alterations in the benefit of a more efficient delivery of clinical services are implemented throughout the company. In this way, the Rhön Klinikum group can deliver healthcare at a lower cost in comparison to public hospitals in Germany and increase their profit.

## 5. CONCLUDING REMARKS AND FURTHER RESEARCH

This paper described the healthcare systems of the Netherlands, England and Germany, reflected on strengths and weaknesses, and explored possible consequences of private investment in hospitals on real estate strategies. A first preliminary conclusion is that the separation of production of clinical services and real estate value creation hinders design innovation and flexibility to adapt real estate to business processes. A second preliminary conclusion is that transferring real estate decisions to private investors decreases the influence of the healthcare organisation on future costs and quality. The final impact on cost and quality is rather ambivalent.

Since the introduction of the regulated market system in the Netherlands, several private investors have entered the Dutch healthcare system. Decisions made by different stakeholders in different phases of the design-construction-operate-maintenance-cycle have not yet been fully analysed in this paper. Further research is needed to be able to develop a conceptual framework of different types of private/public partnership in investing in hospital real estate and tools to support decision making in real estate strategies. The present findings will be used as an input to in-depth case studies of private investment activities and its impact on quality and costs, profitability and competitive advantage.

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