



European  
Commission

# Health and Economics Analysis for an evaluation of the Public Private Partnerships in health care delivery across EU

*EAHC/2011/Health/20*

Implemented by

**EPOS**  
Health Management

**ECORYS**



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Health and  
Consumers

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ISBN  
DOI

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August, 2013

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## List of abbreviations

ALOS	Average length of stay measured in days
DG REGIO	EU Directorate General for Regional Policy
DG SANCO	EU Directorate General for Health and Consumers
EAHC	European Agency for Health and Consumers
EIB	European Investment Bank
EPEC	European PPP expertise centre
EU	European Union
ESA	European System of Accounts
GDP	Gross Domestic Product
HMO	Health Maintenance Organisation
IASIST	Portuguese Clinical Database
IFRIC	International Financial Reporting Standards
IMF	International Monetary Fund
ISTC	Specialised Treatment Centre (UK)
MoH	Ministry of Health
MS	Member States
MTEF	Medium Term Expenditures Framework
NAO	National Audit Office
NHS	National Health Service
NPV	Net Present Value
OECD	Organisation for Economic Cooperation and Development
PFI	Private Finance Initiative
PPP	Public Private Partnership
PSC	Public Sector Comparator
SG	Sector Group
SF	Structural Funds
SME	Small and Medium Size Enterprises
SPV	Special Project Vehicle
ToR	Terms of Reference
VfM	Value for Money
UK	United Kingdom

## Executive Summary

The EU Council Conclusions: "Towards modern, responsive and sustainable health systems" (June 2011) noted in regard to the rapidly changing outlook for healthcare that: *"it is the scale and urgency of the [health] situation that is changing and if unaddressed, it could become a crucial factor in the future economic and social landscape of the EU"*. It also invites the member states to *"reposition the perception of health policy, making it more visible when macroeconomic issues are at stake and shifting it from being regarded as just an a cost center to being acknowledge contributor of economic competitiveness and growth"*.

Further, the Commission to the EP Council, European Economic and Social Committee and Committee of Regions in the document *"Mobilising private and public investment for recovery and long-term structural change: developing Public Private Partnerships"* observes that investment in infrastructure projects is an important means to maintain economic activity and support rapid return to sustained economic growth. "PPP can provide effective ways to deliver infrastructure projects, to provide public services and to innovate more widely in the context of recovery efforts." It notes however that at the time when a more systematic use of PPP could bring economic benefits, the crisis has made conditions for these instruments more difficult. The EC is therefore looking at new ways to support the development of PPPs.

In October 2011 the developments at both policy and sector level across EU member states led DG Sanco to launch, through the EAHC, a study on the **Health and Economic Analysis for an Evaluation of the PPP in Health Care Delivery across EU**. The study aimed to review existing scientific literature on the provision of health infrastructure and health services through partnerships between the public and private sectors, as well as to review the value-for-money results and analyses undertaken by public authorities in procuring and managing PPP contracts in the health sector. The study intends to add valuable transparency and clarity to public spending and contingent liabilities in healthcare PPPs, healthcare performance, and to the important components of public health services and sovereign indebtedness. Greater transparency can contribute to reducing uncertainty and increasing consensus in the current financial crisis.

For the purpose of this study the team adopted the following definition, agreed with the EAHC and SANCO:

"A PPP is the provision, (probably) finance, long term operation and maintenance of public infrastructure and/or provision of public services by the private sector. A PPP should have been initiated by the public sector, involve a clearly defined project with specification of outputs or outcomes, the sharing of risks with the private sector, be based on a contractual relationship which is limited in time, and have a clear separation between the public sector and the Borrower".

This definition enabled the inclusion in the study of private provision of healthcare services in those cases (especially Germany) where there is a full concession or "franchise" to deliver, on the same terms as public facilities – inclusion in the Hospital Plan; no cherry-picking of patients, patient choice of the institution to approach.

The study was based on a desk review conducted from the middle of 2012 – to the beginning of 2013 of available secondary data and scientific literature to develop **seven country case studies** that characterize the largest health PPP markets in the EU, namely UK, Spain, Portugal, Italy, France, Germany and Romania and to review the policy frameworks available for the implementation of the PPP instruments in health care infrastructure. A further **fourteen specific case studies in the health sector** in the selected countries, as well as specific cases from the Czech Republic and Sweden have been elaborated to review/analyse PPP implementation at operational level and highlight innovative approaches and lessons learnt for those willing to implement PPP in their home countries. The specific case studies cover hospitals, with and without provision of medical services as part of the PPP deal, and other health facilities and services, such as primary care. Case studies were selected based on rigorous and varied criteria allowing the team wide discretion to comment on experience and good practice in each country and case study.

## Major Findings

Reliable evidence about the nature of contracts and performance of PPPs is sparse, a consequence of the commercial and confidential character of the business relationship between the 'government' and the private sector and their restricted approach to the treatment of commercial information. It is also perhaps reflective of the relative lack of reliable and comparative performance data. For the purpose of this study, a supplementary questionnaire requesting policy and performance information on PPP was sent to the Ministries of Health, with a DG-SANCO supporting letter, but only one (UK) responded fully, whereas from France and Italy only partial responses have been received. There was a notable overall reticence to release relevant data. The team have therefore relied on public domain material including grey sources, rather than primary data. Nevertheless, some reliable conclusions can be drawn from the available data and sources.

Healthcare is universally considered as a **public service across all member states**, whether a social security insurance system is in place (Bismarck model) or national (welfare) health system funded by general taxes (Beveridge model) is applied. There does not seem to be any definable relationship as between the two health service concepts and the model of PPP adopted. The structure of each deal depends mainly on the provision of national legislation in terms of law on enterprises, fiscal regulations or procurement models for the public sector and of course political / ideological conviction.

The study has shown that apart from standard PPP legal provisions, **specific PPP legislation for the health sector**, as such, does not need to be in place – all PPPs in the case studies made use of the existing or updated generic PPP legal frameworks, though some such as Portugal and Italy had specific enabling legislation.

A useful way of categorising and understanding health PPP is in terms of the extent of services covered by the private partner: the concept of bundling the services in the contract of the private partner.

Type	Major features
Type I: Accommodation model	Hospital infrastructure and hard facility management (many PFI).
Type II: Accommodation model	As Type I, but with the SPV owned entirely from the start by the public sector (not covered in this Report; e.g. Hospital Universitario Central de Asturias).
Type III: Extended accommodation model	As Type II, but including IT, soft FM, and supply, installation and maintenance of some or all medical equipment (several PFI).
Type IV Twin-SPV model	Joint venture with separate infrastructure (~PFI) and clinical service companies (e.g. Portuguese "Wave 1" hospitals like Cascais).
Type V: Accommodation and service model	Specialist "monoproduct" hospital infrastructure with FM and medical services (e.g. Coxa, Dialysis Centres and ISTC).
Type VI: Full service provision secondary health care model	General (district hospital) infrastructure with FM and medical services (most of the sites in the German hospital chains).
Type VII: Full service franchise provision tertiary health care model with teaching and R&D	University (teaching/research, "tertiary") hospital infrastructure with FM and medical services (e.g. Berlin Buch/Helios or Giessen & Marburg/Rhön).
Type VII: Full service provision at all levels of care	Integrated hospital and community/primary care (e.g. the Ribera Salud/Alzira companies).

The **UK** is by far the dominant PPP market, accounting for around half of all European projects by number or value, and is almost exclusively concentrated, at least in terms of project value, on the "accommodation-only" PFI model. The UK also has some alternative small scale full-service Independent Sector Treatment Centres (ISTCs), but the total capital value is comparatively small as is the scale of service provision.

In general, accommodation (UK PFI type) PPPs have not performed as well as promoted or expected. The relative disconnection between the direction and management of the service strategy, usually national or regional agencies and the interests of the company providing the accommodation, generally on long-term contracts in excess of 25 years, has proved a problem. There are notable issues around risk transfer and management over the lifecycle of the contract. Contractor risk is almost wholly centred on the design and construction phase of the project. Lifecycle maintenance of the facility is generally found to be of much lower risk to the operator. Whilst initial building costs tend to be lower for PPP projects, operating (availability) charges tend to be higher than for conventional infrastructure provision, a factor of the higher initial cost of capital and assurance of lifecycle availability, characteristic of the PFI model. There is strong evidence that the restrictive nature of the accommodation contract, which is in common use in a number of countries, can have an adverse effect on patient quality and financial performance of some hospitals, as service needs change and develop, invariably at a faster rate than predicted. The contract model adopted does not seem to offer sufficient flexibility to meet these changing needs over the lifetime of the contract, at least without punitive contract variation costs.

The **Portuguese** "twin-SPV" integrated hospital PPP models have less impressive financial than clinical results, so they may not be sustainable (this may be a start-up problem). It is usually difficult to attract funding for them from international sources, and they are contractually complicated. Their efficiency, however, makes them less problematic for the state than most other sector Portuguese PPP programmes such as transport, because of the use of a disciplined PSC/VfM and contract management process.

In some of the published evaluations of the **German** “franchise” hospitals, franchises/concessions appear less resource-efficient than purely public hospital provision (except in the range of very large facilities, where it is more resource efficient). However, they seem to offer higher quality of care. Revenue per patient is greater (higher case-mix, up-coding), as is profitability, capital availability and tax generation. Some efficiency gains are made after privatisation of municipal hospitals to the franchise companies. It is worth mentioning that German franchise hospitals. (private hospital operators) function in the same legal environment and are subject to the same payment mechanisms as any other municipal or faith-based hospital. Such hospitals exist within the Hospital Plan (Krankenhausplan), in which their physical location and operation are clearly defined.

In **Italy**, PPPs in the health sector as designed and promoted by the private sector (Merloni law) and do not always fit public needs as publicly-developed project schemes, though the end operational evaluation of hospital performance seems to indicate positive value for money assessment as well as high patient satisfaction.

**Full service PPP models** across all the countries within the remit of the study in general perform on similar terms to public hospitals with regard to financial performance (a surprising finding in comparison to dominate public opinion) but seem to deliver slightly better quality of care. Outcomes, when expressed in mortality terms are not statistically different. Models with a greater degree of “bundling” (twin-SPV, integrated hospitals/franchises) offer some limited evidence of improved through-life clinical performance but this again is not significant. It should be noted that all hospitals, irrespective of their ownership type, management structure or institutional arrangement operate in a **strict quality assurance environment** imposed by the different quality assurance and accreditation bodies in each member state. Equality and rigour of application of quality standards is by far the most important driver of better outcomes as opposed to ownership status.

Overall, **clinical service systems and workforce (HR) strategies** tend to be more innovative and better managed and monitored in PPP hospitals. There is a strong suggestion that acceptance by professional staff of significant change management, in particular work practices, within a PPP environment can often prove greater than in the comparable public sector providing there is initial positive engagement with clinicians from the inception of the PPP policy development and its implementation; this should be regarded as a critical success factor.

PPP projects, especially those with full integration of clinical services, fail in most countries unless there is full **buy-in by the clinicians** as they are a pivotal asset in any hospital. This risk is even more pronounced when transferring an existing state facility into private sector ownership where public and private sector labour regulations and staff management practices may differ significantly.

The study overall reveals the critical importance of engagement and endorsement of all stakeholders, the workforce, the public and politicians when considering and implementing PPP strategies.

Public acceptance of PPP (privatized) delivery of services is high where quality and accessibility matches or exceeds that of public hospitals. Conversely, opinion and acceptance can be very low when there are perceived quality problems and these attitudes, often expressed as concerns about so called privatisation, are difficult to

resolve once embedded. In general, patient satisfaction surveys indicate that few patients are aware of the ownership status of the hospital they go to, and fewer still care. Patient satisfaction rates are often high in newly-built PPP hospitals but this may also be the case for any new facility public or PPP.

Contract lifespan also tends to define and differentiate between “**infrastructure-only**” models such as the UK’s PFI, and “**service**” contracts. The former tend to be long-lived (averaging 25-30 years) reflective of the long payback period required to service the initial capital debt. The latter type of PPP is more diverse; when there is not a strong infrastructure element it will usually be medium-term (7-15 years) aligned to the life-cycle of associated equipment and with potential transfer of staff to, and afterwards from, the contract vehicle.

**Infrastructure projects** will usually use a price structure based on building performance and availability of the facility. Service contracts on the other hand tend to be priced in terms of outputs such as fees per service delivered (e.g. German franchise projects). At the other extreme of the full service model, such as the “Alzira” project in Valencia, payment is calculated per capita of the resident population. Even in this case, there can be price correction for exceptional items, using very advanced and expensive procedures.

“**Project financing**” is used for many PPPs, and especially the infrastructure variants. This has until recently required a large amount of debt supporting a small amount of equity (a structure necessary to lever up the low return on the project to achieve target returns for shareholders). The same system applies for the “InfraCo” sections of the Portuguese twin-Special Project Vehicle Model (SPV). The recent trend is to call for explicit Government guarantees for some of the debt of the project SPV. PPP programmes are large in national economy terms in the UK (up to 40% of total health sector investment) and Portugal, but are usually 1% or so in other countries. As such the PPP programmes might lead to **fiscal risk**, in particular where adequate care has not been taken to limit total contingent liabilities, such as the government guarantees including letters of support which have underwritten programmes e.g. UK PFI.

A distinctive feature of PPPs in particular the PFI accommodation (infrastructure) model is the so-called benefit of risk sharing. For infrastructure models construction, operational (building availability) and finance risk are usually taken by the private operator. However, it is equally clear that this is invariably priced into the contract charge thus risk is not wholly transferred in real terms. The **quantum of risk** for lifecycle operation does tend to be offset by more innovative design, however this applies more to the technical quality of the building (to reduce its maintenance liability) than its functional effectiveness for service delivery. Some otherwise unidentified risks such as force majeure will remain with the public sector, as will market risk in infrastructure projects though less so for variants of service contracts.

*Ex post* analysis of **Value for Money** tends to be difficult with little reliable comparative evidence available. There is some (weak) evidence that PPPs are more likely to be delivered on time and within budget, as few cases in Germany and Italy indicate. Since the UK has relied almost exclusively on PFI for the past decade, there are no reliable benchmark conventional projects available for comparative purposes. It was beyond the scope of this study and particularly the limited information available to challenge this presumption more deeply.

It would be desirable to compare the performance of PPP in delivering the target outcome – **health gain – relative to other procurement methods** (c.f. the Vaillancourt and Linder methodology). For reasons discussed at length during the study, the team feels that this is not at all feasible, at least on a reliable basis. This is largely because of difficulties in ensuring directly comparable case-mix adjusted outcome results between projects. “Matched pairs” of PPP and public hospitals are simply not available. Recent debate in the UK NHS about the desirability and reliability of using mortality as a marker of outcome performance casts further doubts on the ability to link PPP performance to outcome variances even where this standard hospital data is available. Another reason for the relative shortage of performance data across Europe is the limited duration of most PPP programmes. Many have not yet established a reliable track record of output / outcome data. Where some limited analyses are available (German commercial hospitals, Alzira), the results have been incorporated into the study.

Measuring the **effect of PPP on clinical effectiveness and outcomes** is therefore, at the present state of knowledge and methodology, underdeveloped to the point where it is not possible to identify with any certainty specific characteristics of PPP hospitals that may contribute to better outcomes.

Irrespective of the problems comparing outcomes in rigorous terms (within the study parameters), there is little published evidence of any significant deviation between public and PPP hospitals with regard to clinical outcome performance within and across the principal countries studied, including Germany, France, Italy and the UK.

Thus, aside from the descriptive aspects- valuable in their own right as a summary of the state-of-play of European health PPP - the major conclusions of this report deal with cost efficiency factors, macro-economic impact, and project and healthcare process indices.

## **Recommendations**

### **Project Appraisals and Responsible Decision Making**

There is good evidence to suggest that, on occasion, poor performance standards of PPPs can be tracked back to inadequate initial service planning against which the PPP was initially conceived and developed. This is often masked by inherent generic weaknesses in some PPP models, for example the disconnection between service strategy and the NHS PFI accommodation model. It is clear that there must not only be synergy between the service need and the PPP model adopted, but that the service planning itself should be of adequate standard. PPPs will not compensate for ineffectual service planning, but instead are more likely to exacerbate an already existing weakness.

A PPP healthcare project should be, therefore, assessed thoroughly for robustness and relevance on clinical service, economic, environmental and social grounds – all of which must occur before the procurement method (including PPP) is chosen or implemented. Notably, the choice of the appropriate care service model is critically important in order to get the right fit. Wherever possible consideration of a PPP option, and preferred model of choice, should be benchmarked against a reliable comparator, within the public sector.

The approach to **Value for Money Appraisal** varies per country and has been widely criticised for its lack of depth, accuracy and objectivity, and for not being monitored during the whole life cycle of the contract. Value for Money (VfM) has a technical, as well as, common-sense interpretation within PFI particularly – the discounted lifetime Net Present Cost of facilities and services delivered against a (hypothetical) Public Sector Comparator. Further, there has to be an assessment of budget “Affordability”. All too often this simple assessment is lacking in the decision-making process. The Value for Money test is sometimes performed by (or for) the PPP promoter. A robust and believable PSC/VfM calculation should always be undertaken during the project preparation. It should be updated and maintained throughout the whole negotiation period, and monitored during the operating period as an aid to good contract management to enable objective judgement of the capital investment and overall project value.

### **Structural arrangements**

**Full-service PPPs** (infrastructure and clinical) when used, should be subject to the same rules on patient access and tariff and inadmissibility of out of pocket payments as hospitals controlled by other public, private or social sectors sponsors, to the extent that the patient experience should not differ significantly. This is an issue of equity where transparency is fundamental to building professional and public confidence in PPP based service delivery.

**Accommodation-only (PFI)** models are characterised principally by the separation of service and facility provision. In the main, service (clinical) accountability is retained in the public sector and facility provision delivered through the chosen private sector operator.

For all these models, the success of the PPP strategy lies in getting the synergy right between the two interrelated elements of care. The environment in which care is delivered has been shown to be an important and integral part of the care process, including improving workforce efficiency and effectiveness and contributing to patient safety, comfort and satisfaction. Careful consideration to the following elements that combine to shape this relationship are critical to success:

- The contracting / service commissioning model adopted;
- The nature (and equity) of the risk transfer strategy;
- The acceptance of clinical and professional staff (through their full engagement) of the initial policy decision and its subsequent implementation;
- The nature of external quality assurance (including clinical governance) arrangements;
- Service pricing models;
- Public attitudes; and
- The competency of the Government (Treasury), MoH, Regional organisations (where relevant) and Hospitals to develop and implement the PPP strategies.

### **Accounting for PPP Deals**

Eurostat and other regulations generally are now much more restrictive with regard to the conditionality that could allow PPPs to be regarded as ‘off’ the government balance sheet. The markets now tend to add PPP debt value to public debt for sovereign credit rating purposes, the operative criterion in financial markets. This issue has had the

effect of dampening the enthusiasm of some administrations to the use PPP for procurement. From an economical perspective PPP, in most of its forms, does not eliminate a public budget fiscal constraint; the state will eventually need to pay for healthcare, in a situation where user co-payments tend to be rather small. For as long as the capital markets are prepared to overlook long-term consequences, the short-term gain can allow a government with a tight budget and weak fiscal position to bring forward investments, perhaps expecting the route of later renegotiation and rebalancing of those projects which prove unsustainable for the concessionaire. Despite this view, the franchise model (attribution of front-line medical services to a private concessionaire) can serve to reduce fiscal risks to the extent it substitutes for higher-cost state-run health facilities.

Therefore it is highly recommended that PPPs are recorded on the public balance sheet and accounts, except for those variants with a very substantial risk transfer (probably including demand risk). Good *economic* practice would thus extend beyond Eurostat or IFRS standards.

Aside from the project-level Value for Money calculation, there should be macro-prudential review, such that the totality of a governments' PPP obligations, including contingent liabilities and ripple effects through public lenders, are visible. This should be carried out by the Ministry of Finance (or similar) and not at the level of the Ministry of Health.

## **PPP Financing**

The public sector can, in theory, borrow more cheaply than the private sector – but the differential interest rate is often not large, because governments (the payers) are traditionally reliable clients for the PPP concessionaires, and the markets are aware that failing public service projects are often underwritten or taken back by the state. To the extent that healthcare PPPs are financed by local banks, risk concentrations can create a positive (increasing) risk feedback loop between the banks and the sovereign, over long project durations. Key success factors in mitigating fiscal risks therefore include avoidance of excess capacity (e.g. via instruments such as the Hospital Plans of German Bundesländer), effective competition among public and private health care providers (Germany, France), and firm contract management (Portugal).

PPPs are probably not bankable when there is great flexibility in contract terms, but there should be more allowance to negotiate terms when there are conditions of severe national economic stress. The flexibility in contract re-negotiation shows positive influence on contract performance, in particular relating to medical technology change and capacity loading.

Where it is necessary or relevant that the PPP instrument should be supported during a recession, and its relative impact on public service austerity, there are tools to do so, by transferring more of the project risk to the public sector through such mechanisms as contract extension, guarantees, credit enhancement by subordinated government loans. This should preferably be on a very restricted time-limited basis.

## **Information Availability**

Most of the data publicly available on actual PPP investments is poor and incomplete, and much remains confidential. For the UK and Germany, the data is generally available on annualised PPP commitment and actual cost figures, allowing for comparisons with other flow variables, such as aggregate public investment or GDP. It is worth recording that the PPP industry, across all activities and regardless of the fact that the services are provided for the public sector, is notable for restriction of information flow on grounds of commercial confidentiality, and sometimes political confidentiality. This is unfortunate when it appears that public disclosure leads to both an improvement in performance and in public confidence in PPP as a mechanism for public service delivery. Interpretation of the information in public domain invariably involves judgement, which to be useful must extend beyond what can be strictly documented. For the sake of transparency and in order to assess the value for money of the PPP initiatives in health sector across the EU, data disclosure similar to the proposals from the World Bank (contract including side-agreements and changes, progress monitoring reports) should be mandatory, without one or both parties using the mask of "commercial confidentiality".

## **Use of the EU Structural Funds for Joint Financing of the PPP deals in health sector**

Government strategies for service and facility development, including funding conventionally-procured projects, have been constrained dramatically by the economic, banking and debt crisis. PPPs, which are usually funded on a limited recourse "project finance" basis, are inevitably also experiencing difficulties. This is so for some existing projects, which are suffering financial distress and where there are questions about potential debt buy-back by government to rescue them. The impact has been severe for projects under development, in terms of tight lending conditions from local and international banks, leading to consideration of government support such as credit enhancement and lessened equity availability. The number of PPP start-up projects is currently the lowest for a decade due to financial constraints imposed by the existing lending conditions, although there are some recent signs of a slight upturn. This may place further emphasis on consideration of alternative options for funding, for example recourse to bond financing.

It is difficult but not impossible to blend the use of PPP financing with Structural Funds – both bring process rigidities, transaction costs, and timing issues (SF Cycle is 7 years, PPPs usually last much longer). The experience of using EU funds for such "viability gap funding" for investment grants or operating subsidies is scarce in the health sector (though not in the transport sector inter alia the Vasco da Gama bridge and LGTT). The Structural Funds ESIF Round 2014-2020, currently under development, could consider use of ERDF/ESF to support PPP healthcare projects, in particular small-scale projects (dialysis clinics or stand-alone treatment/diagnostic centres). The public partner must correctly evaluate the risk appetite of potential sponsors and availability of funds in the financial market, including the blend with ESIF, during the planning and preparation phase. This may be a step too far in terms of complexity and competence for many member states in particular taking into account the short period left for inclusion of joint projects in 2014-2020 operational programmes. In looking further ahead member states would be well advised to begin to invest in competency training and development paralleled by the establishment of some form of central / coordinated expert guidance and advisory service (for an integrated PPP/ ESIF strategy) directly targeted at the health sector.

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*August, 2013*

# 1 Introduction

## 1.1 Study Background

The EU Council Conclusions: "Towards modern, responsive and sustainable health systems" (June 2011) noted that in regard to the rapidly changing outlook for healthcare that: *"it is the scale and urgency of the [health] situation that is changing and if unaddressed, it could become a crucial factor in the future economic and social landscape of the EU"*. It also invites the Member states to *"reposition the perception of health policy, making it more visible when macroeconomic issues are at stake and shifting it from being regarded as just an a cost center to being acknowledge contributor of economic competitiveness and growth"*.

However in the context of PPP, the advocacy of 'changing healthcare' is of profound importance. The Council Conclusions (representing the almost unanimous view of member States) strongly promotes the *"moving away from hospital-centred systems towards integrated care systems, enhancing equitable access to high quality care and reducing inequalities"*. This also implies moving away from paying for health "inputs" such as facilities and medical staff, to paying for health outcomes in terms of access, quality of health gains, and budget sustainability.

In order to support Member States in generational change of their health systems the EU has established a Reflection Process between EC and Member States and set up 5 working groups to review the most important areas for improvement:

1. Enhancing the adequate representation of health in the framework of the Europe 2020 Strategy and in the process of the European Semester budgeting procedures;
2. Identifying success factors for the effective use of Structural Funds for health investments;
3. Cost effective use of medicines;
4. Integrated care and hospital management;
5. Measuring and monitoring the effectiveness of health investments.

The 'deliverables' for Sub-group 2 (led by Hungary) includes assessing the extent to which PPP may be integrated with the use of the Structural Funds in project funding order to improve innovation and value for money – and potentially - to supplement a probable significant shortfall in Structural Funds available for the health sector.

In October 2011 the developments at both policy and sector level across EU member states led DG Sanco to launch through EAHC the tender for conducting the Health and Economic Analysis for an Evaluation of the PPP in Health Care Delivery across EU.

## **1.2 Aims and expected results of this study**

The aims of this study, which falls under the scope of the Framework Contract N° EAHC/2010/Health/01/Lot 2: Health and Economics, as clearly outlined in the Terms of Reference (ToR), was to provide the Commission services with an evaluation of Public Private Partnerships in health care delivery across the EU, including:

- A review of existing scientific literature on the provision of health infrastructure and health services through partnerships between the public and the private sectors;
- A detailed review of the value-for-money results and analyses undertaken by public authorities in procuring and managing PPP contracts in the health sector.

The Study intended to add valuable transparency and clarity to public spending and contingent liabilities in healthcare PPPs, healthcare performance, and to the important components of public health services and sovereign indebtedness. Greater transparency can contribute to reducing uncertainty and increasing consensus in the current financial crisis. In addition, it will help to point the way forward to overcome the current blockages in asset and service delivery, to identify problems that need to be addressed and best practices that can be generalised in terms of profitability and improving health service delivery.

The study presents:

- seven country studies at macro level describing the PPP/PFI trends/experience of individual Member States of which a minimum of one from EU -12 in the health sector, highlighting the benefits and the challenges of integrating a PPP programme into national health planning and into budget and public financial management procedures, trends in project numbers and value, financial structures, contractual arrangements and the planned and ex post fiscal impact;
- case studies of fourteen individual PPP/PFI projects in the health sector, including hospitals with and without clinical services and other health facilities and services;
- an analysis of the overall trends in PPP/PFI procurement in the health sector across the EU since 1990, identifying the current challenges, especially in the context of the debt crisis in some of the countries.

The main results to be achieved by this study at the start of the assignment included description and analysis (conceptual issues and practical info) of:

- Trends of the recourse to PPP/PFI regimes in health care delivery across the EU, including the typology, the number and value of projects, the financing sources, including the experience of EU assistance;
- Characterization, diversity and evolution of contractual structures, risk allocation, variation systems and payment mechanisms of PPP projects in health care delivery;
- Trends in financing structures and conditions for both private sector debt and equity capital, and guarantees, with focus on current (and forecasted) market conditions in terms of funding availability, risk appetite and pricing;
- Review of cost comparisons undertaken by public authorities, on a whole life basis, of PPP projects versus similar projects undertaken through direct capital investment, isolating, to the extent possible, the financing cost differentials;

- Macro (fiscal) impacts of health PPPs on the national health systems and on Government deficits and Government debt, from the perspective of the Eurostat national accounting norms (but also from a sovereign rating perspective);
- Comments on good practices in health PPP/PFI contract procurement and contract management.

One of the major challenges, as it was already pointed out as early as in the proposal of the Consultant, the time line of the study was tight (10 months). Therefore in October 2012 the Consultant requested six month extension due to the underestimated waiting time to receive the responses from the MoH in Member States as well as increased volume of secondary data and necessary time to perform the data analysis. EAHC promised to extend the project for at least 4 months after the reviewing the work progress presented in the Mid Term Report. However we would like to stress that due to the fact that it was not possible to receive a feedback from most of the member states the team should evaluate a number of the secondary resources as well as make search for every piece of information/data to support its statements. In this respect granting 6 months extension would enable the team to provide more comprehensive and detailed analysis.

### **1.3 Definition and typology of PPPs in health care delivery**

The Terms of Reference refer to PPP definition as per EU Green Paper on Public Private Partnership and community law on public contracts and concessions:

Private Public Partnership refers to forms of cooperation between public authorities and the world of business which aim to ensure the funding, construction, renovation, management or maintenance of an infrastructure or the provision of a service.

The Team instead proposes to amend the EIB definition of PPP<sup>1</sup> used in the *Evaluation of PPP projects financed by the EIB (2005)*. The extended definition highlights the leading role of the state in initiating the PPP as well risk sharing arrangements, and allows the inclusion of a more representative number of cases and more comprehensive recommendations.

A PPP is the provision, (probably) finance, long term operation and maintenance, of public infrastructure and/or provision of public services by the private sector. A PPP should have been initiated by the public sector – involve a clearly defined project – involve the sharing of risks with the private sector - be based on a contractual relationship which is limited in time – have a clear separation between the public sector and the Borrower.

This definition was established for the purpose of this study and agreed upon with DG Sanco and EAHC during the Kick off Meeting and in the Inception Report.

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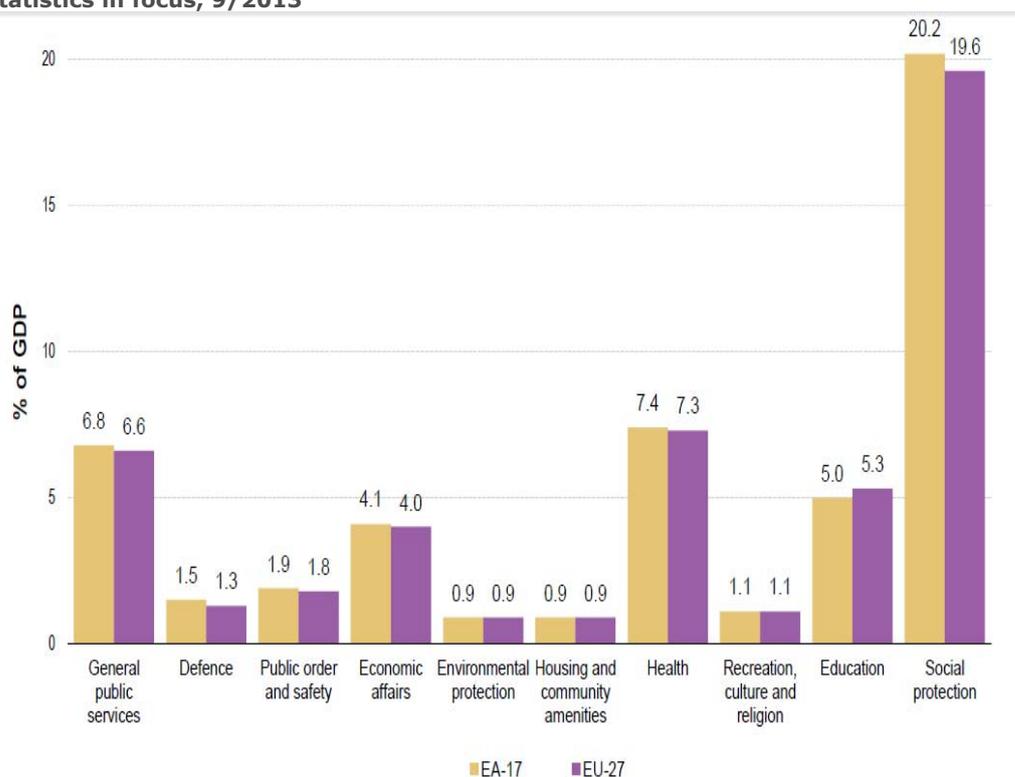
<sup>1</sup> <http://www.eib.org/epcc/resources/evaluation-of-ppp-projects-financed-by-the-eib.pdf> p.10.

## 2 Background and Context

### 2.1 PPP in health care delivery across EU Member States

Total health care expenditure in the EU countries accounts for between 6 and 12% of GDP, out of which between 3 and 9.6 % of GDP is financed from public sources (10 and 18 % of total government spending<sup>2</sup>.) There is a significant dispersion among EU countries, which has important consequences for relative budget sustainability. It includes expenditure on medical and pharmaceutical products or equipment intended for use outside a health institution, outpatient, hospital and other public health services and applied research and experimental development related to health. Health care is therefore among the most significant items of social public expenditure, and one likely to present the greatest fiscal risks in terms of public financial management (fiscal risks in health spending arise from several factors – health spending is large, growing fast and difficult to predict). To this extend public expenditure on health care has been growing over most of the second half of the 20th century, not only in absolute terms, but also in relation to the national income.

**Figure 2.1 Share of different expenditures items in EU member states GDP. Source: Eurostat, Statistics in focus, 9/2013**



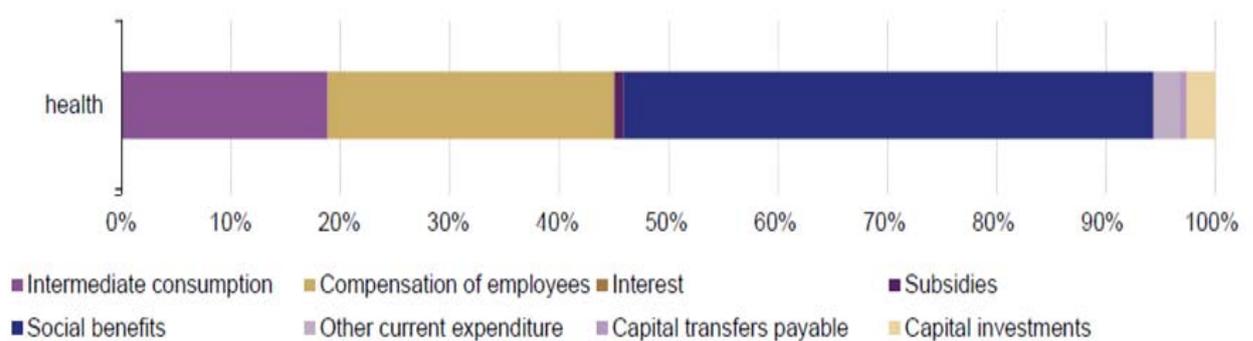
It is generally accepted that this trend is likely to continue. According to OECD (Health at a Glance Europe 2012), total health expenditures as percentage of GDP have dropped slightly in 2010 as compared to the previous years, however, government

<sup>2</sup> *Health at a Glance Europe 2012, OECD 2012.*

spending on health as percentage of GDP is slightly up. However, it is relevant to understand the driving forces behind these figures as they will influence future health strategy and - de-facto - service delivery models such as PPP.

According to Eurostat<sup>3</sup> 'health' sector accounts, while social benefits (48.5 % of the total) are important, compensation of employees (26.1 %) and intermediate consumption (18.8 %) also take a large share in the expenditure. However, in a group of countries composed of Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands, Portugal, Slovakia and Switzerland, the share of redistributed transfers (essentially social transfers) exceeds 70 % of total public spending on health. Capital investments, capital transfers and subsidies decreased from 2010 to 2011 in absolute terms, while compensation of employees increased only very slightly. In contrast with this, the growth of social benefits in absolute terms remained stable. This explains the relatively stable evolution of expenditure in the health and social protection divisions from 2010 to 2011. The following table show type of transactions in health expenditures in the EU-27 in 2011.

**Figure 2.2 General government expenditure on health by transaction as percentage of total expenditure EU-27, 2011** Source: Eurostat (online data code gov\_a\_exp)



In the past, staff costs were the key consideration in this labour intensive industry. However, the main cost driver in healthcare today relates to the growing range, diversity, awareness and application of clinical technologies (OECD). Although it is commonly assumed that the impact of an ageing population and lifestyle-induced chronic illnesses present the greatest challenges, this should be seen in the context of the current hospital centric model of care that tends to 'medicalise' health needs for these groups often through the lack of alternative and more appropriate facilities and services based on primary care and social support principles. There is good evidence<sup>4</sup> to show that continuing with policies that endorse the acute hospital as the default

<sup>3</sup> Eurostat Statistics in focus, 9/2013.

<sup>4</sup> Rechel B, Wright S, Edwards N, Dowdeswell B, McKee M, editors. Investing in hospitals of the future. Copenhagen: World Health Organization, on behalf of the European Observatory on Health Systems; 2009. <http://www.euro.who.int/en/home/projects/observatory/publications/studies/investing-in-hospitals-of-the-future>. Rechel B, Erskine J, Wright S, Dowdeswell B, McKee M, editors. Capital investment for health: case studies from Europe. Copenhagen: World Health Organization, on behalf of the European Observatory on Health Systems; 2009. <http://www.euro.who.int/en/home/projects/observatory/publications/studies/capital-investment-for-health.-case-studies-from-europe>.

model of care for these older cohorts of patients is at one and the same time inappropriate, unaffordable and unsustainable.

One indisputable fact is that few if any governments can sustain historical spending patterns in face of the current economic slowdown which is likely to blend seamlessly into the aging-related gap pension crisis. All EU member states strongly subscribe to the core values in healthcare of social equity in accessibility and quality of care. This will place a premium on instruments and strategies that improve value for money in order to increase budget sustainability. PPP is clearly an instrument that has to be justified (or prove its worth) by the extent that it delivers better value for money.

With the possible exception of the UK, where the PPP model (mostly PFI) is focused wholly on infrastructure, PPP projects generally represent only a modest percentage of new health infrastructure / service investments in most EU countries. The significance of PPPs within the European health systems however can be measured not only in terms of the capacity thus created, in terms of number of beds, medical activity or costs as a proportion of the total, but also in terms of changing the traditional practices of funding and managing healthcare and with it the contractual relationships between government (MoH) and service delivery institutions either wholly or in part.

PPPs in health care delivery have to therefore be considered within the context of both Health System planning and the state Budgeting and good Public Financial Management principles. Although in some countries, PPP contracts may be subject to different budgetary approval and control procedures and limits than those that apply to other forms of public procurement, the two-way impacts between PPP contracts and the national budget conditions are inescapable.

It is clear that the current severe constraints arising from the financial crisis since 2008 will persist for some time for many European Governments. Financial markets are likely to remain nearly closed to project financing for the short term and much tighter over the medium term, reflecting a "new normality" of tight credit and high risk-aversion. As a result, we can expect to see the "re-budgeting" of new projects that would have previously been structured as PPPs, the granting of additional Government guarantees by way of credit enhancements, or even the buy-back by the public authorities of the debt, and even the equity, of distressed PPP projects. Since some local banks will have less access to long term funding, and international banks remain on the side-lines and institutional investors are still risk sensitive, Governments<sup>5</sup> may again have to fund public investment projects on-budget by issuing long term Government bonds.

Because of the usual off-balance sheet treatment of most PPP liabilities under the current Eurostat rules (with exception from now on in UK, where it was agreed that most PPP in future will be put onto the balance sheet), PPPs are, perhaps rightly,

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<sup>5</sup> *Occasional Paper 79 (June 2011) "The Economic Adjustment Programme for Portugal", pg 10, [http://ec.europa.eu/economy\\_finance/publications/occasional\\_paper/2011/pdf/ocp79\\_en.pdf](http://ec.europa.eu/economy_finance/publications/occasional_paper/2011/pdf/ocp79_en.pdf).*

suspected of having contributed to the accumulation of excessive external debt of distressed Euro-zone countries. In Portugal, the adjustment programme suspended all new PPPs in 2010, pending a review of the existing contracts.

The UK PFI example remains a dominant in the healthcare. There is on-going interest in this model by many Member States promoted to a degree by their severe difficulties in modernising their infrastructure and changing the operation model of public health facilities.

Furthermore many member states are interested in the reconfiguration of acute health services as a means of breaking down their problem into more manageable proportions or more cost efficient management (and reducing the dominance of the large acute hospitals) for example the development of stand-alone high technology centres as a way of delivering more care in local community or regional settings e.g. the UK Independent Treatment Centres (a clinical PPP model) and the new generation French Cancer Centres (again a type of clinical PPP model). This serves to emphasise the need for the PPP study to 'cast its net wide.' There will therefore be considerable interest in clinical service (as opposed to capital infrastructure only) PPP models where these can help improve integrated care and intensify primary and community support.

## **2.2 Legal and institutional frameworks**

Although public service concessions have a long tradition in Europe, PPP contracts are generally subject to public procurement legislation at the European level, though many member countries have introduced local laws and regulations.

At the European level:

- In March 2003, DG REGIO had published its Guidelines for Successful Public-Private Partnerships followed by its Resource Book on PPP Case Studies in June 2004;
- In 2004, the European Commission issued a Green Paper on PPP and Community Law on public contracts and concessions which highlighted the application of EU public procurement legislation to public private partnerships and concessions, with responses to this consultation published in May 2005;
- Similarly, the EUROSTAT decision (PPP: 11 February 2004) defined the principles for classifying individual PPP projects within the perimeter of Public Administrations. EUROSTAT distinguished "PPP contracts", when government is purchasing (new built) infrastructure and services, possibly for use by others from "concession contracts" where the services are purchased by (non-government) users. Under these now long-standing EUROSTAT rules, *PPP assets, capital expenditures and debt are classified as within the private sector (i.e. not on the public sector's balance sheet) if the private partner assumes:*
  - construction risk (completion on time and within budget); and
  - either availability risk (of the public infrastructure or public service) or the demand (volume) risk.

EUROSTAT is reviewing the classification of some PPP projects, based on the analysis of the risks borne by each party, including demand risk where the final user may have no free choice as regards the service provided by the private partner, as in the case of prisons but also for hospitals or schools in some countries<sup>6</sup>. The 2013 version of the Manual on Government Deficit and Debt still details the criteria for classifying certain PPPs outside of the perimeter of Public Administration, but many member countries have taken a more conservative approach.

In any case, regardless of the national accounting classifications, the forecast of Government liabilities under PPP contracts are added to public debt for sovereign credit rating purposes which is the operative criteria in the current financial market context.

Some Member States introduced new legislation to govern the procurement of PPP contracts, including the definition of project selection criteria, the quantification and application of a public sector comparator (PSC) and to establish dedicated PPP units. Some examples of local legislation are indicated below:

- *Portugal 2002/2003*, Decree-Law 185/2002 defined the principles and instruments for partnerships in health care; Decree-law 86/2003 had regulated PPP procurement generally, with the requirement of a Public Sector Comparator (later replaced by Decree-Law 141/2006 and Decree- Lei 111/2012);
- *France 2004*, PPP "Ordonnance" created a new form of contractual relationship ("Contrat de Partenariat") between the public and private sectors in France (2004);
- *Greece 2005*, legislation governing projects or services to be delivered using a PPP and established a Special Secretariat;
- *Italy (1994, 1998, "Merloni Law"*, limiting the proportion of capital cost financed by the private sector;
- *Romania (2010) PPP Law*, all aspects of constituting and implementation of a legal basis for PPP;
- *Germany (2005) PPP Acceleration Act*, also called *ÖPP Beschleunigungsgesetz* to partially abolish the real estate transfer tax and to create open property funds related to PPP Projects;
- *Romania (2010, to be amended in 2013) the PPP Law* as an addition to the Concession Law (last updated in 2007) adding a more structured approach to the implementation of the PPP Contracts.

In December 2011, the EC published a draft proposal of a new EU Directive on the award of concession contracts and reform of the public service procurement rules, COM(2011) 897 2011/0437 (COD). Until now, these have been only partially regulated at European level, thus the proposed Directive on concessions represents the completion of the single market for public procurement by including service-only contracts. They aim to guarantee effective access to the concessions market for all

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<sup>6</sup> Eurostat Manual on Government Deficit and Debt [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-RA-13-001/EN/KS-RA-13-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-13-001/EN/KS-RA-13-001-EN.PDF), pg 270.

European businesses, including SMEs, and could thus help to stimulate the development of public-private partnerships, for which concessions constitute a tool of choice, as well as adopting certain clarifications on, for example, the changes and amendments of concession contract currently under way. At the date of report writing the Directive was still under the discussion and no final decision had been taken.

## 3 Methodology and Intervention Logic

### 3.1 Setting up the methodology for evaluation of the PPP in health care

We approached this main task to achieve the requested results using the following methods:

- **Data gathering** from existing sources such as DG SANCO, Eurostat, the EIB/EPEC, and other Commission services, national PPP authorities and NAO and other national audit offices;
- The Ministries of Health in selected EU member states were **approached with requests for additional information** – with an accompanying letter from the DG SANCO;
- **Extensive Desk research was undertaken and document review** (reports from national PPP Agencies, the NAO and similar entities, stakeholder and specialist publications including bank publications, Commission publications, other studies and reports), as well as reports produced by banks and rating agencies and academics);
- **Processing and statistical analysis of the data**, drawing up a clear profile of the existing national and European PPP health project portfolios and identifying important trends and challenges over the long term;
- **Semi-structured interviews** with decision makers on PPP projects in municipalities and hospital management boards;
- **Reporting and presentation of the analysis.**

The starting point for any project evaluation, ex-ante or ex-post, is the volume of services effectively rendered, regardless of which party bears how much of the volume (usage) risk. Since it is believed that PPPs can facilitate the appearance of excess capacity, it was essential to compare actual volumes to forecasted volumes in every case (e.g. in most of the time, if new locations are involved (and PPPs prefer Greenfield projects), old facilities need to be restructured/closed down etc., in order not to create excess capacity. Otherwise, as practice shows, the health services market is characterized by induced demand, once you have a facility/ service in place, the demand will appear, justified and/or affordable or not).

In addition, since health needs tend to change over time in line with demographic and epidemiological trends, the evolution of health services rendered is a major indicator of the flexibility of the contracts which should be evaluated. It was planned based on the responses from the EU member states and desk research to evaluate for each PPP case study:

- Access and coverage;
- Quality of services and performance improvement (recognising that it is notoriously difficult to link infrastructure of any kind directly with health gain indices);

- Sustainability for the project from the perspective of the private partner but especially in economic and budget terms in the perspective of the public partner and taxpayer;
- Individual PPP project (not transaction) versus integration into “health system” and overall public financial management objectives;
- Contract management costs: many Trusts in UK have recently increased the resources they devote to the management of their PFI contracts. These Trusts realised that managing the contracts was a greater challenge than they had at first thought, though some have no one assigned to contract management; in Portugal, contract management requirements are more onerous for the public partner than expected;
- Estimated investment flow of health PPPs relative to total public and private sector investment in healthcare: PPPs are a significant source of investment in Germany, the UK and Portugal, and in some parts of Spain where their relative significance trebled from 1995-2000 to 2001-06. In the rest of Europe, hospital PPPs are recent and the significance may be more difficult to evaluate;
- Risk oriented evaluation.

As the ToR for this study explicitly requested comparison between projects procured via PPP and those under conventional procurement regimes, the team selected those countries where such comparison can be made, though, as appeared during the Study such matched twins of projects (except maybe Germany, France, Italy) are very rare.

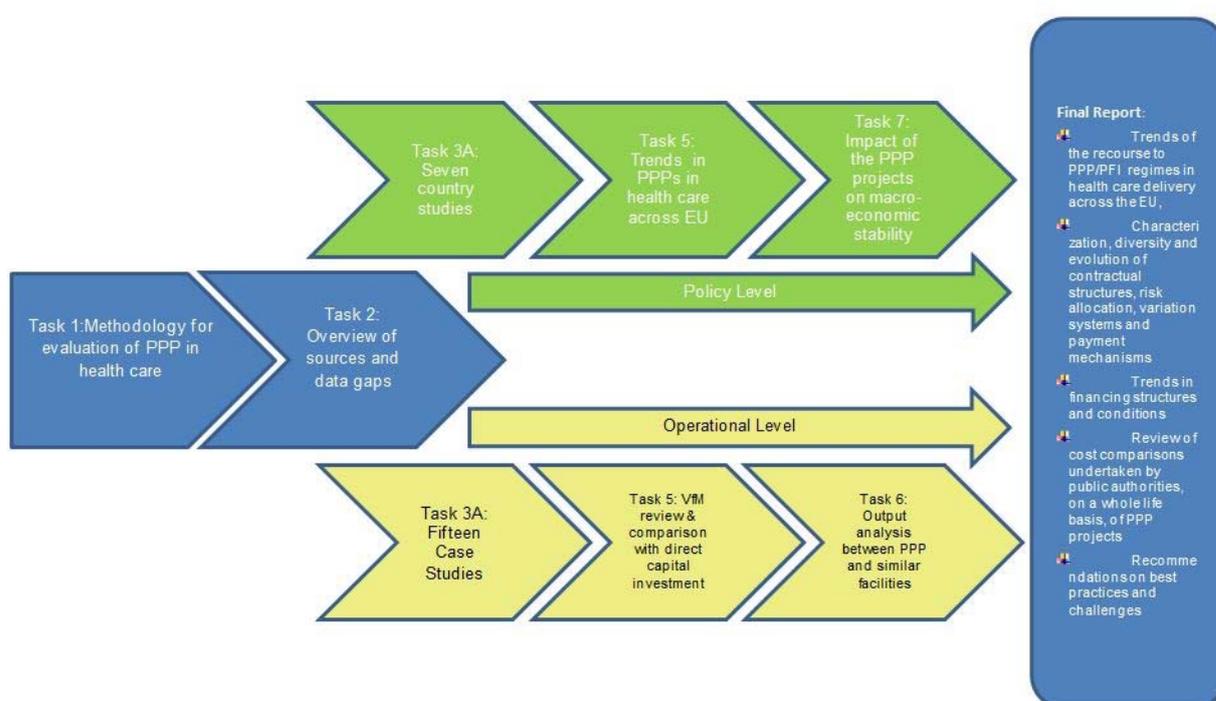
In the European Union, considering the relatively high level of health services coverage and the quality health outcomes, we focused on *indicator of (fiscal) sustainability*, since this may be where the greater risks lie in the coming future. This again resonates strongly with the outcome of the Hungarian Presidency programme and subsequent endorsement of key principles through the EU Council Conclusions: “developing ‘new generation’ approaches to healthcare will require appropriate funding to foster transformation of health systems and rebalance investment towards new and sustainable care models and facilities”.

Based on the discussions with representatives of the DG SANCO and EAHC during the Kick-off Meeting on February 6, 2012 the approach for this Study has been adapted and amended taking into the consideration major concerns of the client as well as the findings of the team since the start of the project.

The team underlined already during the kick-off meeting that it is almost impossible and rather difficult to compare OECD indicators (country average) with the selected cases which might have a different pathology treated in the respective institutions (lower or higher Case-Mix-Index as the country average). Further, benchmarking the data on the health outcomes between PPP and similar facilities funded through direct capital investment is difficult, if not impossible, because the data on pairs of hospitals matched for vintage, size and population cover are not available, even upon the request to member states Ministries of Health.

Comparison of the selected cases in, for example, Germany against the country average will therefore not be a valid comparison. The country average is useful only for country comparisons. The same applies for ALOS, as ALOS is a structure indicator (though few countries use it also as a performance indicator) and does not give us a reasonable comparison for efficiency (selected cases might have again a higher ALOS due to a different type of pathology treated – different in Case-Mix-Index). Most PPP cases are not old enough for strong conclusions to be drawn.

**Figure 3.1 Intervention Logic of the Study**



Methodology for evaluation of the PPP in health care to conduct the analysis across the selected countries included following indicators:

- Costs across the countries and types of contracts;
- Main lines of the contractual framework adopted;
- Comparative Value for Money (in the technical or common-sense meanings) of the PPP/PFI Contracts (compared to conventional initiatives);
- Sources of financing and debt treatment.

After the country studies and case studies were selected, analysis of the trends in PPP in health services delivery was performed (including data review, reports review, semi-structured interviews etc.).

The country studies were used for macro- economic analysis and review of the observable macro impact on public deficit, public debt, and sovereign ratings, whereas

the specific case studies – were used for micro-economic analysis and implementation of different PPP models.

At the initial stage the data analysis included the following:

- Correspondence and surveying of national authorities to obtain project information, especially capacity utilization data;
- Identification of similar non-PPP initiatives for comparison purposes, if possible;
- Harmonization of indicators and obtaining data **to the extent feasible** and subject to the information availability for:
  - Cost comparison between PPP and direct capital investment;
  - Facilities design and contractual arrangements;
  - Capital cost of construction of new facilities, or refurbishment;
  - Cost of financing, debt and equity capital (when available);
  - Whole life costs, including maintenance and changes;
  - Renegotiations, rigidity versus flexibility of contracts (probably mostly qualitative);
  - Payment mechanisms with cost escalation clauses, third party revenue streams, where appropriate (usually limited to items such as retail or car parking charges);
  - Level of PPP/PFI annual spending relative to annual operating costs of the public contracting authority.

The diversity of PPP contractual arrangements and performance across the EU provided an opportunity to identify good practices in terms of access, quality (management of the health system), budget sustainability (management of fiscal risks) - all noting the importance of context in assessing "best practice". Although some EU member states with extensive health PPP programmes are able to carry out broad evaluations of impact and best practices (as is the case with the UK, Spain and Germany), smaller countries or countries with few transactions need the benefit of international comparisons across the EU.

At the final stage the key activities included:

- Overview and characteristics of contractual models and typology used per country, and respective trends;
- Highlight EU financial involvement - SF and EIB loans;
- Quantify observed ex-post macro effects, if any, including impact on Government and external debt and deficits (for other Task below);
- Brief description of national legal and institutional frameworks, and changes, especially for PPP contract management and for integration in the national multi-year budgets (MTEF, national accounting);
- Fiscal Risks to long-term budget sustainability identified and managed by the Concedent, as identified by national authorities and external parties such as rating agencies or the IMF;
- Means of monitoring and mitigating fiscal risks resulting from PPP contract liabilities;

- Availability data on the PPP/PFI contracts and central overview of portfolio management;
- Existence and functioning of a Central health PPP unit.

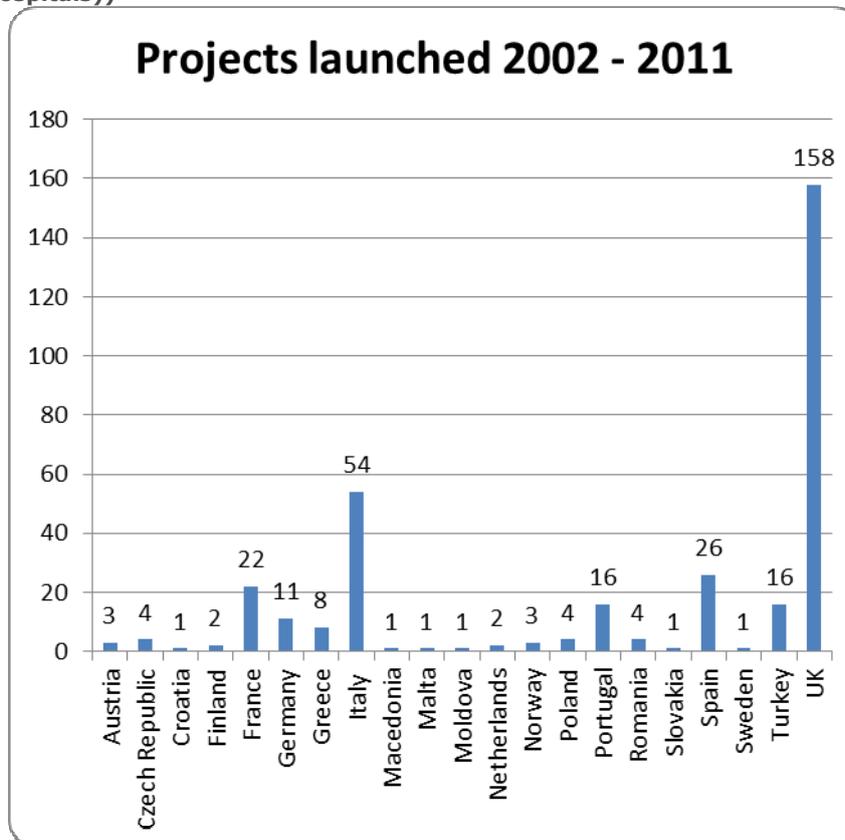
The value and number of PPP deals is only one, quantitative, aspect of PPPs. The allocation of risk between the private and public sector is another important feature which was considered as it affects the underlying incentive structure of PPP contracts and has important consequences for budget sustainability and for sovereign ratings. In many cases, data was found to be sparse concerning risk matrices and allocations between the two project parties.

### **3.2 Selection of the countries and case studies for health PPP analysis across EU**

The country studies serve to characterize the largest health PPP markets such as the UK and Spain, as mandated by the ToR, but also to explore the different national legal and institutional frameworks, and the diverging experiences. Thus, the criteria for selecting the other countries include countries with various health systems (national health services and insurance based) and various contractual models (for example with and without clinical services).

PPPs as a general instrument may be of macroeconomic significance only in Greece, Portugal, the UK, Germany (PPP franchise) and, to some extent, Spain and Ireland. In the health sector specifically, PPPs are a significant source of investment in the UK. In the UK, starting from about 5% during the period 1990-94, PPPs represented almost 40% of total investment in health in the period 2005-07, with only about 1% of total sector investment, PPPs in health are so far of limited significance outside the UK and Portugal.

**Figure 3.2 PPP Projects in Health Sector, Source: InfraDeals, 01/2012 (for Germany includes only accommodation service model and does not include PPP Franchise hospitals in Germany (563 acute hospitals))**



The following criteria were considered for selection of the countries to present the variety of the PPP experience at macro level:

- *Regulation* of the PPP initiatives (either through adopted PPP legislation or national procurement guidelines);
- *Typology* of the contractual arrangement (ranging from PFI contracts towards integrated care models);
- *Mechanisms for funding the health expenditures* (through national health service or obligatory health insurance);
- *Mode of the state governance* (centralised/decentralised procedures);
- *Mechanisms for coordinating* the PPP initiatives at national level (PPP Unit at central level or decentralised procedures in the line ministries and/or regional government);
- *Flexibility* of the initial contract;
- *Financial/economic implication* of the PPP contracts in general.

The Team considers the proposed criteria enabled to select countries with comprehensive experience in implementation of the structural changes in health sector though introduction of the large scale PPP initiatives in health sector.

After the careful analysis of the available data on PPP experience and consulting various databases the Team selected the following countries:

- **United Kingdom** (the longest and most voluminous experience in implementation, of the PFI initiatives);
- **Germany** (the private chains providing service to the public, running the health services along with municipal and faith based organisations based on state master-plans);
- **France** (growing in importance since the introduction of the Bail emphytéotique hospitalier in 2003);
- **Italy** (a special case because of the Merloni Law, and the emphasis on arbitration rather than litigation as under English law for dispute resolution);
- **Romania** (one of the few non- EU-12 member –states, which implement PPP in provision of dialysis and clinical support services in public hospitals – radiology and laboratory even before joining EU);
- **Portugal** (PPP in health service is the second biggest market after UK, implemented the integrated hospital twin-SPV-model from 2002 and switched in 2005 to PFI - type infrastructure only contracts);
- **Spain** (integrated hospital was bundled further with primary care as of 2003 in Valencia, but other PPP models are used as well).

The Team had carefully chosen **seven country cases**, although the ToR requested six country studies. It is the Team’s opinion that selected seven country studies will reflect better (more comprehensively) the diversity of the models and experiences with PPP in health sector and lessons learnt with introduction of PPP in health care sector across the EU Member States. The matrix matching the proposed selection criteria against the selected countries is attached in **Annex 2**.

However due to the fact that the responses on Questionnaire were received only from UK Government, the analysis was based on extensive (and not planned) desk research of the available secondary data, which could be used for the purpose of this analysis.

The ToR requested analysis of 20 health PPP **case studies**, implemented over the 1990-2011 period. After preliminary overview of the available experience in health care across the member states, the team would like to underline that in many instances the cases are too similar. Most of the relevant hospital PPPs involves new construction. It may be useful to review 1-2 atypical contracts, such as the sale-lease back of hospitals, in order to identify and quantify the phenomenon for further study. To avoid duplication of the cases/experience it was agreed to select 15 case studies which reflect most of the experience across all member states and are not repetitive.

The proposed selection criteria include:

- Various classes, models and scopes, infrastructure only, with and without clinical services; (integrated model, infrastructure model or mixed), including bundling with primary care;

- Various stages, in construction, in operation, with or without renegotiations, successful or troubled as well as variety of cases to reflect new construction or refurbishment;
- Various dimensions well above €1 million and contract duration;
- Various sources of financing (only private, mixed public/private, EIB, Structural Funds or any other EU funding mechanisms);
- Various payment mechanisms (availability/performance, standard activity tariff, negotiated tariff, capitation);
- Flexibility of the contract (this will be a largely qualitative judgement).

The following case studies had been selected and analysed:

**Table 3.1 Proposal for case studies**

No	Country	PPP initiative
1.	UK	PFI Norfolk and Norwich Hospital
2.	UK	ISTC
3.	Portugal	Cascais Hospital (facility and clinical services)
4.	Portugal	Loures Hospital (facility and clinical services)
5.	Finland	Tampere. Tekonivelsairaala Coxa Oy (Coxa Hospital for Joint Replacement)
6.	Spain	Valencia Hospital de la Ribera, (Alzira)
7.	France	Henri Laborit Hospital
8.	Romania	Dialysis Service - initiation of the eight PPP Centres
9.	Romania	University Hospital In Bucharest (cancelled)
10.	Germany	Cologne University Hospital
11.	Germany	Asklepios Hospitals Hamburg (network)
12.	Czech Republic	Prague Military Hospital project (cancelled)
13.	Italy	Castelfranco Veneto and Montebelluna Hospitals
14.	Italy	Sant' Anne Como Hospital
15.	Sweden	Karolinska Institutet Kliniken (the study was abandoned due to the lack of data available and project drift)

The matrix matching the chosen selection criteria against the selected case studies is attached in [Annex 3](#).

Though the Karolinska Institutet Kliniken case study was selected as it seemed to have innovative approach to the design of the PPP in the beginning of the process, it appeared that due to the changes during the bidding process the case is completely based on traditional PFI UK model whereas everybody hoped that this would be a shift towards the risk transfer towards the private sector.

### 3.3 Overview of sources and data gaps

Successful implementation and completion of this study required the collection and processing of a substantial amount of data to give a picture of the status and recent developments of PPP contracts based on a number of *clearly defined indicators* (section 3.1). While assessing the availability and quality of these data is part of the actual study, and is presented later in the Chapter 4: "Results of the Study", the following table shows an overview of the data needed and initially foreseen sources for obtaining them.

**Table 3.2 Overview of indicators, data requirements and possible sources per result area**

Result / deliverable	Specific topics to address	Indicators	Data sources
Trends and dynamics of PPP financing over the last 10 years	Typology and contractual models Number and value of projects per country and type Financing sources Current market outlook	Number of projects Per project, and aggregated: <i>Total investment, equity capital, debt (different kinds), EU funds</i> <i>Date of tendering</i> <i>Date of entry into service</i> <i>PPP payments, actual/plan</i>	Data bases EIB National PPP authorities industry
Review of literature and reports of experiences with PPP/PFI in health care delivery	Identification of existing case and country studies Review of methodologies used Reliability and comparability of existing reports Collection and applicability of results, per project phase and in relation to market conditions	Consensual methodologies Value for Money assessments of individual PPP projects or programmes	Health Departments, Ministries, NAO or similar audit offices Academics, EIB Banks and rating agencies
Value for Money results based on PPP case and country studies	Selection criteria for country and case studies Comparability and adjustments of Value for Money methodologies (including PSC) Actual volume or capacity utilisation versus plan Projects costs and respective changes Flexibility and efficiency gains	Analysis of Public Sector Comparators Comparisons of actual payments/plan in each PPP/PFI	Health Departments, Ministries, NAO, audit offices, Academics, EIB
Cost comparisons based on whole-life basis, PPP versus non-PPP, distinguishing financing cost	Identifying sample of pairs of similar projects  Comparing cost of PPP/PFI projects to similar non-PPP/PFI projects, isolating financing cost differentials	Identified sample pairs of similar PPP and non-PPP projects (difficult to achieve), with detailed cost of financing	National PPP authorities National audit offices Academic studies

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Result / deliverable	Specific topics to address	Indicators	Data sources
Macro impacts of PPP on the health system and on Government deficits, debt and sovereign ratings	a) Significance of health care PPP/PFI projects relative to <ul style="list-style-type: none"> <li>-public health related capital expenditures</li> <li>-annual public health related operating expenses</li> <li>-direct public debt and to external debt</li> <li>- bank PPP exposures</li> </ul> b) Application of multiple accounting norms and credit rating criteria c) Perceived fiscal risks in health PPP	PPP liabilities and contingent liabilities (subject to information availability) Actual PPP payments relative to plan (subject to information availability) Actual capacity utilization relative to plan (subject to information availability)	Treasury and Finance Ministries EIB and other banks Rating agencies NAO, audit offices

The design of the assignment was based on the assumption that detailed PPP project data would be available in readily usable and comparable formats, which appeared not to be the case given the heterogeneity of the projects themselves, contract confidentiality issues for commercial and political reasons, and the lack of reporting requirements at the European level (including distinctions between stock and flows of projects).

Some of these data were expected to be obtained from DG Sanco, or by other EU entities such as the EIB which has developed its own data base, as detailed in its Economic and Financial Report of July 2010 (noting that the Bank operates under strict banking confidentiality restrictions for its own projects, including often specific letters with respect to PPP deals).

Additional sources of data could be found in the following commercial databases:

- Ministries of Health in the selected countries; if they wished to collaborate;
- Reports of the national audit offices; usually published;
- Infrastructure Journal, IJ: more than 5000 transactions <http://www.ijonline.com/genv2/Secured/Data/DataLandingPage.aspx>;
- Projectware: More than 1600 PPP projects in Europe, and many more non PPPs and outside Europe;
- Investment Project Database <http://investmentprojectdatabase.com/>;
- Infra News: Details on 2400 infrastructure projects <http://www.infra-news.com/public/m25.html>.

Unfortunately, even the EIB data base could not provide the project details necessary for undertaking a proper evaluation - such as initial forecast and current volume of services, initial and current Public Sector comparators, renegotiations, etc. Data on

projects as small as €1 million is unlikely to be found in a central data base, since even the UK NAO studies have mostly covered projects of over £5 million.

In effect, there were many restrictions on data availability and the study had to rely to a great extent on scarce information already in the public domain.

Though predictable (missing specific data) team had hoped to obtain the missing information on national health PPP programs and individual projects in a standardized form from the national authorities in the selected member states.

We prepared and distributed the questionnaires to survey the national authorities and other stakeholders, including independent experts.

Though the development of the questionnaire necessitated reaching a consensus agreement that spanned a complex range of PPP models involving quite different policy frameworks. This also required reaching agreement with DG Sanco/EAHC on the proposed content. In consequence this element of the study tended to run more slowly than expected due to the need for careful review and consideration by all the parties involved. This has caused some delay in producing the data gap analysis and further analysis of country case studies.

But by the end the Questionnaire was accompanied with introductory letter signed by Director of DG Sanco to give more weight to the Study while approaching the selected MoHs. The Questionnaire could be completed either on-line via the Lime Survey or simply filling in the answers in word document. All contacted officers confirmed the receipt.

It was hoped that the national authorities would provide the research team with important information to:

- gain access to insight and knowledge that is unavailable through the normal channels of desktop research;
- understand how PPP is viewed from within the top policy levels and what factors are being taken into account which may change, further develop or perhaps abandon current models and policy initiatives;
- understand how they view 'weak points' in the system and whether and how they plan to address them;
- understand relationships for example between the treasury and MoH, how it works and in the final analysis who is pulling the strings and why – in the main it is mostly being driven by treasury what evidence do they feel is important – as opposed to how external commentators and academics see it;
- We also needed to understand how politics (and ideology) was impacting on policy and whether there are behind the scenes agreements on consistent application of PPP between government parties despite what they may say publicly.

However all efforts to obtain such information in writing officially / unofficially have failed, even after extending time for response (from 6 weeks to 12 weeks) and numerous reminders. Very few authorities replied to surveys and stakeholders more than once referred to the requested data being confidential. This raises policy issues since any unjustified opacity may contribute to the negative image of PPP as a highly complex procurement mechanism.

Non-responsiveness of the representatives of the MoH in Member States led to increased efforts to identify additional data sources, especially those with qualitative data necessary to complete the country case studies

We have to state that the lack of published data presented a bigger obstacle than expected. Unfortunately the duration of the study and the available budget did not allow in depth face-to-face interviews with the representatives of Ministries of Health as well as scientific, in-depth gathering of the primary data. Those efforts if undertaken might have revealed additional information.

Therefore only secondary data available already from different previous research (such as case studies done by national audit authorities, academics, summary information made available by national health and finance ministries etc.) had been taken into the consideration and incorporated in the country case studies. Where this was not possible, it is clearly indicated and include in the gaps/barriers analysis. However since the middle of the year 2012 more and more information and data has started to leak out and become available via different parliamentary investigations – as a consequence of the intensive examination of government finances and financial instruments such as PFI in light of the focus on the economic crisis and impact on healthcare - the Team have opened up new channels of knowledge and data gathering in light of the above – much of the information is spread across large volumes of evidence given to various authoritative audit and review groups – this takes more time and efforts as planned before.

Instead of analysing in details the decision making process, procurement and contracting arrangements for each specific case study, the team concentrated on highlighting the positive lessons as well as areas for improvement in design and implementation of the PPP initiatives in the health sector in EU countries.

For example, the level of capacity utilization can be seen as a proxy for actual demand and is thus an essential part of the evaluation of any project. Since demand risk almost invariably rests with the public partner in most PPP/PFI health care delivery projects, bed occupancy rates are usually available from published sources, though not in comparable forms. Traditionally, much of the PPP project data are considered confidential, for commercial or political reasons, and may not be reported without the explicit consent of the parties The same is usually true for risk matrices and other outcomes of contract renegotiations.

The data gap analysis is presented in more details in chapter 4 “Results of the Study” and *Annex 1*.

## 4 Results of the Study

### 4.1 PPP/PFI regimes in health care delivery across the EU

Health care is considered a public service everywhere in European Union, and although co-existing with independent private providers, it is the public contracting authority (or concedent) that usually contracts for the provision of health facilities and/or health services under concession, franchise or service provision contracts. There are various types of health PPP, which reflect in part the policy choices and the heterogeneity of the health sectors among the European countries, with diverging experiences between insurance-based systems and NHS-based systems where the payer is also the care provider.

In the NHS-based systems such as the UK, the PPP/PFI contract is usually restricted to the provision of the physical facilities and related services, with the private partner functioning as landlord and clinical services continuing to be provided by NHS.

At the other end of the spectrum, are cases like the Alzira model (Spain) and the Cascais model (Portugal), PPP Franchise in Germany, the PPP where the models are much more transformative, since the traditional NHS hospital is replaced by a privately built and managed facility which includes the provision of clinical services. The private operator also takes over existing staff of the national health service, or even adding new staff, which adds an important layer of complication (for more details on this please see section 4.2. below).

In the case of Alzira, it eventually also assumed responsibility for primary and outpatient health care, resulting in a higher bundling of services, making it possible to simplify the payment mechanism with a capitation payment which is akin to a health insurance premium paid by the public partner (thus the taxpayer), rather than by the user or patient.

In insurance-based systems, where the payer is always separated from the care provider, the contractual arrangements between the insurer as third-party payer and the health care provider are very similar regardless of whether the provider belongs to the public, private or social sectors.

PPP franchise solutions became very popular in Germany in the last 30 years and they are covering a lot of investment obligations in the public health sector. On the other hand, traditional PPP projects (accommodation and service model) are still very rare in Germany.

There are also situations when independent providers (like hospitals) function as the public partners in a smaller PPP contracts (equivalent to sub-concessions) for clinical and/ or non-clinical support services and where the payment mechanism reflects the

installed capacity of the private provider who is remunerated on the basis of availability of the services or more likely on the volume of procedures (production). The classical example is the provision of radiology or laboratory services by a private provider within or for a public Hospital, both for the inpatients and outpatients of that particular hospital and for independent private patients.

The most common examples of PPPs as described by the literature review, seven country and 15 individual case studies presented in this report can be characterized as follows:

**Table 4.1 Models of PPP in Health Sector in EU Member States**

<b>Type</b>	<b>Major features</b>
Type I: Accommodation model	Hospital infrastructure and hard facility management (many PFI).
Type II: Accommodation model	As Type I, but with the SPV owned entirely from the start by the public sector (not covered in this Report; e.g. Hospital Universitario Central de Asturias).
Type III: Extended accommodation model	As Type II, but including IT, soft FM, and supply, installation and maintenance of some or all medical equipment (several PFI).
Type IV Twin-SPV model	Joint venture with separate infrastructure (~PFI) and clinical service companies (e.g. Portuguese "Wave 1" hospitals like Cascais).
Type V: Accommodation and service model	Specialist "monoproduct" hospital infrastructure with FM and medical services (e.g. Coxa, Dialysis Centres and ISTC).
Type VI: Full service provision secondary health care model	General (district hospital) infrastructure with FM and medical services (most of the sites in the German hospital chains).
Type VII: Full service franchise provision tertiary health care model with teaching and R&D	University (teaching/research, "tertiary") hospital infrastructure with FM and medical services (e.g. Berlin Buch/Helios or Giessen & Marburg/Rhön).
Type VII: Full service provision at all levels of care	Integrated hospital and community/primary care (e.g. the Ribera Salud/Alzira companies).

It is probably accurate to conclude that the trends (measured on a relatively short term scale of PPPs evolution in EU starting with early 90') is to move from the classical PFI infrastructure only contracts (in UK in 1990<sup>th</sup>) to more full-services oriented models (like in Germany or in other EU member states presented in this study),. This is caused by the fact that the initial issue addressed by the PFI type PPPs (lack of upfront capital investment resources) it is now more and more replaced with a larger problem: how to invest AND OPERATE efficiently in health systems, providing quality services at a more cost efficient manner than the public sector, using new and innovative models clinical management models, not restricted by the public sector constrains and limited expertise.

## **4.2 Characterization, diversity and evolution of contractual structures, risk, allocation, variation, systems and payment mechanisms**

### **4.2.1 Contractual structures**

In terms of the contractual structures, the case studies follow closely the typology of PPPs as described in section 4.1 above.

Depending on the design of the PPP, the vast majority of the contracts can be characterized by two main dimensions: the infrastructure type of contract and the services type contract. After the research and revision of country and case studies in this report it is fair to say that *the infrastructure - only type contracts* have much more prevalent than the *services - only-contract* (in most cases infrastructure and services), the latter being usually customized for the context and regulations of the specific (public) health market: national, regional or local.

The *infrastructure type contracts* usually have yearly payments from the public contracting authority and few enjoy Government guarantees in order to attract cheaper financing; they are long term contracts (20-30+ years), allowing for the return on investment to break even or make the necessary commercial profit. A common contractual feature is the establishment of the land and assets ownership, during the contract and at the expiry. Mostly the public authorities retain the ownership of land (during the entire contractual period) and some times of the physical assets, all of them being transferred at the end of the contract period to the public authorities (in most cases it applies to infrastructure contracts).

The *service contracts* are much more diverse, in terms of type, risks, duration and services volumes and payments. It is important to know that for one PPP we can find either one complex contract or several individual contracts for infrastructure and services, depending on the specificity of the concept.

The services contracts have some features in common. Usually they are medium term contracts (7-10-15 years), quite similar with one life cycle of the equipment in the project, but with a possibility to extend (sometimes double) the duration, giving both to the operator and public sector the time and the opportunity to continue (if services are satisfying and profitability is good) or to cancel/ retender if the quality or the volume of services does not prove appropriate for both parties'.

Further important contractual feature in the case of contracts for *clinical services contracts*, is the transfer of legacy staff to the private partner at the beginning of the contract, and back to the public partner in the case of reversion upon termination. This may result in staff working side by side with different labour contracts (public and private).

Last, but not least a *critical contractual issue* when clinical services are involved is the presence and enforcement of performance and quality standards to be respected, sometimes even directly linked with payments and/ or penalties. It is in the part of all PPP contracts that the public sector struggles most to monitor and enforce compliance during the contractual period. It is not rare that special agencies, offices or third parties are involved or required for this important part of contract management.

In NHS countries where labour legislation and acquired rights differ greatly between the public and private sectors, the transformation or replacement of a traditional NHS

hospital into PPP hospital often implies managing two classes of staff, the NHS-legacy staff, and the new staff hired under private sector contracts, which can limit the potential for Value for Money savings.

In countries like Germany and in the hospital franchising models or Romania for dialysis services (where the ownership is transferred to the private operator) the employment conditions also change: after one year the operator is allowed to renegotiate the employment contracts and remuneration in most cases is based partially on performance and not only on the standardised wage table used in public hospitals.

#### **4.2.2 Risk sharing between public and private partners**

Any project has “project risks”, which consist of uncertainties and losses to the concessionaire, or to the concedent, resulting from things not turning out exactly as expected in the base scenario, which itself should have a probability of over 50%. The upside and downside (things go better/worse than expected) scenarios should each have probabilities around 25%.

PPP Project risk includes, but is not limited to:

- volume of demand, changing demographic and health trends, including planning risk due to long lead times;
- construction risk (higher costs, delays, accidents, design flaws);
- operating risk (operating inefficiencies, errors, unavailable and excessive outages, labour and staffing issues) and
- contract management risks, financial risk (interest rate, funding shortfalls, credit risk of the payer).

Some of the project risk may also reflect macro, sector or “country risk” trends (such as demographics, epidemics, weather, changes in medical technology).

The PPP or concession tender documents and the resulting PPP contract usually would define which of the parties are responsible for the losses (or gains) resulting from these unpredictable events and/or macro trends. For example, a casualty insurer will pay out in case of a construction accident, but may not pay out in the case of an earthquake which is usually considered “force majeure” and is usually for the account of the public partner.

The risk identification and allocation is incorporated in the contract provisions in form of the project risk sharing matrix<sup>7</sup>. It is a standard analytical tool for dealing with a PPP/PFI/concession contract and should always be available, though the quality may vary. Thus each PPP contract will have a distinctive risk matrix largely based on

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<sup>7</sup> A. Akintoye, Li Bing, P.J. Edwards, C. Hardcastle *The allocation of risk in PPP/PFI construction projects in the UK*, sited at <http://www.sciencedirect.com/science/article/pii/S0263786304000493>,

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analysis of the relevant risks and on the contractual allocation of the responsibility for the respective losses. Although the risk analysis was always addressed in the course of the study, the depth of the analysis depended on the availability of certain case specific contract information and on the willingness of the partners in question to share this risk matrix with the team.

Risk sharing arrangements varies greatly by contract but mostly refer to the following critical aspects:

- *the risk for the capital investment* (construction and financing risk) - usually transferred to the private operator, but with the public authorities having an option to bail out the provider/ operator; in certain existing PPPs the public sector has some responsibility over the investment by issuing certain guarantees for the private operator;
- *the revenue risk* – approached differently along 2 main directions: the public services risk, when covering a given population, - driven by the volume and remuneration of the contracts for services. This risk mostly shared by the public and private partners and maybe reduced by allowing purely private practice (medical or non-medical) in the respective facility. Given the risk of induced demand, some contracts, such as Portugal’s Cascais model, include production limits, though these do not apply to emergency cases;
- *the market risk*, in situations where the PPP provider needs to compete for delivery of services with other public and/or private players, usually for very specific services (like elective surgery, radiotherapy etc.). In most of these cases, some degree of risk sharing is present, either by the contractual or local referral system insuring the patients flow, or by providing some type of exclusivity of specific area/ services to the private provider, or other forms of minimum revenue guarantees or availability payments.

Below is a typical risk matrix for an *infrastructure-only contract*, which focuses on planning, construction, financing and operating and maintenance risk. The risks of construction delays, cost overruns and poor facilities management are easily identified, often insurable, and generally for the account of the private partner. Planning risk is more complex in the case of projects with long lead times, and is usually the responsibility of the public contracting entity, unless the private partner fails to meet specifications.

Notable in this example is the lack of reference to the credit or counterparty risk of the payer, the public contracting party which as a sovereign entity is usually considered risk free, though it is not always in practice.

**Table 4.2 Risk sharing example in infrastructure PPP health projects** Source: Health Economic Research Center, KPMG: PPP im Krankenhausbereich, Haarländer S., Bühner A., Schwandt M., Schöffski O., (2007)

Risk	Transferable to private operator	Non-transferable, remaining with public contracting entity
<b>Planning</b>		
<u>Non-fulfilment of the agreed standards</u> Quality of planning; increased in costs due to the own changes in the initial planning.	X	
<u>Changes in the planning</u> Changes in costs based on the changes in planning wished by the contracting party, inadequate specifications.		X
<u>Approvals</u> Costs occurred because of the delays due to the need to receive additional approval of the changes in design and planning wished by the contracting party.		X
<b>Construction</b>		
<u>Transfer of the land plot</u> Delays caused by the late transfer of the land plot, increased costs of the land, start of the construction.		X
<u>Increased costs of the construction</u> Mistakes/omissions in calculations, bad project management, risks caused by the state of the land plot (geology, contamination, archaeological artefacts, engineering networks).	X	
<u>Increased duration of the construction</u> bad time planning, bad project controlling, bad weather conditions, risks caused by the state of the land plot.	X	
<b>Overall Risks</b>		
<u>Force Major</u> Unplanned costs caused by the natural disasters.	(X) insured risks therefore can be transferred	(X)
<u>Political Force Major</u> Costs occurred due to the strikes etc.	(X) insured risks therefore can be transferred	(X)
<u>Changes in legislation, guidelines and norms</u> Costs occurred because of the new restrictions in construction and facility management norms, labour and safety regulations, healthy and environment protection standards, changes in the concession legislation.	(X)	(X)
<u>Financing</u> Late allocation of the project financing, more expensive financing (in comparison to that expected) due to the changes in the interest rate, margin, exchange rate.	X	

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Risk	Transferable to private operator	Non-transferable, remaining with public contracting entity
<b>Operation and Management</b>		
<u>Increased costs for the infrastructure management</u> Omissions in calculation, disregard of the good management practices and proper facility management and deviation in service standards in the beginning lead in future to increased costs, prices, quantities.	X	
<u>Increased costs for technical services</u> Omissions in calculation, disregard of the good management practices and proper facility management and deviation in service standards in the beginning lead in future to increased costs, prices, quantities.	X	
<u>Technologically obsolete installations</u> Costs caused due to use of the out-dated technologies, including modernisation of the engineering installation necessary to keep up the required service standards (including IT).	X	
<u>Capacity utilisation</u> Increased utilisation/underutilisation lead to decreased/increased costs (variable and fixed – step costs in infrastructure management).		X
<u>Security and vandalism</u> Costs caused though intended violent damage to the infrastructure, especially in education and penitentiary sector.	(X) for a limited period of time	(X) for limited period of time
<u>Residual value of the building</u> Changes in the market price of the building at the end of the contract duration.	(X)	

In PPP models like Cologne University Hospital (Germany), the private partner covers all risks, but there is a guarantee of the federal state for the risk of repayment by the debtor.

A full-service hospital project, along the Cascais model, has additional project risks relating to the clinical services contracted, and to the integration and referral of patients to other health facilities:

**Table 4.3 Risk sharing example in PPP projects with clinical services, Sources: DGTF 2012 and E&Y 2012**

Clinical risks (illustrative)	Transferred to private operator	Not transferred, retained by public contracting entity
Effective demand different from negotiated production limits	X Public contracting entity may set production limits unilaterally	
Emergencies, volume and cost		X
Patient mis-identification	X	X
Unjustified patient transfers, unjustified emergencies, DRG mis-classification		X, if not detected
Services to out-of-area patients, above 10%	X	
Clinical error	X (insured risks therefore can be transferred, may be covered by sponsor support)	
Price, remuneration of clinical production	X price/cost margins	
Inflation adjustment		X
Medication, cost and technological change	X	X
Performance failures	X	X if undetected
Medical staff management, cost control	X	
Performance monitoring, access to information	X	X
Relations with facilities SPV		
Responsibility for subcontractors	X	
Unilateral contract changes	X	X

For the full health coverage models such as Alzira, where the private operator is responsible for the patient along the entire care pathways, the allocation of clinical risk is somewhat simpler. The key risk is that the actual cost per resident will be higher than the capitation payment, a risk similar to that borne by health insurers.

#### **4.2.3 Payment mechanisms:**

In addition to the “bundling” or scope of the contract discussed in 4.1 and to the population served, PPP also vary significantly in terms of payment mechanisms.

Hospital infrastructure is everywhere remunerated on the basis of a *rental or availability payments*, usually indexed to inflation and with deductions for non-performance. Although in Germany private service providers (PPP franchise) get as much public funding as the public hospitals, but they finance their share of necessary

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equity mostly by cash flow or bank loans. Medical treatment is often paid by DRG per procedure.

One important trend is the shift from public funding inputs (facilities and staff), to funding of outputs (medical procedures), which is occurring even in the traditional public hospitals. However, since health care is characterized by supplier-induced demand, the PPP remunerated per procedure require tight controls and monitoring of production so corresponding control mechanisms should be incorporated in the contracts.

This monitoring and control of health services rendered is the usual *modus operandi* of capitation-based insurers who must keep a firm cap on average service usage. This is why the most innovative integrated health PPP models moved to the per capita payment of services, using several adjusting indicators, but keeping the “package” inclusive of primary, outpatient and hospital care. It is not uncommon though that some very high cost procedures or supplies are still paid separately by the public sector, trying on one hand to have an accurate control of beneficiaries and on the other hand to protect the private provider from catastrophic expenditures.

As a rule, the introduction of full-service PPPs in NHS systems may imply separation of payment for services, which stays in the NHS, from the provision of services, which is transferred to the private operator. This “unbundling” of payment and provision may eventually contribute to the convergence of NHS to insurance based systems. (NHS systems traditionally tend to have state dominance in both funding (taxes at state and regional levels) and state provision whereas social insurance schemes inherently have a clear purchaser / provider split. As recent experience shows NHS systems institute a purchaser / provider split, especially with introduction of the DRGs (which is in fact reorientation from payment for inputs to payment for outputs). As such the two sorts of system are showing convergence which is reflected in payment in full-service PPP contracts).

In conclusion, the payment mechanisms trends for PPP contracts and services follow the general design and contractual arrangements trends as the PPP contracts. On top of this, they reflect the new health systems developments and constraints when it comes to paying for services in national health systems or insurance based models: increased pressure on costs of technology and hospital centred systems, limited resources to be shared for increasing demand and granular delivery in oversized settings (risk of overcapacity).

### **4.3 Trends in financing structures and conditions**

Infrastructure only PPP/PFI contracts are usually financed under standard project finance. This secured lending based on project net cash flows is considered low risk, to the extent that operating risk is low after construction is completed and the revenue risk consists primarily of the credit risk of the sovereign payer. Even so, some creditors such as the EIB often required third party payment guarantees in order to avoid project risks in these simplified contracts.

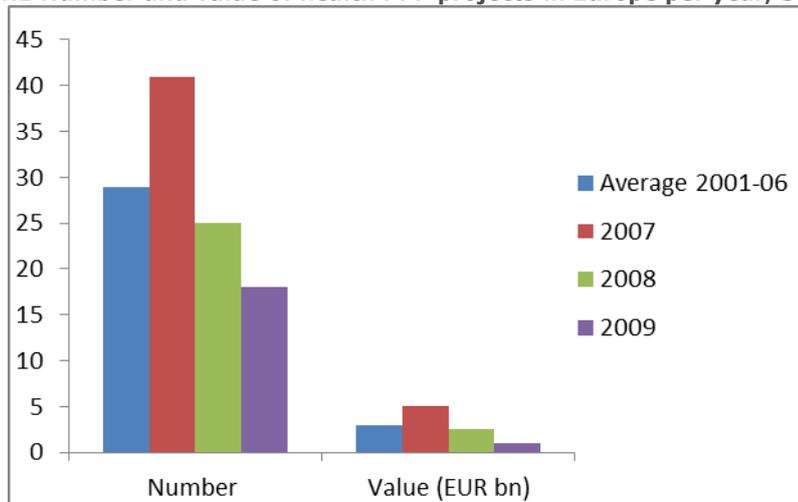
In the case of the integrated Cascais PPP hospital twin-SPV model, the InfraCo is financed as above, while the CliniCo, which has some clinical operations and revenue risks is financed with explicit support from the sponsors.

In Germany there is mostly on-balance financing in PPP franchise projects, where a company in one case even gets financing from the stock exchange (Rhön Klinikum AG). During the financial crisis a lot of communities and municipalities started partial privatization as PPP franchise in Germany, because they were not able to fulfil their financing obligations. After the end of the crisis the number of privatizations was reduced, because the budgetary situation in most municipalities improved.

Since the on-set of the financial crisis in 2008, hospital PPPs in Europe have suffered from the same contraction of credit as other projects. Conditions tightened sharply, maturities shrinking from 27-years to mini-perm of 7 years, and credit spreads increased.

The current financial and economic crisis has initially slowed down the number of PPP projects and has brought new policy responses.

**Figure 4.1 Number and value of health PPP projects in Europe per year, Source EIB 2010**



In 2012, the number and value of PPP transactions dropped again in Europe to the lowest levels in a decade. Eight PPP transactions reached financial close in the healthcare sector, a slight increase from 2011. The aggregate value of healthcare projects decreased, however, by 33% in comparison with 2011 to EUR 405 million.

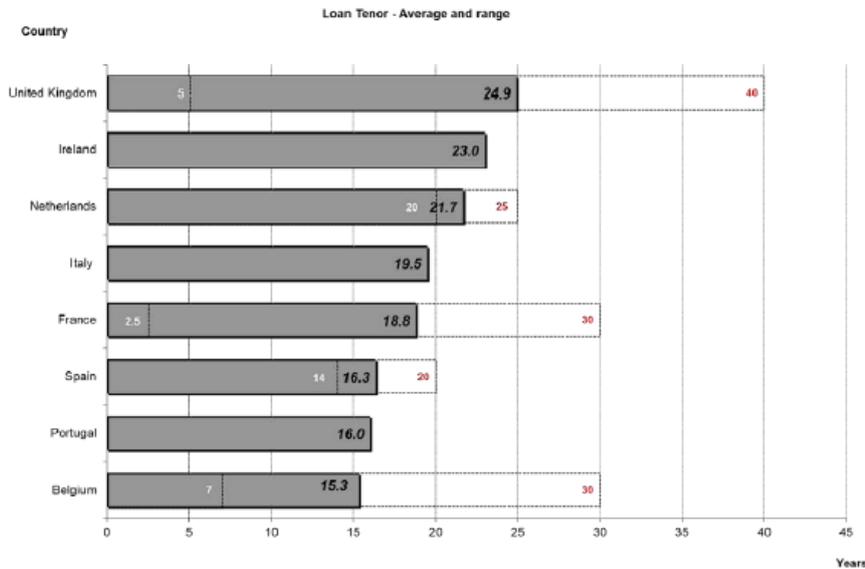
The average value per project in the health sector reduced from around EUR 100 million in the 2001-06 period to around 50 million in 2009. It can be concluded that during the financial crisis, the health PPP market contracted both in number of projects and in size of projects. There was a tendency towards smaller projects, since the total value of PPPs declined more than the number of projects.

These fewer transactions depended to a great extent on guarantees and other forms of support from Governments and other institutions, as banks have withdrawn and investors continue risk-averse behaviour. The countries with the most activity, such as the UK and France, provide post-construction Government guarantees. Financing margins remain high around 300b.p. on average. Loan maturities shown below in Figure 6 demonstrate how much financing conditions have diverged among countries.

It is important to note that recession has also created excess infrastructure capacity in some countries which together with higher interest rates make projects less viable and attractive to investors (i.e. demand for public services, even health in some cases, falls along with GDP and emigration. In the case of health care, budget spending cuts can also contribute to excess capacity, which makes projects less viable given the high fixed costs). Insuring good levels of capacity utilization with a hospital master plan and keeping Government support modest and disciplined are essential to minimize the fiscal risks in PPP.

**Figure 4.2 Loan maturities per country in 2012**

**Figure 5: Loan maturities per country in 2012**



#### **4.4 Review Value for Money and compare the costs between PPP and similar facilities funded through direct capital investment results**

"Value for Money" (VfM) has a precise technical meaning within PFI procedures, carried over to some other PPP arrangements. It essentially involves assessing the (discounted, lifetime) Net Present Cost (NPC) of the facilities and services delivered by means of a PPP/PFI project in the actual<sup>8</sup> contracting and financial market circumstances against the hypothetical NPC of a project delivered by the public sector under conventional public procurement - the "Public Sector Comparator" (PSC). Strictly speaking, the VfM/PSC combination should be continually calculated and updated during the decision period up to adjudication, and regularly afterwards to ensure that the gains achieved by the public partner through the competitive procurement are not lost through weak contract management. This re-evaluation of actual versus Value for Money cost differentials, which is seldom done, should also take account of the impact of the allocation of risk between the public and private partners.

Although each PPP project can be said to have various stakeholders, including the Government as the public partner, the private partner and the bank creditors, the evaluation of VfM will naturally favour the perspective of the public authority which has:

- the fundamental obligation to provide health services; and
- can effectively tap taxpayer revenues to pay for the project over the duration of the contract.

Many, but clearly not all, governments perform such a VfM test for any public project that will be implemented. Governments need to do two tests:

- first, a cost-benefit analysis to determine if the project is justified and viable;
- and a second a VfM analysis against a Public Sector Comparator to justify taking the PPP option.

Then, the project sponsors and project creditors analyse whether the project offers an attractive risk / return, that is, whether it's bankable. In theory, any PPP structure selected based on this procedure should provide better value than the same project would under traditional procurement. However, the approach to VfM assessment varies per country and has been criticised by a number of scholars for its lack of depth, accuracy and objectivity (Boardman and Vining 2010). Besides, the VfM test is more often than not performed by (or for) the PPP promoter.

An alternative has been suggested in which Governments select the alternative with the *lowest total social costs*<sup>9</sup>.

Total social costs include not only production costs, but also transaction costs and externality social costs and benefits to consumers, producers, employees and the

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<sup>8</sup> If there are no recent new traditional hospitals, the hypothesized estimate is the public sector comparator itself with the PPP costs being the "real" one.

<sup>9</sup> Boardman and Vining 2010, based on Globerman and Vining (1996), Boardman and Hewitt (2004) and Boardman and Vining (2008).

government (for example quality, efficiency, wage-levels). Result would be that only PPPs that have higher social and economic benefits (or lower social and economic costs) would be brought to market and thus, PPP would have a positive effect on the economy as compared to traditional procurement. Based on our country reviews, especially Spain and Portugal, total social costs should clearly include the “portfolio effects” of accumulating PPP liabilities as a form of indirect public debt.

One of the main reasons governments do PPP is that they are likely to increase efficiency by aligning incentives of the parties involved. This allows governments to provide public services more efficiently and more effectively<sup>10</sup>.

Various reports and theoretical papers underline the ability of PPP to create higher efficiency due to the private sector’s innovative power, advanced management skills and better-structured incentives. Being in charge of both design and construction as well as maintenance (and in some cases operations) of the health care facility, the private sector is expected to put greater effort into the initial design and construction phase, to optimise life cycle cost and thus, reduce operating and maintenance costs.

According to a recent study<sup>11</sup> which analysed 45% (132 out of 295) acute hospitals of the Spanish SNS, those hospitals with “non-traditional forms of management” – including concessions but also public consortia - reported better performance in the relevant efficiency indicators.

The main findings of the study, which was based on non-voluntary (non-random) participation show that hospitals with different organizational forms than Direct Administrative Management:

- Are smaller in size and staff while treating patients of similar age and complexity;
- Make more efficient use of beds and greater use of outpatient alternatives;
- Human resources, while structured in a similar manner, produce a 37% increase in adjusted activity units;
- Are more efficient to have a cost per unit of production 30% lower;
- Obtain good results in terms of scientific and technical quality.

The clearest differences between the two groups of hospitals according to management model (direct administrative management and other forms of management) are the human resource productivity and cost. This study shows similar conclusions to those of five years ago, that NHS hospitals with other forms of management show better results in functional efficiency indicators (management of beds, surgeries without internment, and in economic indicators (cost of production and staff productivity, despite being smaller. The increased efficiency does not condition or

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<sup>10</sup> Boardman A. E. and Vining A.R. (2010) *Assessing the economic worth of Public Private Partnerships*, (in: *International Handbook on Public-Private Partnerships*, Freame A. Hodge, Carsten Greve and Anthony E. Boardman).

<sup>11</sup> De Zulueta, J. (2012) *Círculo de Empresarios, Un sistema sanitario sostenible (II)*, Madrid, July 2012, *Círculo de Empresarios, IASIST study*.

prejudice the scientific-technical quality (risk-adjusted mortality, complications, readmissions).

Further, privately run hospitals save 39% on supplies and report 37% higher activity levels with 27% lower production costs than of public hospitals under traditional direct public management (IASIST Nov 2012). Although some stakeholders claim that this is achieved by reducing medical staff, the numbers show modest differences, 4.4 workers per bed in the non-traditional hospitals versus 4.7 workers per bed in the hospital managed directly by the SNS under public sector work rules. Experience in the Asklepios Hospitals Hamburg (Germany) shows that the private partner increased medical staff after partial privatization by 13 %, and reduced administration staff in the same time by 16 % in the period 2005- 2010. Considering the importance of staff management issues in the provision of health care, transferring labour related risks is a critical success factor.

An Australian study of 21 PPP projects as compared to 33 traditional projects<sup>12</sup> concludes that PPPs demonstrated cost benefits ranging from 30.8% when measured from project inception, to 11.4% when measured from contractual commitment to the final outcome. Between the signing of the final contract and project completion, PPPs were found to be completed 3.4% ahead of time on average, while traditional projects were completed 23.5% behind time. The overall conclusion is that PPPs provide superior performance in both the cost and time dimensions, and that the PPP advantage increases (in absolute terms) with the size and complexity of projects. There is however no scientific literature available that verifies that these economic results are actually obtained for a significant number of health care projects in the EU countries. Most literature focusses on transport infrastructure. Furthermore there is almost no documented evidence on how this "productivity" increase can influence the health outcomes of the population served, as described in section 4.5 below in the report. Experience in the Cologne University Hospital (Germany) shows that a PPP project was in a line with set time schedule and can be compared with similar traditional projects, which started at the same time.

UK government sources suggest that PFI/PPP approach could be appropriate and deliver good value for money to public sector the more the following conditions are observed<sup>13</sup>:

- Projects that allow transferring key project risks such as construction delay and cost overruns to the private sector away from the public sector and taxpayers;
- Projects under which it can be ensured that assets are maintained to a government specified standard over a contractually agreed period, reducing the unfortunate "boom and bust" maintenance spending patterns otherwise evident in much of the government-managed infrastructure estate;
- Projects that include whole-life cost planning and performance of infrastructure rather than making short term decisions based on short term budgets;

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<sup>12</sup> Raisbeck, P. et. Al. (2010), *Comparative performance of PPPs and traditional procurement in Australia, Construction Management and Economics*.

<sup>13</sup> House of Commons (2011), *Private Finance Initiative, Written Evidence, evidence provided by PWC*.

- PPP projects that force the public sector to justify the capacity being created and to specify in detail what services it requires and understand what it can afford at the outset;
- The long term nature of PFI contracts allows the private sector to procure efficiently and to invest to deliver services economically, including staff training, life cycle maintenance regimes, asset plans and planned rather than reactive maintenance;
- The PPP sector has developed a detailed contractual structure which apportions risk to several sub-contractors and financiers, so that risk transfer is allocated to subcontractors who are incentivised to perform or bear the consequences of failing to do so;
- At the outset, and to the extent they bear some of the risks, financiers perform detailed due diligence on assets, costs and contracts using technical advisors to ensure the project will be delivered on time and to budget;
- Contracts which are rigorously managed in order to maintain Value for Money over time.

It has proven impossible to perform a cost comparison between PPP in different countries and in comparison to direct capital investment projects, since the reports and underlying assumptions as well as contracts were not made available for this study by national authorities and management companies.

#### **4.5 Review and present health outcomes between PPP and similar facilities funded through direct capital investment**

The starting point for developing the outcome evaluation was to establish whether the Vaillancourt & Linder methodology referenced in the ToR would be possible and relevant. The 'Vaillancourt' methodology was based on a 20 year analysis of peer reviewed publications, over 1,428 articles were scanned for that study, but only 149 meet specified criteria for inclusion. Those accepted reported 179 performance assessments on one or more of four common performance criteria: access, cost/efficiency, quality and amount of charity care. The study referred exclusively to the American health system.

There is no similar data-base or reference source available across the European healthcare sector either in quantity, quality or similar longitudinal nature. Although there is a small number of peer reviewed papers, they are invariably country specific, usually narrow focus, and on the whole do not provide sufficient comparative evidence from which to draw overall 'Vaillancourt' type conclusions that provide a generic Europe wide overview.

Where reliable and relevant peer reviewed evidence is available this has been incorporated, for example at least one review of recent studies comparing the efficiency of German public hospitals with private for-profit and private non-profit hospitals. These are largely condition specific and mostly based on selected clinical

procedures. The results of the studies are quite mixed and often contradictory however they tend towards suggesting that PPP hospitals do not necessarily outperform public hospitals in terms of efficiency. PPP hospitals on the other hand may give more prominence to quality of outcome results, perhaps a factor of more tactically aware marketing strategies. Data for these types of analysis are drawn largely from data available through the Federal Office for Quality Assurance (Bundesgeschäftsstelle Qualitätssicherung, BQS) or administrative data of the sickness funds (insurance providers).

This type of data is also available in the UK through its Health and Social Care Information Centre and other sources such as the NHS / Imperial College "Dr Foster" unit where the NHS has embarked on the task of collecting and publishing information that enable healthcare organisations to benchmark their performance against key indicators of quality and efficiency. The Dr Foster data in particular comments on mortality rates, however although there is a populist approach to attempt to produce hospital league tables using this data, experts in this field, including Dr Foster staff, point out that its main use lies in identifying outlier hospitals that deviate significantly from normative standards. In Portugal, the Government's new health transparency initiative will only start publishing performance indicators across SNS.

This position is reinforced by an on line study (BMC Health Services Research) that undertook a systematic review to ascertain the extent to which variations in risk-adjusted mortality rates were associated with differences in quality of care. From an initial yield of 6,456 papers, 36 met inclusion criteria. A positive correlation between better quality of care and risk-adjusted mortality was found in under half the relationships but the remainder showed no correlation. The conclusion: the general notion that hospitals with higher risk-adjusted mortality have poorer quality of care is neither consistent nor reliable. This overall infers that so far there are no reliable means by which these data can be used to identify variations in performance quality or mortality measures between public and PPP hospitals that can be related with any degree of certainty or specificity to the ownership status of the hospital.

Nevertheless, there have been two smaller scale peer reviewed studies of ISTCs comparing clinical quality and patient experience with public hospital provision but they observe that there is little measurable difference between the two models of delivery. These are referenced in the respective case study.

To round off this commentary on indicators, the French Health System also promotes a "culture of transparency" through making available quality indicators of care in health facilities for access by patients and users. This is organised through HAS an independent public authority that contributes to the regulation of health system quality. It carries out its tasks in the field of evaluation of health products, professional practices, the organization of health care and public health. To date, there are two main categories of indicators: the "first family", include seven indicators on the fight against nosocomial infections, the "second family" nine indicators of quality of care of the patient (QUALHAS) evaluates clinical and economic performance tied to

reimbursement strategy. A further indicator for inpatient satisfaction (I-SATIS) is being developed.

It is significant that even where there are well developed indicators these have so far not been used to any great effect to examine the impact of PPP strategies on patient outcomes. Measuring the effect of PPP on clinical effectiveness and outcomes is therefore, at present state of knowledge and methodology, underdeveloped to the point where it is not possible to identify with any certainty specific characteristics of PPP hospitals that may contribute to better outcomes. The problem lies in the range of variables, almost irrespective of the PPP dimension, for example:

- In the case of the development of a 'new' PPP / PFI hospital the average implementation time scale, from initial PPP contract agreement to full operational performance (for an average sized hospital) will be in the range 5 to 7 years. During that time clinical practice will change irrespective of the status of the hospital. In the circumstances it will prove difficult to separate out any change in clinical outcomes as between the normal evolution of clinical practice, with leads and lags among hospitals, and changes that can be unreservedly attributed to the change of status of the hospital. Furthermore there may also be other factors that may affect clinical outcome over this time scale; demographic shifts, changing epidemiological trends, economic circumstances;
- Comparison of hospitals and services across geographical areas is prone to even more problems, in particular lack of comparability of outcome rates from different catchment populations even when subject to 'risk adjustment. Although risk standardised outcomes have offered an important advance in adjusting provider results for differences in case mix, because of substantial differences in the distribution of risk factors it is inappropriate to attempt to directly compare reference hospitals and services with any degree of certainty.

Furthermore, factors external to the hospital also impact on outcomes e.g. speed of access to diagnosis in primary care that will generate a further range of variables rarely mentioned in any performance review of PPPs.

Similar problems apply to any attempt to assess the impact of PPPs on population health status. Overall the patient cohort of 'PPP patients' is simply too small to produce any meaningful and measurable result.

It is notable also that the UK NHS despite presenting PFI as a flagship initiative in modernising its hospital stock (the largest hospital building programme in Europe) has not made any claims that the initiative of itself has had a direct and material impact on clinical outcomes. There have been no peer reviewed studies that have so far attempted to assess any direct co-relation between clinical outcomes and the PFI status of the hospital.

Overall therefore there is little evidence of any significant deviation between public and PPP hospitals as regards clinical outcome performance within and across the principal countries studied, including Germany, France, Italy and the UK.

We have assessed in the exceptional cases where the PPP projects consists of fully integrated HMO-type facilities such as the Alzira project in Spain the degree to which it is possible to evaluate health PPPs on the basis of overall health gains (example in this case, there are non-PPP Health Areas within the Valencia AC which can be compared to Alzira). However, the performance statistics from the Generalitat have not been released thus constraining this option.

Since most PPP/PFI projects are acute hospitals, it has therefore proved more relevant to use conventional hospital performance indicators, for example, relating to capacity, utilisation and throughput rates, waiting times for elective surgery etc. In other words measures that relate more to operational efficiency (more generalised outputs) than specific clinical performance. Country and case studies individually comment on the veracity of such data when analysing PPP impact.

## **4.6 Review and discuss observable macro- impact on the health system and on public deficit, public debt and the sovereign ratings**

### **4.6.1 Macro impact**

The macroeconomic significance of PPP is hard to establish. To understand the relevance of health PPPs, it would be useful to compare the value of healthcare PPPs to total government investment in healthcare. However, this is complicated because:

- Comparison of stock (PPP projects) to flow variables (government investment) is a comparison of apples and oranges;
- Capital expenditures on those PPPs that are recorded in Government accounts are also included in government investment figures;
- Data on exact PPP investments and government investments<sup>14</sup> in health sector are not publicly available.

An EIB study compared health sector PPPs to government investment in PPP per sector<sup>15</sup>. For the health sector it turns out that PPPs are a significant source of investment in the UK, starting from about 5% of total investment in 1990-1994 to as much as around 40% of total investment in the period 2005-2007. In all other countries, health sector PPPs are only about 1% of total investment in the health sector and are therefore of limited macroeconomic significance. However, the UK example does show potential for health sector PPPs to become much more significant for the development of the healthcare sector.

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<sup>14</sup> *Although the Systems of Health Accounts has details on "capital formation of health care provider institutions" it does not provide details per hospital and can therefore not be related to performance of a PPP as compared to public healthcare facility.*

<sup>15</sup> *Kappeler, a. and Nemoz, M. (2010) Public Private Partnerships in Europe – Before and during the recent financial crisis, EIB Economic and Financial report 2010/04.*

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#### 4.6.2 Impact on aggregate public and private investment

A macroeconomic analysis of PPP and its policy implications<sup>16</sup> suggests that higher PPP investment is likely to raise the aggregate private investment. PPP grows as private investment in a market grows. Higher PPP investment is associated with lower public investment in the future.

#### 4.6.3 Fiscal impact

For national accounting purposes, EU Member States are obliged to apply the European System of Integrated Economic Accounts (ESA 95) from Eurostat and classified in the public or private sector according to the substance of which partners bear the risk. In practice, Eurostat risk-reward criteria have probably been too lenient, leaving too many health PPP projects outside of the perimeter of the Public Administration for national accounting and Excessive Debt Procedure-Stability Pact purposes.

An important reason for governments to engage in PPP's has been that they can help overcome budget constraints through private financing of infrastructure. In a PPP, any upfront government payments are relatively limited as compared to traditional public projects. Typically in the health sector, cash contributions from the government are spread over the project life, reducing government deficit and government borrowing, at least in the short run. As such, PPP's have been used to support higher investment and growth in countries with tight budget and weak fiscal positions.

From a national accounts perspective, Eurostat developed rules on the statistical accounting of PPP<sup>17</sup>. In summary, an asset can be kept off the Government budget and off Government debt in cases where the construction risk, the financial risk and either the demand or availability risk are transferred to the private partner, as was done in Portugal.

Engel et. al (2009)<sup>18</sup> state that from the point of view of incumbent governments, PPPs have the advantage of allowing the Governments to exceed spending limits. This is because easy accounting standards allow governments to use renegotiations to increase spending ex-post without prior approvals and oversight. For governments that are already overleveraged this is dangerous practice and need disciplined contract management. This feature of renegotiations leads to observable predictions, namely that:

- In a competitive market, firms lowball their offers, expecting to break even through renegotiation;
- renegotiations compensate lowballing and add additional expenditure;
- the government uses renegotiation to increase spending and shift the burden of payments to future administrations;
- there are significant renegotiations during construction.

A simple solution suggested is to include PPP investment, including renegotiations, as current expenditure in government budgets. This would eliminate the incentive to aim

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<sup>16</sup> Checherita, C.D., 2009.

<sup>17</sup> Eurostat News Release 18/2004: Treatment of public-private partnerships.

<sup>18</sup> Engel, E. et al (2009), Soft budgets and renegotiation in Public Private Partnerships.

for renegotiation and to push PPP projects even if the government can very likely not afford them.

As EPEC indicates<sup>19</sup> PPP contracts are subject to three types of financial reporting in the public sector:

- accounting at the micro level of each public partner as well as the private partner (obligatory application of the IFRIC12);
- national accounting under ESA 95;
- and annual or multi-annual budget allocations within the annual budget or an MTEF multi-year budgeting programme.

For national accounting purposes, each project is first classified at the micro level, and the accounts of each national public authority are prepared according to national accounting standards for the public sector. This is done to some extent on a country by country basis, in some cases depending on local law. In the case of countries which apply the principle of public domain, such as Portugal, public infrastructure assets may be built and operated by a private concessionaire but cannot be considered private property, nor sold nor mortgaged by the State as concedent.

But the national budgeting procedures are really the critical issue, since they involve long term planning of lumpy public investments with very long lead times, as well as the budgeting of long term PPP liabilities. In other words: health PPPs are subject to public sector capacity planning and capital rationing principles. This implies good project selection and prioritization, "gateway" approval procedures, and allocation of scarce budget and external debt capacity, as well as the reporting of government liabilities under PPP contracts, usually within the context of the budgeting procedures applicable to public capital investment expenditures as a whole.

Some accounting and data issues, which complicate the on-going analysis of affordability and sustainability, include:

- Legal ownership and economic ownership often coincide. When however they do not coincide, a "substance over form" approach should prevail for accounting and statistical purposes;
- The treatment may be asymmetric between assets and liabilities, with infrastructure liabilities not recorded by the public sector;
- National accounts of public administration units may be done on a cash or accrual basis;
- Budgetary (ex-ante) and reporting (ex-post) procedures are critical for ensuring proper allocation of scarce Government resources for priority capital investment programmes and for covering operational expenditures. However, national (or local/regional) budget laws and practices may differ significantly from country to country;

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<sup>19</sup> Eurostat Treatment of PPP: Purposes, Methodologies and Recent Trends, 2010.

- The contractual conditions and practices determining whether most of the project risk is transferred often differ between ESA 95 and national accounting standards i.e. between statistical and accounting treatments;
- Inconsistencies regarding the treatment of PPP contracts under the various accounting norms may allow for regulatory arbitrage – for example, when the budget treatment is not aligned with the statistical or national accounting treatment of PPPs.

Ultimately, it will be important for the Governments to identify, quantify, manage and minimize the fiscal or budget risks implicit in a PPP programme and the individual PPP contracts over the long contract durations of 20-30 years.

Desk research of academic literature on fiscal impact of PPP projects provided the following insights:

- Costs of PPP's could be placed 'off balance sheet' and off-budget, apparently allowing more budget room for other projects. This budget slack may prove short-lived and thus an increasing number of experts recommend that the PPP projects should be clearly consolidated in the annual government expenditures in order to eliminate the accounting treatment as a decision factor<sup>20</sup>. Governments still tend to underreport their contingent PPP liabilities which are not included in the public debt numbers. However, countries which use PPPs to finance projects which they could not afford otherwise, may do so at their peril as the accumulation of off-budget PPP liabilities may raise the risks of cuts in the sovereign rating<sup>21</sup>;
- PPP's normally include the sharing of project risks with the private partner. Therefore, unexpected future government expenditures such as construction costs overruns, higher maintenance and repair costs are also partly transferred to the private partner. This beneficial fiscal impact is often ignored, since government traditionally does not quantify the risks involved in its traditional procurement of public works and services, and consequently does not allocate any budget to these risks in advance. On the other hand, transferring risk to the private partner is likely to be costly. Profit-maximising private firms will not accept risk without compensation, and this may be reflected in requests for subsidies or other Government support for the project;
- In the health sector, the demand risk is often with the public partner and health PPPs are almost entirely reliant on taxpayer/social insurer funds for remuneration. This is usually fixed on an availability basis, and if the respective accounting conditions are complied with, each PPP contract generates off-budget PPP liabilities for the public partner. These PPP liabilities are akin to official direct public debt and are likely to be considered by rating agencies when assessing the sovereign rating;
- It is often argued that since the public sector can borrow at lower interest rates than the private sector concessionaire, the PPP financing should be provided by the public sector. This issue is more complicated than that. First of all, many private consortia in availability payment based projects in the past had been able to secure

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<sup>20</sup> Freame A. Hodge, Carsten Greve and Anthony E. Boardman (2010), *International Handbook on Public-Private Partnerships*.

<sup>21</sup> Abrantes de Sousa M, (2010) *PPP Hospitals in Portugal*, EIPA.

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loans at a rate very close to the government borrowing rate<sup>22</sup>, because the government is their key client (for example, according BPI (2009), credit margins for PPP hospital financings in Portugal rose from around 1% in 2006 to above 3% in 2009, and maturities shortened from 26 to 9 years.). In effect, financing a PPP remunerated by availability payments is almost equivalent to financing Government guaranteed receivables, a risk very similar to that of Government bonds (as expressed by the sovereign rating). A contract with the government as a client is therefore a strong asset to back the debt to the extent the Government does not become overleveraged and the sovereign rating is stable. On traditional public projects, the Government (and thus the taxpayer) would always repay the debt, even if the project would fail. However depending on the risk allocation under PPP contract, in theory the government would not bail out the PPP concessionaire if it were to go in default, though it might take back the concession in order to maintain the public service which cannot close, leaving the shareholders of the concessionaire, and perhaps some of the creditors, to suffer at least some losses due to its non-performance. Bank creditors are therefore exposed to concessionaire performance risk and to Government risk on the payments due to the concessionaire. For example, Comunidad Valenciana has become overleveraged and it has been sharply down-rated, it and owes the Alzira concession a big and growing payable. The credit risk of the public partner is a project risk that can't be avoided in the health sector, unlike roads where the concessionaire may collect tolls from the user;

- Therefore lending to a PPP project is riskier for banks than lending to Governments, and this can make financing PPPs (seemingly) more expensive for the ultimate clients of the project (the government and its taxpayers). Financing terms such as tenor and interest margins vary considerably from project to project and with market conditions. Since most PPPs are financed under project-specific finance, creditors may have no, or only limited, recourse to either the project sponsors (as under corporate finance) or to the public partner (as under Government finance). For example, InfraCo, the infrastructure SPVs in the Cascais twin-SPV model is normally financed on a project finance basis, while CliniCo, the clinical operator, always needed sponsor support because banks have been unwilling to take clinical risk. The support required to achieve "bankability" may also depend on creditor policies, irrespective of project or market conditions. In the Braga twin-SPV hospital, the EIB financed the InfraCo, but only with payment guarantees from the participating commercial banks. Currently, post-crisis, the EIB has indicated it may finance the infrastructure of a new Lisboa Oriental hospital, with a government guarantee and even tighter condition;
- Ultimately, a project SPV or concessionaire may go bankrupt but most public service projects can never close, unless there is severe excess capacity. This implies that Governments may be forced to step-in in one form or another, taking back the concession, or bailing out the private partner in distressed PPP projects,

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<sup>22</sup> De Bettignies J.E., Ross, T.W. (2010), *The economies of public-private partnerships: some theoretical contributions in: International Handbook on Public-Private Partnerships*, Freame A. Hodge, Carsten Greve and Anthony E. Boardman.

and its creditors, even though it is privately financed. In this context it also has to be noted that PPP projects have become very difficult to finance if there is no termination payment clause that states that banks (and shareholders) are repaid in case the project is to terminate early. In practice, therefore, the ultimate risk very often remains with the public sector in an adverse scenario, even though the project structure suggests otherwise as long as the project is performing well;

- There may be cases in which significant direct government borrowing for a large infrastructure investment programme could push the government's debt over critical threshold ratios, leading credit rating agencies to downgrade the government's debt. This will lead to higher borrowing rates for the government. Therefore, implementing the infrastructure investment programme (partly) with PPP including a private financing component may appear to help governments sustain their credit rating and allow them to borrow for other purposes at lower rates than they would have if that infrastructure investment programme would be financed by public budget. However, if such PPP projects rely extensively on taxpayer for remuneration, rather than user fees, the resulting PPP liabilities can accumulate as "hidden" public debt, that is, not considered within the long term public borrowing and debt limits with delayed but severe impact on the sovereign rating. In health care, user fees are used only to moderate demand and are negligible (ex under 2%) of the total cost.<sup>23</sup>

#### **4.6.4 Fiscal risk**

Some sample measures for fiscal risk identification mitigation are provided in the table below (based on Nikolic, I.A. and Maikisch H, October 2006, Public-Private Partnerships and Collaboration in the Health Sector An Overview with Case Studies from Recent European Experience; HNP).

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<sup>23</sup> Abrantes 2011, *Managing PPPs for Budget Sustainability: The case of Portugal, from problems to solutions*, *LIQ Latin American Infrastructure Quarterly*, pg 38.

**Table 4.4 Fiscal Risk Mitigation**

Objectives	Sample measures for fiscal risk mitigation
Risk awareness	<ul style="list-style-type: none"> <li>• Collect and centralize information on PPP contracts;</li> <li>• Discuss risks and long-term fiscal cost of PPPs and PPC;</li> <li>• Analyse and evaluate risks and obligations.</li> </ul>
Risk disclosure	<ul style="list-style-type: none"> <li>• Disclose outstanding contracts and fiscal costs of existing PPPs;</li> <li>• Make contract drafts and fiscal cost analyses available for use;</li> <li>• Enhance financial reporting to require disclosure of fiscal risks.</li> </ul>
Better accounting, budgeting, and fiscal planning	<ul style="list-style-type: none"> <li>• Reflect the NPV of expected projects' fiscal cost in government's; deficit and debt when obligation originates, and possible fiscal effects in fiscal planning;</li> <li>• Set overall limits on government exposure by establishing ceilings and/or contingent liability funds;</li> <li>• Strengthen accounting and budgeting standards;</li> <li>• Require fiscal and accounting transparency between partners (e.g., disclosure of private partner's financial end of the year statement, annual independent external audit).</li> </ul>
Pro-active risk management	<ul style="list-style-type: none"> <li>• Consolidate government's risk-taking authority and/or expertise;</li> <li>• Strengthen risk analysis and risk management capacity;</li> <li>• Monitor and manage government risk exposures and obligations;</li> <li>• Develop extended assets and liabilities management framework.</li> </ul>

Empirical evidence on the impact of PPP programs on fiscal risk is mixed. But in light of literature on the subject the following can be concluded:

- It is likely that larger PPP programs may lead to higher fiscal risk, especially if compared to purely public infrastructure which is subject to capital rationing under the annual budget;
- PPP programs in healthcare can result in excess capacity and trigger fiscal risks especially arising from contingent PPP liabilities, related to availability payments or guarantees for instance from explicit or implicit (minimum revenue) guarantees provided by the government;
- It is therefore increasingly emphasized by the accounting industry and government auditors that governments should report their PPP liabilities and make them clearly visible in government accounts<sup>24</sup>. However, many governments are reluctant to do so. An example is the UK where PFI's were in 2009 still not presented as part of the public sector debt. Now that the International Financial Reporting Standards are introduced, the reporting of contingent liabilities underlying PFI projects depends on whether the transaction is recorded as a public sector finance lease and on other technical accounting details (Boardman & Vining, 2010).

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<sup>24</sup> De Bettignies J.E., Ross, T.W. (2010), The economies of public-private partnerships: some theoretical contributions in: International Handbook on Public-Private Partnerships, Freame A. Hodge, Carsten Greve and Anthony E. Boardman.

#### **4.6.5 Effect of economic and financial crisis**

According to IMF Working Paper (2009)<sup>25</sup> the economic and financial downturn affects PPP in the following ways:

- Decrease in the availability of credit;
- Credit contraction as commercial banks withdrew from the riskier project finance business (flight to quality) or concentrated activity in their home markets, threatening to leave some projects stranded, just prior to financial close;
- Upward pressure on interest rates on borrowing – although market interest rates have decreased to historically low levels, credit margins and total financing costs on project finance loans have increased everywhere due to reduced liquidity of the markets, raising the hurdle rate for otherwise viable projects;
- Real effects of economic downturn on revenue cash flows due to lower demand of services – this effect is relatively limited in the healthcare sector; but in general it is affecting PPPs in the pipeline phase, reducing the viability of the project. Those in the operational phase suffer reduced cash flows and become distressed;
- Projects that rely on direct user charges suffer directly as demand falls, but projects relying on service payments from the government may be exposed to drops in the credit rating of the sovereign or sub-sovereign payer;
- Rising bank funding costs have caused many banks to suffer negative spreads on thinly priced project loans made in boom years of 2006 – 2008. Because of the funding mismatches and of the expected tightening of liquidity and capital requirements under Basel III, many banks are concentrating their deleveraging effort in selling (impaired) long term PPP loans, resulting in new secondary market activity in PPP-related assets. In addition some banks which have suffered rating downgrades have had to cash-collateralize payment guarantees in favour of the EIB, as happened in Portugal;
- Unforeseen exchange rate movements, for projects subject to currency risk - PPPs most affected are those in the operational or construction phase that have local currency revenues and un-hedged foreign currency debt.

#### **4.6.6 Effect of the crisis on PPP healthcare deal flow**

A number of policy interventions have been suggested to overcome potential problems left stranded by the credit contraction or distressed due to recession, by facilitating access to finance or improving the risk-return balance. IMF provides an illustrative list of measures, with the fiscal risk exposure of the government increasing as one goes down the list:

- Concession extension to allow the private partner to generate the return needed for the viability of the project;
- Output based operating subsidies to promote the use of the facility;
- Investment grants or construction subsidies, provided there is a source of Government funds;
- Minimum revenue guarantees by the Government ensuring that the private partners can service their debt;

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<sup>25</sup> Burger, P. et al. (2009) The Effects of the Financial Crisis on Public-Private Partnerships, IMF Working Paper.

- Exchange rate guarantees by the Government for foreign private companies to cover their income if the Euro loses value as compared to their own currency ;
- Government guarantees for the repayment of all project debt;
- Subordinated loan provided by the government on which the private company can draw if needed, enhancing the bankability of the senior debt;
- Equity measures for example allowing the private partner to sell equity to the government at a guaranteed price;
- Exercise of step-in-rights allowing the government to step in in case of contractor failure and re-tender of the PPP contract or take over operation of the public service, which is standard provision in most PPP contracts.

What nearly all of these proposed PPP remedies have in common is to retain or transfer more PPP project risk to the public partner. This may **not** be a credible or advisable solution if the Government is already overleveraged and the sovereign or (sub-sovereign) rating is under stress.

To avoid excessive fiscal risk exposure to the government, excess public infrastructure capacity has to be avoided and projects need to achieve high levels of capacity utilization. It must be recalled that user fees and tax revenues both are a function of production volumes, throughput or other forms of traffic. If tax revenues fall with demand and economic activity, rigid payments under PPP contracts become less sustainable. In the health sector, however, the concept of high capacity utilization must be adjusted for the risk of induced demand, with the public partner potentially having to pay for unnecessary medical procedures. One important indicator is to maintain the VfM, that is, to keep costs to the Government under PPP below those under traditional procurement. This VfM differently should be maintained throughout the life of the project.

Some key principles to be followed while selecting the measures for managing a PPP program, in general, and in a time of crisis in particular, include:

- Investments in both existing and new projects should be justified on economic grounds, that is, on the basis of actual project traffic volume demand;
- Interventions should support the wider fiscal policy stance, which in certain countries means austerity in general and containment and cuts in health spending in particular;
- Measures should be quantified, pre-approved as part of the budgeting process and included into the MTEF medium term budget framework;
- Government measures should be contingent on both macro and project circumstances. Once the country gets out of the recession the situation of the PPP project may improve and government support measures should become unnecessary and should fall away;
- Access to public support should come at a price, any government measure that acts as risk insurance should be priced accordingly;
- Interventions should seek to maintain VfM for the public partner over the life of the project, that is, public support should not cover losses due to risks originally assumed by the private sector nor poor performance of the private operator;
- The intervention policy should be publicly disclosed, including all the details of renegotiations;

- Ultimately, some losses will have to be taken by some of the project parties in the case of distressed projects, and if a Government is overly generous with its support, it may create moral hazard and promotes strategic behaviour on the part of the private bidders and also runs the risk of becoming (more) distressed itself.

#### **4.7 Data gap analysis**

Most of data publicly available on actual PPP investments is poor and incomplete, and much is confidential. For UK and Germany the data generally are available on annualised PPP commitment and actual cost figures, allowing for comparisons with other flow variables such as aggregate public investment or GDP. Deal databases track PPP projects at different stages in the project cycle from tender publication through to financial close, but not during operations. EIB data covers the period 1990 to 2009, and do not include smaller projects with a capital value of less than EUR 5 million.

One of specificities of PPP contracts between the public and private sector is that much of the relevant information is often classified as "*commercially-confidential*" and thus not made available to researchers. It is important to understand that this "opacity" is in part cultivated as it serves to reduce the scrutiny of this type of public expenditure. For example, volume forecasts and comparisons of actual to forecasted usage/patronage may not be routinely published in any country, though bed occupancy rates provide a sort of proxy. If the volume risk is assumed by the private partner, in a road project for example, the traffic/volume data may be deemed confidential. If the volume risk is assumed by the public authority, as in the case of most health PPPs, it may be deemed "irrelevant" from the perspective of the private partner and its banks.

For its national accounts database, Eurostat (2004) developed a consistent framework to classify PPPs as public or private investment, but this reclassification of PPPs as public or private investment peculiar is not publicly available and few authorities responded to the relevant survey questions.

The primary source of data on country health PPP programmes, individual health PPP projects, and VfM comparisons with PSC are the public contracting authorities directly or, indirectly, the national PPP units in the Ministries or Departments of Health and the Ministries of Treasury and Finance. The national audit offices such as the NAO in UK have also produced external evaluations of individual projects undertaken under both PPP and traditional procurement.

The reports obtained from cooperating public authorities in the Member States, and other sources such as ProjectWare Infranews and Infrastructure Journal, were cross-checked and validated with EU and market sources such as the EIB's publicly-released information or where possible with project/country specialists as a principal lender,

with EPEC the European PPP Expertise Centre, and with Eurostat. This did not lead to complete information.

The review of literature on the PPPs in health care delivery in Europe provided an overview of data availability and knowledge regarding the different PPP initiatives across EU member states.

Most literature on PPP is quite positive, mainly because they are written by promoters of PPP such as IFI's and consulting firms, although a number of more critical articles are being published.

A main flaw in literature on PPP is that the source of information is mostly the Government, and hardly any/no information is obtained from the private partners, leading to a one-sided view of PPP, its impact and lessons learned.

Limited information is available on specific health PPP related fiscal impact.

Global evaluation of healthcare PPPs is patchy, most studies provide little specific comment on healthcare. Although, for example, Portuguese PPP hospitals have been operating since 2007, no evaluation studies are available. Well over a decade after the first PFI projects went operational in the UK, there continues to be a lack of project evaluation.

There are few independent evaluation studies.

Limited scientific information is available on macro-economic impact of health PPP's in particular. Literature is available on macroeconomic impact of PPP in general, which can be applied to healthcare, although in most countries the share of health PPP of total health investments is very limited and would not have a significant macroeconomic impact. Specific research on economic allocative efficiency of PPP as compared to traditional procurement is limited. To understand the relevance of health PPPs, it would be useful to compare the value of healthcare PPPs to total government investment in healthcare. However, this is complicated because:

- Comparison of stock (PPP projects) to flow variables (government investment) is not a valid comparison of different;
- Capital expenditures on those PPPs that are recorded in Government accounts are also included in government investment figures;
- Data on exact PPP investments and government investments in health sector are not publicly available.

As indicated throughout this report, data gathering and the screening of available data for their usefulness and applicability within the scope of the study was a particularly difficult and (frustrating) part of the study. The team faced constant reference to confidentiality which brought additional difficulties in receiving the information.

## 5 Conclusions and Recommendations

### 5.1 Conclusions

	<b>Reference: _____ (section/case study)</b>
<b>Macro-economic</b>	
1. PPP in most of its forms does not eliminate a public budget fiscal constraint; the state will eventually need to pay. For as long as the capital markets are prepared to overlook long-term consequences, the short-term gain can allow a state with a tight budget and weak fiscal position to bring forward investments (perhaps expecting the route of later renegotiation and rebalancing of those projects which prove unsustainable for the concessionaire).	§4.6.3
2. Despite the above, the franchise model (attribution of front-line medical services to a private concessionaire) – unlike other PPP types – can be a genuine and appropriate way of moving an investment off the public balance sheet; it is sufficiently distant from state responsibility.	Germany country case study Asklepios Klinik project case study Coxa project case study Alzira project case study
3. To the extent that healthcare PPPs are financed by local banks, risk concentrations can create a positive (increasing) risk feedback loop between the banks and the sovereign, over long project durations.	§4.6.6
4. The economic crisis has led to a dramatic reduction in the number and size of projects, within most PPP types, because finance markets are at present essentially closed (reduced availability of equity and credit, increased real interest rates).	§4.6.6
5. PPP programmes are large in national economy terms in the UK (up to 40% of total health sector investment) and Portugal, but are usually 1% or so in other countries. The large (relative to the national economy) PPP programmes lead to fiscal risk, especially where adequate care has not been taken to control contingent liabilities, such as the government guarantees including letters of support which have underwritten programmes including UK PFI. However, note that public sector projects often create similar and not-visible liabilities.	§4.6.1, 4.6.4 Norfolk and Norwich project case study
6. Key success factors in mitigating fiscal risks include avoidance of excess capacity (e.g. via instruments such as the Hospital Plans of German Bundesländer), effective competition among public and private health care providers (Germany, France), and firm contract management (Portugal).	Germany country case study Portugal country case study France country case study
7. The public sector can, in theory, borrow more cheaply than the private sector – but the differential interest rate is often not large	§4.6.3

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	<b>Reference: _____ (section/case study)</b>
because government (the payers) are traditionally reliable clients, and the markets are aware that failing projects are often taken back by the state anyway.	
8. It is difficult but not impossible to blend the use of PPP financing with Structural Funds – both bring process rigidities, transaction costs, and timing issues (SF Cycle is 7 years, PPPs usually last much longer). The experience of using EU grant funds for such “viability gap funding” is scarce in the health sector (though note in the transport sector inter alia the Vasco da Gama bridge, and LGTT).	
<b>Micro (performance)</b>	
9. As austerity bites, PPP arrangements, as they are intended to do, protect hospitals from the arbitrarily-reduced maintenance which has traditionally taken place – but eventually this distorts resource allocation versus facilities which are not so protected. The “compressibility” of various types of health spending is an important factor.	Spain country case study Norfolk and Norwich project case study
10. There is no convincing methodology for reviewing at national or European level the economic and clinical impacts of accommodation-only (PFI) or joint-venture PPPs (projects are too recent, there are too many confounders, programmes are usually small, diverse statistical data collection).	§4.5 Norfolk & Norwich project case study Cascais project case study (All case studies confirm this)
11. Many healthcare capital investment projects are blighted by poor project decision-making; this is completely irrespective of the procurement method. PPP therefore is often appearing to create financial distress in current economic circumstances, but only because the project concerned was a poor one to start with.	Norfolk and Norwich project case study
12. PPP projects (especially those with integration of clinical services) will fail in most countries unless there is buy-in by the clinicians, and by the wider political environment. This issue is still more emphasised when transforming an existing state facility into a private sector one, and if the public and private sector labour regulations and staff management practices differ significantly.	Bucharest University Hospital project case study Alzira project case study Cascais project case study Prague Military Hospital project case study University Clinic Marburg/Giessen
13. PFI is a rigid form of PPP procurement, which is appropriate for those simple projects which do not have a close connection between the capital stock and service quality/through-life flexibility. Models with a greater degree of “bundling” (JV, integrated hospitals/franchises) offer some limited evidence of improved through-life clinical performance where the service needs to respond over time.	Norfolk & Norwich project case study Cascais project case study ISTC project case study Coxa project case study Alzira project case study Spain country case study

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	<b>Reference: _____ (section/case study)</b>
14. The Portuguese "joint venture/twin-SPV" integrated hospital PPP models have less impressive financial than clinical results, so they may not be sustainable (though this may be a start-up problem). It was difficult to attract funding for them from international sources, and they are contractually-complicated. Their efficiency, however, makes them less problematic for the state than most other Portuguese PPP sector programmes (through use of a disciplined PSC/VfM process).	Cascais project case study Portugal country case study
15. PPPs can appear to be stand-alone, but in reality are intimately, and sometimes not productively, linked to public sector decision makers – e.g. large public shareholdings, or use of public banks for finance). In practice, some PPP actually start out as public-public partnerships because of the absence of credible private sponsors, though they may attract private investors once the start-up period (and risks) are over.	Coxa project case study Alzira project case study Cascais project case study
16. Few patients are aware of the ownership of the hospital they go to, and fewer still care. Patient satisfaction rates are often high and do not depend on the ownership type.	ISTC project case study Coxa project case study Alzira case study Cascais project case study
17. Franchising to private hospitals can be regarded as PPP when the firms face the same conditions as municipal/state and non-profit hospitals (i.e. they are in the Hospital Plan; no cherry-picking or adverse selection of patients, patient choice; same DRG prices, with money following the patient).	Germany country case study ISTC project case study Coxa project case study Romania dialysis case study
18. In some of the published evaluations, franchises appear less resource-efficient than purely public hospital provision (except in the range of very large facilities). However, they seem to offer higher quality of care. Revenue per patient is greater (higher case-mix, up-coding) as is profitability, capital availability and tax generation. Some efficiency gains are made after privatisation of municipal hospitals to the franchise companies; this can be different when the services have the same "case mix" complexity as the public sector - dialysis, radiology and laboratories, for example ("mono-services").	Germany country case Romania dialysis project case study
19. It is harder – though by no means impossible - to do PPP where there are legacy assets (for example, an existing hospital taken over by the incoming private contractor) and particularly where there are staff with established work methods associated with that existing hospital.	Loures project case study
20. PPPs designed and promoted by the private sector (Italy Merloni law) probably do not fit public needs as well as publically-developed project schemes.	Castelfranco Veneto & Montebelluna project case study

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	<b>Reference: _____ (section/case study)</b>
21. Other than standard PPP legal provisions, specific PPP legislation for the health sector as such does not need to be in place – all PPPs in our case studies made use of the existing or updated generic PPP legal frameworks.	All country and project case studies
22. The approach to Value for Money assessment varies per country, and has been widely criticised for its lack of depth, accuracy and objectivity. The Value for Money test is sometimes even performed by (or for) the PPP promoter.	§4.4
<u>Data</u> (information availability)	
23. Across the board, public disclosure of data and analyses behind PPP investments is very poor, inconsistent and not standardized.	§4.6.1
24. When available, public disclosure of qualitative and quantitative data allowing a comparison between PPP and other hospitals leads to an improvement in performance and public support.	Germany country case study Spain country study

## 5.2 Recommendations

### 5.2.1 Macro-economic:

1. PPPs should be on the public balance sheet and accounts, except for those variants with a very substantial risk transfer (probably including demand risk). Good economic practice would go *beyond* Eurostat or IFRS standards;
2. If it were to be felt that the PPP instrument should be supported during the recession (not necessarily wise), there are tools to do so, by transferring more of the project risk to the public sector through such mechanisms as contract extension, guarantee, credit enhancement by subordinated government loans. This should preferably be on a very restricted time-limited basis;
3. The current Structural Funds ESIF round under development should consider use of ERDF/ESF to support PPP healthcare projects, perhaps in particular including small-scale investments (c.f. dialysis clinics or stand-alone treatment/diagnostic centres). The public partner must correctly evaluate the risk appetite and availability of funds in the financial market, including the blend with ESIF, during the planning and preparation phase;
4. Aside from the project-level VfM calculation, there should be macro-prudential review such that the totality of a government's PPP obligations, including contingent liabilities and ripple effects through public lenders, are visible. This should be carried out by the ministry of finance (or similar), as is done with traditional public borrowing and debt limits. At the level of the ministry of health, current year spending and long term liabilities for PPP contracts should also be included in the total health programme spending limits.

### **5.2.2 Micro (performance):**

1. A healthcare project should be checked thoroughly for robustness and relevance on clinical, economic, environmental and social grounds before the procurement method (including PPP) is chosen. Notably, an appropriate care service model is critically important;
2. A robust and believable PSC/VfM calculation should always be undertaken. It should be updated and maintained throughout the whole negotiation period;
3. PPPs are probably not bankable when there is great flexibility in contract terms, but there should be more allowance to negotiate terms under conditions of national economic stress, and demographic changes;
4. PPP development should include full stakeholder negotiation, but particularly including the clinicians, especially if clinical services are involved, as clinical staff can assist or resist the implementation of a PPP, especially if PPP implementation affects their work practices and staff management rules;
5. Full-service PPPs (infrastructure and clinical) should be subject to the same rules on patient access and tariff and inadmissibility of out of pocket payments as hospitals controlled by other public, private or social sectors sponsors, to the extent that the patient experience should not differ significantly;
6. Accommodation-only (PFI) should be used only when the front-line service, its development through time and its quality is not closely linked to the capital asset.

### **5.2.3 Data (information availability)**

Collecting, analysing and publishing generic and comparable statistical data on public hospitals and PPP hospitals which has not been usually available, should be routine rather than provided only on a voluntary basis. This would allow for regular comparison of outcomes between PPP/PFI and state-managed hospitals, as was envisaged in the ToR. Pairs of hospitals matched for vintage, size and population cover should be made available; case mix correction and risk adjustments can be done only by the NHS/SNS authorities themselves. To the Consultant's knowledge, some system statistical work has been done on FM (UK AC and NAO) but not necessarily on medical outcomes. In the Alzira Case Study reported some analysis – more on patient satisfaction than on medical results. The German studies by Busse et al are suggestive, but this material used data going back some time when the major "private" hospitals were mainly elective/orthopaedic rather than the big commercial general hospital chains becoming dominant. Portugal is beginning to publish a large number of comparable indicators.

A good starting point for comparing outputs and outcomes among different health facilities can be found in the IASIST study of Spain, which is only partial because it is based on voluntary participation and which focuses on:

Quality indicators:

- Risk adjusted mortality;
- Risk adjusted complications;
- Risk adjusted readmissions.

Operating indicators

- Risk adjusted length of stay;

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- Rate of outpatient surgery.

#### Sustainability indicators

- Cost per unit of production, adjusted;
- External supplies per unit of production, adjusted;
- Productivity, production per (health) worker.

Financial indicators are also critical for monitoring cost control, which is a critical challenge for the health sector in Europe, namely:

- Production volumes, case mix adjusted;
- Capacity utilization, beds, operating theatres, etc.;
- NHS/SNS payments, total per year;
- User out-of-pocket payments.

These indicators should be monitored by comparing actual results to plan for the year, (or semester or quarter if available) in order to evaluate the contract management performance of the NHS/SNS itself.

#### **Public sector comparisons**

Calculation, application and monitoring of a Public Sector cost Comparator is highly recommended. Since PPP contracts generally specify target outputs and outcomes, rather than inputs, this is a useful exercise for the public NHS/SNS authorities even when the probability of using the traditional procurement option is low. The PSC is published and used initially in examining the PPP /PFI option and later it serves to monitor the maintenance of Value for Money over the life of the contract.

#### **Disclosure**

Promote disclosure similar to that proposed by the World Bank should include concession contracts, side-agreements and subsequent changes, renegotiations and arbitrations, regular progress monitoring reports of the public concedent, and the concessionaire as well. This should be mandatory, and would differ from the situation today when the parties hide behind principles of "commercial or political confidentiality" or the non-commercial nature of some of the private operators which may exempt them from publishing financial statements.