



**COCIR REPORT**  
MANAGED SERVICES,  
INNOVATIVE BUSINESS AND FINANCIAL MODELS

KEY PERFORMANCE INDICATORS TARGETING  
EU HEALTHCARE SUSTAINABILITY GOALS **JULY 2016**

**COCIR**  
SUSTAINABLE COMPETENCE IN ADVANCING HEALTHCARE

European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry



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# FOREWORD



NICOLE  
DENJOY

## MANAGED SERVICES - A NEW FINANCIAL MODEL: COLLECTING THE EVIDENCE SHARING AN INDUSTRY-LED INITIATIVE

Access to high-quality sustainable healthcare is a fundamental right for all EU citizens. However, an ageing population means that health systems face major economic and societal challenges. If society is to adequately address this right to high-quality effective care in the face of these challenges, then it will need to adapt to the demands posed by these changing circumstances.

Such adaptation will require close cooperation between policymakers, industry and healthcare providers. This makes it the ideal time to increase awareness of the opportunities offered by long-term business and financial innovative models such as Public Private Partnerships and Managed Services. These approaches are increasingly being adopted by healthcare providers and proving that they make a positive contribution to the sustainability of healthcare systems.

COCIR defines Managed Services as partnerships between healthcare facilities and technology providers. They guarantee sustainable access to the latest healthcare technology and equipment. The Managed Services model also brings additional value, offering analytical insights and procedural evaluations that can increase efficiencies and improve clinical outcomes.

Since 2010, COCIR has been working in cooperation with the European Commission on the concept of Hospital of Today/Tomorrow. This reflects on effective ways to benefit from new financial and business tools and to identify cost-efficient solutions that will contribute to making the healthcare sector more financially sustainable.

In order to highlight the supportive role that long-term business and financial models such as Managed Services can play, COCIR is pleased to share the results of a survey with a number of hospitals, identifying the most important Key Performance Indicators (KPIs) that could provide evidence of the value of Managed Services.

In order to evaluate the numerous value-based performance enhancements associated with Managed Services, COCIR has conducted an in-depth, two-year benchmarking and validation exercise of KPIs in various hospitals. Seventeen KPIs have now been validated and classified into five overarching categories.

This report underlines the fact that we need to think more deeply about how we finance healthcare and how we perceive innovation. Alternative approaches such as Managed Services may offer superior solutions to current and future challenges. This provides also a valuable to the debate on the future funding of European healthcare systems. COCIR believes that such new financial constructs have the ability to assist healthcare providers in using funding mechanisms such as ESIF and EFSI more effectively.

COCIR will continue to develop its efforts on finding financial tools that can support sharing risks between public and private sectors while continuing to benefit from innovations as well as continuing its efforts to build awareness on possibilities to use European funding mechanisms that could be used in the healthcare domain.

**Nicole DENJOY,**  
COCIR Secretary General

## ACKNOWLEDGMENT



**HOSPITAL SAN RAFFAELE**  
MILAN

“Our ambition is to offer our patients the best possible care and experience. At the same time, we need to do this in a cost-efficient manner.”

**Professor PELISSERO**

President AIOP

(Associazione Italiana Ospedalità Privata), Milano (Italy)

# EXECUTIVE SUMMARY

## THE REPORT DEMONSTRATES THAT WE NEED TO THINK MORE BROADLY ABOUT HOW WE FINANCE HEALTHCARE AND HOW WE PERCEIVE INNOVATION.

Delivering the services in the way we do currently often result in inequalities of quality and access. These disparities in care are found both within and between healthcare systems. Both aspects fuel the political aspirations of the EU and impact the populations they are intended to serve, in equal measure.

If health systems are to meet today's demands effectively and be future-proofed against the challenges of tomorrow, COCIR believes that innovation, both technological and financial, is urgently needed.

However, to embrace such an approach as part of the solution is challenging. Implementation demands dedicated financial resources for an extended period at a time when budgets are continually under pressure.

Managed Services characterise the type of innovative business and financial models that can bring hospitals and healthcare providers the financial flexibility they need. They allow them to manage, or enter partnerships, that will secure long-term access to advanced technologies and/or broader healthcare solutions. Managed Services provide predictable operational budgets and include the element of shared risk that is essential in creating equitable financial sustainability of healthcare systems.

There are numerous financial and operational merits to Managed Services. They provide Key Performance Indicators (KPIs) that allow measurement of the impact on efficiency at hospital level. These KPIs could become a standardised method of measuring the likely benefits of broader adoption and diffusion of such financial models across the European healthcare systems. COCIR believes that the EU should recognise and support the benefits of this fundamental shift from Capital Expenditure (CAPEX)<sup>3</sup> to Operational expenditure (OPEX)<sup>4</sup> and make European Structural and Investment Funds available to support the adoption and diffusion of Managed Services.

This report describes a core set of KPIs, each of which represents a measure of the various value-based outcomes currently targeted by many European hospitals.

### COCIR RECOMMENDATIONS

1. The European Commission should adapt the rules on use of European Structural and Investment Fund<sup>1</sup> to enable their use to fund 'operational expense' of novel financial/business models, such as Managed Services, that have the potential to provide and maintain high-quality sustainable healthcare services at national and regional levels.
2. Member States and regions should encourage hospitals and healthcare providers to use the European Fund for Strategic Investments (EFSI) ('Juncker Plan')<sup>2</sup> to enable adoption and diffusion of Managed Services as part of the solutions that can assure access to quality healthcare services to their citizens.
3. Hospitals should adopt the selected Key Performance Indicators (KPIs), as indicated in this report, to monitor the performance of Managed Services.
4. Hospitals should capitalise on best practices, provided in this Report Annex, and where necessary adapt to regional and local needs.

**1. European Structural and Investment Fund (ESIF)**, managed by national and regional authorities set under the national Operational Programmes set for 7 years. [http://ec.europa.eu/health\\_structural\\_funds/policy/index.en.htm](http://ec.europa.eu/health_structural_funds/policy/index.en.htm)

**2. European Fund for Strategic Investments (EFSI)** (also called Investment Plan for Europe), New financial instrument managed by the European Investment Bank Group, and open to all entities of all sizes, including public and private entities, [http://ec.europa.eu/health/investment-plan/policy/index\\_en.htm](http://ec.europa.eu/health/investment-plan/policy/index_en.htm)

**3. CAPEX**, Capital expenditure is incurred when a business spends money either to buy fixed assets or to add to the value of an existing asset with a useful life that extends beyond the tax year. Source: DIFFEN [http://www.diffen.com/difference/Capex\\_vs\\_Opex](http://www.diffen.com/difference/Capex_vs_Opex).

**4. OPEX** Operational expenditure refers to expenses incurred in the course of ordinary business, such as sales, general and administrative expenses, rent, lease etc. Source: DIFFEN [http://www.diffen.com/difference/Capex\\_vs\\_Opex](http://www.diffen.com/difference/Capex_vs_Opex)


## I. THE CHALLENGE: PROVIDING AND MAINTAINING HIGH QUALITY SUSTAINABLE HEALTHCARE SERVICES

Technological progress in diagnostics, imaging, radiotherapy and medical IT improved health systems dramatically. By enhancing efficacy and efficiency, these advances have increased life expectancy and improved quality of life and quality of care delivery. They have also made healthcare systems more cost-effective. Investing in innovative technological solutions should be a priority for health institutions and governments seeking to modernise their health infrastructure and optimise patient care.

Traditionally, medical technology procurement was simply an issue of straightforward purchase. It has the advantage of speed and of simplicity, making it popular with users and governments as well as the medical technology industry. Furthermore, such models offer a further benefit of reducing associated costs of procurement, such as legal fees for creating a project company.



*Clinical services will be future-proofed by using equipment that is best suited for clinical practices today and over the life of the 15-year contract.*



**Wendy GALBRAITH**

Royal Belfast Hospital, Northern Ireland, UK, 2006

However, such models are built on two core assumptions. Firstly, that users have access to both the capital and the technical expertise to use the technology in question. This has meant that procurement of highly innovative technology takes place step-by-step. Users develop infrastructure and capacity over time, accumulating resources and expertise needed for future investments.

Secondly, in a traditional procurement process the focus is often on the specification and price of equipment. Longer-term technological evolutions are rarely a consideration, creating a risk of obsolescence. A shift away from procurement decisions based purely on 'best price' to a more value-based procurement that fosters decisions based on an assessment of the 'best price-quality ratio' – which consider an holistic set of quality and patient care criteria, such as defined within a Managed Service contract - has the potential to encourage innovation and improve quality of healthcare; in fact a recent Expert Panel final opinion concerning 'disruptive innovation' novel business and financial models, such as Managed Services, were highlighted as 'disruptive innovations' in themselves, a recognition of the significant disruptive impact such models can have in their own right on our healthcare systems<sup>5</sup>.

Traditional procurement processes are becoming increasingly irrelevant in the current health landscape, which is characterised by barriers to capital, and - in the case of emerging markets - a lack of technical expertise needed to provide advanced health services. The challenge for the healthcare community is to surmount these financial and human capital challenges to make vital health services available to those patients who need them now.

**5. Disruptive Innovation:** Considerations for health and health care in Europe », Expert Panel on Effective Ways of Investing in Health, [http://ec.europa.eu/health/expert\\_panel/opinions/docs/012\\_disruptive\\_innovation\\_en.pdf](http://ec.europa.eu/health/expert_panel/opinions/docs/012_disruptive_innovation_en.pdf)

## II. BUSINESS AND FINANCIAL INNOVATION: ADAPTING HOW HOSPITALS ACQUIRE AND USE TECHNOLOGY

Adapting how hospitals acquire and use technology to the way they deliver healthcare services to the public is an opportunity to improve quality. However, it also requires long-term sustainability coupled with ongoing ease of access to suitable and diversified technology. Such a shift will improve employment, life-long learning and healthy ageing. COCIR believes the key to achieving this is innovation in all areas.

The current marked delay in implementing technological advances leaves many innovations stranded in warehouses or on shelves. Their potential long-term value and enabling contribution toward broader socio-economic value is left unrealised. Often, these are the same technologies crucial to realising the considerable benefits anticipated by the adoption of other recognised healthcare innovations, including minimally invasive surgery, new models of person-centred community-based health delivery and the moves towards earlier diagnosis, personalised medicine, health promotion and person-orientated approaches for treating patients with multiple chronic conditions.



*We expect a Managed Service to release a huge amount of management time and to take a lot of hassle out of our lives*



**Mark VINER**

NHS Trust, London, UK, 2007

This challenge is largely the result of economic pressures. COCIR believes that greater effort in designing smarter and more flexible financial and operational options will provide the necessary flexibility to implement, and benefit from, these technological advances. Innovative in the way that we manage and pay for healthcare can have a significant impact on the delivery of care.

A growing number of partnerships, known as Managed Services, allow healthcare providers to access bespoke solutions from technology and solutions providers, empower them to implement the changes that patients need, when they need them. In addition, by embedding quality guarantees into these agreements, technology providers ensure that the healthcare infrastructure standards remain high.

### MANAGED SERVICES – AN INNOVATIVE MODEL

COCIR believes Managed Services offer a flexible approach for hospitals to acquire, use and maintain innovative technologies that support healthcare professionals in making rational value-based decisions on workflows and care pathways. They are financial/business innovations that are designed to allow health institutions to provide access to care in the near - term without the burden of detrimental levels of debt. In parallel, Managed Services support those processes that can result in higher quality clinical decisions.

## DEFINITION

Managed Services are long-term partnerships between healthcare facilities and technology providers. At minimum, these guarantee the sustainable availability of advanced healthcare technology and equipment. They also bring analytical and procedural evaluations that can drive operational efficiencies and improve outcomes.

Risk is shared; the technology infrastructure provider takes responsibility for availability, quality, maintenance and upgrades over the lifetime of the technology. This way, the healthcare facility benefits from future enhancements and innovations and any other modifications needed to align the technology infrastructure with changes to the hospital environment.

This optimises the use of technology and improves operational performance of relevant hospital departments. Managed Services can make healthcare more sustainable and allows for smarter capital expenditure and ongoing **value for money**.

Adopting a Managed Services model allows a healthcare facility to shift current Capital Expenditure to Operational Expenditure. This spreads the same budget over a much longer period, providing the financial flexibility to adapt to a rapidly changing environment.

## MANAGED SERVICES CONTRIBUTING TO SUSTAINABLE HEALTH SYSTEMS

Shifting from capital purchases to a long-term shared risk partnership brings broader implementation of innovative technologies for a predictable annual outlay. It also provides the reassurance that more patients will benefit from current and future innovation.



*Hospitals have long tried to do everything themselves. However, instead of trying to manage the ever more complex technology in our hospitals ourselves, I feel it's wiser to focus on those aspects of the care process closest to our core business: looking after people. Of course, the jury is out on whether outsourcing is always the best solution. But in this case, I'm pretty sure it is*

**Meindert SCHMIDT**

Ziekenhuisgroep Twente (ZGT), The Netherlands, 2012





Managed Services deliver much more than the supply and maintenance of technology. **Partnership agreements** can be tailored to fit the specific needs of both users and patients. Agreements may include:

1. **Financing** - long-term solutions allowing capital expenditure to be spread over time.
2. **Capital Asset Planning** - ensuring flexibility and sustainability.
3. **Optimising Technology Management** - optimising the full range of services (e.g. parts replacement, upgrades, installations) in terms of both time and quality and avoiding obsolescence.
4. **Training and Continuous Education** - ensuring optimal use of acquisitions.
5. **Integrated Services** - using the technology to support the hospital's broader strategic vision and objective.
6. **Optimising Workflow Management** - improving efficiency of healthcare provided (in terms of quality and human resources management)
7. **Sharing Best Practice** - using continuous shared mentorship programmes
8. **Co-creation** – creating multi competence teams, to jointly brainstorm and shape the future ecosystem, resulting in better-focused clinical research, improved health access to population, efficiency improvements and conditions for open innovation.




Managed Services can optimise available budgets. This offers major benefits for healthcare facilities and contributes to addressing fundamental healthcare and hospital challenges. Tangibly, they provide:


- > Predictable operational costs and cash-flow.
- > Risk shared with a technology provider.
- > Improved efficiency through standardisation and sharing of best practice.
- > Consultancy services, including education and training.
- > Optimised workflow - reduction of the integration risk in the care providing facility.
- > Access to the right innovative technology at the right time.

### III. THE MEASURE OF SUCCESS: KEY PERFORMANCE INDICATORS FOR NEW FINANCIAL INVESTMENT MODELS

Following productive high-level meetings with the European Commission over recent years COCIR committed to developing indicators capable of demonstrating that Managed Services are an appropriate and efficient innovative financial tool to support the EU's overarching objectives for healthcare systems. To address this, COCIR have spent two years designing a comprehensive framework of Key Performance Indicators (KPIs). These will provide a standardised method of measuring the impact of Managed Services on healthcare efficiency delivered at a hospital level. This can be extrapolated to reflect the potential benefits of broader adoption and diffusion of the model across European Healthcare systems.



*To ensure that we can continue to promptly examine and treat the residents of our region, we need to make the most efficient use of our personnel and resources. Through this cooperation we have guaranteed access to the newest technology, and that in turn benefits the quality of our patient diagnostics*



**Gert DE BEY**

Rijnstate Hospital, the Netherlands, 2010

As part of the KPI design process, COCIR engaged with health practitioners from a number of Member States. This created a toolkit that is relevant and effective for hospitals, Member State governments and European institutions.

17 Managed Services KPIs have been validated and classified into five overarching categories: financial, environmental, clinical efficiency, development and operational performance. These mirror the high-level healthcare objectives set out by the European Institutions.

For each KPI listed below, there is a definition and measurement method outlined. They follow a bottom-up approach, allowing stakeholders to measure their effect on the objectives of European Hospitals and, as a result, their impact in the achievement of EU healthcare-specific goals.

These KPIs are **SMART (Specific, Measurable, Attainable, Relevant and Time-bounded)** and will provide clear and quantifiable evidence on the performance of healthcare providers. In addition, they are outcome-based and can be adapted to specific project requirements of European hospitals. The selected KPIs follow a result-oriented and long-term management approach that contributes to the European healthcare vision until 2020.

## 1. FINANCIAL:

The aim of this KPI category is to measure the Hospital's financial performance and how it achieves the EU objectives of **affordability and access to healthcare** for patients, thus **reducing inequalities** in across Europe.

KPI	DEFINITION	MEASUREMENT METHOD	HOSPITAL OBJECTIVE	EU HEALTHCARE OBJECTIVES
<b>Return on Investment</b>	Return on Managed Services (MS) investment	Cumulative (Cum.) Profit (Earnings) of hospital - Cum. MS Investment / Cum. MS investment	To maximise impact of the quality of investments	Sustainable and affordable care
<b>Case efficiency</b>	The results of the MS average case	Revenues of case - Costs of case / Costs of case	To obtain increased gains and savings resulted from operating efficiencies of the particular clinical case	Affordable care

## 2. ENVIRONMENTAL

This category of KPIs measures how Managed Services contribute to both the EU health strategy and the Circular Economy Strategy by supporting efficient health systems and introducing new technologies with a low environmental impact.

KPI	DEFINITION	MEASUREMENT METHOD	HOSPITAL OBJECTIVE	EU HEALTHCARE OBJECTIVES
<b>Energy Consumption</b>	Amount of energy consumed by all devices contemplated in the MS system	Energy consumption per device/system	To decrease the carbon footprint in the hospital	Sustainable care
<b>Re-Use and Recycling</b>	Use of re-used parts and recycled material in the supply chain of all equipment contemplated in the MS system	Amount of re-used parts and recycled material in the MS system	To reduce waste and foster a sustainable healthcare environment	Sustainable care

### 3. CLINICAL EFFICIENCY:

The KPIs in this category analyse the contribution of the Managed Services model to the Hospital's clinical outcomes, enhancing **high quality for patient care** and fostering a transformational change in the European health system.

KPI	DEFINITION	MEASUREMENT METHOD	HOSPITAL OBJECTIVE	EU HEALTHCARE OBJECTIVES
<b>Use of Standard protocols</b>	The users' conformity to the standard protocols set by the hospital	On-site equipment data analysis (Utilisation Management)	To fully comply with high-quality healthcare standards	High quality care
<b>Average applied dose</b>	The average dose quantity applied for radiological protection	Total average applied for patients/ Effective dose applied for patients	To improve patient safety	High quality care
<b>Average room occupation time</b>	The amount of time required for patients to occupy clinical rooms in the hospital	Average (hrs.) and days of occupation	To reduce idle times, increasing patient throughput	High quality care
<b>Gold standard use</b>	The best-performing equipment use	Benchmark of best equipment use and hospital's average utilisation	To ensure best in class treatment for patients	High quality care

#### 4. DEVELOPMENT

This category of KPIs measures the impact of Managed Services on the development of the health workforce in European Hospitals through training and lifelong learning while enhancing **long-term employability and employment**. In addition, they also measure continuous improvement and modernisation of health services.

KPI	DEFINITION	MEASUREMENT METHOD	HOSPITAL OBJECTIVE	EU HEALTHCARE OBJECTIVES
<b>Patient satisfaction rate</b>	Overall patient satisfaction with the hospital's service (clinical department and sites)	Average level of satisfaction survey responses in patient population	To improve the patient experience with the services delivered by the hospital	High quality care
<b>Employee satisfaction rate</b>	Overall employee satisfaction with the equipment, maintenance and all extended services included in the MS solution	Average level of satisfaction survey responses in patient population	To retain long-term qualified employees committed to delivering high quality care	Transformation of health services
<b>Training level of staff</b>	The number of staff trained within an MS, impacting on the clinical knowledge of the employees	The number of staff trained within a period of time by the MS partner for each equipment device in a clinical department	To have, and retain, high-qualified clinical and technical personnel in the clinical departments/units of the hospital	Training and lifelong learning
<b>Continuous improvement / value add</b>	Value-adding activities within a MS contract (mainly improvement actions, improvement suggestions)	Number of improvement actions/Number of improvement suggestions or Number of improvement projects implemented/ Number of improvement actions raised	To perceive and materialise improvements that contribute to the hospital's competitive strategies and results	Integrated care and transformation of health services

## 5. OPERATIONAL PERFORMANCE:

These KPIs measure improvements in operational outcomes of the Hospital with the Managed Services, subsequently enhancing the **quality of healthcare** through the integrated service model and advanced management capabilities.

KPI	DEFINITION	MEASUREMENT METHOD	HOSPITAL OBJECTIVE	EU HEALTHCARE OBJECTIVES
<b>System uptime</b>	The total amount of time that the equipment systems included in the MS are available for use	Amount of downtime is measured, allowing the calculation of the uptime 1) amount of uptime overall 2) amount of uptime per device 3) amount of uptime per device type	To obtain high quality and affordable medical equipment systems	High quality care and integrated services
<b>Waiting time</b>	Accuracy of scheduling and exam durations	Number of patients x (patient exam starting time - patient scheduled time)/ number of patients	To provide more efficient healthcare services to patients and be more accurate and efficient during patient's examinations	High quality of care and access to care
<b>Error rate</b>	Refers to the result obtained from the number of negative events (complaints, double procedures, etc.) by the clinical department with the MS	Number of negative events/ total patients	To diminish deviations and avoid errors that affect the delivery of healthcare services	High quality care
<b>Standard operating procedures</b>	The users' conformity to the standard operational procedures set by the hospital	Total of operational procedures meeting with standards/Total operational procedures	To ensure efficient and reproducible quality workflows	High quality care
<b>Adherence to COCIR golden rules</b>	Adherence to the COCIR standard on equipment refurbishment processes, extending equipment's shelf-life without affecting safety, while reducing environmental impact and contributing to the circular economy	Number of equipment compliant with COCIR golden rules/ Total equipment installed	To ensure the technology level required	Sustainable and high quality care

# CONCLUSIONS AND RECOMMENDATIONS

This report from COCIR on “Managed Services - Innovative Business and Financial Models” further emphasises the political necessity to incentivise adoption and diffusion of new disruptive business/financial innovations, and describes a template of potential benefits more ‘disruptive’ financial constructions such as Managed Services, can offer.

In addition, and equally importantly, they can provide invaluable data insights into the effectiveness - and cost-effectiveness - of interventions. The KPIs identified in this report offer the potential to measure Managed Services performance, and hence to contribute improving the overall efficiency of European healthcare delivery. With an aging population likely to increase demand, this is a vital consideration.

Politicians and other decision-makers should recognise the potential of innovative financial instruments such as Managed Services in delivering the EU’s goal of sustainable healthcare. Incremental tinkering of traditional models will not deliver the required transformations to European healthcare systems, nor will it keep people healthy in an increasingly challenging economic environment.

COCIR believes that any financial innovations in healthcare funding that increase access to innovative technologies, promotes health professional education and addresses issues of equity, quality and cost effectiveness deserve political support.

Incentivising adoption and diffusion of these innovations requires political action. Promoting best practice in Managed Services and in public-private partnerships that incorporate Managed Services agreements sends a strong signal to regional and local healthcare providers.

COCIR’s proposed KPIs establish the framework to benchmark and evaluate progress in European hospitals. This will help improve health systems and policies at regional and country levels. In addition, the comprehensive and standardised approach will allow the EU to monitor and evaluate progress of its 2020 health strategy.

COCIR strongly recommends Managed Services as an innovative financial model allowing ongoing investment in technologies that substantively improve patient care and drive efficiencies. Managed Services demonstrably improve sustainability and accessibility of care. However, Europe will only fully benefit from these advances if all stakeholders cooperate.

COCIR makes the following recommendations to key stakeholders at both European and National/Local level.

## COCIR RECOMMENDATIONS

- 1. The European Commission should adapt the rules on use of European Structural and Investment Fund<sup>6</sup> to enable their use to fund ‘operational expense’ of novel financial/business models, such as Managed Services, that have the potential to provide and maintain high-quality sustainable healthcare services at national and regional levels.**

Healthcare and healthcare infrastructure improvements need more flexible rules on co-financing. The process of accessing funds should also be simplified.

- 2. Member States and regions should encourage hospitals and healthcare providers utilising the European Fund for Strategic Investments (EFSI) (‘Juncker Plan’)<sup>7</sup> to enable adoption and diffusion of Managed Services as part of the solutions that can assure access to quality healthcare services to their citizens.**

Managed Service models allow healthcare providers to meet their operational requirements with lower capital requirements while reducing their risks. Strategic partnerships with hospitals and technology providers are essential in designing sustainable operational models.

- 3. Hospitals should adopt the selected Key Performance Indicators (KPIs) as indicated in this report to monitor the performance of Managed Services.**

COCIR’s KPIs should be used as an initial outcome-based framework to continuous measure and evaluation on how a Managed Service model performs. This is essential to effectively manage finances and contribute to the achievement of the objectives of EU 2020 health strategy<sup>8</sup>.

- 4. Hospitals should capitalise on best practices provided in the Report Annex and adapt to regional and local needs where necessary.**

Practical examples of Managed Services delivering better value for money than traditional models are already available.

<sup>6</sup> European Structural and Investment Fund (ESIF), managed by national and regional authorities set under the national Operational Programmes set for 7 years. [http://ec.europa.eu/helth\\_structural\\_funds/policy/index.en.htm](http://ec.europa.eu/helth_structural_funds/policy/index.en.htm)

<sup>7</sup> European Fund for Strategic Investments (EFSI also called Investment Plan for Europe), New financial instrument managed by the European Investment Bank Group, and open to all entities of all sizes, including public and private entities, [http://ec.europa.eu/health/investment-plan/policy/index\\_en.htm](http://ec.europa.eu/health/investment-plan/policy/index_en.htm)

<sup>8</sup> Europe 2020 is the EU 10 year’s economic growth strategy. Promoting good health is an integral part of Europe 2020, supporting the objectives of smart and inclusive growth. Retrieved: [http://ec.europa.eu/health/europe\\_2020\\_en.htm](http://ec.europa.eu/health/europe_2020_en.htm). Health 2020 is the strategic policy framework for EU evidence-based health investments, strengthening public health and ensuring people-centered health systems that are universal, equitable, and sustainable and of high quality. Retrieved: <http://www.euro.who.int/en/health-topics/health-policy/health-2020-the-european-policy-for-health-and-well-being/about-health-2020>.



## **ANNEX 1**

# **MANAGED SERVICES EXAMPLES**

We have compiled in this Annex some examples of Managed Services to give an indication of the benefits of such financial model although KPIs indicators summarized in this report were not used as those best practices were collected prior to the elaboration of KPIs summarized in the present report.



## 1. BEACON HOSPITAL (DUBLIN, IRELAND)



### GENERAL OVERVIEW AND CUSTOMER AMBITION

**Beacon Hospital** is a privately owned, full-service hospital located in Dublin, Ireland. The Beacon's nine-storey, 22,100 m<sup>2</sup> facility includes 183 patient beds. The hospital was developed by the Beacon Medical Group (BMG), opening in 2006. Their ambition is to be the leading private hospital group in Ireland (via a mix of acquisition and profitable growth).

### CUSTOMER NEEDS AND KEY CHALLENGE

Develop "partnership" approach

- a. Radiology Business Manager: meet speed / simplicity and ongoing support requirement for a successful MES.
- b. Radiologists: promote "vendor independent choice".
- c. Hospital Management: deliver an affordable and flexible technology partnership to drive hospital financial, clinical and operational objectives in next two years.
- d. Main Shareholder: partnership board to grow healthcare platform in Ireland over next five to ten years whilst exploring "synergies" in global markets.

### SOLUTION AND BENEFITS

10-year Radiology Partnership/MES to cover

- a. Cutting edge technology for key assets (MR and CT).
- b. Current and future equipment needs.
- c. Partnership elements for Beacon Hospital, Beacon Medical Group and Main Shareholder.



## 2. NEW KAROLINSKA (SOLNA, SWEDEN)



### GENERAL OVERVIEW AND CUSTOMER AMBITION

Programme goals are twofold:

- (1) Transform healthcare through innovation.
- (2) Sustain worldwide clinical reputation while having predictable expenditure.

### CUSTOMER NEEDS AND KEY CHALLENGE

Transform healthcare through innovation and secure, cost-effective care.

### SOLUTION AND BENEFITS

#### **Solution:**

- > Research and innovation collaboration.
- > Procurement, installation, maintenance, upgrading and replacement of medical imaging equipment, including those of other vendors.
- > Education services.

#### **Benefits:**

- > Innovative care delivery, integrating patient care, clinical research and education.
- > Optimal delivery of care, through access to state-of-the-art imaging solutions and services at predictable costs.

### 3. QUEEN ELIZABETH NHS TRUST (LONDON, UK)



#### GENERAL OVERVIEW AND CUSTOMER AMBITION

Queen Elizabeth Hospital is a modern general hospital near Greenwich. It is part of an NHS Trust providing acute care to a population of over 1.3 million people across South London.

Rationale behind the decision to enter into a Managed Services solution

- a. Ensure value for money through complete transfer of ownership of legacy medical equipment and outsourcing of the procurement, replacement and maintenance of the legacy and future medical equipment, including associated technical services, over a 15-year period.
- b. Guaranteed availability and uptime of “state of need” technology.
- c. Fixed monthly monetary fee [OPEX rather than CAPEX].
- d. VAT reclaimable.

#### CUSTOMER NEEDS AND KEY CHALLENGE

Rethink the way services are provided to the public and being prepared for the (capital) impacts of changes in the environment.

#### SOLUTION AND BENEFITS

The Queen Elizabeth Hospital Trust signed a 15-year Managed Services partnership covering procurement, financing, replacement and maintenance, including service level agreements and implementation of an ISO quality system.

##### Core benefits:

- > ‘No surprise’ financial planning.
- > One-stop shop for all equipment related matters.
- > Timely equipment modernisation and maintenance.
- > Flexibility to adjust equipment placement and-technology to changing requirements.
- > Increased uptime of technology and medical services.
- > Optimally trained staff.
- > Clinical freedom of choice of equipment brand.

## 4. SANTA LUCIA CARTAGENA AND LOS ARCOS DEL MAR MENOR (MURCIA, SPAIN)



### GENERAL OVERVIEW AND CUSTOMER AMBITION

Santa Lucía Cartagena and Los Arcos del Mar Menor are both University Hospitals located in the region of Murcia, Spain. They serve a population of almost 400,000 people. Their core specialties include oncology, endocrinology and cardiology as well as respiratory and gastrointestinal systems.

### CUSTOMER NEEDS AND KEY CHALLENGE

The Murcia Ministry of Health faced increasing healthcare demands in the coastal areas of Cartagena and Mar Menor due to a growing population. They decided to invest in two new hospitals with almost 1,000 beds, equipping them with state-of-the-art medical equipment. The challenge was to meet with the following three core objectives:

- > Financial certainty and technology innovation guarantees over 15 years.
- > High-quality care with best possible cost-benefit ratios.
- > Improved operational efficiency for increasing regional healthcare demands.

### SOLUTION AND BENEFITS

The Murcia region Ministry of Health decided to implement a Managed Service partnership contract. This gave it innovative and competitive solutions with financial security over the long term. The Managed Service includes procurement, installation, maintenance, upgrades, replacements, training and on-site management expertise for a total of 20,000 medical devices. These include mammography, ultrasound, computed tomography, laboratory and ICT.

#### **The main benefits achieved were:**

- > Improved administrative costs.
- > Reduced equipment response times.
- > Projected savings due to risk management capabilities.
- > Improved patient waiting times and rescheduling rates.

## ANNEX 2

# REFERENCES

### 1. EUROPEAN COMMISSION



Source: European Commission<sup>9</sup>

On 3 June 2015, the Commission organised a conference “Innovative Financing: opportunities for Active and Healthy Ageing” in Brussels.

The conference aimed to provide answers on how we can practically leverage public and private financial instruments and maximize synergies in the area of active and healthy ageing.

#### CONCLUSION AND CLOSING REMARKS

1. Innovation in the health sector is increasingly becoming a driver of integration of services, care, financing, and projects.
2. It has become clear that funding for healthcare is supported by a full arsenal of financing instruments, including PPP<sup>10</sup>, PPI, and alliance contracting, to name a few. The European institutions and the community of stakeholders need to come to terms with how to manage this sophisticated and complex array of options.
3. Investors are increasingly shifting from single-project and infrastructure solutions to more complex and integrated solutions based on services.
4. All partners in healthcare need to work together to develop strategic approaches and find synergies across sectors and funding possibilities. The European Commission's role is to help guide these efforts in the context of a broader investment plan.
5. Successful implementation of these projects is the role of the cities and regions that are at the forefront of delivering proposed solutions.

<sup>9</sup>. Conference “Innovative Financing Opportunities for Active & Healthy Ageing” [http://ec.europa.eu/health/ageing/events/ev\\_20150603\\_en.htm](http://ec.europa.eu/health/ageing/events/ev_20150603_en.htm)

<sup>10</sup>. As COCIR points out in this report, PPP can include Managed Services

## 2. COCIR REFERENCES

### 2.1. PAST PUBLICATIONS

#### 2.1.1. COCIR Report: Fostering Financial Sustainability of Healthcare Systems in Europe

In March 2013, COCIR published its report 'Fostering Financial Sustainability of Healthcare Systems in Europe'. This outlined the current challenges facing European healthcare systems and demonstrated how innovative health technologies could deliver high-quality, efficient services and how new financing and business models could optimise healthcare investment.

The report is available online<sup>11</sup>.

### 2.2. COCIR RESPONSES TO PUBLIC CONSULTATIONS

#### 2.2.1. COCIR's response to the report of the Expert Panel on Effective Ways of Investing in Health on PPPs in Health Care in Europe

Launched in February 2015, The Expert Panel Report mainly focused on comparing traditional investment and the financial impact of different procurement methods.

In the COCIR response to the public consultation sent on 13 February 2015, we brought some elements of contents that were not addressed in this report.

Firstly, we showed the evolution of the PPP model in healthcare since its inception and up to its most recent applications. Furthermore, we invited the European Commission to look at the intelligence COCIR developed on novel financial models. In particular, we proposed they consider a Managed Services (MS) as a procurement method. This should be seen as a full operational programme and consequently be compared to the full operational cost (including financing, maintenance and operation) of a healthcare institute.

#### 2.2.2. COCIR's response to the report of the Expert Panel on Effective Ways of Investing in Health on Disruptive Innovation

On 16 December 2015, COCIR sent its response to the preliminary opinion of the Expert Panel on Effective Ways of Investing in Health regarding "Disruptive Innovation" – considerations for health and health care in Europe.

In its contribution, COCIR suggested revisiting the definition of disruptive innovation, recognising that new business/financial models can also be examples of 'disruptive innovation. COCIR suggested referring to business/financial models as only playing a 'supportive role' in relation to disruptive innovation was limiting and detracts from the significant disruptive impact of such models.

The COCIR contribution is available online<sup>12</sup>.

11. COCIR Report: Fostering Financial Sustainability of Healthcare Systems in Europe [http://www.cocir.org/index.php?id=63&tx\\_ttnews%5bt\\_news%5d=587](http://www.cocir.org/index.php?id=63&tx_ttnews%5bt_news%5d=587)

12. COCIR's response to the report of the Expert Panel on Effective Ways of Investing in Health on Disruptive Innovation [http://www.cocir.org/index.php?id=111&tx\\_ttnews%5bt\\_news%5d=1103&cHash=919bc804ed803f3873418bf728634b76](http://www.cocir.org/index.php?id=111&tx_ttnews%5bt_news%5d=1103&cHash=919bc804ed803f3873418bf728634b76)



## GENERAL INFORMATION ABOUT COCIR

COCIR is the European Trade Association representing the medical imaging, radiotherapy, health ICT and electromedical industries.

Founded in 1959, COCIR is a non-profit association headquartered in Brussels (Belgium) with a China Desk based in Beijing since 2007. COCIR is unique as it brings together the healthcare, IT and telecommunications industries.

Our focus is to open markets for COCIR members in Europe and beyond. We provide a range of services in the areas of regulatory, technical, market intelligence, environmental, standardisation, international and legal affairs.

COCIR is also a founding member of DITTA, the Global Diagnostic Imaging, Healthcare IT and Radiation Therapy Trade Association ([www.globalditta.org](http://www.globalditta.org)).

## COCIR COMPANY MEMBERS:



## NATIONAL TRADE ASSOCIATIONS MEMBERS:



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