

A Quick Guide for Getting Started to Purchase the Clinical Information System

The purpose of this booklet is to help to understand the basics of collecting and preparing the analysis needed to obtain the Clinical Information System (the CIS).

Deio, and our partners, have built up expertise in selling and implementing the CIS in approximately 300 customer projects over a period of 8 years. The majority of these customers were purchasing a CIS system for the first time.

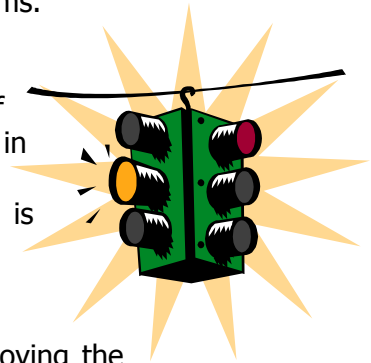
We would like to share the experience we have gained over the years and make it easier for you to get started. We have built a unique concept to facilitate preparation of a business case for your hospital. Let us help you!



1. Why is a Business Case needed?

The Clinical Information System is a tool for clinicians to help them provide better care. The CIS helps healthcare organizations to improve the quality of care by allowing staff to focus on the patient. It diminishes the documentation burden by minimizing redundancies and by the help of automatic data capture. It lessens the time spent looking for information. It allows standard data-entry and provides management information. Altogether, it rationalizes the capture and use of information in the unit. These benefits can be quantified and expressed in monetary terms.

Obtaining the CIS demands both financial resources and staff commitment - without properly analyzing the costs involved in investing in CIS, it cannot be approved. Finite resources in healthcare mean that cost-effective use of resources is mandatory.



Clinicians and administrators can find common ground in improving the quality of care while showing consideration for financial realities. It can be achieved with the help of a business case. This describes the objectives of the project, evaluates the project costs and savings, clarifies the options, defines the risks and defines the resources both financial and personnel required for the project and for maintenance.

Preparation of a business case always requires the team effort of clinical and administrative staff. You probably already have experienced, or know somebody who has gone through, a bigger investment project in your hospital: this might apply to medical devices or an information system. These people are probably willing to advise you on what needs to be taken into account, how to prepare, present and get approval for an investment.

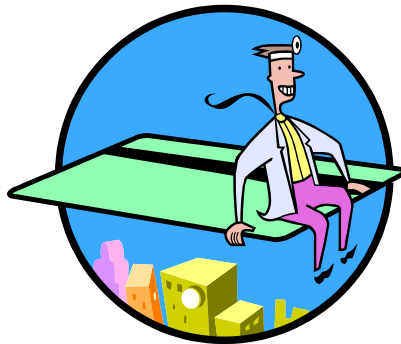
The steps needed to build a business case are quite general in nature, even in different countries. Typically, the following pattern exists:

- Define the problem.
- Define possible solutions to that problem.
- Quantify these different solutions in economic terms and try to take all the positive and negative implications into account. Remember both short and long term implications.
- Identify the personnel (internal and external) who should be involved, how should Change Management be handled and describe the plan.

We can help you by:

- Providing business and clinical justifications regarding the benefits the CIS brings to the hospital and the different user groups.
- Providing cost and benefit analysis (based on information from your hospital) that is needed for the economic case. We can provide cost - benefit calculations for the CIS and we can help you to identify the non-quantifiable benefits for your hospital.
- Providing you with a preliminary Project Plan, recommending what staff members should be involved in the project and the maintenance of the project.
- Preparing material that can easily be applied to different purposes.

Spend a couple of minutes with introduction to a business case!



2. Analysing the Feasibility of the Clinical Information System Investment – Preparing the Economic analysis

When preparing an investment plan the total cost of the project, including the costs occurring during the lifespan of the system, needs to be analysed. Whole life costs of the investment are: the total cost of the project over the life of the contract. This includes: capital costs, running costs, IM&T staff costs, project management costs and training costs. The lifespan of the Clinical Information System is 7-10 years.

The following describe different cost and benefit categories, which can be applied to the CIS.¹

COSTS

- Capital cost

The direct investment costs are the purchase of software, required hardware, alterations in the current hospital Information Technology infrastructure, such as the network and integration with the current information systems. These costs can be evaluated by requesting a budgetary quotation from one or several CIS vendors.

- Organizational development cost

The implementation and use of the CIS requires commitment from the entire care team. The project phase requires the involvement of different members of staff, which ensures that the system is easy to use and complies with the unit's practices and information needs. The IT-department's involvement is essential in order to ensure the effective evaluation of the systems, smooth and professional IT implementation, long term support and management of integration with the other hospital systems.

With the help of CIS vendors you can typically anticipate the resource needs in different stages of the system's life cycle. Knowing which members of the staff need to be involved and for how long enables this cost to be calculated.

Over the years CIS systems need to change. The software needs to be upgraded and reconfigured in order to comply with the latest clinical and IT needs. The clinical and administrative requirements will most probably change and this leads to adjustments of the CIS. In most cases, this entails a reconfiguration of the system. Typically, hospital staff carries out system reconfigurations or, alternatively, the CIS vendor can be contracted to carry out this task.

The hospital has to define how staff will receive adequate training on the system. The training can be classified into two different categories: when the system is introduced and ongoing training for new functionalities and practices. Training is also required for new members of staff. The unit must identify the resources needed for training and decide if its own staff can handle the training sessions or if external resources are required.

The CIS vendors can provide a quotation for an annual program to cover both these needs or they can estimate how much work and effort is usually required from the members of the Care Team.

¹ The categories are based on the advice of Department of Health, UK, June 2002 guideline "IM&T business case guidance – the five-case model"

- Revenue costs

Daily system maintenance is normally the duty of a system Super User. When buying the CIS the hospital has to recognize what kind of Technical Support is needed in order to have the system running safely. Depending on the resources available, the hospital can decide to buy additional necessary maintenance services from the vendor. The CIS vendor can provide you with information about how much resource needs to be allocated, i.e. the time that the Super User normally needs for daily system routines. The vendor can also provide helpdesk costs. The vendor can describe the support that the helpdesk provides and what is the responsibility of the customer.

- Lifecycle costs

Investment in system and software maintenance is normally required, when the CIS system lifecycle is calculated to be 7-10 years. Financing these investments must be clear and they have to be taken into account even when planning the initial investment. These lifecycle costs include costs such as software and hardware upgrades and operation system upgrades. In general the cost of investment in the CIS should remain quite steady in normal use.

Hardware renewal is not usually required if the lifespan is calculated at 7 years. You can ask for a quotation for software and hardware maintenance from the CIS vendors. Usually, they provide an annual maintenance program.

BENEFITS

+ Cash Releasing Benefits

These benefits reduce the costs of an organisation in such a way that the resources can be re-allocated anywhere in the organisation. Typically, this means that an entire resource is no longer needed for the task for which it was previously used. This can be staff or materials. The CIS makes some forms currently used in the unit (i.e. printed flow sheets) obsolete. The CIS might help the unit to avoid hiring additional resource to capture obligatory datasets, for example.

+ Financial but Non-cash releasing benefits

Non-cash releasing benefits involve reducing the time a particular resource takes to do a particular task, but not sufficiently to re-allocate the resource to a totally different area of work. Normally, this will involve freeing up staff time. The CIS, typically, provides Non-cash releasing benefits by freeing nurses and doctors to care.

+ Quantifiable benefits

These benefits can be quantified, but not put into cash terms. For example, the CIS may reduce the number of cancellations of operations. In some cases it may reduce the hiring of additional nursing resources from agencies. It may provide the ability to discharge patients faster because of constant access to new laboratory results.



+ Non-quantifiable benefits

Some benefits may be of value to the organisation, but cannot be quantified. For example, it may be thought that an investment in the CIS will lead to higher staff morale.

3. Identify and name the resources needed - Prepare for Change

As the scope of the business case is to cover the whole life cycle of the system, from the beginning to the end of the system, you have to identify the people whose involvement is needed at different stages of the system life cycle.

The implementation and use of the CIS requires commitment from entire care team. The project phase requires involvement of different staff members, which ensures that the system is easy to use and complies with unit's practises and information needs. IT-department's involvement is essential in order to ensure the good evaluation of the systems, smooth and professional IT implementation, long term support and management of integration with other hospital systems.

The CIS vendors can typically provide you with information on which resources are needed in implementation, daily running of the system, maintenance and ensuring the continuity of the system. They have project plan templates, which helps units to prepare for the transition period, when and which resources are bound in defining the

units practises to the system, how the training of the users can be organized without disturbing the daily routines in the clinic.

4. Get started easily!

The CIS vendors should have information about what kinds of benefits their systems and organizations can provide for their customers.

At Deio we have developed an assessment process, which helps to identify the tangible benefits of the CIS to your organization. We can help you to understand and calculate the costs of the system and the required resources. The different costs and benefits are readily classified.

The process follows this path:



Step 1. Contact us through www.deio.net or one of our sales offices

Fill in the request form on www.deio.net. Your request will be forwarded to your country's Deio distributor. This service is available in Australia, Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Singapore, Sweden, Switzerland and United Kingdom. Unfortunately we are not able to handle requests outside these territories.

Step 2. Review ICU activity

Your local distributor will contact you in order to obtain an overview of your current practice by visiting you or sending you a questionnaire. After this stage the benefits

that the CIS could bring to your unit can be analyzed and your purchase, implementation and maintenance costs of the system can be anticipated.

Step 3. Receive Support Material for the business case

We help you by providing ready information needed for economic analysis, Change Management, business and clinical justifications, cost and benefit calculations and the Implementation Plan.

You will receive all the material conveniently in your own language, printed on paper and on Microsoft® Word and PowerPoint files. Our objective is to facilitate your own presentation and document production.

Step 4. Prepare and localize your own material

The presentation and purchase process vary from one country to another, sometimes even within countries. You need to prepare material and documents required by your hospital. The material received from us or our partners should help you to produce yours.



**We can help you to reach your goals –
obtain the CIS for your unit!**

Start by contacting us now!