

T-DOC ROI PRESENTATION

**Documented return on
implementation of traceability
system**

September 2007

OBJECTIVE OF PRESENTATION

- A traceability system is not simply a costly tool
- Rather an investment in the upgrade of your CSSD
- Qualifying it to meet the ever expanding demands of increased productivity and quality – while saving you money!

BACKGROUND

- Most people working in the CSSD can see the value of having a traceability system
- Often times more difficult to persuade management to carry the cost
- T-DOC developed over the course of the last 10 years with more than 400 installations in more than 30 countries across 5 continents
- This experience has made the advantages of a traceability system very clear
- A Return on Investment (ROI) Calculation translates these advantages into sound, financial arguments

BACKGROUND, CONTINUED

- Listing the cost of the T-DOC investment vs. the benefits and savings obtained through the system, a measure of the ROI can be achieved
- The results of the ROI, when customized to a specific customer, are not a guarantee
- Rather an indication of the implicit *and* explicit savings a hospital can expect as a result of implementing T-DOC



CASE STUDY

- T-DOC installed at Valle del Lili in Cali, Colombia in January 2007
- Prior to the installation certain parameters were measured
- 4 months after installation the same parameters were measured again to monitor the effect
- Other parameters can be measured, but require a longer lapse of time

SAVINGS INDICATORS - DEFINITION

- A Savings Indicator describes the improvement of a specific process through the use of T-DOC and how this improvement instigates savings for the hospital
- The level of improvement to be expected from the Savings Indicators will vary from hospital to hospital and be dependent on the methods of work, size and familiarity with T-DOC

DEFINITION OF ICONS

-  Signifies in which way the work processes are improved
-  Signifies the savings obtainable through an improvement of processes

SAVINGS INDICATOR A

PACKING TIME

THE AVERAGE TIME SPENT ON PACKING A TRAY/SINGLE PACKED INSTRUMENTS WILL BE REDUCED WITH T-DOC



T-DOC will provide improved tools for tray assembly thus decreasing the amount of time spent on packing trays/single packed instruments while heightening the quality level



The improved labor efficiencies spurred by the use of T-DOC will directly instigate cost savings due to the liberation of technician time, which then can be activated for other areas of the production

PACKING TIME VALLE DEL LILI PERSPECTIVE

25 to 17 minutes = 8 minutes

x

Technician cost per minute = \$0,03

x

Number of trays per year = 233.480


Total saving per year \$56.035


32% IMPROVEMENT

SAVINGS INDICATOR B

STERILIZER DOCUMENTATION

THE AVERAGE TIME USED FOR STERILIZER DOCUMENTATION WILL DECREASE WITH THE USE OF T-DOC

 T-DOC will automate the data logging process by electronically storing process documentation, as well as through batch registration where registration of entire loads is done through a few swift barcode scans

 The improved labor efficiencies spurred by the use of T-DOC will directly instigate cost savings due to the liberation of technician time, which then can be activated for other areas of the production

STERILIZER DOCUMENTATION VALLE DEL LILI PERSPECTIVE

15 to 2 minutes = 13 minutes

x

Technician cost per minute = \$0,03

x

Loads sterilized per year = 10.051

Total saving per year \$3.894

87% IMPROVEMENT

SAVINGS INDICATOR C

MANAGEMENT REPORTING

THE AVERAGE TIME SPENT ON MANAGEMENT REPORTING WILL DECREASE WITH THE USE OF T-DOC



Instead of having to manually compile management reports, T-DOC will automatically generate reports on any information stored in the database



The improved management reporting options with T-DOC will directly instigate cost savings due to the liberation of management time and indirectly serve as a valuable tool for improving future production processes

MANAGEMENT REPORTING VALLE DEL LILI PERSPECTIVE

480 to 10 minutes = 470 minutes

x

Manager cost per minute = \$0,1

x

Management reports compiled per year = 39

98% IMPROVEMENT

Total saving per year \$1.706

SAVINGS INDICATOR D

TIME RELATED EXPIRATION (I)

SAVINGS ON TIME RELATED EXPIRATIONS IN TERMS OF LABOR WITH THE USE OF T-DOC



Instead of having to manually check every single sterile good for expiration date, with T-DOC it is possible to centrally monitor expirations and be warned of instruments about to expire



Not having to dedicate resources for days a month to check expirations will directly instigate cost savings due to the liberation of technician time, which then can be activated for other areas of the production

TIME RELATED EXPIRATION (I) VALLE DEL LILI PERSPECTIVE

60 to 0 minutes = 60 minutes

x

Technician cost per minute = \$0,03

x

Number of expiry checks per year = 360

Total saving per year \$644

100% IMPROVEMENT

SAVINGS INDICATOR E

TIME RELATED EXPIRATION (II)

SAVINGS ON TIME RELATED EXPIRATION IN TERMS OF REPROCESSING WITH THE USE OF T-DOC.



By having a quick and effective system to warn of time related expirations, fewer trays/single packed instruments will have to be reprocessed without use



Diminishing the amount of times instruments require reprocessing, instigate direct cost savings related to the decreased processing and indirect - due to the decreased wear of instruments as a result of over-processing

TIME RELATED EXPIRATION (II) VALLE DEL LILI PERSPECTIVE

Number of trays processed annually = 233,480

x

Average cost of processing a tray = \$4

x


100% IMPROVEMENT


Trays reprocessed per year due to expiry = 3%

Total saving per year \$26,262

SAVINGS INDICATOR F DISPATCH

THE AVERAGE TIME SPENT ON DISPATCHING TRAYS/SINGLE PACKED INSTRUMENTS WILL BE REDUCED WITH T-DOC

 Dispatching goods to customers only requires a few scans with T-DOC thus decreasing the amount of time spent on dispatching while ensuring the instruments are registered as delivered to the correct customer

 The improved labor efficiencies spurred by the use of T-DOC will directly instigate cost savings due to the liberation of technician time, which then can be activated for other areas of the production

DISPATCHING

VALLE DEL LILI PERSPECTIVE

25 to 12 minutes = 13 minutes

x

Average number of trays dispatched at the time = 5

x

Technician cost per minute = \$0,03

x

Number of trays per year = 233.480

52% IMPROVEMENT

Total saving per year \$18.093



OTHER INDICATORS NOT MEASURED

SAVINGS INDICATOR (G)

NUMBER OF TRAYS

THE AVERAGE NUMBER OF INSTRUMENTS PER OPERATION WILL BE REDUCED WITH T-DOC



T-DOC will provide improved tools for tray assembly, as well as an improved overview of the location of various instruments. Consequently the amount of misassembled trays is decreased, subsequently lowering the average need of instruments per operation



Diminishing the amount of trays/single packed instruments required per operation, instigates direct cost savings related to the decreased processing and indirect - due to the decreased wear of instruments as a result of over-processing

SAVINGS INDICATOR (H)

CANCELLATION OF OPERATIONS

THE NUMBER OF OPERATIONS CANCELLED DUE TO MISSING OR DEFECT INSTRUMENTS WILL DECREASE WITH THE USE OF T-DOC



Usage of T-DOC will result in an improved process and quality control of tray assembly/processing as well as provide an improved overview of the location of various instruments, thus ensuring that instruments can be supplied sterilized and fully functional in due time for an operation



If critical instruments are missing or not supplied fully functional in due time, operations may in extreme cases be cancelled, thus eliminating the revenue for the operation for the hospital. With T-DOC, however, this risk is diminished

SAVINGS INDICATOR (I)

DELAY OF OPERATIONS

THE NUMBER OF OPERATIONS DELAYED DUE TO MISSING OR DEFECT INSTRUMENTS WILL DECREASE WITH THE USE OF T-DOC



T-DOC will provide improved tools for tray assembly, as well as an improved overview of the location of various instruments. Consequently the amount of misassembled trays is decreased, thus ensuring that critical instruments can be located in due time and in correct shape for an operation hereby optimizing hospital operation planning




Every minute an operation is delayed capitalizes lost revenue for the hospital, as this means that the operation planning is not optimized. Consequently every minute T-DOC saves by providing the correct trays and instruments to the OR in time in effect means gained revenue



RETURN ON INVESTMENT

SAVINGS OVERVIEW



CONTINGENCIES

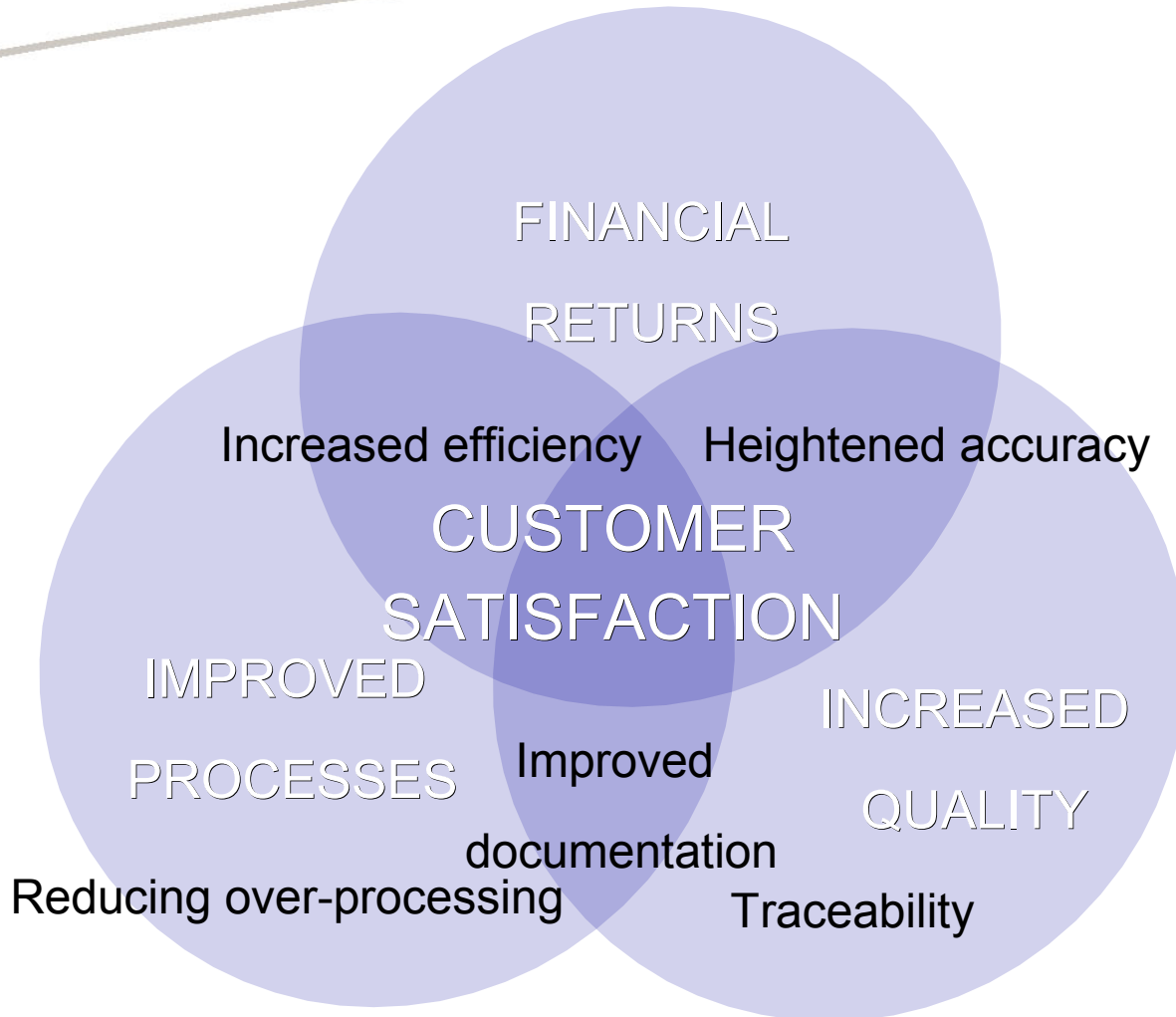
- Never perfect return
 - Investment
 - Installation time
 - Learning curve
 - New employees
 - Manual mistakes

RETURN ON INVESTMENT

- Pay-back and Timing
 - 50% first year
 - 70% 2nd and 3rd year
 - 90% 4th year
 - Never 100%
 - **Pay-back time for Valle del Lili = 2,4 years**

CONCLUSION

This presentation has been focused on emphasizing the financial returns of an investment in T-DOC, however the financial savings are merely side effects of what should be the primary goal - the streamlining of your work processes and thus ultimately, improving the relationship with your customers!



Thank You For Your Time

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