

A Case Study

KleanNara Achieves 40% Scrap Reduction

Diaper Manufacturer Saves US\$310,000 per Line Annually
with LUCIDi4 Real Time, Smart Data

Objectives

KleanNara manufactures baby pull-up pants, diapers and feminine hygiene products but their pursuit of cost savings was being hampered by a manual data collection process used across old and new production lines from a variety of suppliers.

The team sought a real time solution to identify the root causes of scrap and machine stoppages so issues could be addressed as they occur.

The KleanNara team was interested in the LUCIDi4 solution as it offered fast and accurate real time data immediately to operators on the line via mobile devices and monitors on the production line floor. This enabled the team to make the best decisions quickly while the clear and accurate data helped the leadership team establish operational change priorities for cost improvements.

"Immediate access to data on our smart phones and tablets has been essential to achieving 40% scrap reduction."

- Jung Hwa Lee
Process Engineer, KleanNara



A Synopsis

The Company

KleanNara Co Ltd

The Product

Diapers, Pullups,
Feminine Care

The Challenge

Manual data collection
hampering cost improvements

The Result

40% Scrap Reduction
Savings of US\$310,000
per Line per Year

How it was Achieved

Real time data available to
frontline staff allows them to
make quick decisions on the
operation and maintenance
of the production lines

Process

KleanNara chose LUCIDi4 to achieve their manufacturing cost improvement objectives as it unlocks, in real time, data from the PLC regarding the line operation, the causes of scrap and line stoppages. They did a phased implementation on two product lines and, after achieving established milestones, the system was rolled out to all lines.

The simple and fast installation process does not disrupt machinery. The LUCIDi4 solution is connected to the PLC which sends real time data from the line directly to the line operators who monitor production activity via mobile devices and monitors located on the production floor. In the past the maintenance team could only make adjustments to the line based on the observations of

the operators and misunderstandings occurred. Because LUCIDi4 data pinpoints the real of causes of scrap, issues can be fixed quickly so they don't occur again.

Line operators say immediate access to this data is essential and according to Jung Hwa Lee, Process Engineer for KleanNara, "the data clarity of LUCIDi4 has helped increase trust between the operator team and maintenance."

With LUCIDi4 the KleanNara team have accurate data on which to base production and team performance, and establish repair and upgrade priorities. They are able to fix priority issues so they never occur again.

Results

KleanNara has reduced their scrap by 40% in just 9 months and continues to see improvement. They have achieved an average annual saving of US\$310,000 per line. The payback on the system was reached in just 2.5 months and the return on investment is 525%.

"The LUCIDi4 system is the link between people and the machine. We get immediate, accurate data and need no time for analysis," says Wan Jung Kim, Team Manager for KleanNara.

"When considering smart solutions we did not find any other company that could provide this level of real time detail. With LUCIDi4 we do not need any other solution to help us achieve cost improvements and the solution was simple to install and quick to implement. I recommend LUCIDi4 to other manufacturers," said Wan Jung Kim.

**"The data cannot
be argued with
and it gives us
clear direction for
priority setting
and planning."**

**- B. M. Choi
Chairman, KleanNara**



Kleannara 

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Potential**

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