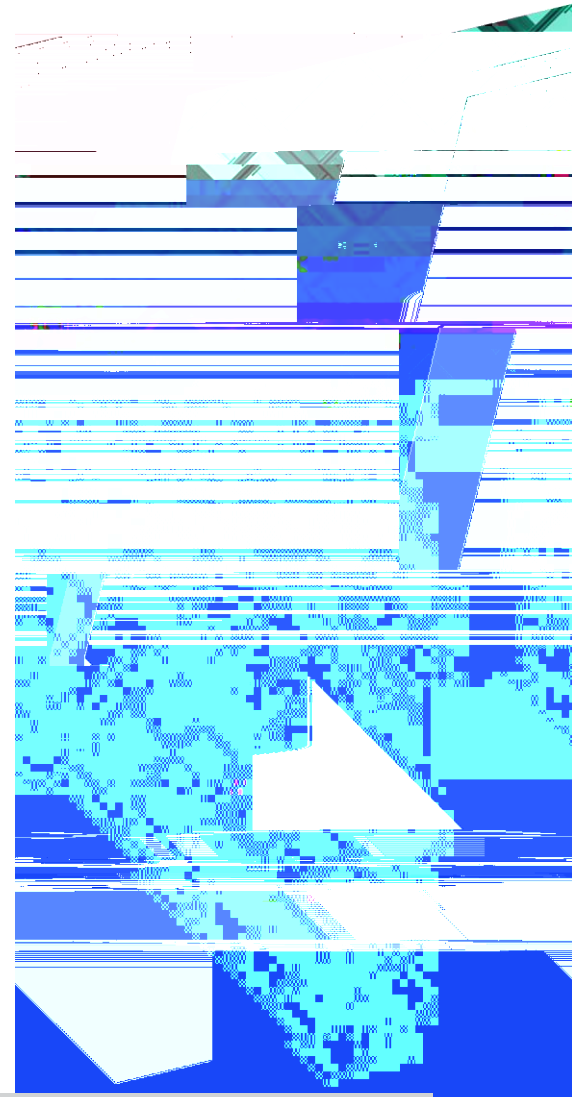


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Consulting Team: *Maria Kulikova*
Sarah Lervold


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ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester’s seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

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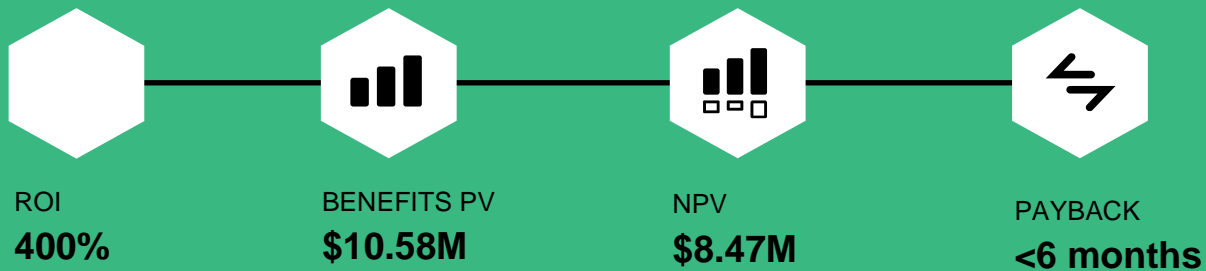


Organizations are increasingly looking for a modern cloud-based solution that can connect all aspects of running a manufacturing plant — including business operations and production — on one platform. The Plex Smart Manufacturing Platform by Rockwell Automation helps organizations address these market needs by providing visibility into production processes and allowing for data-driven, automated production.

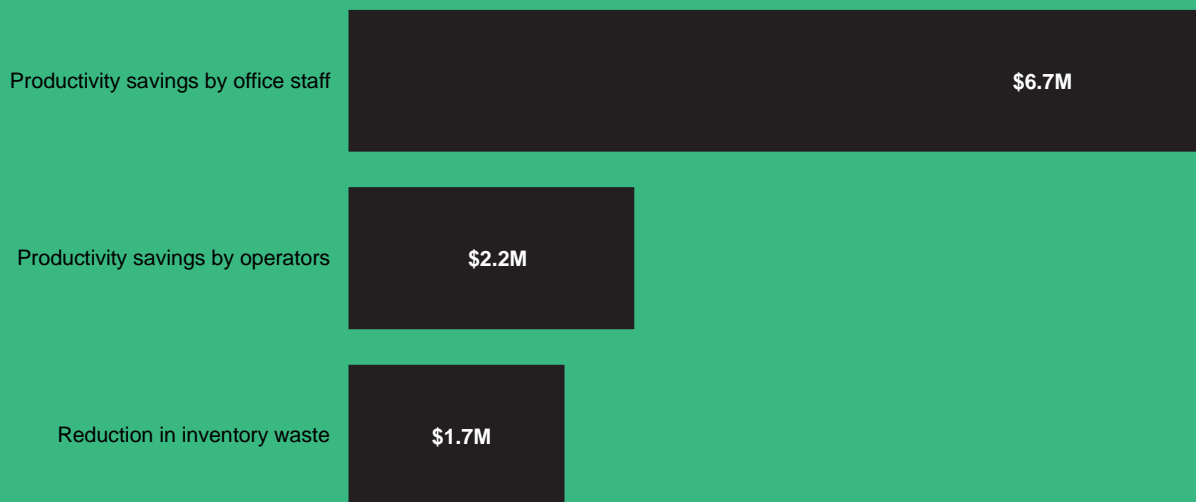
The [Plex Smart Manufacturing Platform](#) by Rockwell Automation can help digitally transform the operation and management of a manufacturing business in a cloud-based environment and provide the necessary support to automate production and increase product quality.

The platform includes applications for manufacturing execution systems (MES), enterprise resource planning (ERP) systems, quality management systems

The interviews and financial analysis found that the representatives' organization experiences benefits of \$10.58 million over three years versus costs of \$2.11 million, adding up to a net present value (NPV) of \$8.47 million and an ROI of 400%.



Benefits (Three-Year)



“We knew we needed to have a solution like Plex to continue to grow the automotive products that we wanted to grow.”

— VP of IT services, automotive supplies manufacturing

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in the Plex Smart Manufacturing Platform.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that the Plex Smart Manufacturing Platform can have on an organization.

DISCLOSURES

Readers should be aware of the following:

Interviewed Plex stakeholders and Forrester analysts to gather data relative to the Plex Smart Manufacturing Platform.

Interviewed two representatives of an organization using Plex to obtain data with respect to costs, benefits, and risks.



Constructed a financial model representative of the interview using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

INTERVIEWEES' ORGANIZATION

Forrester interviewed two representatives of an organization that has experience using the Plex Smart Manufacturing Platform. Their organization has the following characteristics: (c)-4(h)p1 621.21 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 188.78 606.22 Tm0.2 g0.2 G



PRODUCTIVITY SAVINGS BY OPERATORS

Evidence and data. The interviewees talked about time savings by operators due to automation of the production tracking and labeling task. They said that with Plex, floor operators don't have to interrupt their workflows to record production and print out labels.

The VP of IT services mentioned “[Performing the task of production tracking and labeling is] one less thing for operators to do.”

The interviewee estimated that with Plex,

REDUCTION IN INVENTORY WASTE

Evidence and data. The interviewees discussed a reduction in inventory waste due to eliminating a manual configuration step required for ovens on the plant floor. By avoiding human errors during this step, the organization reduced inventory waste caused by wrong configuration.

The VP of IT services stated: “We had historically seen human errors — maybe once a quarter — that resulted in a large scrap requirement because of the product and because of the error made by that operator.”

The same interviewee also noted: “We implemented Plex [MES] A&O to eliminate the human error of setting up the wrong parameters. So ‘the recipe’ or the configuration of the oven is now automated so we know that it is being is

UNQUANTIFIED BENEFITS

The interviewees mentioned the following additional benefits that their organization experienced but was not able to quantify:

Fast implementation

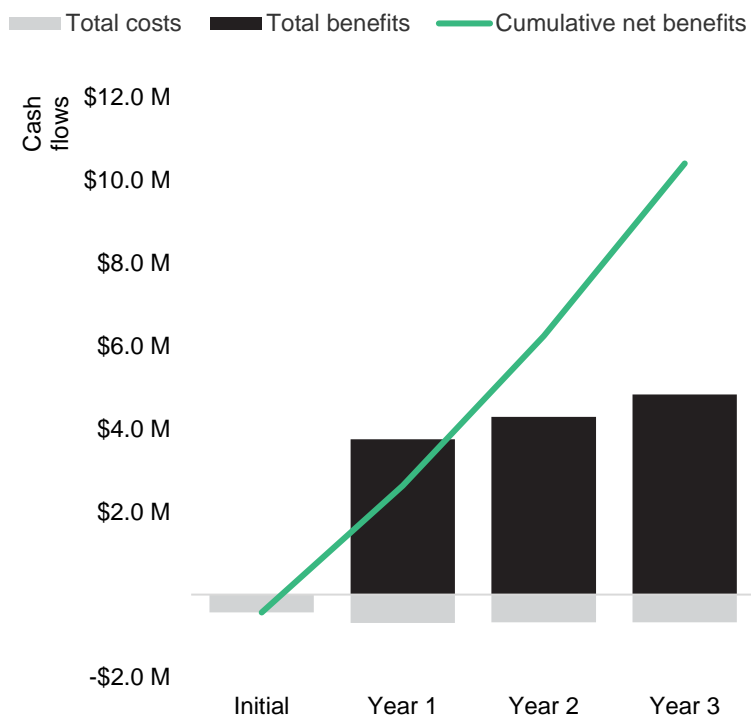
FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Plex and later realize additional uses and business opportunities, including expanding the use of the MES A&O module throughout all facilities and expanding the use of Plex modules that are not currently being utilized. The manager of IT services said: “Maybe it doesn't make sense to automate every work center. But I know that [at] one of our facilities, they believe they can automate every work center so the human doesn't have to enter the production at all. They would like to do that.”

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in [Appendix A](#)).

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the organization's

These risk-adjusted ROI, NPV, and payback period values are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

Related Forrester Research

["The Digital Operations Platform: Your Bold, Next-Gen Approach To ERP,"](#) Forrester Research, Inc., December 3,

