NUCLEUS RESEARCH

ROI: 784%
Payback: 1.2 Months

QAD
NOBLE BIOMATERIALS

ANALYST
Isaac Gould, Alexander H. Wurm

THE BOTTOM LINE

Noble Biomaterials built a personalized sales forecasting solution using QAD's low/no-code application development tools. The forecasting solution sits within the QAD Enterprise Platform, using the same data lake and user interface as Noble's QAD Adaptive ERP system. This streamlined and automated the data flow between the new forecasting application and the ERP system, eliminating integration issues associated with Noble's legacy solution. By consolidating its multiple solutions under a single platform, Noble retired its legacy software costs, improved its sales forecasting team's productivity by 35 percent, and improved its organizational visibility with more accurate and timely forecasts. Additionally, Nucleus found that QAD's low/no-code tools led to a rapid development cycle and high levels of customization, enabling Noble Biomaterials to extend the functionality of its QAD Adaptive ERP at relatively low costs.

THE ORGANIZATION

Founded in 1997, Noble Biomaterials is a medical device manufacturer recognized by the U.S. FDA and EPA. The company creates anti-microbial and anti-static silver fiber products across the fashion, healthcare, electronics, defense, and aerospace industries. As a global supplier of medical products, Noble Biomaterials employs over 150 personnel across North America, South America, Europe, and Asia.

THE CHALLENGE

Noble Biomaterials has been a longtime customer of QAD, leveraging various editions of its ERP solution, from on-premises deployments to its current cloud-native version, QAD Adaptive ERP. As it modernized its ERP system, the company realized it was outgrowing the functionality of its technology stack. By 2019, Noble was experiencing issues with its financial planning & analysis (FP&A) solution, Host Analytics (rebranded as Planful), citing reliability concerns over data integration with QAD Adaptive ERP. These issues generated various time and productivity sinks because employees had to standardize and validate sales and financial forecasting data manually. To resolve these constraints, Noble needed a centralized FP&A solution capable of providing seamless integration with QAD and enterprise-level modeling capabilities to predict sales and revenue.

Cost : Benefit Ratio | **1 : 23.5**

THE STRATEGY

QAD Adaptive ERP is built on the QAD Enterprise Platform, which comes equipped with low/no-code application development tools. Users can easily customize their QAD solutions or build out extensions using the low-code tools to accelerate development at a lower cost point than hiring third-party developers to build solutions from scratch. Noble Biomaterials considered upgrading its Host Analytics solution but decided to build its own sales forecast and planning solution on top of the QAD Platform for two primary reasons:

- **Consolidation.** Noble Biomaterial's primary goal when considering a new FP&A solution was to streamline dataflows to eliminate bottlenecks in its sales forecasting, planning, and decision-making processes. By extending the functionality of its QAD investments instead of sourcing a separate FP&A solution, Noble reduced the amount of integration work since the data necessary for sales forecasting was already housed under QAD. Noble also benefited by having a single consistent data

management system, eliminating the need for data standardization and batch processing associated with multiple third-party systems.

- **User accessibility.** Noble had an additional incentive to build its sales forecasting solution with QAD's low/no-code tools since business users could remain within the QAD environment and utilize the familiar UI. Noble found the user experience under QAD to be more intuitive and less cumbersome than its legacy counterpart. Since Noble commissioned the build-out of its forecasting tool, it had greater control over application development and benefited from a curated user experience with familiar terminology and workflows.

TYPES OF BENEFITS

Direct 16% ████████████████████████████████ 84% Indirect

KEY BENEFIT AREAS

Noble Biomaterials contracted a QAD team to assist in the development of the sales forecasting tool. After a two-month development cycle, Noble went live with the solution in June 2020, and achieved benefits in reduced operational costs, increased user productivity, and improved organizational visibility.

- **Reduced operating costs.** By building its own forecasting solution using the QAD Enterprise Platform, Noble Biomaterials retired its legacy FP&A solution. This enabled Noble to offload Host Analytics and eliminate its associated yearly subscription and support costs. The one-time cost Noble Materials incurred in extending its QAD functionality was less than its annual spend with Host Analytics because low-code tools accelerate the development cycle to limit developer costs.

- **Improved user productivity.** Before its proprietary forecasting tool, Noble's employees would manually input and import data into its legacy system for FP&A activities. In addition to being a time drain, this often resulted in human error yielding unreliable forecasts and models that required rework. Consolidating forecasting functionality under the QAD platform, data flows are entirely automated. As a result, potential human error is eliminated, and business analysts save about 2400 work hours per year or increased overall productivity by 35 percent across forecasting activities. IT staff also saw productivity benefits as they no longer managed, updated, and troubleshot the legacy system.

- **Improved organizational visibility.** Using QAD's consistent UI, Noble employees across the business were less distracted by data management tasks. Instead, they

focused on higher value-add reporting and analysis to better understand sales forecasts and value drivers, improving the decision-making process. The consolidated QAD Enterprise Platform's abundance of integrated real-time data provided Noble with rapid insights and KPIs, giving Noble an up-to-date understanding of its current and future sales outlook.

CUMULATIVE NET BENEFIT
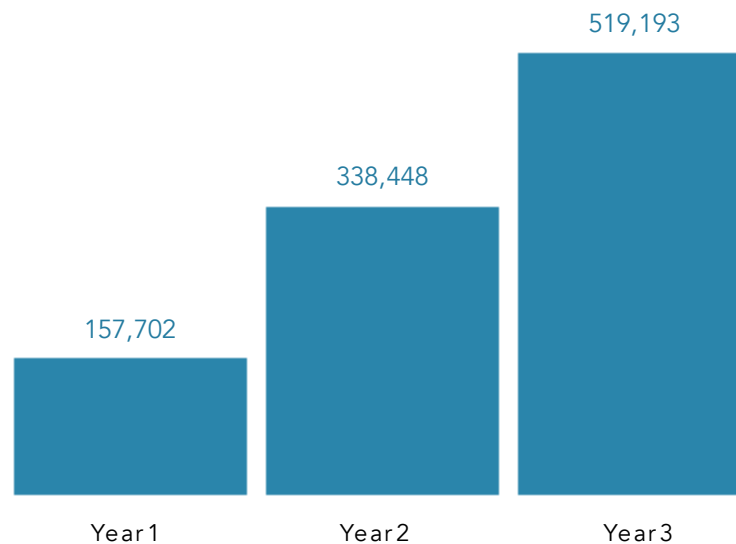
KEY COST AREAS

The most significant cost area for Noble Biomaterials was the one-time fee paid to QAD to design, develop, and deploy the low-code-built solution. Additional cost areas included employee time spent during the implementation and onboarding training. Noble did not incur additional ongoing costs attributable to the new forecasting solution.

LESSONS LEARNED

QAD's no/low-code development functionality was the key to Noble's sales forecasting solution, enabling the rapid development of the application at a low-cost point. Moving forward, Noble can leverage the low/no-code tools to facilitate the customization of existing solutions by lowering the technical barrier and empowering business users and administrators. Currently, Noble has plans to build out its forecasting capabilities incrementality within the QAD platform. For example, the company wants to improve the granularity of forecasts to model its sales pipeline better and develop additional reporting capabilities with the tool. For best practices, Noble recommends that those considering developing applications with QAD's low/no-code tools allow time for a detailed testing

process. By allocating enough time within the project timeline for additional testing before going live, the organization will limit the number of iterations and the back and forth between developers and users.

NET CASH FLOWS

	180,746	180,746	180,746
(23,044)			
Initial	Year 1	Year 2	Year 3
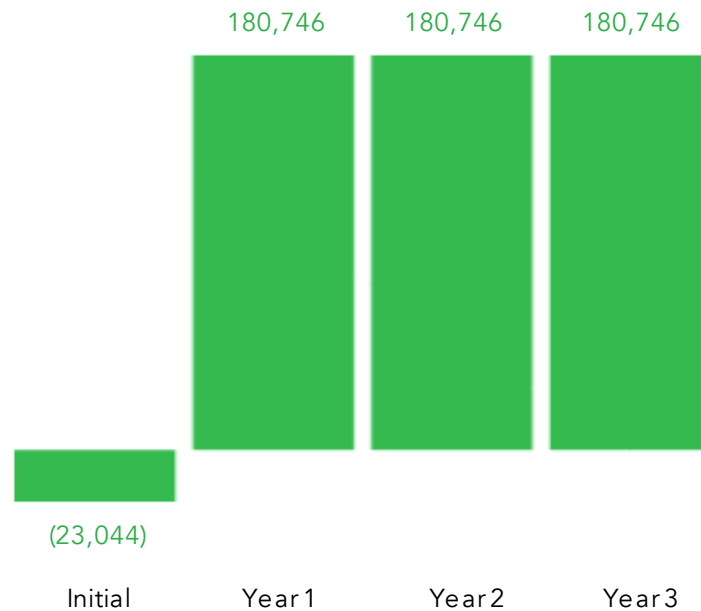
CALCULATING THE ROI

Nucleus Research analyzed the costs of software, personnel, professional services, and user training over a three-year period to quantify Noble's total investment in developing its proprietary QAD sales forecasting tool.

Direct benefits quantified included the elimination of subscription and support costs associated with its legacy solution.

Indirect benefits quantified include the time savings that Noble employees have driven with a centralized QAD environment, including automated tasks. The indirect benefit is multiplied by a correction factor to account for the inefficient transfer of time between time saved and additional time spent working.

Unquantified benefits include the improved organizational visibility from centralizing data onto a single platform and improved data quality which supports the company's strategic decision-making.

FINANCIAL ANALYSIS

Annual ROI: 784%
Payback period: 0.1 years

BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	28,105	28,105	28,105
Indirect	0	152,641	152,641	152,641
Total per period	**0**	**180,746**	**180,746**	**180,746**

COSTS - CAPITALIZED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	**0**	**0**	**0**	**0**

COSTS - DEPRECIATION	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Project consulting and personnel	0	0	0	0
Total per period	**0**	**0**	**0**	**0**

COSTS - EXPENSED	Pre-start	Year 1	Year 2	Year 3
Software	0	0	0	0
Hardware	0	0	0	0
Consulting	11,756	0	0	0
Personnel	1,136	0	0	0
Training	10,152	0	0	0
Other	0	0	0	0
Total per period	**23,044**	**0**	**0**	**0**

FINANCIAL ANALYSIS	Results	Year 1	Year 2	Year 3
All government taxes	45%			
Cost of capital	7.0%			
Net cash flow before taxes	(23,044)	180,746	180,746	180,746
Net cash flow after taxes	(12,674)	99,410	99,410	99,410
Annual ROI - direct and indirect benefits				**784%**
Annual ROI - direct benefits only				122%
Net Present Value (NPV)				248,210
Payback period				**0.1 years**
Average Annual Cost of Ownership				7,681
3-Year IRR				783%

All calculations are based on Nucleus Research's independent analysis of the expected costs and benefits associated with the solution.