

Integrated Portfolio Intelligence: Innovating at the Speed of Markets to Generate Compelling Alternative Returns



INTRODUCTION

“Our objective is to produce compelling positive returns across global macro and commodity markets with low correlations to relevant benchmarks.”

Chris Andrews, Head of Risk Management, IPI

Integrated Portfolio Intelligence (IPI), an alternative investment management firm composed of senior portfolio and risk managers, quantitative analysts, and technologists, was evaluating options for a technology platform to support their business. The company is applying sophisticated quantitative methods and fundamental modeling to investing in global financial markets for institutional investors. Their objective is to combine cutting-edge research, extensive asset management experience, and advanced technology to offer compelling positive returns across the entire spectrum of market regimes, with low correlations to relevant benchmarks and other fund managers.

PROBLEM

“We wanted to build and manage a comprehensive, quantitative, and completely systematic framework that was robust, efficient, and scalable.”

Chris Andrews, Head of Risk Management, IPI

IPI's opening objectives were bold: to build a comprehensive, quantitative, and systematic strategic framework for managing alternative portfolios. The team, with decades of combined experience on similar systems at some of the world's largest and most successful financial institutions, were building a 100% proprietary system by themselves. However, they needed to do this with far fewer resources than are typically allocated at a large bank. A critical challenge was to get the most valuable contributions from their small team, reducing the need to reinvent and rebuild core IT components and shifting resources from infrastructure to innovation.

To build their strategic investment framework efficiently, IPI needed a development and technology platform that could take them from research to production, with an integrated development environment, workflow automation, cloud resource management, job scheduling, and data warehousing. The breadth of their system and the global markets they needed to cover encouraged them to look for a platform that could connect and integrate the many moving parts and datasets with minimal integration effort, without creating undesired code or data silos.

IPI AT A GLANCE



Founded in 2019 by Nick Vasserman



Combining research, experience, and technology to inform investment choices



Pursuing distinctive investment strategy using advanced quantitative techniques



Needed development and delivery platform to support their investment process across major asset classes

THREE KEY SELECTION CRITERIA FOR THE PLATFORM:

1. Field-tested track record to assure staff and clients that the system could meet and exceed their needs
2. Robustness and efficiency in both the development and production environments to maximize productivity and minimize operational costs
3. Scalability to handle the complexity of their models and algorithms and the breadth of their clients' global investment portfolios

SOLUTION

“Beacon Platform is competitive with and even superior to systems at the large investment banks.”

Chris Andrews, Head of Risk Management, IPI

Based on their collective experience, IPI chose Beacon as their all-in-one development and delivery platform. Their familiarity with the powerful systems available at large investment banks convinced them that Beacon was the best foundation for their business. Beacon provided efficient, state-of-the-art cloud infrastructure and management tools that would have taken them years to build themselves. Operating since 2014, Beacon's track record, customer base, and partners assured them that their needs would continue to be met. Using the popular Python language for their development made their R&D efforts efficient and readily expandable. The IPI team would be able to easily integrate with a variety of data sources and rapidly prototype, test, and refine applications and analytics within one, unified platform.

As they built the investment management framework, IPI's development team found the broad range of fundamental components available from Beacon to be very valuable. Developers could draw from a variety of resources, including data warehousing, time series algorithms, and financial instrument models, providing useful alternatives for their in-house developments. Overall, using Beacon amplified and accelerated their development capabilities, significantly reducing the time needed to develop and deploy proprietary models and risk analytics.

As they moved from development to a production environment, the robustness and scalability of Beacon's cloud-based platform really demonstrated their value. Computational and storage resources are immediately available when needed, delivering the responsiveness and returns that they need for even their most complex analytics. These resources are also quickly released when no longer needed, minimizing capital IT costs and keeping operating expenses in line with revenue.

ESSENTIAL DELIVERABLES



Efficient, state-of-the-art cloud infrastructure and management



Adaptable data warehouse tools to ingest a wide range of data sources



Efficient developer experience with broad range of fundamental components



Robust and scalable production environment

PLACING IPI IN COMPARABLE STANDING TO LARGER FIRMS



Rapid path from research to production



Thousands of integrated time series datasets from hundreds of data sources



Professional code governance, versioning, and lifecycle tools with workflow automation



Higher value and credibility to investors by building on an industry-respected system

RESULTS

“We have a long-term relationship with Beacon, and their platform provides important continuity to our business. These solutions are highly valued by existing and potential institutional investors from an operational perspective, effectively placing IPI in comparable standing to larger and more established firms.”

Chris Andrews, Head of Risk Management, IPI

Even though they have fewer resources than would have been allocated at a large bank, within 6 months IPI were able to bring the initial phase to a production environment. In the years since that initial deployment IPI have expanded their usage of Beacon, adding their own libraries and stacks for strategy and backtesting and enabling them to readily convert data inputs into investment insights and risk assessments. Thousands of time series from hundreds of original data sources are integrated in Beacon, fueling proprietary analytics and informing daily trades.

With Beacon's platform, IPI get versioning, governance, software development lifecycle, and workflow automation tools as part of the package. Managed cloud infrastructure means that the company does not have to worry about monitoring and scaling compute pools, even in times of high market volatility or other conditions that increase usage. Beacon's experienced support organization gives IPI confidence in the platform and ensures that they have responsive and professional people to work with if something happens to go wrong. In effect, they have a significant technical development leverage because they are building on top of Beacon's foundations and expertise.

IPI's investment process combines extensive markets experience with cutting-edge research and advanced technology. The firm's relationship with Beacon and experience with the technology is providing an additional boost – greater value and credibility with existing and potential investors who acknowledge that Beacon is an industry-respected system. They often find that they are placed in comparable standing to larger, more established firms that have built in-house systems. IPI has a global and comprehensive R&D program, made up of in-house and joint-venture projects. They are actively growing their developer team and continue to rely on Beacon to develop innovative proprietary models and risk analytics.